

Your world, our light

Professional Luminaires
2014/2015

PHILIPS

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Extending your **vision**

To create something beautiful and unique you need to have a vision.

But the boldest visions are always achieved by working with others who share them with you and who may add new inspiration of their own. Through constant innovation in lighting, we've been sharing visionary solutions with our clients for over 120 years. How can we realize your vision with light?

Perfect **together**

Perfection is what drives and inspires you.

It’s what drives and inspires us too. It’s also what your customers demand. Through constant innovation we have developed the lighting solutions and expertise to meet those demands. By working in partnership and giving you the information you need, together we create the perfect results every time.

Happy to **help**

Advisory Services

Our experts can evaluate your current lighting system, provide clear insight into what you'd gain from a new one and assist in designing a solution that's optimal for you, supported by a convincing value-based business plan.

Project Services

There's no need to have to deal with countless suppliers and other companies. We can completely manage the creation and implementation of a lighting solution together with our partners or your own preferred suppliers.

Lifecycle Services

Let us guarantee long-lasting, hassle-free, cost-effective performance of your system. Our comprehensive, cost-effective service packages can be perfectly configured to your lighting requirements and business needs.

Philips Lighting Capital

We can sort out hassle-free financing for you, together with our dedicated banking partners. Our transparent payment program makes it possible to acquire a great lighting solution right away – with no upfront investment required.

From the **web to your world**

Philips website

Our website is constantly updated to ensure you are kept in the loop with the latest innovations and trends from our industry.

www.philips.com

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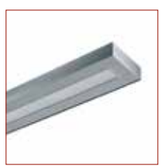
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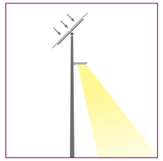

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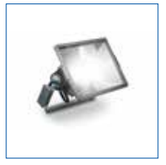

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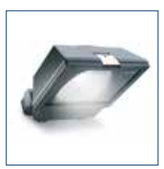

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PHILIPS

Recessed

Recessed



DayZone

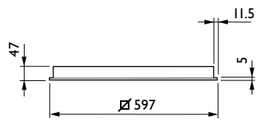
For general office lighting, customers want to capture the benefits LED technology has to offer – sustainability and fresh, high-impact design, without compromising visual comfort.

Our DayZone recessed LED luminaire delivers high-quality functional lighting with an energy-efficiency that matches or even outperforms traditional fluorescent systems. But what makes DayZone really shine is its impressive visual comfort. Our innovative use of LED technology has created a luminaire that breaks away from fluorescent lighting designs of the past to offer a striking appearance and light effect. Glare control and color consistency are compliant with future office norms. DayZone is available in square and round housing versions to ensure a better fit in plaster ceiling applications.

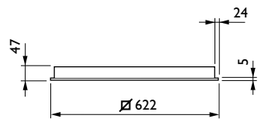
Features and benefits

- Inspiring design
- Sustainable solution
- Visual comfort
- Lumen packages for both 500 and 300 lux environments
- Dedicated MLO optic design, including two separate dimmable light surfaces
- Special patented light-mixing chamber
- Round housing available for plaster ceiling applications

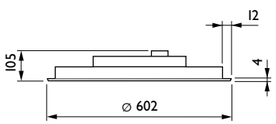
Product size (dimensions in mm)



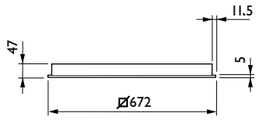
BBS560



BBS562



BBS561



BBS567

Office Healthcare

IP20 | 50Khrs | 50-54 Lm/W



Technical parameters

Type	BBS560 (module size: 600 mm) / BBS562 (module size: 625 mm) / BBS567 (module size: 675 mm) / BBS561 (round housing)
Ceiling type	Exposed- and symmetrical concealed T-bar ceiling and plaster (board) ceiling
Ceiling grid	Module size in length: 600 x 600 mm/ Module size in length: 625 x 625 mm / Module size in length: 675 x 675 mm
Light source	Non-replaceable LED module
Power (steady state in W, +/- 10%)	4000 K: 56 W (LED35S), 29 W (LED20S) / 3000 K: 61 W (LED35S), 33 W (LED20S)
Beam angle	90°
Luminous flux	3500 or 2000 lm (independent of CCT)
Correlated Color Temperature	3000 or 4000 K
Color Rendering Index	80
Maintenance of lumen output - L90	30,000 hours at 25°C
Maintenance of lumen output - L70	50,000 hours at 25°C
Driver failure rate	1% per 5000 hours
Operating temperature	+10°C < T a < +40°C
Driver	Built-in
Mains voltage	230 or 240 V / 50 - 60 Hz
Dimming	Compatible with DALI controllers
Controls system input	DALI
Optical cover	OLC micro-lens optic, partial (AC-MLO-C) OLC micro-lens optic, full (AC-MLO)* OLC micro-lens optic, partial (PC-MLO-C) OLC micro-lens optic, full (PC-MLO)* *not for BBS561
Options	Emergency lighting (integrated): 3 hours (EL3)* Lighting controls: Actilume multi-controller (ACL)* Compatible with DALI (only relating to dimmable driver PSD) Euro fuse (FU) included *not for BBS561
Materials	Housing: zinc-coated steel / Rim: post lacquered / Optical cover: acrylic (AC-MLO), polycarbonate (PC-MLO)
Color	White (WH), silver grey (SI) Standard RAL colors available on request
Installation	Exposed ceilings: in lay, no brackets needed Concealed ceilings: bracket ZBS460 SMB (1 set = 4 pcs) reach is 25 - 65 mm Concealed ceiling with T-bar 38 mm: bracket ZBS460 SMB-TPM (1 set = 4 pcs) Brackets for plaster ceilings ZBS460 SMB-PLC (1 set = 12/24 pcs)* Through-wiring possible *Suspension brackets are included for BBS561
Connection	Push-in connector (PI) or with pull relief (PIP) / Wieland connector GST 18, 3 or 4 poles (W, W4)
Accessories	Suspension bracket sets: ZBS460 SMB (4PCS), ZBS460 SMB-TPM (4PCS), ZBS460 SMB-PLC (12/24PCS)
Remarks	Protection foil to protect the optic during installation

IEC EN60598 | CE | CB

Product details



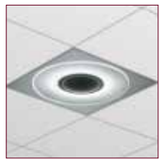
Special patented mixing chamber concept delivers overhead glare control through LED shielding and color consistency throughout the fixture with highly reflective coating technology



MLO cover can be opened for easy servicing



Push-in connector block



DayZone only outer zone lit



Connection block 2 x T-BST14 (Wieland)

Accessories



ZBS460 SMB-PLC (24PCS)
Brackets for plaster ceilings



ZBS460 SMB (4PCS)
Brackets for concealed ceilings



ZBS460 SMB-TPM (4PCS)
Brackets for concealed ceilings with T-bar 38 mm



ZBS461 SMB-PLC (4PCS)
Brackets for plaster ceilings



ZBS460 SMB-PLC (12PCS)
Brackets for plaster ceilings



DayZone BBS560 recessed
600 x 600 mm module



DayZone BBS567 recessed
675 x 675 mm module



DayZone BBS561 recessed LED luminaire
with partial acrylic Micro-Lens Optic (AC-MLO/PC-MLO)



DayZone BBS562 recessed
625 x 625 mm module



DayZone BBS562 recessed LED luminaire
with full acrylic or polycarbonate Micro-Lens Optic (AC-MLO/PC-MLO)



DayZone BBS560 recessed LED luminaire
with full acrylic or polycarbonate Micro-Lens Optic (AC-MLO/PC-MLO)

Key Portfolio*

Product Description
BBS560 LED35S/840 PSD AC-MLO-C W
BBS560 LED35S/840 PSD AC-MLO-C PI
BBS560 LED35S/840 PSD AC-MLO-C ACL W
BBS560 LED20S/840 PSD AC-MLO-C W
BBS560 LED20S/840 PSD AC-MLO-C PI
BBS560 LED35S/830 PSD AC-MLO-C W
BBS560 LED35S/830 PSD AC-MLO-C PI
BBS560 LED35S/830 PSD AC-MLO-C ACL W
BBS560 LED20S/830 PSD AC-MLO-C W
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BBS562 LED35S/840 PSD AC-MLO-C PI
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BBS561 LED20S/830 PSD AC-MLO-C PI

* For full product portfolio please contact your local Philips Representative





PowerBalance

When it comes to lighting an office space, people are increasingly willing to invest in sustainability by switching to LED luminaires. However, the system should also comply with office lighting norms to ensure a comfortable working environment.

PowerBalance is a highly efficient LED luminaire specially developed to meet all office requirements. The light source has a longer life in addition to consuming significantly less energy, which results in lower operational costs compared to traditional luminaires.

Features and benefits

- Operational cost savings
- Energy efficient
- Office norm-compliant
- Advanced LED technology
- Smart Pyramid Optics (SPO)
- Dedicated lumen package for office applications

Product size (dimensions in mm)

RC600B W60L60



RC600B W30L120

Office Supermarket Hospitality Healthcare Education

IP40 | 50Khrs | 100 Lm/W



Technical parameters

Type	RC600B
Ceiling type	Exposed T-bar ceiling
Ceiling grid	Module size in length: 600 mm
Light source	Non-replaceable LED module
Power	LED31S: 38W (4000K) LED40S: 50W (4000K)
Beam angle	85°
Luminous flux	LED31S: 3100lm LED40S: 4000lm
Correlated Color Temperature	4000K
Color Rendering Index	80
Maintenance of lumen output - L90	30,000 hours at 25°C
Maintenance of lumen output - L70	50,000 hours at 25°C
Operating temperature	+10°C < T
Driver	Built-in
Mains voltage	220~240V / 50/60 Hz
Dimming	Compatible with DALI controllers
Controls system input	DALI
Options	Lighting controls: Actilume Lighting controls (ACL) Airhandling Material
Material	Housing: post-painted steel Optics: plastic
Color	White (WH)
Connection	Push-in connector
Maintenance	Optical module sealed for life; no internal cleaning required
Installation	Exposed ceilings: in lay, no brackets needed

Key Portfolio*

Product Description
RC600B LED31S/840 PSU W60L60
RC600B LED31S/840 PSD W60L60 AIR
RC600B LED31S/840 PSU W60L60 AIR
RC600B LED40S/840 PSU W60L60
RC600B LED31S/840 PSD W60L60
RC600B LED40S/840 PSD W60L60 AIR
RC600B LED40S/840 PSD W60L60
RC600B LED31S/840 PSU W30L120
RC600B LED40S/840 PSU W60L60 AIR
RC600B LED40S/840 PSU W30L120
RC600B LED31S/840 PSU W30L120 AIR
RC600B LED31S/840 PSD W30L120
RC600B LED31S/840 PSD W30L120 AIR
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RC600B LED40S/840 PSU W30L120 AIR
RC600B LED40S/840 PSD W30L120
RC600B LED08S/840 PSD W30L30
RC600B LED08S/840 PSU W30L30
RC600B LED08S/850 PSU W30L30
RC600B LED08S/830 PSU W30L30
RC600B LED08S/830 TE W30L30
RC600B LED08S/850 TE W30L30
RC600B LED08S/840 TE W30L30
RC600B LED31S/830 PSU W60L60

* For Full portfolio please contact your local Philips Representative

Product details



Air-handling slots



PowerBalance, special plastic optic

Related products



PowerBalance RC600B recessed LED luminaire rectangular (module size 1200mm x 300mm)



PowerBalance RC600B recessed LED luminaire square (module size 300mm x 300mm)



PowerBalance RC600B recessed LED luminaire square (module size 600mm x 600mm)

IEC EN60598 CE CB



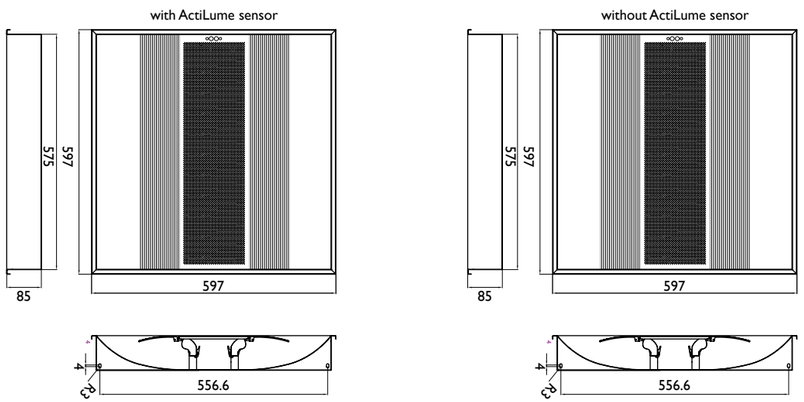
CoreView

Philips CoreView is a functional LED-based luminaire for general lighting in offices. Its best-in-class LED technology offers considerable savings on energy costs (and a corresponding reduction in CO_2 emissions) while still delivering the required light output. Indirect lighting adds to the visual comfort of the working environment without compromising on light quality or efficiency. The integrated control of daylight sensing and movement detection make the energy savings even easier without any additional effort. The replaceable LED module allows upgrading at any point in the future.

Features and benefits

- Green – High efficiency (56~76lm/W), additional energy savings of up to 50% when used in combination with ActiLume controls
- Comfortable – Clean and fresh light without overhead glare, CRI 80
- Sustainable – Easily upgradable. RoHS compliant and mercury-free

Product size (dimensions in mm)



Office Healthcare Education

IP20 | 50Khrs | 75 Lm/W



Technical parameters

Type	BBS366
Ceiling type	Exposed T-bar ceiling
Ceiling grid	Module size in length: 600 mm
Light source	Replaceable LED module
Power	39W, 51W
Luminous flux	2200~2900lm(LED25S), 3000~3800lm(LED34S)
Correlated Color Temperature	4000K, 5700K
Color Rendering Index	>80 (3000K, 4000K), >70 (5700K)
Maintenance of lumen output - L70	50,000hours at 25°C
Driver	Built-in DALI driver (PSD) Fixed output driver (PSU)
Mains voltage	220-240 V / 50-60 Hz
Dimming	DALI (Optional)
Controls system input	ActiLume (ACL)
Material	Housing: high quality steel, painted with special high reflection ratio painting In fill panel: Steel
Color	White, RAL9003
Optical cover	Wings of optical cover: PMMA, semi-transparant Matt wing version (MFP-M-P) Non-matt wing version (MFP-P)
Connection	Push-in connector (PI)
Installation	Recessed Exposed ceilings: in lay, no brackets needed
Accessories	Dali data cable with 3m male-female plug length, included in the slave luminaire package. Dali data cable with 5m male-female plug length, sold separately with the following order code: 910403630633 ZBS528 C5000P-M-F

Key Portfolio*

Product Description
BBS366 LED34S/830 PSD MFP-M-P ACL PI
BBS366 LED34S/830 PSU MFP-M-P PI
BBS366 LED25S/830 PSU MFP-M-P PI
BBS366 LED25S/830 PSD MFP-M-P ACL PI
BBS366 LED25S/830 PSD MFP-M-P PI
BBS366 LED34S/830 PSD MFP-M-P PI
BBS366 LED25S/857 PSD MFP-P ACL PI
BBS366 LED25S/857 PSD MFP-P PI
BBS366 LED34S/857 PSD MFP-P PI
BBS366 LED34S/857 PSD MFP-P ACL PI
BBS366 LED25S/840 PSD MFP-P PI
BBS366 LED34S/840 PSD MFP-P PI
BBS366 LED25S/840 PSD MFP-P ACL PI
BBS366 LED34S/840 PSD MFP-P ACL PI

* For Full portfolio please contact your local Philips Representative

Product details





Top view Side view

IEC EN60598 | CE | CB



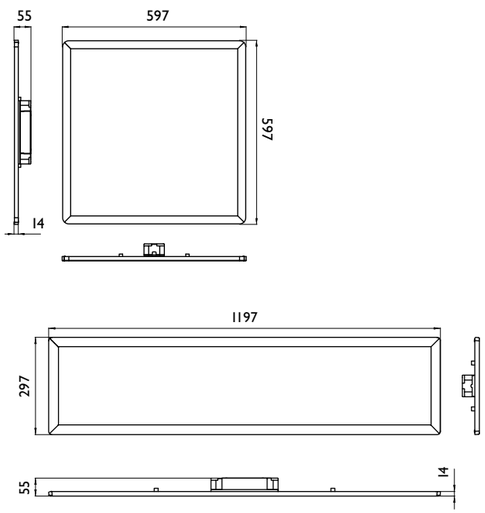
SmartPanel

Philips SmartPanel is the most affordable LED office general lighting solution with reasonable energy saving and CO^2 emission reduction. With the ultra slim design, SmartPanel is not only suitable for recessed mounting, but also fits the market trends of miniaturization for suspended application. Thanks to the latest side-lit LED technology and the high quality light guide, SmartPanel creates the most uniform and clean ceiling for office application.

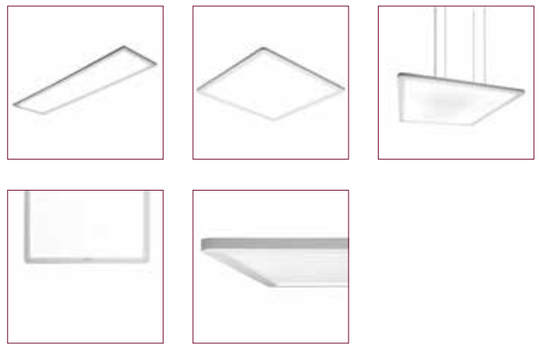
Features and benefits

- Energy saving: high system efficacy, up to 65lm/W for neutral white
- Improved working environment: High color rendering (CRI>80); Excellent lighting uniformity
- Slim housing design: 14mm for housing height. 55mm with the driver height considered.

Product size (dimensions in mm)



Product details



Office Hospitality Retail Healthcare

IP20 | 30Khrs | 70 Lm/W



Technical parameters

Type	RC110V
Power	36W for 2500 lumen version 45W for 3400 lumen version
Beam angle	120°
Luminous flux	2500 lumen 3400 lumen
Correlated color temperature	3000K or 4000K
Color rendering index	> 80
Maintenance of lumen output - L70	Minimum 25,000 hours at 25°C
Driver	Built-in
Mains voltage	100-240V/50-60HZ
Dimming	No
Material	Housing: frame: plastic, back cover: steel Light guide: PMMA Driver box: plastic
Color	White
Optical cover	Light guide with diffuser
IP	20
Maintenance	No internal cleaning required
Installation: recessed	Individual; lay-in in exposed ceiling grids
Installation: suspended	Individual; suspended mounting with a set of steel-wire suspensions (SMS) with power cord
Additional input	Fast fine adjustment with clutch device (Reutlinger)
Accessories	Suspension set (RC110Z SMS)
Remarks	Suspension set needs to be ordered separately

Related products



Suspension sets for RC110Z SMS



IEC EN60598 CE CB

Key Portfolio*

Product Description
RC160V LED25S/865 PSU W30L120
RC160V LED25S/840 PSU W30L120
RC160V LED34S/865 PSU W30L120
RC160V LED34S/865 PSU W60L60
RC160V LED34S/840 PSD W30L120
RC160V LED34S/840 PSD W60L60
RC160V LED34S/840 PSU W30L120
RC160V LED25S/865 PSU W60L60
RC160V LED25S/840 PSU W60L60
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RC160V LED25S/840 PSU W60L60
RC160V LED34S/865 PSU W60L60
RC160V LED34S/840 PSU W60L60
RC160V LED34S/840 PSU W60L60
RC160V LED34S/830 PSU W30L120
RC160V LED34S/830 PSU W60L60

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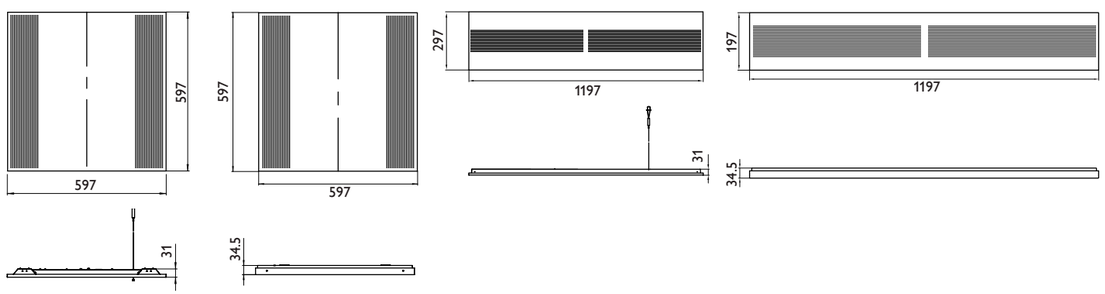
CoreLine

Philips CoreLine LED is a new range of stylish, high output LED luminaires suitable for indoor applications. With its future proof LED platform, it can directly replace a conventional 4x18W fluorescent system. CoreLine LED has an advanced optic design that ensures maximum lighting output and distribution are achieved.
The slim profile design with flexible installation choices of recessed, surface and suspended versions make it ideal for low ceiling voids.

Features and benefits

- Energy efficient
- Easy installation
- Comfortable light with minimal glare
- Minimal maintenance
- High output LED
- Push in connectors
- Advanced optic design
- Long lifetime: 30,000 hours

Product size (dimensions in mm)



Office Retail



IP20 | 50Khrs | 100 Lm/W

Technical parameters

Type	RC100C
Power	42W for 3700 lumen version 31W for 2600 lumen version
Beam angle	120°
Luminous flux	3700 & 2600 lumen
Correlated color temperature (CCT)	4000K, 6500K
CRI	> 80
Lumen output maintenance – L70	50,000 hours for 35S version, 30,000 hours for 25S version
Driver	Non Integrated - Replaceable
Mains voltage	220 – 240V 50 – 60Hz
Dimming type	Dali
Material	Housing: steel Light cover: PC Driver box: steel
Color	White
Optical cover	Light guide with diffuser
IP	20
Maintenance	No internal clearing required
Installation: recessed	Lay-in exposed ceiling grids

Related products



RC100C W60L60



RC100C PSU W30L120

Key Portfolio*

Product Description
RC100C LED35S/840 PSU W30L120
RC100C LED35S/840 PSU W60L60
RC100C LED35S/840 PSD W60L60
RC100C LED35S/840 PSD W30L120
RC100C LED35S/865 PSU W30L120
RC100C LED35S/865 PSU W60L60
RC100C LED35S/865 PSD W30L120
RC100C LED35S/865 PSD W60L60
RC100C LED25S/840 PSD W60L60
RC100C LED25S/840 PSD W30L120
RC100C LED25S/865 PSD W30L120
RC100C LED25S/865 PSD W60L60
RC100C LED25S/840 PSU W60L60
RC100C LED25S/840 PSU W30L120
RC100C LED25S/865 PSU W60L60
RC100C LED25S/865 PSU W30L120

* For full product portfolio please contact your local Philips Representative

IEC EN60598 | CE | CB



GreenUp Troffer

Philips GreenUp Troffer is a brand-new LED designed luminaire for office lighting. The 3D form factor of illuminating part is unique.

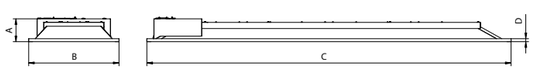
GreenUp troffer offers four lumen options with high system efficacy, up to 95lm/W.

Features and benefits

- 50% more energy efficient compared to conventional T5 solution
- Visual comfort, uniform light with glare control
- Brand-new design for office light, unique look & feel with 3D form factors
- System efficiency up to 95lm/W
- CRI 80, SDCM 4
- High reliability, 50k hours (L70@25˚)

Product size (dimensions in mm)

Product ID	A	B	C	D
RC320B LED26S W60L60	76	597	597	10
RC320B LED35S W60L60	76	597	597	10
RC320B LED26S W30L120	76	297	1197	10
RC320B LED35S W30L120	76	297	1197	10
RC320B LED52S W60L120	76	597	1197	10
RC320B LED70S W60L120	76	597	1197	10



Office



IP20 50Khrs

Technical parameters

Type	RC320B 26S / 35S / 52S / 70S
System lumen output	2600lm, 3500lm, 5500lm, 7000lm
Voltage	220-240V 50/60Hz
Power consumption	30W / 40W / 58W / 84W
Efficacy	83lm/W ~ 96lm/W
Power factor	0.9
LED driver	Fixed output / DALI
SDCM	4
CRI	80
Color temperature	4000K / 6500K
Materials and finishing	Housing: 0.6mm steel plate Optics: PC lens, high output rate Painting white
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 25°C)
Working Temperature Range	0°C < Ta < 25°C
Mounting Type	Recessed

Key Portfolio*

Product Description	Weight (kg)
RC320B LED26S/840 PSU W30L120	3.3
RC320B LED70S/840 PSU W60L120	5.6
RC320B LED26S/840 PSU W60L60	3.3
RC320B LED70S/865 PSU W60L120	5.6
RC320B LED35S/840 PSU W60L60	3.3
RC320B LED52S/840 PSU W60L120	5.6
RC320B LED26S/865 PSU W30L120	3.3
RC320B LED35S/840 PSU W30L120	3.3
RC320B LED35S/865 PSU W30L120	3.3
RC320B LED26S/865 PSU W60L60	3.3
RC320B LED35S/865 PSU W60L60	3.3
RC320B LED52S/865 PSU W60L120	5.6

* For full product portfolio please contact your local Philips Representative

IEC EN60598 CE CB



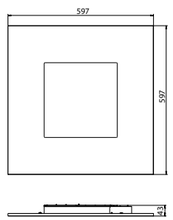
SmartBright Troffer

The Philips new generation of LED recessed luminaire, Smartbright Troffer delivers substantial energy savings in a simple way. It is the ideal replacement solution for conventional fluorescent lighting TL-D lamps, satisfying the requirements of various applications in offices, schools and public areas.

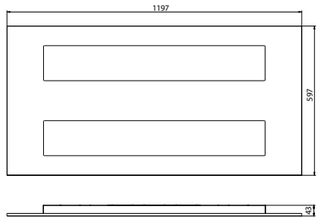
Features and benefits

- Energy Saving – system efficacy > 80 lm/w, 50% energy saving vs T8 system
- Comfort – CRI>80, good color consistency
- Appearance – simple and elegant design, fit for office, hospital, factory and other indoor application

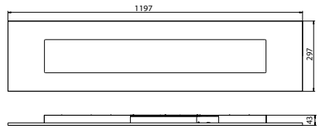
Product size (dimensions in mm)



RC088B W60L60



RC088B W60L120



RC088B W30L120

Office Retail Education



IP20 | 25K hrs | 80 Lm/W

Technical parameters

Type	RC088B
CT (K)	4000 / 6500
System Lumen (lm)	RC088B W60L60 - 2400 / RC088B W30L120 - 2400 / RC088B W60L120 - 4800
CRI	>80
Voltage (V)	220
Power Factor	>0.9
System Efficacy (lm/w)	>80
SDCM	5.5
System power (w)	RC088B W60L60 - 29 / RC088B W30L120 - 29 / RC088B W60L120 - 58
Color	White
Lumen maintenance 70%	25000 hrs
Mounting	Recessed

Related products



RC088B W60L60



RC088B W30L120

Key Portfolio*

Product Description	Weight (kg)
RC088B LED22S W60L60	2.6
RC088B LED22S W30L120	2.9
RC088B LED44S W60L120	5.8
RC088B LED22S W60L60 W 220V	2.6
RC088B LED22S W30L120 W 220V	2.9
RC088B LED44S W60L120 W 220V	5.8

* For full product portfolio please contact your local Philips Representative

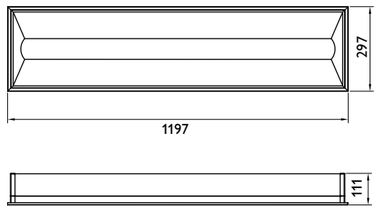
IEC EN60598 CE CB



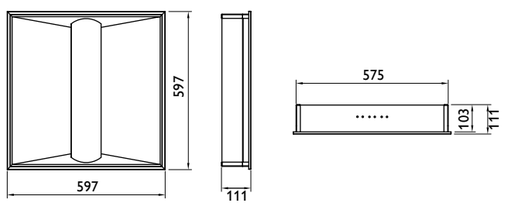
Wing C Plus

Philips Wing C Plus is an innovative luminaire that reflects and drives the market trend toward aesthetic design and architectural integration, while delivering excellent optical performance. Wing C Plus creates a more spacious and pleasant working environment through the creation of visually comfortable vertical lighting, which inspires people and enhances their performance and efficiency.

Product size (dimensions in mm)



TBS757 228



TBS757 314

Features and benefits

- When not in use, the appealing wing-shaped Luminaire integrates seamlessly with ceiling and features as a decorative appliance
- When in use, the unparalleled planar and vertical illuminance delivered by the novel design creates a more spacious and pleasant environment that encourages interpersonal interaction
- Softer and visually comfortable light, brighter vertical illuminance and no direct view of lamps
- As efficient as solutions that employ standard mirror optics, even with the novel aesthetic design
- LOR as high as 0.72, while max UGR is 19

Office Retail Healthcare

IP20 LOR(%) 67



Technical parameters

Type	TBS757
Lamp types	2xTL5-14W, 3xTL5-14W, 2xTL5-28W
Gear	Electronic ballast 220-240V/50-60Hz: High Frequency Performer (HFP III) High Frequency (HF-S II) High Frequency (HFA)
Optic	Ultra bright diffuser
Color	Matt White color (RAL9003)
Option	Fuse
Classifications	IP20, Class I
Materials	Housing: post-painted sheet steel housing Optics: ultra bright diffuser Recessed
Mounting	Recessed

Key Portfolio*

Product Description
TBS757 2xTL5-14W HFP ACO FU
TBS757 3xTL5-14W HFP ACO FU
TBS757 2xTL5-28W HFP ACO FU
TBS757 3xTL5-14W HFP ACO FU CAU
TBS757 2xTL5-28W HFP ACO FU CAU
TBS757 2xTL5-14W HFE ACO FU
TBS757 3xTL5-14W HFE ACO FU
TBS757 2xTL5-28W HFE ACO FU
TBS757 2xTL5-14W HFA ACO FU
TBS757 3xTL5-14W HFA ACO FU
TBS757 2xTL5-28W HFA ACO FU

* For full product portfolio please contact your local Philips Representative



IEC EN60598 CE CB



Sereno - TBS528

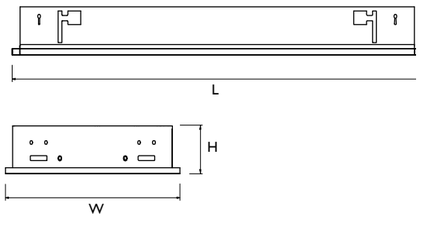
The new Philips range Sereno recessed luminaires are more energy-efficient than ever before. The latest optical technology was used to create a highly effective optic, giving rise to new opportunities for saving energy.

Features and benefits

- Energy efficient: Sereno TBS528 recessed luminaires with micro optic technology use up to 25% less energy than standard TL5 solutions and up to 75% savings in energy with Philips advanced lighting controls
- Architecturally appealing: good visual appearance and ultra flat - only 47mm in height
- An easy choice: ease of installation, replacement and maintenance

Product size (dimensions in mm)

Product ID	Length (mm)	Width (mm)	Height (mm)
TBS528 2xTL5-14W	595	295	47
TBS528 3xTL5-14W	595	595	47
TBS528 4xTL5-14W	595	595	47
TBS528 2xTL5-28W	1195	295	47
TBS528 2xTL5-28W	1195	595	47
TBS528 3xTL5-28W	1195	295	47



Office Retail Healthcare

IP20 LOR(%) 70



Technical parameters

Type	TBS528
Light source	Fluorescent: 2 x or 3 x or 4 x MASTER TL5 / G5 / 14, 28 W
Lamp included	No
Lamp position	Horizontal
Gear	Electronic, 220 - 240V / 50 - 60Hz: HF Standard for TL5 (HFA) HF Primalume for TL5 (HFP)
Materials and finish	Housing: high quality steel, painted with standard white RAL 9003 Optics: high purity pre-anodized aluminum sheet in matt and semi-specular finish
In-fill panel	Perforated (IPP), Closed (IPC)
Installation	Mounting: individual. For standard 300mm or 600mm modular, exposed or concealed ceiling grids Method: housing rests on T-bars Four suspension holes available for safety chain
Optics	Matt high quality anodized aluminum optic with flat profiled aluminum lamellae (M2) OLC matt high-reflecting anodized aluminum 3-dimensional optimised cross lamellae with upper surface in convex closed by overlap (M8)
Classifications	IP 20, Class I Complies with IEC 60598

Key Portfolio*

Product Description	Weight (kg)
TBS528 2xTL5-14W EBE M2 IPC	1.95
TBS528 2xTL5-14W EBE M2 IPP	1.95
TBS528 2xTL5-14W EBE M8 IPP	1.95
TBS528 2xTL5-14W EBP M2 FU IPC	1.95
TBS528 2xTL5-14W EBP M2 FU IPP	1.95
TBS528 2xTL5-14W EBP M8 FU IPP	1.95
TBS528 2xTL5-14W HFA M2 IPP	1.95
TBS528 2xTL5-14W HFA M8 IPP	1.95
TBS528 2xTL5-14W/840 EBP M8 FU CAU	1.95
TBS528 2xTL5-28W EBE M2 IPC	3.15
TBS528 3xTL5-14W EBE M2 IPC	4.12
TBS528 3xTL5-14W EBE M2 IPP	4.12
TBS528 3xTL5-14W EBE M8 IPP	4.12
TBS528 3xTL5-14W EBP M2 FU IPC	4.12
TBS528 3xTL5-14W EBP M2 FU IPP	4.12

Product Description	Weight (kg)
TBS528 3xTL5-14W EBP M8 FU IPP	4.12
TBS528 3xTL5-14W HFA M2 IPP	4.12
TBS528 3xTL5-14W HFA M8 IPP	4.12
TBS528 3xTL5-14W/840 EBP M8 FU CAU	4.12
TBS528 3xTL5-28W EBE M2 IPC	6.28
TBS528 4xTL5-14W EBE M2 IPC	3.82
TBS528 4xTL5-14W EBE M2 IPP	3.82
TBS528 4xTL5-14W EBE M8 IPP	3.82
TBS528 4xTL5-14W EBP M2 FU IPC	3.82
TBS528 4xTL5-14W EBP M2 FU IPP	3.82
TBS528 4xTL5-14W EBP M8 FU IPP	3.82
TBS528 4xTL5-14W HFA M2 IPP	3.82
TBS528 4xTL5-14W HFA M8 IPP	3.82
TBS528 4xTL5-14W/840 EBP M8 FU CAU	3.82

* For full product portfolio please contact your local Philips Representative

IEC EN60598 CE CB



Sereno - TBS769

With the Philips TBS769 range of innovative features and low glare optics, you can be certain to meet everyone's needs with the same luminaire. TBS769 recessed luminaires give you the widest choice of solutions not only because there is a wide range of systems but also because the concept is modular, with interchangeable optics and lamp types.

Features and benefits

- Optimal light distribution, maximum light efficiency
- Stylish design
- An efficient system for maximum cost savings

Product size (dimensions in mm)

Product ID	Length (mm)	Width (mm)	Height (mm)
Product range A			
TBS769 2xT5-14W	597	297	55
TBS769 3xT5-14W	597	597	55
TBS769 4xT5-14W	597	597	55
TBS769 1xT5-28W	1197	147	100
TBS769 2xT5-28W	1197	297	55
TBS769 3xT5-28W	1197	597	55
TBS769 1xT5-35W	1497	147	100
TBS769 2xT5-35W	1497	297	55
TBS769 2xT5-28W	1197	297	55
TBS769 3xT5-14W	597	597	55

Product ID	Length (mm)	Width (mm)	Height (mm)
Product range B			
TBS769 2xT5-14W	597	297	55
TBS769 3xT5-14W	597	597	55
TBS769 4xT5-14W	597	597	55
TBS769 3xT5-28W	1197	597	55
TBS769 2xT5-28W	(standard) 1197	297	55
	(wide) 1197	597	55
TBS769 2xT5-14W	597	297	55
TBS769 3xT5-14W	597	597	55
TBS769 4xT5-14W	597	597	55
TBS769 2xT5-28W	1197	297	55
TBS769 3xT5-28W	1197	597	55

Office Retail Healthcare

IP20 LOR(%) >0.7



Technical parameters

Type	TBS769
Lamp type	2XT5-14W, 3XT5-14W, 4XT5-14W, 2XT5-28W, 3XT5-28W
Gear	HFR: regulated version of electronic gear HFP: Performer version of electronic gear with programmed pre-heat start.
Materials and finish	Housing: high quality steel, painted with standard white RAL 9003 Optics: high purity pre-anodized aluminum sheet in matt and semi-specular finish In-Fill Panel: Perforated (IPP), Closed (IPC)
In-fill panel	
Installation	Mounting: individual; recessed Ceiling: visible profile ceilings with modular standard 600mm. Accessories are required (ZBS300 SMB) for concealed profile ceilings.
Optics	Pre-anodized aluminum or high-reflectance Pre-anodized aluminum
Classifications	IP 20, Class I

Key Portfolio*

Product Description	Weight (kg)
Product range A	
TBS769 2xTL5-28W HFA MD	3.2
TBS769 2xTL5-28W HFE MD	3.1
TBS769 2xTL5-28W HFE D7	3.1
TBS769 2xTL5-28W HFA D7	3.2
TBS769 2xTL5-28W HFE C7	3.1
TBS769 2xTL5-28W HFA C7	3.2
TBS769 2xTL5-28W HFE M7	3.1
TBS769 2xTL5-28W HFA M7	3.2

Product Description	Weight (kg)
Product range B	
TBS769 2xTL5-28W/840 K HFP C7H FTB CAU	4.8
TBS769 2xTL5-28W/840 K HFP D7H FTB CAU	4.8
TBS769 2xTL5-28W/840 K HFP M7H FTB CAU	4.8
TBS769 2xTL5-28W HFP MD FTB	3.1
TBS769 2xTL5-28W HFP D7H FTB	3.1
TBS769 2xTL5-28W HFP M7H FTB	3.1
TBS769 2xTL5-28W HFP MD FTB 1197x 597	4.8
TBS769 2xTL5-28W HFP D7H FTB 1197 x 597	4.8
TBS769 2xTL5-28W HFP M7H FTB 1197 x 597	4.8
Accessory	
ZBS300 SMB (4 pcs)	0.12

* For full product portfolio please contact your local Philips Representative

IEC EN60598 CE CB



TBS299

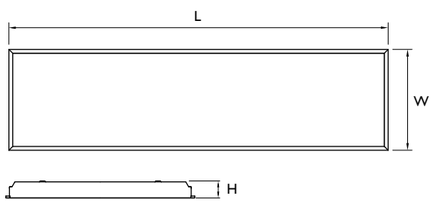
The Philips TBS299 is a superior energy-efficient solution that delivers excellent lighting performance and color-rendering in any kind of interior application. With its sleek design and availability in 5 different lamp configurations, the TBS299 is the ideal recessed luminaire for all types of office spaces and public buildings.

Features and benefits

- Rippled louver reflectors made from high quality imported pre-anodized aluminum
- External hinged connection device enables easy top installation without the need to detach louvers
- Patented BatWing profiled steel housing substantially enhances distribution uniformity
- Features a high frequency electronic ballast to ensure flicker-free start and low energy consumption
- Available in matt white color
- Suitable for office spaces (general work areas, meeting rooms, cell offices) and public buildings (schools, hospitals and other public areas)

Product size (dimensions in mm)

Product ID	Length (mm)	Width (mm)	Height (mm)
TBS299/ 214	596	296	54
TBS299/ 228	1196	296	54
TBS299/ 314	596	596	54
TBS299/ 328	1196	596	54
TBS299/ 414	596	596	54



Office Healthcare



IP20

LOR(%) 0.65

Technical parameters

Type	TBS299
Lamp types	2 x TL5-14W, 3 x TL5-14W, 4 x TL5-14W, 2 x TL5-28W, 3 x TL5-28W
Gear	Electronic ballast 220-240V, 50/60Hz
Optic	M2
In-fill panel	In-fill panel perforated
Color	Matt white
Classification	IP20, Class I
Materials	Housing: post-painted sheet steel Optics: high purity pre-anodized aluminum
Mounting	Recessed

Key Portfolio*

Product Description
TBS299 2xTL5-14W EBE M2
TBS299 2xTL5-28W EBE M2
TBS299 3xTL5-14W EBE M2
TBS299 3xTL5-28W EBE M2
TBS299 4xTL5-14W EBE M2

* For full product portfolio please contact your local Philips Representative



IEC EN60598 CE CB



TBS288

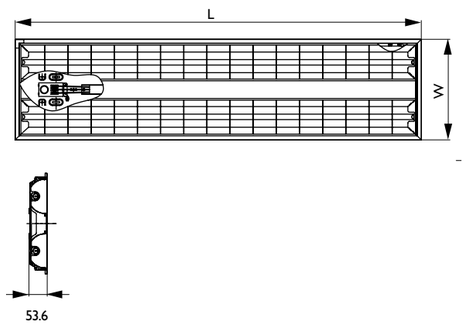
Express yourself. Create elegance. Add ambience and illuminate your space in pleasant, comfortable light. It is all possible with the new Philips electronic office lighting system, TBS288. By featuring a super slim design, exceptional aesthetics and ease of maintenance, we can give you the freedom to inspire and to design inexpensively in almost any general indoor application.

Features and benefits

- Super slim ergonomic design
- High quality aluminum glossy reflectors and matt rippled louvers for optimum brightness and less glare
- Its trendy PMMA panel with patented 'T-Radiance' concept renders subtle luminescence suitable for various interiors
- Easy access to the terminal enables top-connection without detaching louvers, easing installation and maintenance

Product size (dimensions in mm)

Product ID	Length (mm)	Width (mm)	Height (mm)
TBS288 2x14W	296	596	53.6
TBS288 2x21W	296	896	53.6
TBS288 2x28W	296	1196	53.6
TBS288 3x14W	596	596	53.6
TBS288 3x21W	596	896	53.6
TBS288 3x28W	596	1196	53.6
TBS288 4x14W	596	596	53.6



Office Retail Healthcare Education

IP20 LOR(%) 33-79



Technical parameters

Type	TBS288
Light source	Fluorescent: 2 x or 3 x or 4 x MASTER TL5 / G5 / 14, 21, 28 W
Lamp included	No
Lamp position	Horizontal
Gear	Electronic, 220 - 240V / 50 - 60Hz: Electronic High Frequency (HF)
Materials and finish	Housing: cold rolled steel sheet, corrosion and rust resistant In-fill panel: PMMA Optic: glossy filmed aluminum side reflector, FC2 rippled louver
Installation	Recessed mounting
Optics	Glossy filmed aluminum profiled side reflector FC2 rippled louver
Classifications	IP 20 Class I Complies with CCC

Key Portfolio*

Product Description	Weight (kg)
TBS288 2xTL5-14W HF FC2 WH	1.75
TBS288 2xTL5-21W HF FC2 WH	2.25
TBS288 2xTL5-28W HF FC2 WH	2.75
TBS288 3xTL5-14W HF FC2 WH	3.00
TBS288 3xTL5-21W HF FC2 WH	3.75
TBS288 3xTL5-28W HF FC2 WH	4.50
TBS288 4xTL5-14W HF FC2 WH	3.10

* For full product portfolio please contact your local Philips Representative

Related products


TBS288c 2xTL5-14W


TBS288c 2xTL5-21W


TBS288c 2xTL5-28W


TBS288c 3xTL5-14W


TBS288c 3xTL5-21W


TBS288c 3xTL5-28W


TBS288c 4xTL5-14W

IEC EN60598 CE CB



TBS068

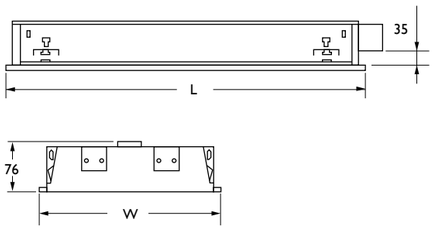
An economical recessed mounted luminaire for TL-D fluorescent lamps with gloss or matt optics for indoor general lighting applications. It offers an economical lighting solution for exposed T-bar ceilings.

Features and benefits

- Extremely flat housing design
- Ease of installation by means of specially designed flip-flat plates

Product size (dimensions in mm)

Product ID	Length (mm)	Width (mm)	Height (mm)
TBS068 2x36W	1197	297	76
TBS068 3x18W	597	597	76
TBS068 3x36W	1197	597	76
TBS068 4x18W	597	597	76



Office Retail Healthcare Education

IP20 LOR(%) 60



Technical parameters

Type	Type TBS068
Light source	Fluorescent: 2 x or 3 x or 4 x MASTER TLD / G13 / 18, 36 W
Lamp included	No
Lamp position	Horizontal
Gear	Electro magnetic (low loss), 220V / 50Hz: Inductive (I) Parallel compensated (IC) Electronic, 220V / 50 - 60Hz: Electronic High Frequency (HF)
Materials and finish	Housing: welding joint; white post-painting sheet cold steel Optics: aluminum sheet with glossy or matt plastic foil attached
Installation	Mounting: individual for 300 mm or 600 mm ceiling grids, visible T-bar profiles Method: housing rests on T-bars Four suspension holes available for safety chain
Optics	High gloss aluminum reflector (G2) Matt high quality anodized aluminum optic with flat profiled aluminum lamellae (M2)
Classifications	IP 20 Class I Complies with IEC 60598

Key Portfolio*

Product Description	Weight (kg)
TBS068 2xTL-D36W HF G2	4.50
TBS068 2xTL-D36W HF M2	4.50
TBS068 2xTL-D36W I G2	4.65
TBS068 2xTL-D36W I M2	4.65
TBS068 2xTL-D36W IC G2	4.65
TBS068 3xTL-D18W I M2	4.65
TBS068 3xTL-D18W HF G2	4.50
TBS068 3xTL-D18W HF M2	4.50
TBS068 3xTL-D18W I G2	4.65
TBS068 3xTL-D18W IC G2	4.65
TBS068 3xTL-D36W HF G2	9.20
TBS068 3xTL-D36W HF M2	9.20
TBS068 3xTL-D36W I G2	9.20
TBS068 3xTL-D36W I M2	9.20
TBS068 3xTL-D36W IC G2	9.20
TBS068 4xTL-D18W HF G2	4.50
TBS068 4xTL-D18W HF M2	4.50
TBS068 4xTL-D18W I G2	4.65
TBS068 4xTL-D18W I M2	4.65
TBS068 4xTL-D18W IC G2	4.65

* For full product portfolio please contact your local Philips Representative

IEC EN60598 CE CB

PHILIPS

Suspended and Surface Mounted

Suspended and Surface Mounted



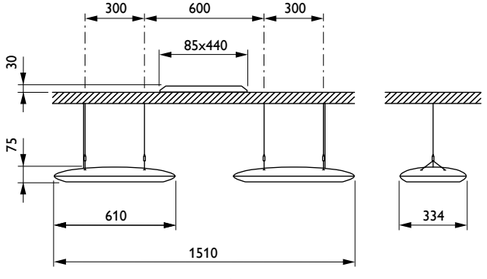
LumiStone

Customers within the office, retail and hospitality sectors want to create spaces with a pleasant and inviting atmosphere. Luminaires with an appealing design and top-notch performance play a pivotal role in achieving this. LumiStone is a LED luminaire consisting of two smaller ellipses rather than the traditional single voluminous piece. The ellipses have soft curvatures and resemble smooth stones found in nature. The flexible light effects created with direct and indirect light make LumiStone the perfect choice for inspiring lighting designs. Thanks to its cutting-edge LED technology, LumiStone is also highly energy-efficient, delivering immediate savings on operational costs. A range of innovative mounting options make LumiStone extremely versatile in application.

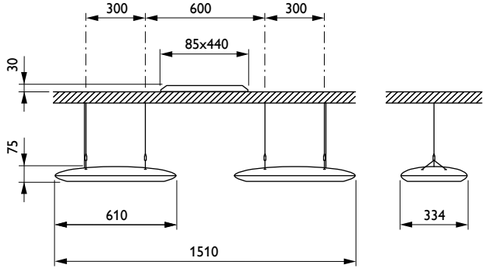
Features and benefits

- Choice of direct and direct/ indirect lighting
- Office norm-compliant
- Versions available for concrete and recessed ceilings
- Creates a truly inspiring environment with appealing design and indirect lighting
- Over 50% energy savings compared to a functional luminaire, and even more compared to decorative solutions
- Many variations thanks to innovative mounting options

Product size (dimensions in mm)



SP522P 2xLED20S/840 PSD-E SMTT WH



SP522P 2xLED20S/840 PSD-E SMTT WH

Office Hospitality Retail

IP20 | 50Khrs | 105 Lm/W



Technical parameters

Type	SP522P
Number of lamps	2
Lamp family code	LED20S
Lamp color code	840 cool white
Lamp color temperature	4000K
Light source replaceable	No
Transformer / power supply unit	PSD-E (Power supply unit with DALI interface external)
Driver included	Yes
Dimmable	Yes
Connection	Push-in connector 3-pole
Safety class	CLI (Safety class I)
IP code	IP20
Ambient temperature	+10 to +40°C
Suspension/ mounting	SMTT (Suspension set twin, triangle for T-profile)
Color	White
Lifetime to 70% luminous flux	50000 hr
Lifetime to 90% luminous flux	30000 hr
Color	White
Color rendering index	≥80
Total luminous flux	4000 Lm
Power consumption	38 W
Supply voltage	220 to 240 V
Line frequency	50 to 60 Hz
Control signal voltage	0-16 V (0-16 V DC DALI)
Material	Polycarbonate

Key Portfolio*

Product Description
SP520P 2xLED15S/830 PSD-E SMTT WH
SP520P 2xLED15S/830 PSD-E SMTT GR
SP520P 2xLED15S/840 PSD-E SMTT WH
SP520P 2xLED15S/840 PSD-E SMTT GR
SP522P 2xLED20S/830 PSD-E SMTT WH
SP522P 2xLED20S/830 PSD-E SMTT GR
SP522P 2xLED20S/840 PSD-E SMTT WH
SP522P 2xLED20S/840 PSD-E SMTT GR
SP524P 2xLED15S/830 PSD DCB WH
SP524P 2xLED15S/830 PSD DCB GR
SP524P 2xLED15S/840 PSD DCB WH
SP524P 2xLED15S/840 PSD DCB GR
SP526P 2xLED20S/830 PSD DCB WH
SP526P 2xLED20S/830 PSD DCB GR
SP526P 2xLED20S/840 PSD DCB WH
SP526P 2xLED20S/840 PSD DCB GR

* For full product portfolio please contact your local Philips Representative

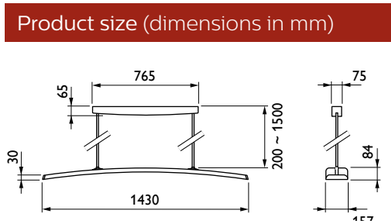
IEC EN60598 CE CB



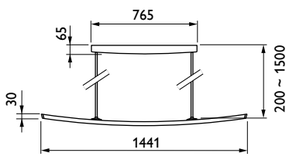
DayWave

Philips DayWave is a unique luminaire that combines a breakthrough design and dynamic lighting only possible by the latest LED technology. It has been specifically designed for high-end office lighting and representative areas to create more natural, inspiring spaces, in order to enhance well-being and performance.

Product size (dimensions in mm)



Product shown:
DayWave
curved down



Product shown:
DayWave
curved up

Features and benefits

- LED technology allows soft lines, a slim design and a unique organic shape
- Modular luminaire is available in a choice of curved-up and curved-down shapes.
- Shapes can be easily connected into lines and patterns
- Option whereby the luminaire continues to emit a decorative blue indirect light after it has been switched off
- DayWave is available in fixed and dynamic color-temperature versions.
- With DALI controls, it is possible to create natural shifts in the lighting ambience
- Incorporating cool and warm-white LEDs and an innovative optical system (Micro-lens optic), the ergonomically designed DayWave delivers a uniform, high level of visual comfort – compliant with norms for office lighting

Office Hospitality

IP20 50Khrs



Technical parameters

Type	Dynamic BPS800 Mono color BPS800
Light source	Dynamic BPS800: Warm white/cool white version: 2x 96 x LED-HP Mono color BPS800: Neutral white version: 96 x LED-HP Warm white version: 96 x LED-HP
Light color	Dynamic BPS800: 3000-5500 K (3000-5500) Mono color BPS800: Warm white:3000K (3000) Neutral white: 4000K (4000), on request Indirect blue light (BLL) Note: indirect blue light can only be used when the white light is switched off
Luminous flux	Dynamic BPS800:: Acrylic cover (AC-MLO) : 3400lm (3000K) / 4450lm (4000K) / 4300lm (5500K) Polycarbonate cover (PC-MLO): 3800lm (3000K) / 4900lm (4000K) / 4750lm (5500K) Mono color BPS800: Acrylic cover (AC-MLO) : 3400lm (3000K) / 3950lm (4000K) Polycarbonate cover (PC-MLO): 3800lm (3000K) / 4400lm (4000K)
Power supply	100~240V AC, 50~60Hz
Power consumption	130W (luminaire without supply unit)
Optic	Micro-lense optic (MLO)
Installation	Suspended: individual or in line Suspended mounting with a set of two suspension tubes, 150 cm per luminaire (can be sawn to right length on site)
Material	Housing: extruded anodised aluminum, finishing brushed (BRU), polished (POL) or white (WH) End-caps and suspension tubes: extruded anodised aluminum, finishing brushed with polished front end (BRU), polished (POL) or white (WH) Cover: acrylic (AC-MLO) or polycarbonate (PC-MLO), micro-lense optic Ceiling unit: aluminum
Control interface	Dimming by DALI
Remarks	Lighting controls to be ordered separately. Suspension set delivered with luminaire. Housing shapes: curved up (H-UP), curved down (H-DN)
Classifications	IP20, Class 1, CE, ENEC
Lifetime	50,000 hours, 70% lumen maintenance at Ta=25°C

IEC EN60598 CE CB



Product details



Curved up



White



Warm white light



Connection between luminaires



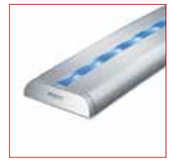
Polished aluminum



Brushed aluminum



Cool white light



Blue standby uplight

Key Portfolio*

Product Description
BPS800 3000-5500 H-DN BLL AC-MLO BRU
BPS800 3000-5500 H-UP BLL AC-MLO BRU
BPS800 3000-5500 H-DN BLL PC-MLO BRU
BPS800 3000-5500 H-UP BLL PC-MLO BRU
BPS800 3000 H-DN BLL AC-MLO BRU
BPS800 3000 H-UP BLL AC-MLO BRU
BPS800 3000 H-DN BLL PC-MLO BRU
BPS800 3000 H-UP BLL PC-MLO BRU
BPS800 3000-5500 H-DN BLL AC-MLO CVC BRU
BPS800 3000-5500 H-UP BLL AC-MLO CVC BRU
BPS800 3000-5500 H-DN BLL PC-MLO CVC BRU
BPS800 3000-5500 H-UP BLL PC-MLO CVC BRU

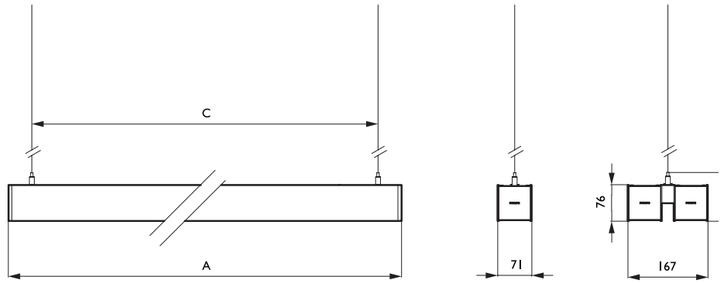
* For full product portfolio please contact your local Philips Representative



Celino LED

Philips Celino - Light beam is a complete luminaire range that reflects the market trend towards miniaturization and architectural integration and at the same time delivering a significant advancement in optical performance.

Product size (dimensions in mm)



Type	A	C (1 lamp)	C (2 lamps)
28W, 54W	1220	1120	808
35, 49W, 80W	1520	1420	1108

Features and benefits

- Celino features Philips' aluminum micro-optic with 3D lamellae, which ensures optimum visual comfort and efficiency in compliance with the latest office-lighting norm (EN 12464-1).
- Made of natural anodized aluminum, the housing of Celino is a mere 71 mm wide and it's slim shape meets top designers' strictest demands.
- Celino is available as suspended or surfaced mounted luminaire with variety of optics, electronic ballasts options, supports all MASTER TL5 and MASTER TL5 ECO lamps, and most advanced LED solutions.
- Celino exudes Philips European design flair and quality. This is further enhanced by excellent customer service experience for our international client base.
- Celino LED version has superior energy saving and inspiring lighting effects thanks to latest LED and optics technology.

Office

IP20 | 50Khrs



Technical parameters

Type	BPS680 C BCS680 C
Light source	LED module
Power (steady state in W, +/- 10%)	30W (for LED24) 52W (for LED48)
Beam angle	80 - 100° (dependant on configuration)
Luminous flux	1800 - 4200 lm (dependant on configuration)
Correlated Color Temperature	4000 K
Color Rendering Index	> 80
Maintenance of lumen output - L90	25,000 hours at 25°C
Maintenance of lumen output - L70	50,000 hours at 25°C
Driver	Built-in
Mains voltage	220-240V / 50-60 Hz
Material	Housing: natural anodized aluminum (ALU) End caps: die-cast aluminum
Optical cover	OLC micro-lens optic in polycarbonate cover (MLO-PC) Opal optic in polycarbonate cover (O-PC) Linear lens array optic in polycarbonate cover (LIN-PC)
Installation	Suspended : Individual; suspended mounting with a set of two single steel-wire suspensions (SM2), with metal-like power cord, and ceiling caps Fast fine adjustment with clutch device Surface-mounted: Individual , by clicking the luminaire into pre-screwed ceiling brackets to the ceiling

IEC EN60598 | CE | CB | F



Savio

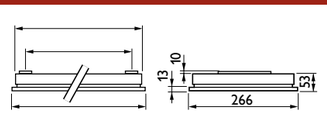
Featuring the patented micro-lens optic technology from Philips, patented micro-lens optic technology, Savio is a complete luminaire range that offers the ideal combination of stylish design and optimum performance for both task and general lighting.

Features and benefits

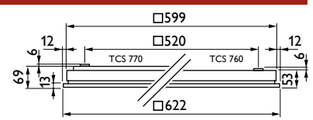
- Edge-to-edge lighting appearance with a uniform and comfortable brightness impression – a real 'surface of light'. The micro-lens optic consists of a single plate and is embedded in a housing made of high-quality natural anodized aluminum. Savio ensures optimum light distribution and full glare control in compliance with the latest office-lighting norm (EN12464-1).
- Savio is available as suspended or surface mounted luminaire with a variety of electronic ballast options, and supports all MASTER TL5 and MASTER TL5 ECO lamps.

Product size (dimensions in mm)

Type	A	B	C
28W, 54W	1259	1236	1050
35/49W	1559	1536	1350

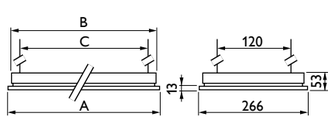


TCS760 228-235-249-254



TCS760 414

28/54 W	1259	1236	1200
35/49 W	1559	1536	1500



TPS760-TPS762 228-235-249-254



TPS760-TPS762 414

Office Hospitality Retail



IP20 | LOR(%) 0.6

Technical parameters

Type	TPS760 (Suspended, direct lighting) TPS762 (Suspended, direct 70% / indirect 30% lighting) TCS760 (Surface-mounted)
Light source	Fluorescent: 2 x or 4 x MASTER TL5 / G5 / 14, 28, 35, 49,54W
Lamp included	No
Optical cover	Acrylate micro lens optic (AC-MLO)
Gear	Electronic, 220 - 240 V / 50 - 60 Hz: High Frequency Performer (HFP, Standard version) High Frequency Regulator, DALI (HFD, available on request) High Frequency Regulator (HFR, available on request)
Options	Lighting controls: ActiLume multi controller (ACL, available on request) Luxsense daylight controller (LX, available on request) Fuse (FU)
Material	Housing: anodized aluminum Optical cover: PMMA Rim: polycarbonate (translucent)
Installation	Suspended: Rectangular versions: Individual; suspended mounting with a set of two double steel-wire suspensions (SMS) with metal- like power cord, 150 cm, and ceiling caps Square versions: Individual; suspended mounting with a set of four single steel-wire suspensions including a metal- like power cord, 150 cm and ceiling cap (SM4) Fast fine adjustment with clutch device (Reutlinger) Surface-mounted: Individua,, by clicking the luminaire into pre-screwed ceiling brackets to the ceiling

Key Portfolio*

Product Description
TCS760 C 2xTL5-28W HFP AC-MLO FU
TCS760 C 2xTL5-35W HFP AC-MLO FU
TCS760 C 4xTL5-14W HFP AC-MLO FU
TPS760 C 2xTL5-28W HFP AC-MLO FU SMS
TPS760 C 2xTL5-35W HFP AC-MLO FU SMS
TPS760 C 4xTL5-14W HFP AC-MLO FU SM4
TPS762 C 2xTL5-28W HFP AC-MLO FU SMS
TPS762 C 2xTL5-35W HFP AC-MLO FU SMS
TPS762 C 4xTL5-14W HFP AC-MLO FU SM4

* For full product portfolio please contact your local Philips Representative



Micro-lens optic
With the new patented micro-lens optic (MLO), the lamps are not directly visible and full glare control from all viewing angles is a reality (Omnidirectional Luminance Control, OLC). The micro-lens optic is highly efficient and meets the latest office standards: Lm<1000 cd/m² in all viewing directions at $\gamma \geq 65^{\circ}$ and UGR<19 (EN 12464-1). This means no disturbing glare on PC or laptop screens, regardless of where they are positioned in the room.

The micro-lens optic provides a uniform light distribution, ensuring an even and comfortable brightness impression – a real 'surface of light'. The micro-lens optic is secured by a translucent rim around the luminaire.

The patented micro-lens optic design uses conical lenses with inverted tops that are positioned in a square array for the best possible glare control. The optic fully justifies the designation 'micro' since there are over 35 high-precision lenses per square centimeter.

IEC EN60598 CE CB



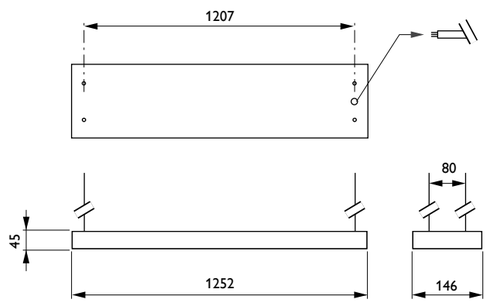
Arano LED

Arano is a range of luminaires for TL5 fluorescent lamps and LED light sources, featuring Philips' micro-optics. The patented micro-optic with 3D lamellae combines a miniaturist design with optimum performance in terms of light distribution, visual comfort and efficiency. And it is fully compliant with the current norm for indoor working places (EN12464-1). Surface-mounted, suspended, freestanding and wall-mounted versions are available – some with direct/ indirect lighting – to create a bright, welcoming ambience. Multiple Arano luminaires can be linked to create line arrangements.

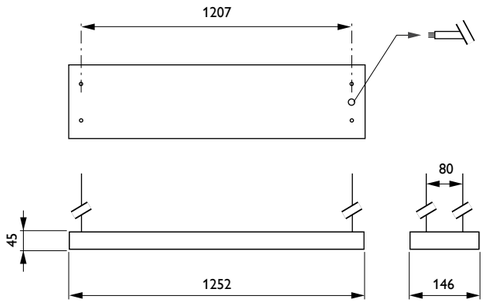
Features and benefits

- Energy saving - Initial system efficacy up to 70lm/W
- Flexibility - Dimming version available
- Substances - RoHS compliance
- Reliability - Driver failure rate @ 5,000h: 1%

Product size (dimensions in mm)



BPS640 LED24/840 PSD W15L125 LIN-PC SM2



BPS640 LED24/840 PSD W15L125 LIN-PC SM2

Office Hospitality Retail



IP40 | 50Khrs | >70 Lm/W

Technical parameters

Type	BCS640
Lamp family code	LED Module 2400 lm
Lamp color code	840 cool white
Lamp color temperature	4000 K
Light source replaceable	No
Transformer/ power supply unit	PSD (Power supply unit with DALI interface)
Driver included	Yes
Optical cover	LIN-PC (Linear-lens array in polycarbonate cover)
Lighting control unit	No
Dimmable	Yes
Safety class	CLI (Safety class I)
IP code	IP40 (Wire Protected)
IK code	IK07 (2) reinforced]
Ambient temperature	+10 to +40°C (+10 to +40 °C)
Suspension/mounting	SM2 (Suspension set 2-wire)
Infill plate	No
Color	Aluminum
Glow-wire test	Temperature 850°C, duration 5 s
Lifetime to 70% luminous flux	50000 hr
Lifetime to 90% luminous flux	30000 hr
Failure rate at 5000 hrs	1%
Color rendering index	≥80 [≥80]
Luminous flux	2100 Lm
Luminous efficacy	84 Lm/W
Power consumption	25 W
Supply voltage	220-240 V
Line frequency	50-60 Hz
Control signal voltage	0-16 V

Key Portfolio*

Product Description
BCS640 LED24/80 PSD W15L125 MLO-PC

* For full product portfolio please contact your local Philips Representative

IEC EN60598 | CE | CB



X-tend

The Philips X-tend family of surface and suspended-mounted luminaires has the perfect combination of cutting-edge technology, functional brilliance and aesthetic appeal. The secret behind X-tend's superb lighting qualities lies in its optic - based on specially designed 3-dimensional curves that offer highly efficient light distribution. X-tend meets most ceiling void restrictions, allowing architects and engineers ultimate design flexibility.

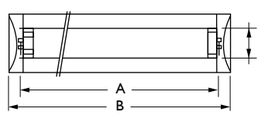
Features and benefits

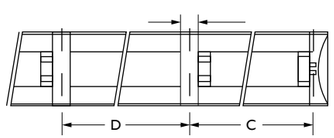
- Wide selection of best-in-class optics, customized to meet your specific needs
- Choice of fluorescent lamps,TL5 or TL-D, efficiency optimized withTL5 version
- Philips V-clip & light weight design, eases installation and maintenance
- Top mirror on request for higher performance

Product size (dimensions in mm)

Type	A	B	B	B
TPS498 1x28W	1188	1286	1208	1288
TPS498 1x36W	1240	1338	1260	1280
TPS498 1x58W	1540	1638	1560	1580
TPS498 2x28W	1188	1286	1208	1288
TPS498 2x36W	1240	1388	1260	1280
TPS498 2x58W	1540	1338	1560	1580







Office Healthcare Education

IP20



Technical parameters

Type	TPS498
Features	Wide selection of best-in-class optics, customized to meet your specific needs Choice of fluorescent lamps,TL5 or TL-D, efficiency optimized withTL5 version High-quality finishing for a high quality appearance Philips V-clip & light weight design, eases installation and maintenance Direct/indirect lighting, greater beam control Top mirror on request for higher performance Pre-fitted optics for quick installation Accessories offer flexibility in application
Light source	Fluorescent: 1 x or 2 x MASTER TLD / G13 / 36, 58 W 1 x or 2 x MASTER TL5 / G5 / 28, 35W
Lamp included	No Yes (lamp colour 840, cool white)
Light distribution	Direct/indirect lighting (D/I)
Light color	Horizontal
Gear	Electronic, 220 - 240V / 50 - 60Hz: HF Standard (HFE) Electronic Primalume (EBP)
Materials and finish	Housing material: high quality extrude aluminum, painted with standard white RAL 9010, semi-matt Optics: high purity pre-anodized aluminum sheet in matt, semi-specular and specular finished
Installation	Mounting: suspended individual, in line Method: suspended mounting in combination with the universal suspension set ZPH 300 US Fixing: installation without removing lamps or optics, with minimum of tools
Optics	Matt high quality anodized aluminum optic with flat profiled aluminum lamellae (M2) OLC high-gloss, high quality anodized aluminum 3-dimensional cross lamellae with fresnel structure (C6) OLC semi-high-gloss, high quality anodized aluminum 3-dimensional cross lamellae with fresnel structure (D6) OLC matt high quality anodized aluminum 3-dimensional cross lamellae with fresnel structure (M6) Mirror with decorative louvers (M-D)
Accessory	Coupling pieces to create straight lines; universal suspension set (ZPH300 US, ZPH498 CP) Note: suspension sets are supplied without electrical wiring
Classifications	IP 20, Class I Complies with IEC 60598

IEC EN60598 CE CB

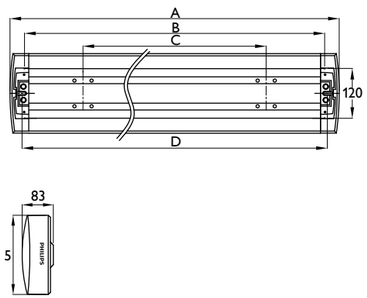
IP20

Technical parameters

Type	TCS398
Features	Wide selection of best-in-class optics, customized to meet your specific needs Choice of fluorescent lamps TL5 or TLD: increased efficiency, luminaire is optimized with TL5 version Compact dimensions, clean lines and subtly-round edges: offer stylish design & a high quality appearance Semi-matt housing (RAL9010), suitable for modern interiors Philips V-clips to ease installation and maintenance Choice of suspended or surface mounting offers flexibility in application Top mirror on request: offers higher luminaire performance In-line mounting on request for a smooth visual appearance
Light source	Fluorescent: 1 x or 2 x MASTER TL5 / G5 / 28, 35 W 1 x or 2 x MASTER TLD / G13 / 36, 58 W
Lamp included	No Yes (lamp colour 840, cool white)
Light color	Horizontal
Gear	Electronic, 220 - 240V / 50 - 60Hz: HF Standard (HFE) Electronic Primalume (EBP)
Materials and finish	Housing: high quality lacquered steel, painted with standard white RAL 9010, semi-matt Optics: high purity pre-anodized aluminum sheet in matt, semi-specula and specula finish
Installation	Mounting: individual and in-line Method: surfaced mounting with holes for (wood) screw
Optics	Matt high quality anodized aluminum optic with flat profiled aluminum lamellae (M2) OLC semi-high-gloss, high quality anodized aluminum 3-dimensional cross lamellae with fresnel structure (D6) OLC matt high quality anodized aluminum 3-dimensional cross lamellae with fresnel structure (M6)
Fuse	Fuse included (FU) Fused terminal block (FTB)
Accessory	For cable suspension mounting: Universal suspension set ZPH 300 US (screws) For pole suspension: ZPS 398 CB-S For in-line mounting: ZPS 398 CP-S
Classifications	IP 20, Class I Complies with IEC 60598

Product size (dimensions in mm)

Type	A	B	B	B
TCS398 1x28W	1258	1188	1211	600
TCS398 1x35W	1558	1488	1511	600
TCS398 1x36W	1310	1240	1263	600
TCS398 1x58W	1610	1540	1563	600
TCS398 2x28W	1258	1188	1211	600
TCS398 2x35W	1558	1488	1511	600
TCS398 2x36W	1310	1240	1263	600
TCS398 2x58W	1610	1540	1563	600



Key Portfolio*

Product ID	Weight (kg)
TPS498 1xTL5-28W/840 EBP D6 FU CAU	4.0
TPS498 1xTL5-28W/840 EBP M6 FU CAU	4.0
TPS498 1xTL5-28W/840 EBP D/I D6 FU CAU	4.0
TPS498 1xTL5-28W/840 EBP D/I M6 FU CAU	4.0
TPS498 1xTL5-35W/840 EBP D6 FU CAU	5.6
TPS498 1xTL5-35W/840 EBP D/I D6 FU CAU	5.6
TPS498 1xTL5-35W/840 EBP D/I M6 FU CAU	5.6
TPS498 1xTL5-35W/840 EBP M6 FU CAU	5.6
TPS498 1xTL5-35W EBP D6 D/I FTB	5.6
TPS498 1XTLD-58W EBP D6 D/I FTB	4.8
TPS498 2XTL5-28W EBP C6 D FTB	4.0
TPS498 2XTL5-28W EBP M6 D FTB	4.0
TPS498 2XTL5-28W HFE M2 D	4.0
TPS498 2XTL5-28W HFE C6 D	4.0
TPS498 2XTL5-28W HFE M6 D	4.0
TPS498 2XTL5-28W HFE D6 D	4.0
TPS498 2XTL5-28W HFE MD D	4.0
TPS498 2XTL5-28W/840 EBP D/I D6 FU CAU	4.0
TPS498 2XTL5-28W/840 EBP D/I M6 FU CAU	4.0
TPS498 2XTL5-28W EBP M6 D/I FTB	4.0

Product ID	Weight (kg)
TCS398 1xTL5-28W K EBP M6 FTB	4.0
TCS398 1xTL5-28W K EBP D6 FTB	4.0
TCS398 1xTL5-35W K EBP D6 FTB	5.0
TCS398 1xTL5-35W K EBP M6 FTB	5.0
TCS398 1xTLD-36W K EBP D6 FTB	4.2
TCS398 1xTLD-36W K EBP M6 FTB	4.2
TCS398 1xTLD-58W K EBP M6 FTB	5.2
TCS398 1xTLD-58W K EBP D6 FTB	5.2
TCS398 2xTL5-28W HFE M6	4.0
TCS398 2xTL5-28W HFE D6	4.0
TCS398 2xTL5-28W K EBP D6 FTB	4.0
TCS398 2xTL5-28W HFE M2	4.0
TCS398 2xTL5-28W K EBP M6 FTB	4.0
TCS398 2xTL5-28W EBP M6 FTB	4.0
TCS398 2xTL5-28W EBP M2 FTB	4.0
TCS398 2xTL5-28W EBP D6 FTB	4.0
TCS398 2xTL5-35W K EBP D6 FTB	5.0
TCS398 2xTL5-35W EBP M6 FTB	5.0

Please contact your local Philips representative for additional configurations



PHILIPS

Downlights

Downlights



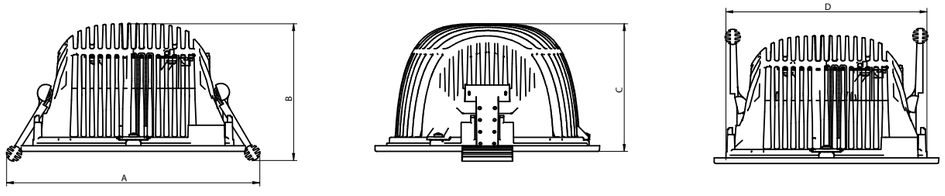
LuxSpace Gen3

Our highly energy-efficient LuxSpace family has now received a major upgrade, in the form of an improved system efficacy that reaches 85-99lm/W. The extremely low power consumption of this LED solution results in significant energy savings compared with traditional CFL downlights. There is also a range of different sizes and outputs and an array of different accessories, ensuring maximum flexibility in customizing the right light effect for your application. Best of all, this family of luminaires delivers specification grade performance, including a DALI dimming system, IP54 ingress protection (front part) and better glare control than ever before. These innovative downlights are ideal for applications in offices, shops, hotels and hospitals where a green general lighting solution is needed.

Features and benefits

- 80% energy saving compared to traditional CFL downlights
- Excellent performance delivering high quality light with visual comfort
- Design continuity towards last generation, LuxSpace HE
- System efficiency of up to 100lm/W
- CRI 80, SDCM 3
- Good glare control, UGR 19 available
- High reliability, 50k hours (L70@25deg)

Product size (dimensions in mm)



Product ID	A	B	C	D
DN478-C103	168	84	75	
DN488-C103	183.7	99.1	92.5	146
DN498-C103	239.5	132.2	124.8	199.4

Office Retail

IP20 | 50Khrs | 90 Lm/W



Technical parameters

Type	DN478/(488/489)/(486/487)/ (498/499)/(496/497)
System lumen output	600lm, 1000lm,1500lm,2000lm,3000lm
Voltage	220-240V 50/60Hz
Power consumption	7W / 10W / 15W / 20W / 34W
Efficacy	85lm/W ~ 99lm/W
Power factor	DN478: 0.85, DN488/489: 0.9, DN498/499: 0.95 DN486/487: 0.9(FIX), 0.95(DALI)
LED driver	Fixed output / DALI
SDCM	3
CRI	80
Color temperature	3000K / 4000K
Reflector	Glossy / Matt
Materials and finishing	Housing: Die-cast aluminum Reflector: stamping aluminum Glass: Tempered glass Painting black (RAL9011)
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 25°C)
Working Temperature Range	- 20°C < Ta < 40°C
Cut-out	Ø 125±2mm / Ø 150±2mm / Ø 200±2mm
Weight	DN478- 0.66KG; DN488/489/486/487-1.06KG; DN498/499/496/497-1.88KG
Product range	Round, wall washer
Accessories	Glass, adapted ring
IP rating	IP20; IP54 for 600lm,1000lm, 2000lm fixed output (front side)
Certifications	CB, CCC

IEC EN60598

Key Portfolio*

Product Description
DN488 1xDLED-3000 PSU-E C WH
DN488 1xDLED-4000 PSU-E C WH
DN488 1xDLED-3000 PSU-E M-A WH
DN486 1xDLED-3000 PSU-E M WH
DN488 1xDLED-4000 PSU-E M WH
DN487 1xDLED-4000 PSU-E C WH
DN489 1xDLED-3000 PSU-E M WH
DN489 1xDLED-4000 PSU-E M WH
DN488 1xDLED-4000 PSU-E M-A WH
DN487 1xDLED-4000 PSU-E M WH
DN486 1xDLED-3000 PSU-E C WH
DN489 1xDLED-3000 PSU-E C WH
DN487 1xDLED-3000 PSU-E M WH
DN488 1xDLED-3000 PSU-E M WH
DN487 1xDLED-3000 PSU-E C WH
DN486 1xDLED-4000 PSU-E M WH
DN486 1xDLED-4000 PSU-E C WH
DN489 1xDLED-4000 PSU-E C WH
DN486 1xDLED-4000 PSD-E C WH
DN486 1xDLED-3000 PSD-E C WH
DN499 1xDLED-4000 PSD-E M WH
DN486 1xDLED-3000 PSD-E M WH
DN496 1xDLED-4000 PSU-E C WH
DN488 1xDLED-4000 PSD-E C WH
DN498 1xDLED-4000 PSD-E C WH
DN488 1xDLED-3000 PSD-E M WH
DN498 1xDLED-4000 PSD-E M WH
DN488 1xDLED-4000 PSD-E M-A WH
DN478 1xDLED-4000 PSU-E C WH
DN499 1xDLED-3000 PSU-E C WH
DN478 1xDLED-3000 PSU-E M WH
DN498 1xDLED-4000 PSU-E C WH
DN499 1xDLED-3000 PSD-E C WH
DN499 1xDLED-3000 PSU-E M WH
DN488 1xDLED-4000 PSD-E M WH
DN499 1xDLED-4000 PSU-E M WH
DN498 1xDLED-3000 PSD-E C WH
DN487 1xDLED-3000 PSD-E M WH
DN488 1xDLED-3000 PSD-E M-A WH
DN497 1xDLED-4000 PSU-E C WH

* For full product portfolio please contact your local Philips Representative



GreenSpace III

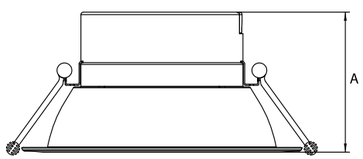
GreenSpace III is an energy and cost efficient LED downlight solution with a high system efficacy. It delivers up to 75% more energy savings compared to conventional compact fluorescent lamps (CFL). The GreenSpace III is a superior solution for retrofitting, delivering quality lighting with a uniform and diffused effect.

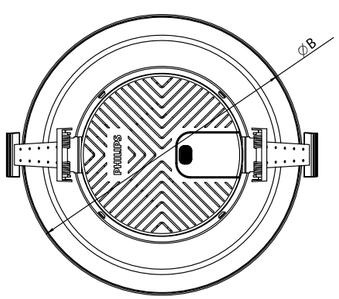
It can be used across a wide variety of applications such as general lighting for offices, shops and other indoor applications.

Features and benefits

- Energy efficient
- Improved comfort
- Flexibility of choices
- Superior solution for retrofitting
- Light efficacy of more than 90lm/w
- Uniform and diffused lighting effect
- Improved PMMA material; higher diffusion rate
- Superior heat sink design
- Long lifetime: 50,000 hours

Product size (dimensions in mm)





Product ID	A	B
DN280B 1xDLED ALU	94	121
DN280B 1xDLED	139	96
DN281B 1xDLED ALU	170	103
DN281B 1xDLED	187	103
DN282B/283B 1xDLED ALU	234	117
DN282B/283B 1xDLED	234	117

Office Hospitality Retail



IP20 50Khrs

Technical parameters

GreenSpace III (R Series)				
Type	Micro DN280B	Mini DN281B	Compact DN282B	Compact Power DN283B
CFLi equivalent	2x13W	2x18W	2x26W	2x32W
Cut out size	102mm (4 inch)	152mm (6 inch)	203mm (8 inch)	203mm (8inch)
Supply voltage	220V-240V/50-60Hz	Integrated LED driver fixed output (PSU) or dimming (PSR)		
Color	White (WH)			
System power	7w	11.5w	17w	22.5w
Power factor PF	>0.9	>0.95	>0.95	>0.95
Correlated color temp CCT	3000K / 4000K / 6500K			
LED flux @80°C	720lm	1170lm	1770lm	2370lm
System flux lm	600lm	1050lm	1550lm	2100lm
Optical Efficiency O.E	84%	90%	90%	90%
System Efficacy	83lm/w	90lm/w	93lm/w	92lm/w
Color rendering index CRI	83	83	83	83
Color tolerance SDCM	≤4	≤4	≤4	≤4
Space chromaticity inconsistency	<0.002	<0.002	<0.002	<0.002
Unified Glare Ratio UGR	≤25	≤24	≤23	≤24
Lighting shield angle	17°	16°	17°	17°
60° light efficacy	88%	88%	88%	88%
Operating temp Ta	-20˚C < ta < 40˚C			
Lifetime	50,000 hours (70% when the ambient temperature Ta = 25˚C)			
Mounting type	Recessed mounting with flexible spring clips			
Material	Optical components: MCPET high reflective film, anti fog, high permeable diffusion sheet / Reflector: high purity aluminum, high-reflectivity coating / Driver Box: PC plastic / Clip: spring wire in a PC plastic clip			

IEC EN60598 CE CB

IP20 50Khrs

Technical parameters

GreenSpace III (O Series)

Type	Micro DN280B PR	Mini DN281B PR	Micro DN280B	Mini DN281B	Compact DN282B	Compact Power DN283B
CFLi equivalent	1x13W	1x18W	2x13W	2x18W	2x26W	2x32W
Cut out size	102mm (4inch)	152mm (6inch)	102mm (4inch)	152mm (6inch)	203mm (8inch)	203mm (8inch)
Supply voltage	220V-240V/50-60HzIntegrated LED driver fixed output (PSU)					
Color	Aluminum (ALU), with a white ring					
System power	5w	6w	7w	11.5w	17w	22.5w
PF	>0.9	>0.9	>0.9	>0.95	>0.95	>0.95
Correlated color temp CCT	3000K / 4000K / 5000K / 6500K					
LED flux @80°C	500lm	650lm	720lm	1170lm	1770lm	2370lm
System flux lm	400lm	550lm	600lm	1000lm	1500lm	2000lm
Optical Efficiency	84%	88%	84%	86%	85%	84%
System Efficacy	80lm/w	90lm/w	84lm/w	90lm/w	90lm/w	90lm/w
Color rendering index CRI	83	83	83	83	83	83
Color tolerance SDCM	≤4	≤4	≤4	≤4	≤4	≤4
Space chromaticity inconsistency	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Unified Glare Ratio UGR	≤24	≤22	≤24	≤22	≤22	≤22
Lighting shield angle	17°	16°	17°	16°	17°	17°
60° light efficacy	94%	96%	94%	96%	97%	97%
Operating temp Ta	-20°C < ta < 40°C					
Lifetime	50,000 (70% when the ambient temperature Ta = 25°C)					
Mounting	Recessed mounting with flexible spring clips					
Material	Optical components: MCPET high reflective film, anti fog, high permeable diffusion sheet / Reflector: high purity aluminum, high-reflectivity coating / Driver Box: PC plastic / Clip: spring wire in a PC plastic clip					

Office Hospitality Retail



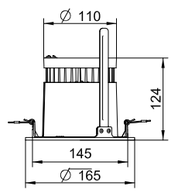


GreenAccent Gen2

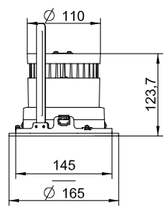
Exciting. Appealing. Inviting. New. Different.
All ingredients for successful retail. Yet in today's competitive environment, there is another ingredient that can make a special contribution: standing out in the crowd. Let Philips GreenAccent family inspire you with a range of accent lighting solutions designed with retail – and retail success – in mind.

GreenAccent Gen2 applies the latest high efficiency LED technology, with a special optical system to deliver top quality light that makes your shop and merchandise catch the eye of the shopper.

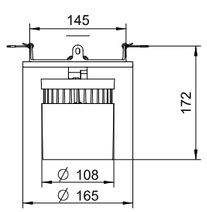
Product size (dimensions in mm)



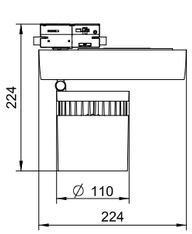
RS280B



RS281B



ST281C



ST281T

Features and benefits

- Increasing merchandise attractiveness to attract and inspire shoppers
- Lighting as part of shop interiors thanks to unique family design
- Low maintenance costs due to low energy consumption and no re-lamping hassle
- Professional optical design to ensure beam quality and outstanding 'PUNCH' effect
- Constant color consistency and color homogeneity over the lifetime
- Equivalent to 35W, 70W CDM solution, energy saving up to 35%
- Optimized heat sink design, enabling 40khrs long lifetime
- Multiple types to choose from, creating ideal shop lighting environments

Supermarket Hospitality Retail

IP20 40Khrs



Technical parameters

Type	GreenAccent LED20	GreenAccent LED40
Lumen Package	2000lm	4000lm
System Lumen	1750lm(3000K); 1900lm(4000K)	3700lm(3000K); 3900lm(4000K)
System Power	26.5W	54W
System Efficacy	65lm/W(3000K); 70lm/W(4000K)	67lm/W(3000K); 72lm/W(4000K)
Power Factor	0.95	0.95
Color Temp.	Warm white 3000K and Neutral white 4000K	Warm white 3000K and Neutral white 4000K
CRI	Typical 85, min 80	Typical 85, min 80
SDCM	≤3	≤4
Beam Angle	12° / 24° / 36°	16° / 22° / 34°
Imax (cd/klm)	12°:12000; 24°:5000; 36°:2500	16°:8500; 22°:4200; 34°:2400
Ambient	-20°<Ta<40°	-20°<Ta<40°
Lifetime	40000hr L70 @25°C	40000hr L70 @25°C
Power Supply	220-240V/50-60Hz	220-240V/50-60Hz
Driver	Fixed output	Fixed output
Mounting	Recessed fixed; Recessed adjustable; Semi-Recessed; Track	Recessed fixed; Recessed adjustable; Semi-Recessed; Track
Color	White (semi-recessed and track available in black)	White (semi-recessed and track available in black)
Optics	Vacuum Alu plating on PC reflector (LED40: antireflection coating glass applied)	Vacuum Alu plating on PC reflector (LED40: antireflection coating glass applied)
Thermal	Passive cooling	Active cooling
Material & finishing	Diecasting Alu heatsink, sand grain finishing	Diecasting Alu heatsink, sand grain finishing
ETO options	CCT(2700K, 3500K, 4500K) CRI(>90) 26.5w/2200lm Dimming Finishing color	CCT(2700K, 3500K,5000K) CRI(>90) 54w/4200lm; 42w/3000lm Dimming Finishing color

IEC EN60598 CE CB

Key Portfolio*

Product Description	Weight (kg)
RS280B LED20/830 PSU-E NB WH	1.3
RS280B LED20/830 PSU-E MB WH	1.3
RS280B LED20/830 PSU-E WB WH	1.3
RS280B LED20/840 PSU-E NB WH	1.3
RS280B LED20/840 PSU-E MB WH	1.3
RS280B LED20/840 PSU-E WB WH	1.3
RS280B LED40/830 PSU-E NB WH	1.2
RS280B LED40/830 PSU-E MB WH	1.2
RS280B LED40/830 PSU-E WB WH	1.2
RS280B LED40/840 PSU-E NB WH	1.2
RS280B LED40/840 PSU-E MB WH	1.2
RS280B LED40/840 PSU-E WB WH	1.2
RS281B LED20/830 PSU-E NB WH	1.2
RS281B LED20/830 PSU-E MB WH	1.2
RS281B LED20/830 PSU-E WB WH	1.2
RS281B LED20/840 PSU-E NB WH	1.2
RS281B LED20/840 PSU-E MB WH	1.2
RS281B LED20/840 PSU-E WB WH	1.2
RS281B LED40/830 PSU-E NB WH	1.1
RS281B LED40/830 PSU-E MB WH	1.1
RS281B LED40/830 PSU-E WB WH	1.1
RS281B LED40/830 PSU-E MB WH	1.1
RS281B LED40/830 PSU-E WB WH	1.1
RS281B LED40/840 PSU-E NB WH	1.1
RS281B LED40/840 PSU-E MB WH	1.1
RS281B LED40/840 PSU-E WB WH	1.1
ST281C LED20/830 PSU-E NB WH	1.1
ST281C LED20/830 PSU-E MB WH	1.1
ST281C LED20/830 PSU-E WB WH	1.1
ST281C LED20/840 PSU-E NB WH	1.1
ST281C LED20/840 PSU-E MB WH	1.1
ST281C LED20/840 PSU-E WB WH	1.1
ST281C LED20/830 PSU-E NB BK	1.1
ST281C LED20/830 PSU-E MB BK	1.1
ST281C LED20/830 PSU-E WB BK	1.1
ST281C LED20/840 PSU-E NB BK	1.1
ST281C LED20/840 PSU-E MB BK	1.1
ST281C LED20/840 PSU-E WB BK	1.1
ST281C LED40/830 PSU-E NB WH	1.1

Product ID	Weight (kg)
ST281C LED40/830 PSU-E MB WH	1.1
ST281C LED40/830 PSU-E WB WH	1.1
ST281C LED40/840 PSU-E NB WH	1.1
ST281C LED40/840 PSU-E MB WH	1.1
ST281C LED40/840 PSU-E WB WH	1.1
ST281C LED40/830 PSU-E NB BK	1.1
ST281C LED40/830 PSU-E MB BK	1.1
ST281C LED40/830 PSU-E WB BK	1.1
ST281C LED40/840 PSU-E NB BK	1.1
ST281C LED40/840 PSU-E MB BK	1.1
ST281C LED40/840 PSU-E WB BK	1.1
ST281T LED20/830 PSU-E NB 1C WH	1.1
ST281T LED20/830 PSU-E MB 1C WH	1.1
ST281T LED20/830 PSU-E WB 1C WH	1.1
ST281T LED20/840 PSU-E NB 1C WH	1.1
ST281T LED20/840 PSU-E MB 1C WH	1.1
ST281T LED20/840 PSU-E WB 1C WH	1.1
ST281T LED20/830 PSU-E NB 1C BK	1.1
ST281T LED20/830 PSU-E MB 1C BK	1.1
ST281T LED20/830 PSU-E WB 1C BK	1.1
ST281T LED20/840 PSU-E NB 1C BK	1.1
ST281T LED20/840 PSU-E MB 1C BK	1.1
ST281T LED20/840 PSU-E WB 1C BK	1.1
ST281T LED40/830 PSU-E NB 1C WH	1.1
ST281T LED40/830 PSU-E MB 1C WH	1.1
ST281T LED40/830 PSU-E WB 1C WH	1.1
ST281T LED40/840 PSU-E NB 1C WH	1.1
ST281T LED40/840 PSU-E MB 1C WH	1.1
ST281T LED40/840 PSU-E WB 1C WH	1.1
ST281T LED40/830 PSU-E NB 1C BK	1.1
ST281T LED40/830 PSU-E MB 1C BK	1.1
ST281T LED40/830 PSU-E WB 1C BK	1.1
ST281T LED40/840 PSU-E NB 1C BK	1.1
ST281T LED40/840 PSU-E MB 1C BK	1.1
ST281T LED40/840 PSU-E WB 1C BK	1.1

* For full product portfolio please contact your local Philips Representative





SmartBright LED Accent

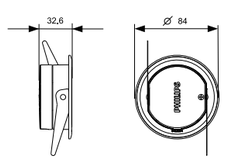
Philips SmartBright LED Accent is a new family offering a large range of optical output, size, color and beam angle to meet variable requirements in ceiling recessed accents. With the professional optical design, SmartBright LED Accent grabs attention and showcase merchandise in shop and gallery, or offers comfort at home and hospitality.

Features and benefits

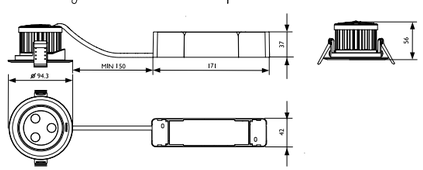
- One-to-one retrofit solution
- Flexibility to choose
- Up to 80% energy saved
- Long lifetime
- No re-lamping or maintenance

Product size (dimensions in mm)

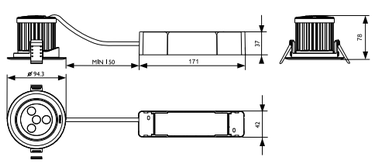
RS050B



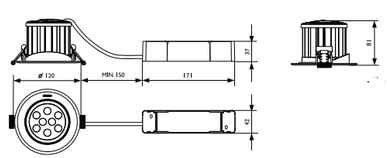
RS051B



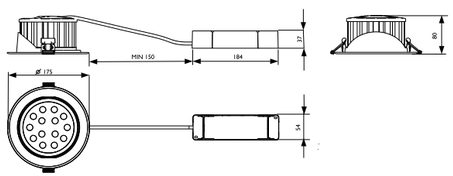
RS052B



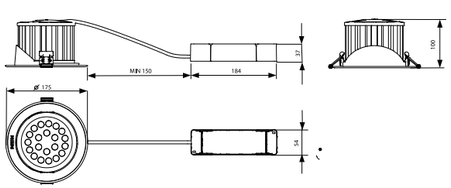
RS053B



RS054B



RS055B



Hospitality Retail

IP20 | 25K hrs | 50 Lm/W



Technical parameters

Type	RS050B	RS051B	RS052B	RS053B	RS054B	RS055B
Power(w)	3.5	8	12	22.5	39	58
Cutout (mm)	67	80	80	105	150	150
Beam angle (°)	15/24/36/60	15/24/36/60	15/24/36/60	15/24/36/60	15/24/36/60	15/24/36/60
Color temp (k)	3000/4000	3000/4000	3000/4000	3000/4000	3000/4000	3000/4000
Color rendering index CRI	80	80	80	80	80	80
Color tolerance SDCM	5	5	5	5	5	5
Voltage (V)	220-240	220-240	220-240	220-240	220-240	220-240
Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
Lifetime	25,000 hours (70% when the ambient temperature Ta = 25°C)					

Key Portfolio*

Product Description
RS050B
RS051B
RS052B
RS053B
RS054B
RS055B

IEC EN60598 | CE | CB



SmartBright Mini LED

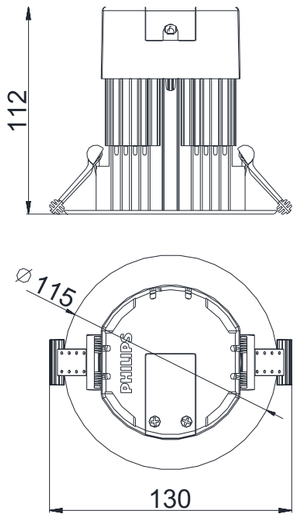
Consuming just 12watts of energy and designed to replace MR16 halogen downlights, the new dimmable Philips SmartBright Mini is a true fit and forget solution. It is compatible with a number of universal, leading and trailing edge dimmers, and ticks all the right boxes for functionality and aesthetics.

The SmartBright Mini looks like a conventional halogen downlight but is up to 70% more energy efficient. Flex and plug offers DIY solution for home usage.

Features and benefits

- One-to-one retrofit solution
- Brighter MR16 Halogen
- Up to 80% energy saved
- Longer lasting:
- Plug and play
- Highly compatible with dimmers
- Stylish

Product size (dimensions in mm)



Hospitality Retail

IP20 50Khrs



Technical parameters

Type	DN101B
Wattage	12w
Mains Voltage	220-240V 50-60Hz
Color Temp	3000k and 4000K
Beam Angle	60 degree
Lumens	700
Life	50,000 hours L70 (Based on L70 testing SmartBright LED Mini achieved 50,000hrs on/off switching undimmed)
Light Source	Integrated LED module
Driver	Integral
Dimming	Selected Universal, Trailing / Leading edge dimmers
Material	Heat Sink-Die cast aluminum Lens: Polycarbonate Reflector & Front Rim: Polycarbonate Fixing Springs: Steel
Installation	1.2m Flex and 3pin plug
Rating	AS/NZS 60598.2.2.AMA

Key Portfolio*

Product Description
DN101B 1xDLED/830 WH 60D
DN101B 1xDLED/840 WH 60D

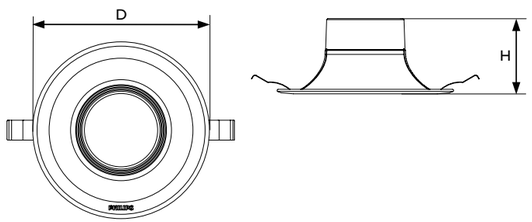
IEC EN60598 CE CB



SmartBright LED Downlight Gen2

The new generation Philips SmartBright LED Downlight has an integrated driver that is exclusive to Philips. Coupled with an advanced cooling solution and superior optics design, it helps you save energy and provides you with excellent visual comfort. Its sophisticated design tops it off, making this a high-quality lighting solution that offers great value-for-money.

Product size (dimensions in mm)



Product ID	D	H
DN060B	Ø155	71
DN061B	Ø178	76
DN062B	Ø207	85
DN063B	Ø232	93

Features and benefits

Advanced technology, green energy

- Integrated design, high-level of safety and reliability
- Superb energy-saving performance of about 55% more than normal energy saving lights
- Long life time, as long as 7 years (with 10 hours of usage per day)

Leading brand, quality assured

- LED light source provides exceptional brightness. Uses professional LED binning technology
- Meets national and international standards (IEC60598, CCC, CB) and 'F' mark
- Meets IEC62471 photobiological test standards, does not contain LED blue light which is harmful to the human eye
- Utilises integrated driver (exclusive to Philips) that meets Philip's stringent performance standards

Ergonomically designed for easy application

- Fuss-free and easy installation
- Well-constructed, modern design (screws-free)
- Integrated advanced cooling solution provides excellent energy-saving performance
- Superior optics design offers pleasant and comfortable lighting environment

Office · Public areas · Hospitality · Retail



IP20 | 25K hrs

Technical parameters

Type	DN060B	DN061B	DN062B	DN063B
Power (w)	8	10	14	17
LED power (w)	6.6	8.4	12.6	15.6
Color rendering index (CRI)	83	83	83	83
Lumen output (lm)	600	800	1200	1500
Colour temperature (K)	3000/4000/5000	3000/4000/5000	3000/4000/5000	3000/4000/5000
Voltage (V)	220-240	220-240	220-240	220-240
Frequency (Hz)	50/60	50/60	50/60	50/60
Ring colour	White	White	White	White

Key Portfolio*

Product ID	Weight (kg)
DN060B 1xDLED/830 WH ENG	0.178
DN060B 1xDLED/840 WH ENG	0.178
DN060B 1xDLED/850 WH ENG	0.178
DN061B 1xDLED/830 WH ENG	0.201
DN061B 1xDLED/840 WH ENG	0.201
DN061B 1xDLED/850 WH ENG	0.201
DN062B 1xDLED/830 WH ENG	0.281
DN062B 1xDLED/840 WH ENG	0.281
DN062B 1xDLED/850 WH ENG	0.281
DN063B 1xDLED/830 WH ENG	0.322
DN063B 1xDLED/840 WH ENG	0.322
DN063B 1xDLED/850 WH ENG	0.322

* For full product portfolio please contact your local Philips Representative

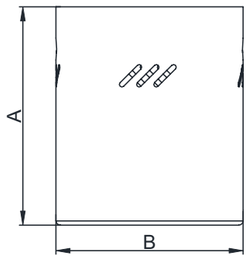
IEC EN60598 | CB



SmartBright LED surface

SmartBright LED Surface is surface-mounted version of LED downlight SmartBright Series. It saves time in installation and saves the ceiling from drilling holes.

Product size (dimensions in mm)



Product ID	A	B
SM050C	157	Ø133
SM051C	157	Ø133
SM052C	198	Ø171
SM053C	198	Ø171

Features and benefits

- Ease on installation- cutting holes in the ceiling becomes unnecessary
- More energy saving - outstanding efficacy, reaching 85lm/w, can save 60% more energy than CFLi system
- Comfort - High CRI (83), high SDCM (5)
- Quality – Consistent Philips standard, pass IEC60598, CB, CE
- Aesthetics - Concise and elegant design

Public areas Hospitality Retail





IP20 25K hrs

Technical parameters

Type	SM050C	SM051C	SM052C	SM053C
Lumen output (lm)	600	800	1200	1500
System Wattage	8	10	14	17
Efficacy (lm/w)	>=80	>=80	>=80	>=80
CRI	83	83	83	83
SDCM	5	5	5	5
Beam angle	90	90	90	90
Lifetime @L70	>=25,000	>=25,000	>=25,000	>=25,000
Warranty	3 years	3 years	3 years	3 years

Key Portfolio*

Product ID	Weight (kg)
SM050C 1xSLED/830 BK	0.66
SM050C 1xSLED/830 WH	0.66
SM050C 1xSLED/840 BK	0.66
SM050C 1xSLED/840 WH	0.66
SM050C 1xSLED/850 BK	0.66
SM050C 1xSLED/850 WH	0.66
SM051C 1xSLED/830 BK	0.66
SM051C 1xSLED/830 WH	0.66
SM051C 1xSLED/840 BK	0.66
SM051C 1xSLED/840 WH	0.66
SM051C 1xSLED/850 BK	0.66
SM051C 1xSLED/850 WH	0.66
SM052C 1xSLED/830 BK	0.97
SM052C 1xSLED/830 WH	0.97
SM052C 1xSLED/840 BK	0.97
SM052C 1xSLED/840 WH	0.97
SM052C 1xSLED/850 BK	0.97
SM052C 1xSLED/850 WH	0.97
SM053C 1xSLED/830 BK	1.01
SM053C 1xSLED/830 WH	1.01
SM053C 1xSLED/840 BK	1.01
SM053C 1xSLED/840 WH	1.01
SM053C 1xSLED/850 BK	1.01
SM053C 1xSLED/850 WH	1.01

* For full product portfolio please contact your local Philips Representative

IEC EN60598 CE CB



ClearSpace

The FBH and FBS family of recessed downlights come complete with a highly efficient frosted aluminum reflector and polished strip faceted upper surface. They are specially designed for compact fluorescent luminaires.

Features and benefits

- Highly efficient reflector for better glare control
- Die cast aluminum housing creates a compact and sturdy architecture.
- Various cut-out sizes to suit various ceiling applications



Office Hospitality Retail



IP20 LOR(%) 0.6

Technical parameters

Clearspace CFL Recessed	
Type	FBH125 FBH135 FBH145 FBH155 FBS145
Features	Highly efficient reflector for better glare control Die cast aluminum housing creates a compact and sturdy architecture Various cut-out sizes to suit various ceiling applications
Light source	Compact Fluorescent: 1 x MASTER PL-C 2-Pin / 10, 13, 18, 26 W 2 x MASTER PL-C 2-Pin / 13, 18, 26 W 1 x or 2 x MASTER PL-C 4-Pin / 13, 18, 26 W 2 x MASTER PL-T 4-Pin / 42 W
Lamp included	No
Gear	Electronic, 220 - 240V / 50, 60 Hz: Electronic Economy (EBE) Electronic Performer (EBP, HFA) HF Performer (HFP) Electro magnetic (low loss), 220 V / 50 Hz: Inductive (I) Inductive, parallel compensated (IC)
Accessory	Front glass: clear / frosted
Materials and finish	Die-cast aluminum housing Aluminum reflectors Polycarbonate plastic outer ring
Installation	Recessed mounted Cut-out: FBH125: Ø 135~138mm FBH135: Ø 150~153mm FBH145: Ø 185~188mm FBH155: Ø 250~253mm FBS145:Ø 185~188mm
Classifications	IP20 Class I Complies with IEC 60598

IEC EN60598 CE CB

ClearSpace CFL Recessed Accessories

Frosted front glass

Product ID	Weight (kg)	Ordering number
ZBH125 FRG FROSTED GLASS	0.12	910403630248
ZBH135 FRG FROSTED GLASS	0.14	910403630250
ZBH145 FRG FROSTED GLASS	0.19	910403630252
ZBH155 FRG FROSTED GLASS	0.43	910403630254



Clear front glass

Product ID	Weight (kg)	Ordering number
ZBH125 GC GLASS CLEAR	0.12	910403630247
ZBH135 GC GLASS CLEAR	0.14	910403630249
ZBH145 GC GLASS CLEAR	0.19	910403630251
ZBH155 GC GLASS CLEAR	0.43	910403630253



Suspended glass with flower shape

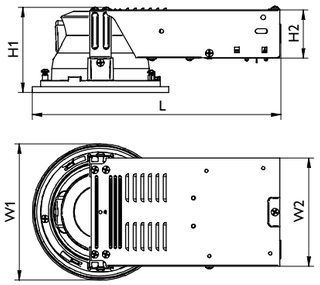
Product ID	Weight (kg)	Ordering number
ZBG125 C G-FRC	0.12	911401525801
ZBG135 C G-FRC	0.14	911401525901
ZBG145 C G-FRC	0.19	911401526001
ZBG155 C G-FRC	0.43	911401526101

Please contact your local Philips representative for additional configurations

Product details and product size (dimensions in mm)

FBH125

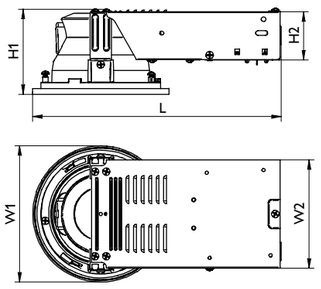




Product ID	HI	H2	W1	W2	L
FBH125	91	55	145	120	265

FBH135

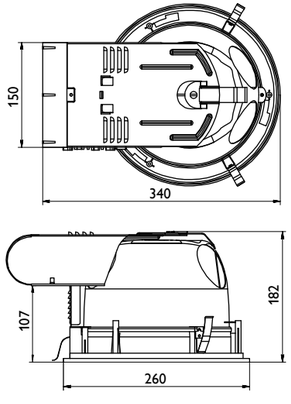




Product ID	HI	H2	W1	W2	L
FBH135	100	55	165	120	280

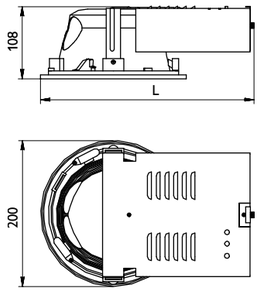
FBH155





FBH145



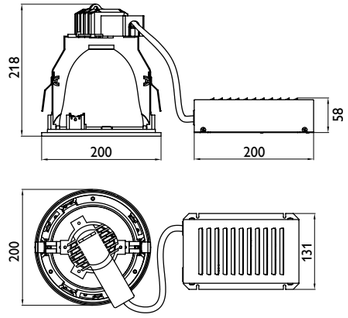


Product ID	L	Product ID	L
FBH145 C 1xPL-C 13W/2P	250	FBH145 C 2xPL-C 13W/2P	250
FBH145 C 1xPL-C 18W/2P	250	FBH145 C 2xPL-C 13W/2P	315
FBH145 C 1xPL-C 18W/2P	315	FBH145 C 2xPL-C 13W/4P	315
FBH145 C 1xPL-C 18W/4P	315	FBH145 C 2xPL-C 18W/2P	315
FBH145 C 1xPL-C 26W/2P	250	FBH145 C 2xPL-C 18W/4P	315
FBH145 C 1xPL-C 26W/2P	315	FBH145 C 2xPL-C 26W/2P	250*
FBH145 C 1xPL-C 26W/4P	315	FBH145 C 2xPL-C 26W/4P	250*

*(with remote Gear-box)

FBS145





IP20 | LOR(%) 0.6



Technical parameters

Clearspace CDM Recessed

Type	MBS145
Features	Highly efficient reflector for better glare control Die cast aluminum housing creates a compact and sturdy architecture Modular concept - same cut out diameter allows a consistent appearance and interchangeable accessories and components
Light source	High intensity discharge: 1 x MASTERColour CDM-TD / 70, 150 W 1 x MASTERColour CDM-T / 35, 70, 150 W
Light included	No
Lamp position	Vertical
Gear	Electro magnetic (low loss), 220, 230V / 50Hz: Parallel compensated (IC) Electronic gear:220-240V/50,60Hz
Materials and finish	MBS145: Cast aluminum housing and ring, silver (frosted) aluminum reflectors
Installation	Mounting: individual, ceiling recess - Cut-out diameter: 185mm - Ceiling thickness: 1 - 28 mm - Method: position the quick release metal clip according to the thickness of the ceiling boards - Safety distance: 0.5m - Maintenance: direct lamp access from below Mounting: individual, ceiling surface - Method: Direct mounting to the ceiling by using the base plate and then counter clockwise to turn the luminaire onto the base plate. Open the side maintenance door to connect electrical power and tighten the safety screw - Safety: >0.8m - Maintenance: direct lamp access (by removing the decorative ring with protection glass)
Classifications	IP 20, Class I, Complies with IEC 60598

Product details



MBS145
downlights with 1 x
35W discharge lamps



MBS145
downlights with 1 x
70W discharge lamps

IP20 | LOR(%) 0.6



Technical parameters

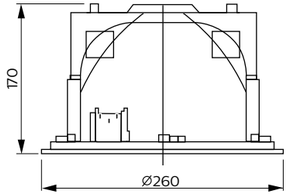
Clearspace CDM Recessed

Type	MBS205
Features	Through-wiring designed connector Control gear unit is supplied together with the luminaire
Light source	High intensity discharge: 1 x MASTERColour CDM-TD / 70, 150 W 1 x MHN-TD / 150W/250W
Light included	No
Lamp position	Horizontal
Gear	Electro magnetic (low loss), 220 - 230V / 50Hz: Parallel compensated (IC), EB for CDM-TD/ 70,150W
Materials and finish	Casted aluminum housing and ring Silver (frosted) aluminum reflector
Installation	Mounting: individual, ceiling recess Cut-out diameter: 245 mm Thickness of ceiling: 1 - 30 mm Method: position the fasteners using screw clips according to the thickness of the false ceiling after the reflector is removed Safety distance: 0.8 - 1.2 m
Classifications	IP 20, Class I Complies with IEC 60598

Product details and product size (dimensions in mm)



MBS205



IP20 | LOR(%) 0.6



Technical parameters

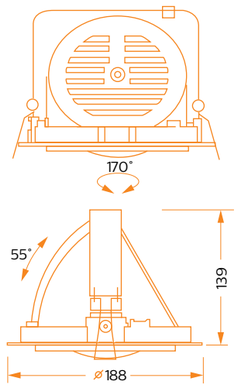
ClearSpace CDM Recessed

Type	MBN100
Features	Solid and durable, excellent heat dissipating effect Orientations can be 70° horizontal and 65° vertical Separate gear box
Light source	High intensity discharge: 1 x MASTERColour CDM-TD / 70, 150 W 1 x MASTERColour CDM-T / 35, 70, 150 W
Light included	No
Lamp position	Vertical
Gear	Electro magnetic (low loss), 220, 230V / 50Hz: Parallel compensated (IC) Electronic gear:220-240V/50,60Hz
Materials and finish	Die cast aluminum housing, zinc-coated steel gear box, high intensity toughened glass.
Installation	Thickness of false ceiling: 1 - 40 mm Method: position spring fasteners Safety distance: >0.8 m Maintenance: by removing the front protection glass Cut-out: Ø 175 mm
Classifications	IP 20, Class I, Complies with IEC 60598

Product details and product size (dimensions in mm)



MBN100
Recessed fixed downlight for MASTERColour CDM-T lamps



IP20 | LOR(%) 0.6



Technical parameters

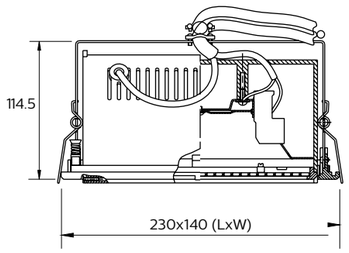
ClearSpace CDM Recessed

Type	MBN200
Features	Die-cast aluminum housing, solid and durable, excellent heat dissipating effect Orientations from 0° to 60° Separate gear box to reduce the bearing of ceiling and good for heat dissipation
Light source	High intensity discharge: 1 x MASTERColour CDM-TD / 70, 150 W 1 x MASTERColour CDM-T / 35, 70, 150 W
Light included	No
Lamp position	Vertical
Gear	Electro magnetic (low loss), 220, 230V / 50Hz: Parallel compensated (IC) Electronic gear:220-240V/50,60Hz
Materials and finish	Die-cast aluminum body, white painted, steel gear box, 5mm-thick tempered glass
Installation	Thickness of false ceiling: 2 - 24 mm Method: position spring fasteners Safety distance: >0.8 m Maintenance: by removing the front protection glass Cut-out: 220 x 127 mm
Classifications	IP 20, Class I, Complies with IEC 60598

Product details and product size (dimensions in mm)



MBS205
Recessed adjustable downlight for MASTERColour CDM-TD



IP20 | LOR(%) 0.6



Technical parameters

ClearSpace Surface Mounted

Type	FCS145 / MCS145 / QCS145
Features	Compact design with "3 in 1" concept of integrating the lamp-reflector-control gear Highly efficient reflector for better glare control Die cast aluminum housing creates a compact and sturdy architecture Modular concept - same cut out diameter allows a consistent appearance and interchangeable accessories and component
Light source	High intensity discharge: 1 x MASTERColour CDM-TD / 70, 150 W 1 x MASTERColour CDM-T / 35, 70, 150 W Compact fluorescent: 1 x or 2 x MASTER PL-C 2 Pin / 26W 1 x or 2 x Master PL-C 4 Pin/ 26W Halogen:1 x HalogenA PAR38 / 120W
Gear	Electro magnetic (low loss), 220 or 230V / 50Hz: Parallel compensated (IC)
Light included	No
Lamp position	Vertical
Electronic (EB)	220-240V/50,60Hz
Materials and finish	Extrusion aluminum housing Die-cast aluminum inner ring. Polycarbonate plastic outer ring Aluminum reflectors (satin silver finish and gold upon request). 5mm thickness tempered glass
Installation	Direct mounting to the ceiling by using the base plate and then counter clockwise to turn the luminaire onto the base plate. Open the side maintenance door to connect electrical power and tighten the safety screw Safety distance: >0.8m Maintenance: direct lamp access (by removing the decorative ring with protection glass)
Accessory	Decorative front glass (ZBH145, ZBG145)
Classifications	IP 20, Class I, Complies with IEC 60598

Product details and product size (dimensions in mm)



FCS145
downlights with 1 x or 2 x 26W compact fluorescent lamps



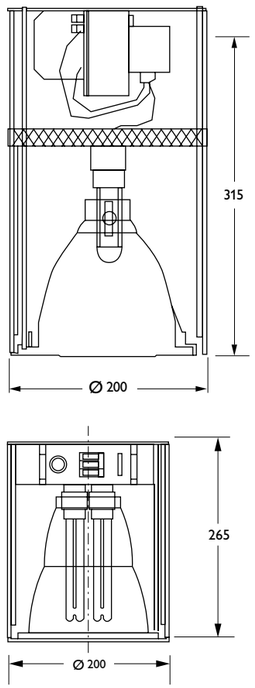
MCS145
downlights with 1 x discharge lamp



MCS145
downlights with 1 x discharge lamp



QCS145
with 1 x 120W halogen lamp



IP20 | LOR(%) 0.6



Technical parameters

ClearSpace Halogen Recessed

Type	NBS145/QBS145
Features	Highly efficient reflector for better glare control Die cast aluminum housing creates a compact and sturdy architecture Modular concept - same cut out diameter allows a consistent appearance and interchangeable accessories and component
Light source	Halogen: 1 x Halogen A PAR38 / 120W Incandescent: 1 x Incandescent / E27 / max. 100W
Light included	No
Lamp position	Vertical
Materials and finish	Cast aluminum housing and ring, silver (frosted) aluminum reflectors
Installation	Mounting: individual, ceiling recess - Cut-out diameter: 185mm - Ceiling thickness: 1 - 28 mm - Method: position the quick release metal clip according to the thickness of the ceiling boards - Safety distance: 0.5m - Maintenance: direct lamp access from below Mounting: individual, ceiling surface - Method: Direct mounting to the ceiling by using the base plate and then counter clockwise to turn the luminaire onto the base plate. Open the side maintenance door to connect electrical power and tighten the safety screw - Safety: >0.8m - Maintenance: direct lamp access (by removing the decorative ring with protection glass)
Accessory	Decorative front glass (ZBH145,ZBG145)
Classifications	IP 20, Class I, Complies with IEC 60598

Product details



NBS145
with max 100W incandescant lamp



QBS145
with 1 x 120W halogen lamp

IP20 | LOR(%) 0.6



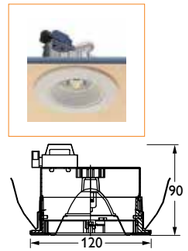
Technical parameters

ClearSpace Halogen Recessed

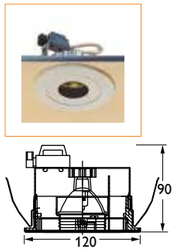
Type	QBS105
Features	Professional optic design to provide perfect accent lighting effect. Premium die cast aluminum body provides sturdy structure and better heat dissipation to extend lamp performance over lifetime. Family choice - same cut out diameter and different design allow a simple family choice and installation.
Light source	Halogen: 1 x Halogen A PAR38 / 120W Incandescent: 1 x Incandescent / E27 / max. 100W
Light included	No
Lamp position	Vertical
Materials and finish	Aluminum casting body, steel painted decorative ring and attachment. Design of reflector: 01 - white painted (fixed) 02 - satin silver (fixed) 03 - polished silver (fixed) 04 - black anti-glare louver (fixed) 05 - pin spot (fixed) 06 - slit (adjustable; vert = 30°, horz = 360° rot.) 07 - eyeball (adjustable; vert = 25°, horz = 360° rot.) 08 - satin silver (adjustable vertical = 35°, horizontal = 360° rot.)
Installation	Cut-out diameter: 105 - 110 mm – Thickness of ceiling: 1 - 32 mm – Method: position the spring fastener according to thickness of the false ceiling – Safety distance: 0.5m – Maintenance: direct lamp access by removing the front cap
Accessory	Decorative front glass (ZBH145,ZBG145)
Classifications	IP 20, Class I, Complies with IEC 60598

Product details and product size (dimensions in mm)

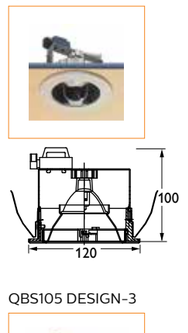
QBS105 DESIGN-1



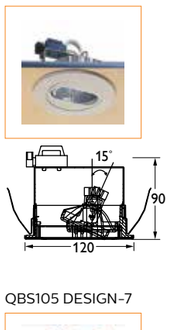
QBS105 DESIGN-5



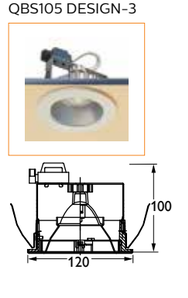
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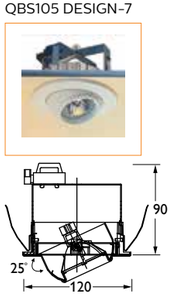
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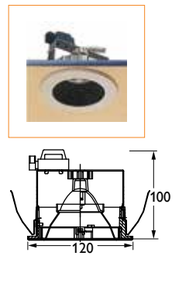
QBS105 DESIGN-3



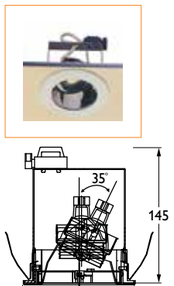
QBS105 DESIGN-7



QBS105 DESIGN-4



QBS105 DESIGN-8



Key Portfolio*

Product Description	Weight (kg)
ClearSpace CFL Recessed	
FBH125 1×PL-C/2P10W I WH	1.10
FBH125 1×PL-C/2P13W I WH	1.10
FBH125 1×PL-C/4P13W EBE WH	1.10
FBH125 1×PL-C/4P13W EBP WH	1.10
FBH135 1×PL-C/2P13W I WH	1.15
FBH135 1×PL-C/2P18W I WH	1.30
FBH135 1×PL-C/4P13W EBE WH	1.15
FBH135 1×PL-C/4P18W EBE WH	1.30
FBH135 1×PL-C/4P18W EBP WH	1.30
FBH135 C 1xPL-C/4P13W EBP WH	1.15
FBH145 C 1×PL-C/2P13W I WH	1.45
FBH145 C 1xPL-C/2P18W I WH	1.55
FBH145 C 1×PL-C/2P18W IC WH	1.65
FBH145 C 1×PL-C/2P26W I WH	1.65
FBH145 C 1×PL-C/2P26W IC WH	1.8
FBH145 C 1xPL-C/4P18W EBP WH	1.45
FBH145 C 1×PL-C/4P26W EBP WH	1.6
FBH145 C 1xPL-C/4P18W EBE WH	1.45
FBH145 C 1×PL-C/4P26W HFA WH	1.6
FBH145 C 2×PL-C/2P13W I WH	1.6
FBH145 C 2×PL-C/2P13W IC WH	1.8
FBH145 C 2×PL-C/2P18W I WH	2.1
FBH145 C 2×PL-C/2P18W IC WH	2.1
FBH145 C 2×PL-C/2P18W I WH	2.1
FBH145 C 2×PL-C/2P18W IC WH	2.1
FBH145 C 2×PL-C/2P26W I WH	3.3
FBH145 C 2xPL-C/2P26W IC WH	3.3
FBH145 C 2×PL-C/4P13W EBE WH	1.6
FBH145 C 2×PL-C/4P13W EBP WH	1.6
FBH145 C 2×PL-C/4P18W EBE WH	1.45
FBH145 C 2×PL-C/4P18W EBP WH	1.45
FBH155 C 2×PL-C/2P18W I WH	3
FBH155 C 2×PL-C/2P18W IC WH	3
FBH155 C 2×PL-C/2P26W I WH	3.5
FBH155 C 2×PL-C/2P26W IC WH	3.5
FBH155 C 2xPL-C/4P18W HFA WH	2.3
FBH155 C 2×PL-C/4P18W EBE WH	2.3
FBH155 C 2×PL-C/4P18W EBP WH	2.3
FBH155 C 2×PL-C/4P26W EBP WH	2.6
FBH155 C 2×PL-C/4P26W HFA WH	2.6
FBH155 C 2×PL-T/4P42W HFP WH	2.75
FBH145 C 1xPL-C/4P26W HFA AL WH	1.6
FBH145 C 2xPL-C/4P13W HFA AL WH	1.6
FBH145 C 2xPL-C/4P18W HFA AL WH	1.45

Product ID	Weight (kg)
FBH145 C 2xPL-C/4P26W HFA AL WH	2.5
FBH155 C 2xPL-C/4P18W HFA AL WH	2.3
FBH155 C 2xPL-C/4P26W HFA AL WH	2.6
FBS145 C 1xPL-C/2P13W I FG WH	3.1
FBS145 C 1xPL-C/2P13W I WH	3.1
FBS145 C 1xPL-C/2P18W I FG WH	3.1
FBS145 C 1xPL-C/2P18W I WH	3.1
FBS145 C 1xPL-C/2P18W I 230V-60Hz WH	3.1
FBS145 C 1xPL-C/2P18W IC FG WH	3.1
FBS145 C 1xPL-C/2P26W I WH	3.1
FBS145 C 1xPL-C/2P26W I 230V-50Hz WH	3.1
FBS145 C 1xPL-C/4P13W HFA WH	2
FBS145 C 1xPL-C/4P18W HFA WH	2
ClearSpace CDM Recessed	
MBS145 C 1xCDM-TD150W/230V IC WH	3.1
MBS145 C 1xCDM-TD150W IC WH	3
MBS145 C 1xCDM-T70W IC WH	3
MBS145 C 1xCDM-T35W IC WH	3
MBS145 C 1xCDM-TC35W/230V	3.1
MBS145 C 1xCDM-TC70W/230V	3.1
MBS145 C 1xCDM-T70W/240V IC WH	3.1
MBS145 C 1xCDM-TC150W/230V	3.1
MBS145 C 1xCDM-T150W IC WH	3
MBS145 C 1xCDM-TD70W IC/230V WH	3.1
MBS205 1xCDM-TD70W IC WH	3.6
MBS205 1xMHN-TD250W IC WH	4.6
MBS205 1xMHN-TD150W IC WH	3.6
MBS205 1xCDM-TD70W EB WH	3.6
MBS205 1xCDM-TD150W EB WH	4.18
MBN100 1xCDM-T35W IC 12 WH	2.8
MBN100 1xCDM-T35W IC 24 WH	2.8
MBN100 1xCDM-T70W IC 12 WH	3
MBN100 1xCDM-T70W IC 24 WH	3
MBN100 1xCDM-T35W EB 12 WH	2
MBN100 1xCDM-T35W EB 24 WH	2
MBN100 1xCDM-T70W EB 12 WH	2
MBN100 1xCDM-T70W EB 24 WH	2
MBN200 MHN-TD70W EB	3.4
MBN200 MHN-TD150W EB	4.0

* For full product portfolio please contact your local Philips Representative

Key Portfolio*

Product ID	Weight (kg)
ClearSpace Surface Mounted	
FCS145 C 1xPL-C/2P26W IC WH	3.3
FCS145 C 2xPL-C/2P26W IC WH	3.9
MCS145 C 1xCDM-T150W IC 230V WH	5.4
MCS145 C 1xCDM-T150W IC WH	5.9
MCS145 C 1xCDM-T35W IC 230V WH	4.2
MCS145 C 1xCDM-T35W IC WH	4.7
MCS145 C 1xCDM-T70W IC WH	5.1
MCS145 C 1xCDM-TD150W IC WH	5.9
MCS145 1xCDM-TD70W IC 220V-50Hz WH	4.6
MCS145 C 1xCDM-TD70W IC WH	4.5
QCS145 C 1xHAL-P38-120W	2.0
FCS145 C 1xPL-C/4P26W HFA WH	2.89
FCS145 C 2xPL-C/4P26W HFA WH	2.89
MCS145 C 1xCDM-T35W EB WH	4.5
MCS145 C 1xCDM-T70W EB WH	4.61
ClearSpace Halogen Recessed	
NBS145C MAX100W-E27 WH	2.8
QBS145C 1xHAL-P38-120W	0.8
QBS105 DESIGN-1	0.35
QBS105 DESIGN-2	0.35
QBS105 DESIGN-3	0.35
QBS105 DESIGN-4	0.35
QBS105 DESIGN-5	0.35
QBS105 DESIGN-6	0.35
QBS105 DESIGN-7	0.35
QBS105 DESIGN-8	0.35

* For full product portfolio please contact your local Philips Representative



Scrabble Gridlights

Scrabble is a complete range of gridlights comprising frames for 1, 2, 3 or 4 adjustable cardanic luminaires for compact discharge and halogen lamps.

They are available in recessed (MBX500) versions. The adjustable cardanic systems offer full freedom for accent lighting in various directions from a single elegant gridlight. Optics offers a choice of narrow and medium beams with good visual comfort.



Features and benefits

- Compact and modular design, flexible, suitable for the different ceilings, excellent visual effect and perfect solution for modern shop concept
- Cardanic orientation system, ensure high lighting efficiency and good lighting uniformity
- Stainless clips, tool free for maintenance, removable gear tray, ensure safe installation and easy lamp replacement
- Combined lamp options on request, to create special lighting effects and optimize merchandise with a combination of optic resources

Hospitality Retail



IP20

Technical parameters

Type	MBX500 QBX500 QBX502
Light source	High intensity discharge: 1 x or 2 x or 3 x MASTERColour / CDM-R111 / 70 W 1 x or 2 x or 3 x MASTERColour / CDM-R PAR-20 / 35 W 1 x or 2 x or 3 x MASTERColour / CDM-R PAR-30 / 35, 70 W 1 x or 2 x or 3 x MASTERColour / CDM-T / 35, 70 W Halogen: 1 x or 2 x or 3 x or 4 x Aluline 111 / 50W
Lamp included	No
Lamp position	Vertical
Gear	Electro magnetic (low loss), 220 - 230V / 50Hz: Parallel compensated (IC) Electronic, 220 - 240V / 50 - 60Hz: Electronic (EB)
Transformer	QBX500: Electronic transformer (ET)
Materials and finish	Material: aluminum and steel Colors: all types available in White (WH) or Silver (SI)
Installation	Mounting: ceiling recessed Ceiling cut-out (mm): MBX: 1 lamp: 167 x 167 / 2 lamps: 308 x 167 / 3 lamps: 450 x 167 QBX: 1 lamp: 167 x 167 / 2 lamps: 308 x 167 / 3 lamps: 450 x 167 / 4 lamps (line): 593 x 167 / 4 lamps (square): 317 x 317 Thickness of false ceiling: 5-24 mm Safety suspension points for chain, cable or threaded rod Safety distance: 0.8 m Maintenance: remove front face to replace CDM-T, CDM-R111 and HAL-R111 lamps; unscrew CDM-R lamps
Optics	Narrow beam (12°) Medium beam (24°)
Orientation	Cardanic swivel system on two axes to adjust 40° in all directions
Classifications	IP 20 Class I for CDM lamp versions Class III for HAL-R111 lamp versions

IEC EN60598 CE CB

Product details



Scrabble MBX/QBX500
cardanic recessed gridlight, 1-lamp version with narrow or medium beam optic



Scrabble MBX/QBX500
cardanic recessed gridlight, 2-lamp version with narrow or medium beam optic



Scrabble MBX/QBX500
cardanic recessed gridlight, 3-lamp version with narrow or medium beam optic



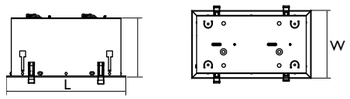
Scrabble MBX/QBX500
cardanic recessed gridlight, 4-lamp version
with narrow or medium beam optic



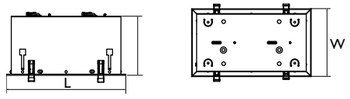
QBX502 4-lamp version (square)

Product size (dimensions in mm)

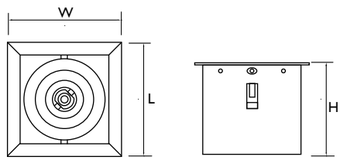
Type		L	W	H
MBX500 CDM-R111	1 lamp	185	185	175
	2 lamps	327	185	175
	3 lamps	469	185	175



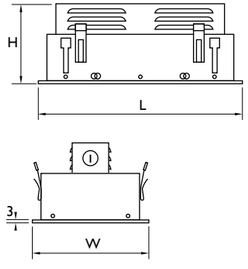
Type		L	W	H
MBX500 CDM-T	1 lamp	185	185	175
	2 lamps	327	185	175
	3 lamps	469	185	175



Type		L	W	H
MBX500 CDM-R20	2 lamps	262	151	120
MBX500 CDM-R30	1 lamp	185	185	175
	3 lamps	327	185	175
	3 lamps	469	185	175
CBX500 CDM-R30 & HAL-R111	2 lamps	327	185	175
	3 lamps	469	185	175



Type		L	W	H	Cut-out
QBX500 (line)	1 lamp	185	185	130	167x167
	2 lamps	327	185	140	308x167
	3 lamps	469	185	140	450x167
	4 lamps	611	185	170	593x167
QBX502 (square)	4 lamps	335	332	140	317x317



Key Portfolio*

Product ID	Weight (kg)
MBX/QBX500 1-lamp version	
CBX500 1xCDM-R30-70W 1xHAL-R111 50W WH	4.50
CBX500 1xCDM-R30-70W 2xHAL-R111 50W WH	5.60
MBX500 1xCDM-R111 70W EB SI	2.10
MBX500 1xCDM-R111 70W EB WH	2.10
MBX500 1xCDM-R20 E SI	0.60
MBX500 1xCDM-R20 E WH	0.60
MBX500 1xCDM-R30-35W IC SI	2.80
MBX500 1xCDM-R30-35W IC WH	2.80
MBX500 1xCDM-R30-70W IC SI	3.20
MBX500 1xCDM-R30-70W IC WH	3.20
QBX500 1xHAL-R111 50W ET SI	0.74
QBX500 1xHAL-R111 50W ET WH	0.74
MBX/QBX500 2-lamp version	
MBX500 2xCDM-R111 70W EB SI	3.70
MBX500 2xCDM-R111 70W EB WH	3.70
MBX500 2xCDM-R20-35W IC SI	4.80
MBX500 2xCDM-R20-35W IC WH	4.80
MBX500 2xCDM-R30-35W IC SI	5.20
MBX500 2xCDM-R30-35W IC WH	5.20
MBX500 2xCDM-R30-70W IC SI	6.00
MBX500 2xCDM-R30-70W IC WH	6.00
MBX500 2xCDM-T 35W IC 24 SI	5.20
MBX500 2xCDM-T 35W IC 24 WH	5.20
QBX500 2xHAL-R111 50W ET SI	1.20
QBX500 2xHAL-R111 50W ET WH	1.20
MBX/QBX500 3-lamp version	
MBX500 3xCDM-R111 70W EB SI	4.60
MBX500 3xCDM-R111 70W EB WH	4.60
MBX500 3xCDM-R20-35W IC SI	7.20
MBX500 3xCDM-R20-35W IC WH	7.20
MBX500 3xCDM-R30-35W IC SI	7.60
MBX500 3xCDM-R30-35W IC WH	7.60
MBX500 3xCDM-R30-70W IC SI	8.80
MBX500 3xCDM-R30-70W IC WH	8.80
MBX500 3xCDM-T 35W IC 24 SI	7.80
MBX500 3xCDM-T 35W IC 24 WH	7.80
QBX500 3xHAL-R111 50W ET SI	1.70
QBX500 3xHAL-R111 50W ET WH	1.70

Product ID	Weight (kg)
MBX/QBX500 4-lamp version (line)	
QBX500 4xHAL-R111 50W ET SI	2.20
QBX500 4xHAL-R111 50W ET WH	2.20
QBX502 4xHAL-R111 50W ET SI	2.60
QBX502 4xHAL-R111 50W ET WH	2.60

* For full product portfolio please contact your local Philips Representative



Smart Modular Series

Smart Modular is safe, reliable and can be used in combination with a great variety of light sources. Choose from Essential MR16 Halogen Lamp, Capsule Halogen lamps or CDM lamp.

Features and benefits

- Leading-edge technology creates a perfect experience
- Clean and elegant form factor. Aluminum frame and quality powder paint finish enables it to match the design of any interior
- Specially designed reflectors provide highly efficient illumination
- Ergonomically designed for easy application
- No special tools required, easy and convenient
- Clearly labelled wiring instructions
- Leading brand, with the assurance of quality
- Complies with IEC standard. Safe and reliable. Made of heat-resistant materials to guarantee improved safety when in use
- Designed by experts for maximum durability. Extensive measures taken to optimise overall heat dissipation, to ensure that the light source and electronic parts have an extended lifespan
- Complies with “F” certification standards in the national GB code, broad areas of application

Hospitality Retail



IP20

Technical parameters

Type	LBX300 1x MAX50W12V-GU5.3 / LBX300 2 x MAX50W12V-GU5.3 LBX300 3x MAX50W12V-GU5.3 / LBX300 4x MAX50W12V-GU5.3
Lamp to use	Essential 50W GU5.3 12V 36D
Lamp holder	GU5.3
Driver	Built-in transformer
Voltage/ Frequency	220/50 (V/Hz)
Light fixture rotational angle	±30°
Frame color	White/Grey

Product details



LBX300
1 x MAX50W12V-GU5.3



LBX300
2 x MAX50W12V-GU5.3



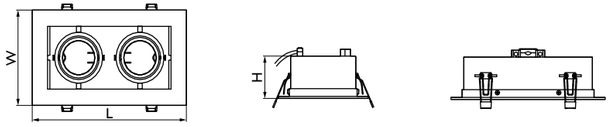
LBX300
3 x MAX50W12V-GU5.3



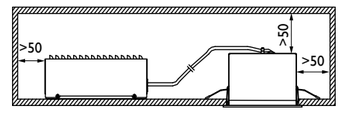
LBX300
4 x MAX50W12V-GU5.3

Product size (dimensions in mm)

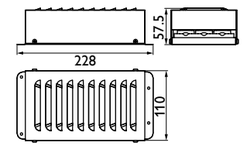
Type	L	W	H	Cut-out
LBX300 1xMAX50W/12V- GU5.3	141	141	77	112x112
LBX300 2xMAX50W/12V- GU5.3	241	141	77	210x112
LBX300 3xMAX50W/12V- GU5.3	340	141	77	310x112
LBX300 4xMAX50W/12V- GU5.3	243	243	77	218x218



Installation Type : Recessed
Installation Guide :



Transformer



IEC EN60598 CE CB

IP20



Technical parameters

Type	LBX301 1xMAX50W/12V- GY6.35 / LBX301 2xMAX50W/12V- GY6.35 / LBX301 3xMAX50W/12V-GY6.35
Lamp to use	ESS CAPSL Pro 50W GY6.35 12V
Lamp holder	GY6.35
Driver	Built-in transformer
Voltage/ Frequency	220/50 (V/Hz)
Light fixture rotational angle	±30°
Frame color	White/Grey

Product details



LBX301
1 x MAX50W12V-GY6.35



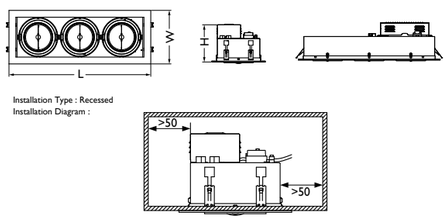
LBX301
2 x MAX50W12V-GY6.35



LBX301
3 x MAX50W12V-GY6.35

Product size (dimensions in mm)

Type	L	W	H	Cut-out
LBX301 1x MAX50W12V-GY6.35	188	188	131	165x165
LBX301 2 x MAX50W12V-GY6.35	373	188	131	345x165
LBX301 3 x MAX50W12V-GY6.35	500	188	131	475x165



IP20



Technical parameters

Type	CBX301 1x MAX50W12V-GY6.35 CDM-T / CBX301 2x MAX50W12V-GY6.35 CDM-T
Lamp to use	ESS CAPSL Pro 50W GY6.35 12V CL+CDM-T 70W
Lamp holder	GY6.35 +G12
Driver	Built-in Transformer, EM/EL Gear Box
Voltage/ Frequency	220/50 (V/Hz)
Light fixture rotational angle	±30°
Frame color	White/Grey

Product details



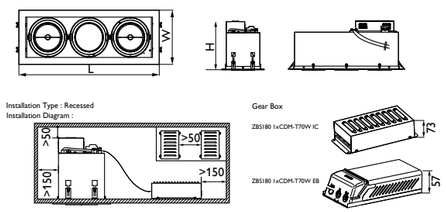
CBX301
1 x MAX50W12V-GY6.35 CDM-T



CBX301
2 x MAX50W12V-GY6.35 CDM-T

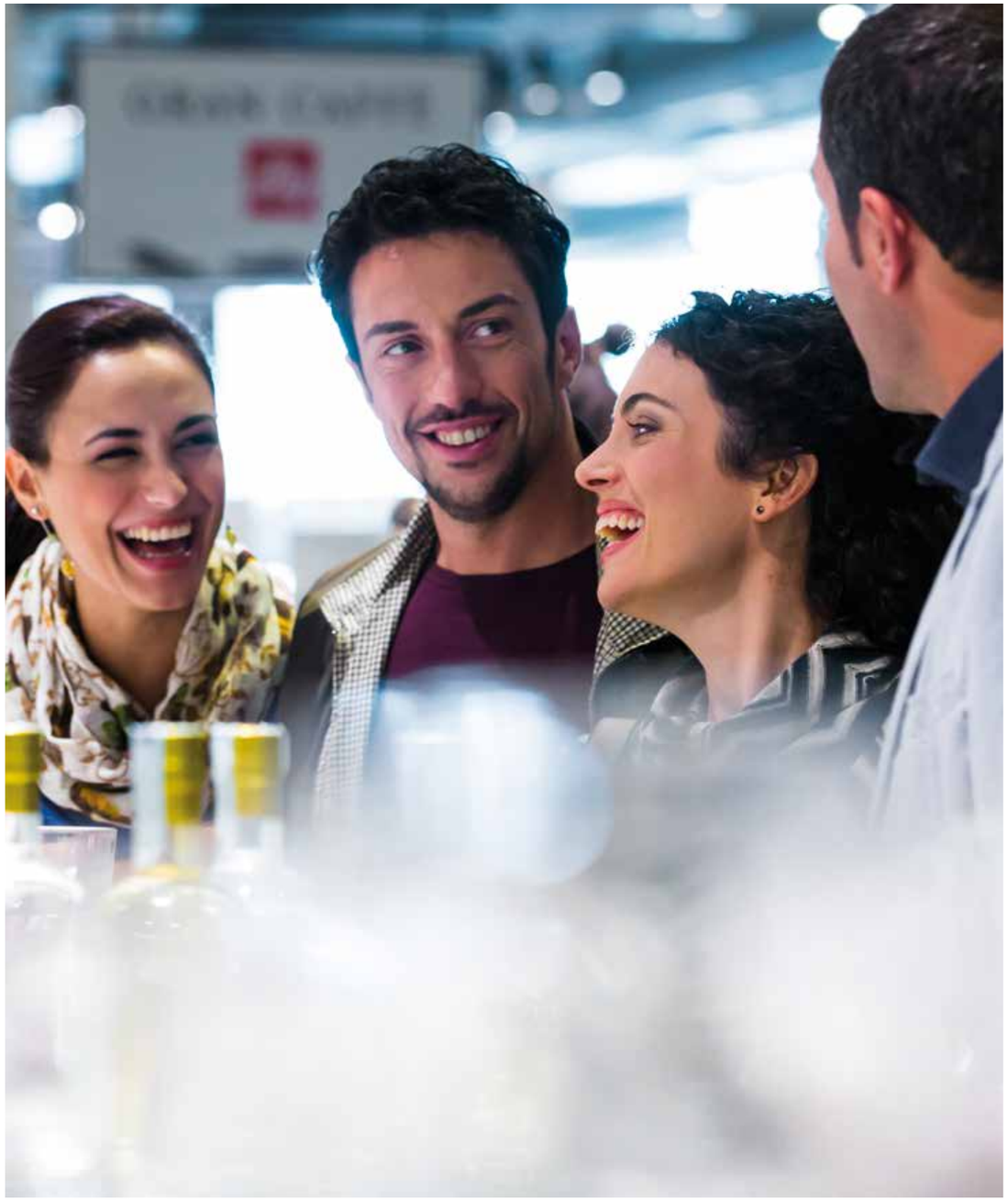
Product size (dimensions in mm)

Type	L	W	H	Cut-out
CBX301 1x MAX50W12V-GY6.35 CDM-T	373	188	210	345x165
CBX301 2x MAX50W12V-GY6.35 CDM-T	500	188	210	475x165



Technical Specifications of Circuit Box and product size (dimensions in mm)

Circuit Box Model	Circuit Box Type	Dimen-sions	Net weight of unit (kg)
ZBS180 1x CDM-T70W IC	Induction Circuit Box	73(Height)	1.18
ZBS180 1x CDM-T70W EB	Induction Circuit Box	57(Height)	0.67



PHILIPS

Projectors and Decorative

Projectors and Decorative



StyliD

Philips StyliD is a breakthrough LED concept combining design, the latest, most innovative LED technology and optical system. Offering substantial energy savings compared to halogen, light quality comparable to MASTERColour, complete stylistic freedom and significant maintenance savings, StyliD is the first LED luminaire to cover all accent lighting applications.

Product details



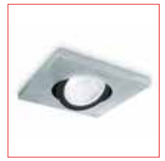
BBG510



BBG511



BBG512



BBG513



BBG514



BBG515



BCG510



BRG510

Features and benefits

- A full range includes downlights, projectors and 3C track systems, all in three sizes: micro (400lm) for compactness, mini (800 lm) for the ideal balance between size and output, compact (1200 lm) and compact power (1700lm) for power, with different beam angles to fit all accent lighting applications.
- High quality accent light without UV/IR, to protect the merchandise from color fading.
- With a further choice of optics, accessories and mounting, StyliD lets customers configure their lighting exactly as they want it – and to upgrade for savings and style far into the future.

Office Supermarket Hospitality Healthcare Education

IP20
IP44

50Khrs

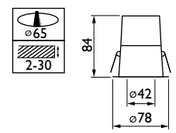
40
Lm/W



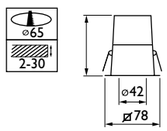
Technical parameters

StyliD Micro	
Type	BBG510 (recessed, fixed round) BBG511 (recessed, fixed square) BBG512 (recessed, adjustable round) BBG513 (recessed, adjustable square) BBG514 (semi recessed, adjustable round) BBG515 (semi recessed, adjustable square) BCG510 (surfaced mounted) BRG510 (3-circuit track)
Light source	1 x SLED400
Lumen output	410lm(3000K) 450lm(4000K)
System efficacy	40lm/W ~ 43lm/W
Light color	Warm white, 3000 K / Neutral white, 4000 K
Power consumption	10 W
Optic	Beam angles 13°, 25°, 40°
Control interface	Mono: Switches / Dimming: ELV
IP	Recessed fixed versions: IP44 / All other versions: IP20
Material	Heat sink, reflectors and housing: aluminum Fixation: steel and polycarbonate Driver box, accessory and optic holder: plastic Lenses: polycarbonate
Color	Brushed aluminum (BA), white (WH) or black (BK) Customized color available on request
Lifetime	50,000 hours (70% lumen maintenance at Ta = 25°C)

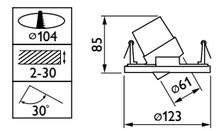
Product size (dimensions in mm)



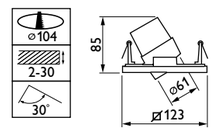
BBG510



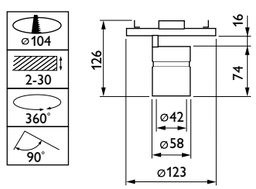
BBG511



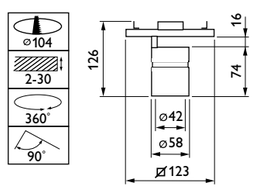
BBG512



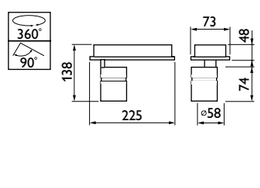
BBG513



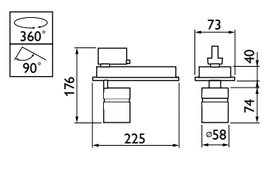
BBG514



BBG515



BCG510



BRG510

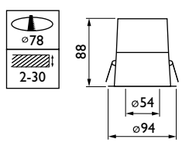
IEC EN60598 CE CB

IP44 | 30Khrs | 40 Lm/W

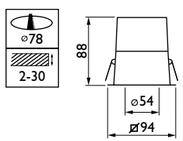
Technical parameters

StyliD Mini	
Type	BBG520 (recessed, fixed round) BBG521 (recessed, fixed square) BBG522 (recessed, adjustable round) BBG523 (recessed, adjustable square) BBG524 (semi recessed, adjustable round) BBG525 (semi recessed, adjustable square) BCG520 (surfaced mounted) BRG520 (3-circuit track)
Light source	1 x SLED800
Lumen output	630lm(3000K) 690lm(4000K)
System efficacy	41lm/W ~ 45lm/W
Light color	Warm white, 3000 K / Neutral white, 4000 K
Power consumption	17 W
Optic	Beam angles 13°, 25°, 40°
Control interface	Mono: Switches Dimming: ELV Dimming: DALI
IP	Recessed fixed versions: IP44 / All other versions: IP20
Material	Heat sink, reflectors and housing: aluminum Fixation: steel and polycarbonate Driver box, accessory and optic holder: plastic Lenses: polycarbonate
Color	Brushed aluminum (BA), white (WH) or black (BK) Customized color available on request
Lifetime	50,000 hours (70% lumen maintenance at Ta = 25°C)

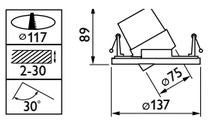
Product size (dimensions in mm)



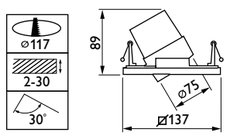
BBG520



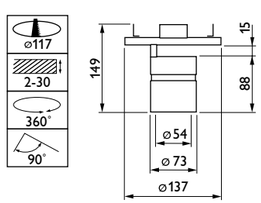
BBG521



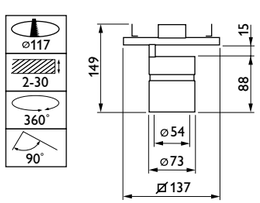
BBG522



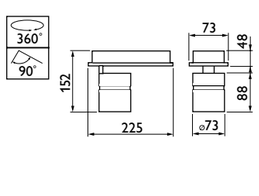
BBG523



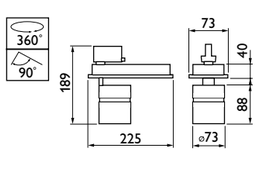
BBG524



BBG525



BCG520



BRG520

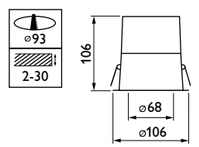


IP44 | 30Khrs | 40 Lm/W

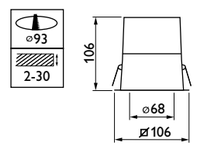
Technical parameters

StyliD Compact	
Type	BBG530 (recessed, fixed round) BBG531 (recessed, fixed square) BBG532 (recessed, adjustable round) BBG533 (recessed, adjustable square) BBG534 (semi recessed, adjustable round) BBG535 (semi recessed, adjustable square) BCG530 (surfaced mounted) BRG530 (3-circuit track)
Light source	1 x SLED1200
Lumen output	1040lm(3000K) 1140lm(4000K)
System efficacy	43lm/W ~ 47lm/W
Light color	Warm white, 3000 K / Neutral white, 4000 K
Power consumption	24 W
Optic	Beam angles 13°, 25°, 40°
Control interface	Mono: Switches Dimming: ELV Dimming: DALI
IP	Recessed fixed versions: IP44 / All other versions: IP20
Material	Heat sink, reflectors and housing: aluminum Fixation: steel and polycarbonate Driver box, accessory and optic holder: plastic Lenses: polycarbonate
Color	Brushed aluminum (BA), white (WH) or black (BK) Customized color available on request
Lifetime	50,000 hours (70% lumen maintenance at Ta = 25°C)

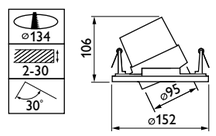
Product size (dimensions in mm)



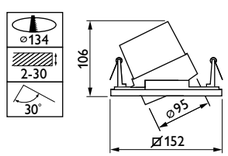
BBG530



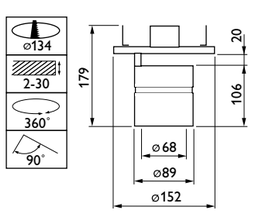
BBG531



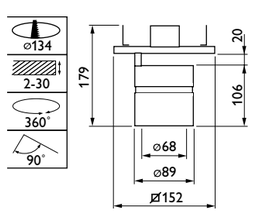
BBG532



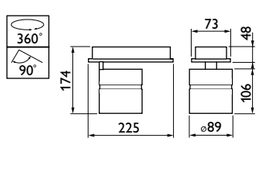
BBG533



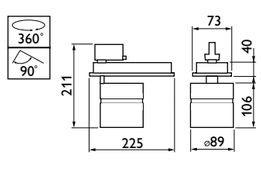
BBG534



BBG535



BCG530



BRG530

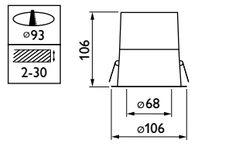
IP44 | 30Khrs | 40 Lm/W



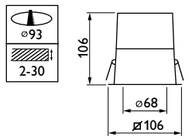
Technical parameters

StyliD Compact Power	
Type	BBG540 (recessed, fixed round) BBG541 (recessed, fixed square) BBG542 (recessed, adjustable round) BBG543 (recessed, adjustable square) BBG544 (semi recessed, adjustable round) BBG545 (semi recessed, adjustable square) BCG540 (surfaced mounted) BRG540 (3-circuit track)
Light source	1 x SLED1700
Lumen output	1700lm(3000K) 2000lm(4000K)
System efficacy	45lm/W ~ 50lm/W
Light color	Warm white, 3000 K / Neutral white, 4000 K
Power consumption	38 W
Optic	Beam angles 25°, 40°
Control interface	Mono: Switches Dimming: ELV Dimming: DALI
IP	Recessed fixed versions: IP44 / All other versions: IP20
Material	Heat sink, reflectors and housing: aluminum Fixation: steel and polycarbonate Driver box, accessory and optic holder: plastic Lenses: polycarbonate
Color	Brushed aluminum (BA), white (WH) or black (BK) Customized color available on request
Lifetime	50,000 hours (70% lumen maintenance at Ta = 25°C)

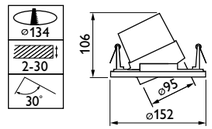
Product size (dimensions in mm)



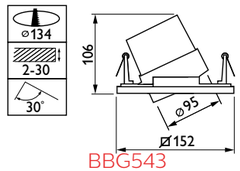
BBG540



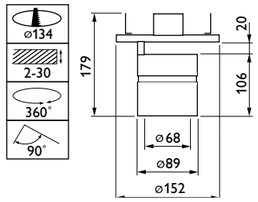
BBG541



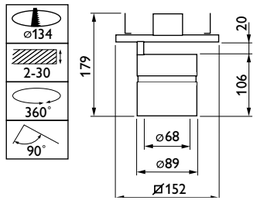
BBG542



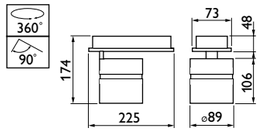
BBG543



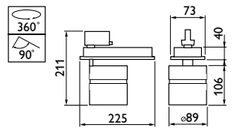
BBG544



BBG545



BCG540



BRG540

Key Portfolio*

Product Description
BBG513 SLED4/840 PSU-E NB ACT II WH
BBG513 SLED4/840 PSU-E WB ACT II WH
BBG514 SLED4/827 PSU-E MB ACT II WH
BBG514 SLED4/830 PSR-E MB ACT II WH
BBG514 SLED4/830 PSR-E NB ACT II ALU
BBG514 SLED4/830 PSR-E NB ACT II WH
BBG514 SLED4/830 PSR-E WB ACT II ALU
BBG514 SLED4/830 PSR-E WB ACT II WH
BBG514 SLED4/830 PSU-E MB ACT II WH
BBG514 SLED4/830 PSU-E NB ACT II BK
BBG514 SLED4/830 PSU-E NB ACT II WH
BBG514 SLED4/830 PSU-E NB ACT II WH Z GS
BBG514 SLED4/830 PSU-E NB ACT II WH Z HC
BBG514 SLED4/830 PSU-E WB ACT II WH
BBG514 SLED4/840 PSR-E MB ACT II WH
BBG514 SLED4/840 PSR-E NB ACT II ALU

* For full product portfolio please contact your local Philips Representative





GreenAccent Gen II

Exciting. Appealing. Inviting. New. Different. All ingredients for successful retail. Yet in today's competitive environment, there is another ingredient that can make its special contribution: standing out in the crowd. Let the Philips GreenAccent family inspire you with a range of accent lighting solutions designed with retail – and retail success – in mind.

GreenAccent Gen II applies the latest high efficient LED technology, with a special optical system to deliver top quality light that makes your shop and merchandise to catch the eye of the shopper.

Product details



GreenAccent Gen II
Recessed Fixed
RS280B



GreenAccent Gen II
Recessed Fixed
RS281B



GreenAccent Gen II
Semi-recessed



GreenAccent Gen II
Track
ST281T

Features and benefits

- Increasing merchandise attractiveness to attracting and inspiring shoppers
- Lighting as part of shop interiors thanks to unique family design
- Low maintenance costs due to low energy consumption and no re-lamping hassle
- Professional optical design to ensure beam quality and outstanding 'PUNCH' effect
- Constant color consistency and color homogeneity over the lifetime
- Equivalent to 35W, 70W CDM solution, energy saving up to 35%
- Optimized heat sink design, enabling 40khrs long lifetime
- Multiple types to choose from, creating ideal shop lighting environments

Supermarket Hospitality Retail

IP20 | 40Khrs | 65 Lm/W



Technical parameters

GreenAccent LED20	
Lumen Package	2000lm
System Lumen	1750lm(3000K); 1900lm(4000K)
System Power	26.5W
System Efficacy	65lm/W(3000K); 70lm/W(4000K)
Power Factor	0.95
Color Temp.	Warm white 3000K and Neutral white 4000K
CRI	Typical 85, min 80
SDCM	≤3
Beam Angle	12° / 24° / 36°
Imax (cd/klm)	12°:12000; 24°:5000; 36°:2500
Ambient	-20°<Ta<40°
Lifetime	40000hr L70 @25°C
IP Grade	IP20
Power Supply	220-240V/50-60Hz
Driver	Fixed output
Mounting	Recessed fixed; Recessed adjustable; Semi-Recessed; Track
Color	White (semi-recessed and track available in black)
Optics	Vacuum Alu plating on PC reflector
Thermal	Passive cooling
Material and finishing	Diecasting Alu heatsink, sand grain finishing
ETO options	CCT(2700K, 3500K, 4500K) CRI (>90) 26.5w/2200lm Dimming Finishing color

Technical parameters

GreenAccent LED40	
Lumen Package	4000lm
System Lumen	3700lm(3000K); 3900lm(4000K)
System Power	54W
System Efficacy	67lm/W(3000K); 72lm/W(4000K)
Power Factor	0.95
Color Temp.	Warm white 3000K and Neutral white 4000K
CRI	Typical 85, min 80
SDCM	≤4
Beam Angle	16° / 22° / 34°
Imax (cd/klm)	16°:8500; 22°:4200; 34°:2400
Ambient	-20°<Ta<40°
Lifetime	40000hr L70 @25°C
IP Grade	IP20
Power Supply	220-240V/50-60Hz
Driver	Fixed output
Mounting	Recessed fixed; Recessed adjustable; Semi-Recessed; Track
Color	White (semi-recessed and track available in black)
Optics	Vacuum Alu plating on PC reflector (LED40: antireflection coating glass applied)
Thermal	Active cooling
Material and finishing	Diecasting Alu heatsink, sand grain finishing
ETO options	CCT(2700K, 3500K,5000K) CRI (>90) 54w/4200lm; 42w/3000lm Dimming Finishing color

IEC EN60598 | CE | CB

High-quality Optics



Narrow Spot
To emphasize smaller objects with high accent factor, with maintained K value
Beam angle: 12°-16°



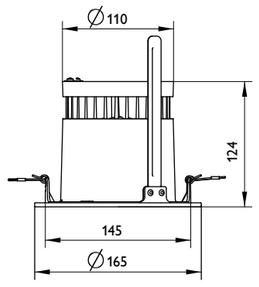
Spot
This is the standard characteristic for accent lighting for objects of all kinds.
Beam angle: 22°-24°



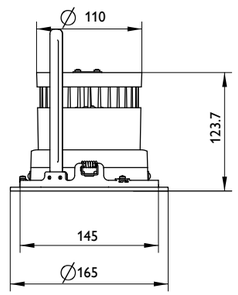
Flood
Used for efficient highlighting of large objects or to emphasize a complete area.
Beam angle: 34°-36°

Glare control (reflector optic compare to lens optic)
- Reflector LOR: ≥92% with vacuum Alu plating
- Antireflection coating applied on protection glass
- Latest technology in optic design and finishing , durable during lifetime

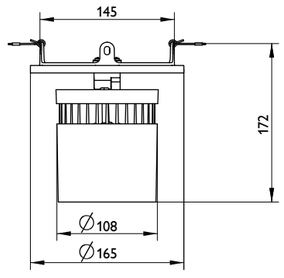
Product size (dimensions in mm)



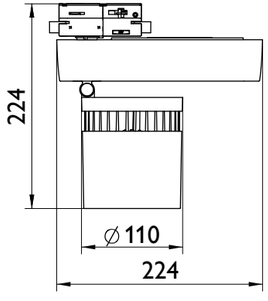
RS280B



RS281B



ST281C



ST281T

Key Portfolio*

Product Description
RS280B
RS280B LED20/830 PSU-E NB WH
RS280B LED20/830 PSU-E MB WH
RS280B LED20/830 PSU-E WB WH
RS280B LED20/840 PSU-E NB WH
RS280B LED20/840 PSU-E MB WH
RS280B LED20/840 PSU-E WB WH
RS280B LED40/830 PSU-E NB WH
RS280B LED40/830 PSU-E MB WH
RS280B LED40/830 PSU-E WB WH
RS280B LED40/840 PSU-E NB WH
RS280B LED40/840 PSU-E MB WH
RS280B LED40/840 PSU-E WB WH
RS281B
RS281B LED20/830 PSU-E NB WH
RS281B LED20/830 PSU-E MB WH
RS281B LED20/830 PSU-E WB WH
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RS281B LED40/840 PSU-E NB WH
RS281B LED40/840 PSU-E MB WH
RS281B LED40/840 PSU-E WB WH
ST281C
ST281C LED20/830 PSU-E NB WH
ST281C LED20/830 PSU-E MB WH
ST281C LED20/830 PSU-E WB WH
ST281C LED20/840 PSU-E NB WH
ST281C LED20/840 PSU-E MB WH
ST281C LED20/840 PSU-E WB WH
ST281C LED20/830 PSU-E NB BK
ST281C LED20/830 PSU-E MB BK
ST281C LED20/830 PSU-E WB BK
ST281C LED20/840 PSU-E NB BK
ST281C LED20/840 PSU-E MB BK
ST281C LED20/840 PSU-E WB BK

Product Description
ST281C LED40/830 PSU-E NB WH
ST281C LED40/830 PSU-E MB WH
ST281C LED40/830 PSU-E WB WH
ST281C LED40/840 PSU-E NB WH
ST281C LED40/840 PSU-E MB WH
ST281C LED40/840 PSU-E WB WH
ST281C LED40/830 PSU-E NB BK
ST281C LED40/830 PSU-E MB BK
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ST281T
ST281T LED20/830 PSU-E NB 1C WH
ST281T LED20/830 PSU-E MB 1C WH
ST281T LED20/830 PSU-E WB 1C WH
ST281T LED20/840 PSU-E NB 1C WH
ST281T LED20/840 PSU-E MB 1C WH
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ST281T LED40/830 PSU-E NB 1C WH
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ST281T LED40/830 PSU-E WB 1C BK
ST281T LED40/840 PSU-E NB 1C BK
ST281T LED40/840 PSU-E MB 1C BK
ST281T LED40/840 PSU-E WB 1C BK

* For full product portfolio please contact your local Philips Representative



EFix

The Philips EFix Projector range is a collection of powerful spots for accent lighting in shops. They are miniaturized spots with a clean, simple look that blends in almost completely with your store interior.



Features and benefits

- EFix Projectors make optimum use of the Philips MASTERColour technology because it incorporates Philips electronic gear and can be used with MASTERColour CDM lamps. This forms a good basis for creating a small spot with a powerful sparkling effect that has a longer lifetime and also reduces energy consumption. These Green Products with CDM lamps save up to 70% energy compared with traditional halogen lighting solutions with similar light output.

Hospitality Retail

IP20 LOR(%) 0.7



Technical parameters

EFix Projector Micro CDM-Tm

Type	Baseplate: MCS241 Track: MRS241
Features	The sparkling MASTERColour lamp and efficient electronic gear system provide high beam intensities combined with an extremely energy- efficient performance. The EFix Projector Micro is available with innovative MASTERColour Mini technology (CDM-Tm and CDM-Rm 20W) and in halogen versions, for both baseplate and track mounting. EFix luminaires are easy to order, easy to install and easy to maintain.
Light source	High intensity discharge: 1 x MASTERColour CDM-Tm Mini / 20, 35 W
Optics	Narrow beam (12°) / Wide beam (36°)
Lamp included	Yes (light color 830 for 20W version and 930 for 35W version)
Gear	220 - 240 V / 50 - 60 Hz: Electronic ballast (EB)
Materials and finish	Housing: Aluminum Rim: Polycarbonate Color: White RAL 9010 (WH) or Grey (GR)
Installation	Track (3C) / Baseplate (BA)
Classifications	Class I, IP20

Product details and product size (dimensions in mm)

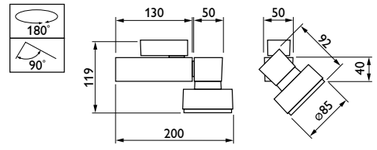


EFix Projector Micro MCS241
for baseplate mounting with MASTERColour CDM-Tm Mini lamp 20 or 35 W

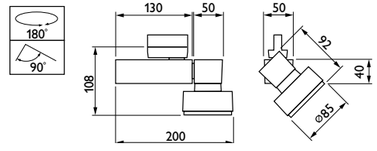


EFix Projector Micro MRS241
for track mounting with MASTERColour CDM-Tm Mini lamp 20 or 35 W Mini lamp 20 or 35 W

MCS241



MRS241



IEC EN60598 CE CB

IP20 LOR(%) 0.7



Technical parameters

EFix Projector Micro CDM-Rm

Type	Baseplate: MCS244 Track: MRS244
Features	The sparkling MASTERColour lamp and efficient electronic gear system provide high beam intensities combined with an extremely energy- efficient performance. The EFix Projector Micro is available with innovative MASTERColour Mini technology (CDM-Tm and CDM-Rm 20W) and in halogen versions, for both baseplate and track mounting. EFix luminaires are easy to order, easy to install and easy to maintain.
Light source	High intensity discharge: 1 x MASTERColour CDM-Rm Mini / 20 W
Lamp included	No
Gear	220 - 240 V / 50 - 60 Hz: Electronic ballast (EB)
Materials and finish	Housing: Aluminum Color: White RAL 9010 (WH) or Grey (GR)
Installation	Track (3C) Baseplate (BA)
Classifications	Class I, IP20

Product details and product size (dimensions in mm)

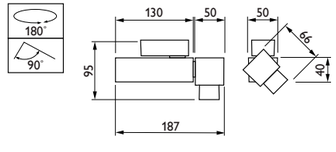


EFix Projector Micro MCS244
for baseplate mounting with MASTERColour CDM-R Mini lamp 20W

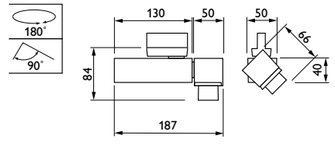


EFix Projector Micro MRS244
for track mounting with MASTERColour CDM-R Mini lamp 20W

MCS244



MRS244



IP20 LOR(%) 0.7



Technical parameters

EFix Projector Micro Dichroic Halogen

Type	Baseplate: LCS242 Track: LRS242
Features	The sparkling MASTERColour lamp and efficient electronic gear system provide high beam intensities combined with an extremely energy-efficient performance. The EFix Projector Micro is available with innovative MASTERColour Mini technology (CDM-Tm and CDM-Rm 20W) and in halogen versions, for both baseplate and track mounting. EFix luminaires are easy to order, easy to install and easy to maintain.
Light source	Halogen: 1 x HAL-MR50 / Max. 50 W
Lamp included	No
Gear	Electronic Transformer (ET)
Materials and finish	Housing: Aluminum Color: White RAL 9010 (WH) or Grey (GR)
Installation	Track (3C) Baseplate (BA)
Classifications	Class I, IP20

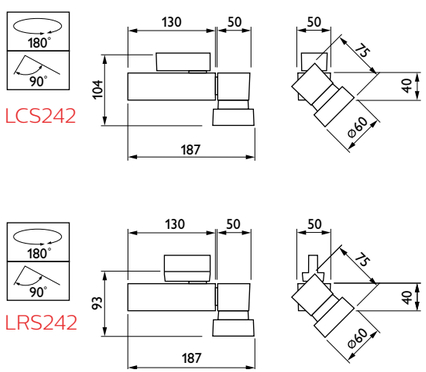
Product details and product size (dimensions in mm)



EFix Projector Micro dichroic halogen LCS242
For baseplate mounting with halogen lamp



EFix Projector Micro dichroic halogen LRS242
for track mounting with halogen lamp



IP20 LOR(%) 0.7



Technical parameters

EFix Projector Micro PAR Halogen

Type	Baseplate: QCS243 Track: QRS243
Features	The sparkling MASTERColour lamp and efficient electronic gear system provide high beam intensities combined with an extremely energy-efficient performance. The EFix Projector Micro is available with innovative MASTERColour Mini technology (CDM-Tm and CDM-Rm 20W) and in halogen versions, for both baseplate and track mounting. EFix luminaires are easy to order, easy to install and easy to maintain.
Light source	PAR Halogen: 1 x Max. 100 W - E27
Lamp included	No
Gear	Electronic Transformer (ET)
Materials and finish	Housing: Aluminum Color: White RAL 9010 (WH) or Grey (GR)
Installation	Track (3C) Baseplate (BA)
Classifications	Class I, IP20

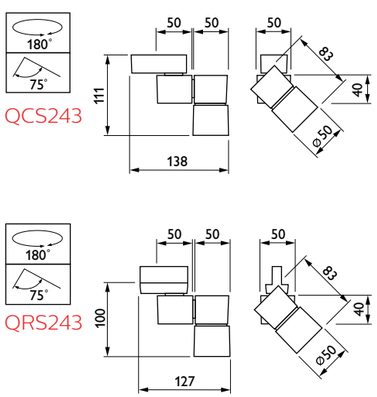
Product details and product size (dimensions in mm)



EFix Projector Micro HAL-PAR QCS243
for baseplate mounting with PAR halogen lamp



EFix Projector Micro HAL-PAR QRS243
for track mounting with PAR halogen lamp



IP20 LOR(%) 0.7



Technical parameters

EFix Projector Compact CDM-T / SDW-TG

Type	Baseplate: MCS261 Track: MRS261
Features	With their clean lines and unobtrusive form, EFix Projectors fit any shop interior. And thanks to their easy track mounting or fast click-on Baseplate, light weight and hinged front glass, installation could not be simpler. The combination of EFix Projector Compact's sparkling MASTERColour lamp and efficient electronic gear system delivers high beam intensities along with energy-efficient performance. The EFix Projector Compact range consists of three versions: one rectangular version for an asymmetrical wide light distribution and two round versions for rotational symmetric medium beams.
Light source	High intensity discharge: 1 x MASTERColour CDM-T / G12 / 150 W 1 x MASTER SDW-TG Mini / GX12-1 / 50, 100 W
Optics	Medium beam
Lamp included	No
Gear	220 - 240 V / 50 - 60 Hz: Electronic (EB)
Materials and finish	Housing : Aluminum Color: White RAL 9010 (WH) or Grey (GR)
Installation	On 3-circuit track (3C) On ceiling: baseplate with connection point (BA)
Maintenance	Direct lamp access after opening the front glass
Accessories	Barndoors
Classifications	Class I, IP20
Remarks	Ready to install: pre-mounted lamp

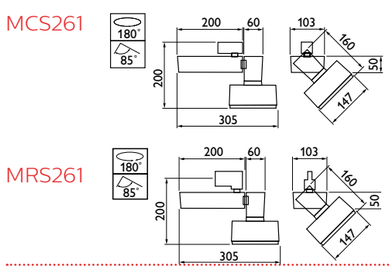
Product details and product size (dimensions in mm)



EFix Projector Compact MCS261
for baseplate mounting with MASTERColour CDM-T or MASTER SDW-TG Mini lamps



EFix Projector Compact MRS261
for track mounting with MASTERColour



IP20 LOR(%) 0.7



Technical parameters

EFix Projector Compact CDM-TD

Type	Baseplate: MCS262 / Track: MRS262
Features	With their clean lines and unobtrusive form, EFix Projectors fit any shop interior. And thanks to their easy track mounting or fast click-on Baseplate, light weight and hinged front glass, installation could not be simpler. The combination of EFix Projector Compact's sparkling MASTERColour lamp and efficient electronic gear system delivers high beam intensities along with energy-efficient performance. The EFix Projector Compact range consists of three versions: one rectangular version for an asymmetrical wide light distribution and two round versions for rotational symmetric medium beams.
Light source	High intensity discharge: 1 x MASTERColour CDM-TD / RX7s /70, 150 W
Optics	Wide beam
Lamp included	Yes (light color 830)
Lamp position	Horizontal
Light distribution	Direct (D)
Gear	220 - 240 V / 50 - 60 Hz: Electronic (EB)
Materials and finish	Housing : Aluminum Color: White RAL 9010 (WH) or Grey (GR)
Installation	On 3-circuit track (3C) On ceiling: baseplate with connection point (BA)
Maintenance	Direct lamp access after opening the front glass
Accessories	Barndoors
Classifications	Class I, IP20
Remarks	Ready to install: pre-mounted lamp

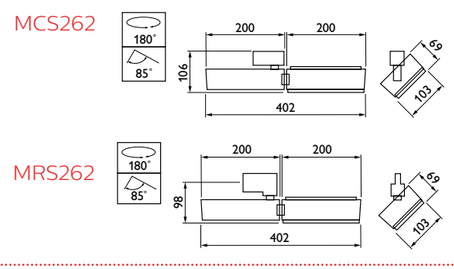
Product details and product size (dimensions in mm)



EFix Projector Compact MCS262
For baseplate mounting with MASTERColour CDM-TD lamps



EFix Projector Compact MRS262
for track mounting with MASTERColour CDM-TD lamps



IP20 | LOR(%) 0.7



Technical parameters

EFix Projector Compact CDM-T	
Type	Baseplate: MCS263 Track: MRS263
Features	With their clean lines and unobtrusive form, EFix Projectors fit any shop interior. And thanks to their easy track mounting or fast click-on Baseplate, light weight and hinged front glass, installation could not be simpler. The combination of EFix Projector Compact's sparkling MASTERColour lamp and efficient electronic gear system delivers high beam intensities along with energy-efficient performance. The EFix Projector Compact range consists of three versions: one rectangular version for an asymmetrical wide light distribution and two round versions for rotational symmetric medium beams.
Light source	High intensity discharge: 1 x MASTERColour CDM-T / G12 / 70 W
Optics	Medium beam
Lamp included	Yes (light color 830)
Lamp position	Vertical
Light distribution	Direct (D)
Gear	220 - 240 V / 50 - 60 Hz: Electronic (EB)
Materials and finish	Housing: Aluminum Color: White RAL 9010 (WH) or Grey (GR)
Installation	On 3-circuit track (3C) On ceiling: baseplate with connection point (BA)
Maintenance	Direct lamp access after opening the front glass
Accessories	Barndoors
Classifications	Class I, IP20
Remarks	Ready to install: pre-mounted lamp

Product details and product size (dimensions in mm)

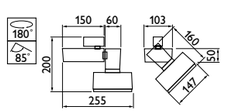


EFix Projector Compact MCS263
for baseplate mounting with
MASTERColour CDM-T lamps

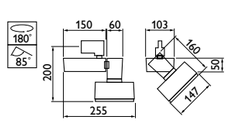


EFix Projector Compact MRS263
for track mounting with
MASTERColour CDM-T lamps

MCS263



MRS263



Accessories

EFix Projector Compact	
Type	ZZS261 for MCS/MRS261 versions ZZS262 for MCS/MRS262 versions
Description	Black barndoors featuring a rigid hinge quality



ZZS261 BD BK Barndoors



ZZS262 BD BK barndoors

Key Portfolio*

Product Description	Weight (kg)
EFix Projector Micro MCS241	
MCS241 1xCDM-Tm20W/830 EB 12 BA GR	0.55
MCS241 1xCDM-Tm20W/830 EB 12 BA WH	0.55
MCS241 1xCDM-Tm20W/830 EB 36 BA GR	0.55
MCS241 1xCDM-Tm20W/830 EB 36 BA WH	0.55
MCS241 1xCDM-Tm35W/930 EB 12 BA GR	0.55
MCS241 1xCDM-Tm35W/930 EB 12 BA WH	0.55
MCS241 1xCDM-Tm35W/930 EB 36 BA GR	0.55
MCS241 1xCDM-Tm35W/930 EB 36 BA WH	0.55
EFix Projector Micro MRS241	
MRS241 1xCDM-Tm20W/830 EB 12 3C GR	0.57
MRS241 1xCDM-Tm20W/830 EB 12 3C WH	0.57
MRS241 1xCDM-Tm20W/830 EB 36 3C GR	0.57
MRS241 1xCDM-Tm20W/830 EB 36 3C WH	0.57
MRS241 1xCDM-Tm35W/930 EB 12 3C GR	0.57
MRS241 1xCDM-Tm35W/930 EB 12 3C WH	0.57
MRS241 1xCDM-Tm35W/930 EB 36 3C GR	0.57
MRS241 1xCDM-Tm35W/930 EB 36 3C WH	0.57
EFix Projector Micro MCS244	
MCS244 1xCDM-RM20W EB BA GR	0.53
MCS244 1xCDM-RM20W EB BA WH	0.53
EFix Projector Micro MRS244	
MRS244 1xCDM-RM20W EB 3C GR	0.53
MRS244 1xCDM-RM20W EB 3C WH	0.53
EFix Projector Micro dichroic halogen LCS242	
LCS242 1xHAL-MR50-50W ET BA GR	0.43
LCS242 1xHAL-MR50-50W ET BA WH	0.43
EFix Projector Micro dichroic halogen LRS242	
LRS242 1xHAL-MR50-50W ET 3C GR	0.45
LRS242 1xHAL-MR50-50W ET 3C WH	0.45
EFix Projector Micro HAL-PAR QCS243	
QCS243 1xMAX100W-E27 BA GR	0.33
QCS243 1xMAX100W-E27 BA WH	0.33
EFix Projector Micro HAL-PAR QRS243	
QRS243 1xMAX100W-E27 3C GR	0.35
QRS243 1xMAX100W-E27 3C WH	0.35

Product Description	Weight (kg)
EFix Projector Compact MCS261	
MCS261 1xCDM-T150W/830 EB BA WH	2.10
MCS261 1xCDM-T150W/830 EB BA GR	2.10
MCS261 1xSDW-TG100W K EB BA WH	1.94
MCS261 1xSDW-TG100W K EB BA GR	1.94
MCS261 1xSDW-TG50W K EB BA WH	1.91
MCS261 1xSDW-TG50W K EB BA GR	1.91
EFix Projector Compact MRS261	
MRS261 1xCDM-T150W/830 EB 3C WH	1.99
MRS261 1xCDM-T150W/830 EB 3C GR	1.99
MRS261 1xSDW-TG100W K EB 3C WH	1.89
MRS261 1xSDW-TG100W K EB 3C GR	1.89
MRS261 1xSDW-TG50W K EB 3C WH	1.86
MRS261 1xSDW-TG50W K EB 3C GR	1.86
EFix Projector Compact MCS262	
MCS262 1xCDM-TD150W/830 EB BA WH	1.83
MCS262 1xCDM-TD150W/830 EB BA GR	1.83
MCS262 1xCDM-TD70W/830 EB BA WH	1.63
MCS262 1xCDM-TD70W/830 EB BA GR	1.63
EFix Projector Compact MRS262	
MRS262 1xCDM-TD150W/830 EB 3C WH	1.78
MRS262 1xCDM-TD150W/830 EB 3C GR	1.78
MRS262 1xCDM-TD70W/830 EB 3C WH	1.58
MRS262 1xCDM-TD70W/830 EB 3C GR	1.58
EFix Projector Compact MCS263	
MCS263 1xCDM-T70W/830 EB BA WH	1.72
MCS263 1xCDM-T70W/830 EB BA GR	1.72
EFix Projector Compact MRS263	
MRS263 1xCDM-T70W/830 EB 60D 3C GR	1.66
MRS263 1xCDM-T70W/830 EB 3C WH	1.66
MRS263 1xCDM-T70W/830 EB 3C GR	1.66
ZZS261 BD BK Barndoors	
ZZS261 BD BK BARNDOORS	0.03
ZZS262 BD BK Barndoors	
ZZS262 BD BK BARNDOORS	0.03

* For full product portfolio please contact your local Philips Representative



ArcTone

Philips ArcTone is a range of projectors that create powerful lighting accents – ideal for retail applications such as fashion stores. They have a refined, compact form with curved edges. The combination of black and white or other finishings like chrome, makes the fixture look even smaller and offers maximum variety in fixture appearance.



Features and benefits

- Thanks to ArcTone's 'mix & match' feature (you can combine the various options in finishing, colors, lamp types, optics and accessories), the projectors can be customized to the specific application.
- With its choice of the latest CDM lamps and electronic gears, ArcTone enables you to create amazing light effects, while its compact, duo-color form ensures a perfect match with a host of interior styles.
- ArcTone projectors come in two sizes. The Micro version incorporates MASTERColour CDM-Tm 20/35W and different accessories. The Mini version (with MASTERColour CDM-Tc Elite 35/70W lamps) offer higher lumen packages.

Hospitality Retail

IP20 LOR(%) 0.7

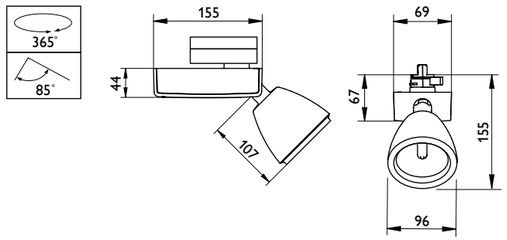


Technical parameters

ArcTone Micro

Type	MRS531 (1-circuit track, HID lamp version) MCS531 (baseplate, HID lamp version)
Light source	1 x MASTERColour CDM-Tm Mini / PGJ5 / 20, 35 W
Optic	For CDM-Tm 20W: Narrow beam (12°) / Medium beam (24°) For CDM-Tm 35W: Narrow beam (12°) / Medium beam (24° and 36°)
Lamp position	Vertical
Ballast	Electronic Ballast (EB): 220-240V/50,60Hz
Material	Aluminum
Color	White - Black (BK-WH) Chrome - Black (BK-CR) White (WH) Black (BK) Other RAL colors available on request
Installation	On 1-circuit track (1C) Direct on ceiling: baseplate with connection point (BA)
Accessories	Protection glass, sculptural lens, dichroic color filters, glare control glass, honey comb louver and barndoors
Maintenance	Access after removing the front glass/ring
Classifications	Class I, IP20, F, 850°C, CB, EMC, CCC

Product size (dimensions in mm)



IEC EN60598 CE CB F

IP20 LOR(%) 0.7

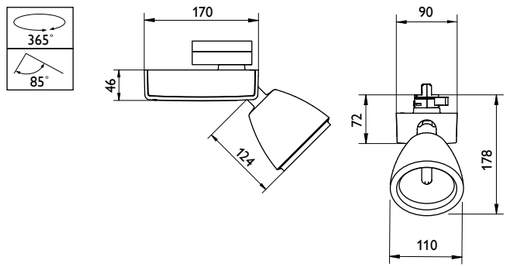


Technical parameters

ArcTone Mini

Type	MRS532 (1-circuit track, HID lamp version) MCS532 (baseplate, HID lamp version)
Light source	HID: 1 x MASTERColour CDM-Tc Elite / G8.5 / 35, 70 W
Optic	Narrow beam (12°) Medium beam (24° and 36°)
Lamp position	Vertical
Ballast	Electronic Ballast (EB):220-240V/50,60Hz
Material	Aluminum
Colour	White - Black (BK-WH) Chrome - Black (BK-CR) White(WH) Black (BK) Other RAL colours available on request
Installation	On 1-circuit track (1C) Direct on ceiling: baseplate with connection point (BA)
Maintenance	Access after removing the front glass
Accessories	Protection glass, sculptural lens, dichroic color filters, glare control glass, honey comb louver and barndoors
Classifications	Class I, IP20, F, 850 °C, CB,EMC,CCC

Product size (dimensions in mm)



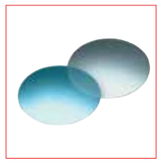
Accessories



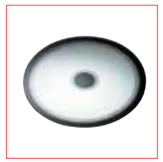
Honey Comb louver: to minimize visual discomfort in the most decorative way
Micro: ZZS541 C HC HONEY COMB LOUVER
Mini: ZZS551 C HC BK HONEY COMB LOUVER



Conical barndoor: to prevent glare while creating a tight, well-defined spot
Micro:
ZZS541 C BD BK BARNDOORS (Black)
ZZS541 C BD WH BARNDOORS (White)
ZZS541 C BD GR BARNDOORS (Grey)
Mini:
ZZS551 C BD BK BARNDOORS (Black)
ZZS551 C BD WH BARNDOORS (White)
ZZS551 C BD GR BARNDOORS (Grey)



Protective glass and UV filter
Micro:
ZZS541 C PG D73 PROTECTION GLASS
ZZS541 C UV FILTER
Mini:
ZZS551 C PG D89 PROTECTION GLASS
ZZS551 C UV FILTER



Anti-glare filter
Micro:
ZZS541 C GCG D73 GLARE CONTROL GLASS
Mini:
ZZS551 C GCG D89 GLARE CONTROL GLASS



Sculptural lens to elongate the beam in one direction
Micro:
ZZS541 C LS D73 SCULPTURAL LENS
Mini:
ZZS541 C LS D89 SCULPTURAL LENS

Products with other colors available upon request. The following RAL colors are recommended:

Choice	Code	Visual	Specification
Yellow	1021		RAL1021 Cadmium Yellow
Red	3000		RAL3000 Red Fire
Blue	5010		RAL5010 Dark Blue
Green	6029		RAL6029 Green Mint
Grey	9006		RAL9006 Grey

Key Portfolio*

Product Description
MCS531 C 1xCDM-Tm20W EB 24 BA BK
MCS531 C 1xCDM-Tm20W EB 24 BA BK-WH
MCS531 C 1xCDM-Tm20W EB 24 BA BK-CR
MRS531 C 1xCDM-Tm20W EB 24 1C WH
MRS531 C 1xCDM-Tm20W EB 24 1C BK
MRS531 C 1xCDM-Tm20W EB 24 1C BK-WH
MRS531 C 1xCDM-Tm20W EB 24 1C BK-CR
MRS531 C 1xCDM-Tm20W EB 12 1C WH
MRS531 C 1xCDM-Tm20W EB 12 1C BK
MRS531 C 1xCDM-Tm20W EB 12 1C BK-WH
MRS531 C 1xCDM-Tm20W EB 12 1C BK-CR
MCS531 C 1xCDM-Tm35W EB 24 BA WH
MCS531 C 1xCDM-Tm35W EB 24 BA BK
MCS531 C 1xCDM-Tm35W EB 24 BA BK-WH
MCS531 C 1xCDM-Tm35W EB 24 BA BK-CR
MRS531 C 1xCDM-Tm35W EB 24 1C BK
MRS531 C 1xCDM-Tm35W EB 24 1C BK-WH
MRS531 C 1xCDM-Tm35W EB 24 1C BK-CR
MRS531 C 1xCDM-Tm35W EB 12 1C WH
MRS531 C 1xCDM-Tm35W EB 12 1C BK

* For full product portfolio please contact your local Philips Representative





Magneos

This family of projectors represents an outstanding lighting tool for shops, packing advanced Philips technology into a compact, contemporary design.



Features and benefits

- The Magneos projector family offers a choice of lamps or LED light sources as well as a variety of optics, accessories and color finishes. Magneos enables retailers to configure their own solution. All HID versions include Philips energy-saving electronic gear to optimize lamp life and lower energy consumption. The extensive range offers subtle, Mini versions for applications with low ceiling heights, and Compact versions offering a strong presence for powerful spotlighting from higher ceilings.

Hospitality Retail

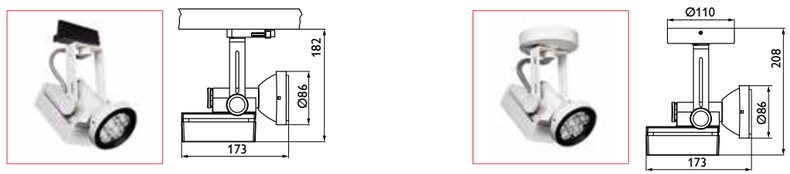


IP20 | LOR(%) 0.7

Technical parameters

Type	Mono: BCG470 7xLED-REB-12/WW BA WH BCG470 7xLED-REB-24/WW BA WH BCG470 7xLED-REB-12/NW BA WH BCG470 7xLED-REB-24/NW BA WH BRG470 7xLED-REB-12/WW 1C WH BRG470 7xLED-REB-24/WW 1C WH BRG470 7xLED-REB-12/NW 1C WH BRG470 7xLED-REB-24/NW 1C WH	Dimming: BCG470 7xLED-REB-12/NW DMX BA WH BCG470 7xLED-REB-12/WW DMX BA WH BCG470 7xLED-REB-12/WW DMX BA WH BCG470 7xLED-REB-24/NW DMX BA WH RGB: BCG470 7xLED-REB-24/RGB BA WH BCG470 7xLED-REB-12/RGB BA WH
Features	Providing even more flexibility - Its compact design makes it easy to integrate into any architectural environment - Available in both track and surface mounted version - Choice of dimmable and RGB versions to suit your lighting needs Higher performance - With the new advanced 7 Luxeon® Rebel inside, it delivers consistent color output - Its professional optic design provides high light uniformity even at narrow beams Energy saving - Consumes less than 20W while delivering light performance higher than 50W halogen lamps – resulting in more than 60% energy saving - Tailor-made advanced driver reaching a high power factor of 0.95 contributes to a high system efficiency	
Light source	Mono and dimming Neutral white: 7 x Luxeon® Rebel / Warm white: 7 x Luxeon® Rebel RGB: 7 x Luxeon® Rebel (2 Red, 3 Green, 2 Blue)	
Light color	Neutral white: 4000K / Warm white: 3000K RGB	
Beam angle	Narrow beam 12°; Medium beam 24°	
Luminous flux	Warm white: 372lm (12°) / 348lm (24°) Neutral white: 660lm (12°) / 630lm (24°) RGB: / 270lm at full output (12°) / 282lm at full output (24°)	
Power supply	100-240V AC / 50-60Hz	
Power consumption	Mono: 18W / Dimming: Max. 20W / RGB: Max. 20W	
System efficacy	Warm white: 21lm/W (12°) / 19lm/W (24°) Neutral white: 37lm/W (12°) / 35lm/W (24°) RGB: 13.5lm/W(12°) / 14.1lm/W(24°)	
Color rendering index (Ra)	Neutral white: 75 / Warm white: 80	
Installation	BRG470: Track mounted / BCG470: Surface mounted	
Material	Housing: Die-cast aluminum; Optics: Polycarbonate	
Control interface	Mono: Switches / Dimming: DMX512 / RGB: DMX512	
Ambient temperature	-20°C to 35°C	
Classifications	IP20, Class I	
Power factor	0.95	
Lifetime	40,000 hours, 70% lumen maintenance at Ta=25°C	

Product details and product size (dimensions in mm)



BCG470

IEC EN60598 CE CB

IP20 LOR(%) 0.7



Technical parameters

Magneos Compact

Type	MCS501 (baseplate version) MRS501 (1-circuit track version)
Features	Versatile lighting with a choice of lamps and optics Contemporary design: the Magneos Compact projector comes with optimized dimensions for various lamp types Designed with high quality materials for excellent light effects
Light source	High intensity discharge: 1 x MASTERColour CDM-T Elite / 35, 70, 150 W 1 x MASTERColour CDM-R PAR-30 / 35, 70 W
Lamp included	No
Orientation	Horizontal 355°; Vertical 90°
Gear	Electronic, 220 - 240V / 50, 60 Hz: Electronic ballast (EB)
Materials and finish	Materials: die-casted aluminum housing, aluminum reflector Color: white (WH) / black (BK) / grey (GR)
Installation	Direct on ceiling baseplate with connection point (BA) On 1-circuit track (1C)
Maintenance	Remove front cover for lamp replacement
Optic	Narrow beam (12°) / Medium beam (24° and 36°)
Classifications	IP 20, Class I, Complies with IEC 60598

IP20 LOR(%) 0.7



Technical parameters

Magneos Mini

Type	MCS502 (baseplate, HID lamp version) MRS502 (1-circuit track, HID lamp version)
Features	Versatile lighting with a choice of lamps, optics, and accessories Magneos Mini's compact design also suits lower ceiling heights Designed with high quality materials for excellent light effects
Light source	High intensity discharge: 1 x MASTERColour CDM-Tc Elite/35,70W
Lamp included	No
Orientation	Horizontal 355°; Vertical 90°
Gear	Electronic, 220 - 240V / 50, 60 Hz: Electronic ballast (EB)
Materials and finish	Materials: die-casted aluminum housing, aluminum reflector Color: white (WH) / black (BK) / grey (GR)
Installation	Direct on ceiling baseplate with connection point (BA) On 1-circuit track (1C)
Maintenance	Remove front cover for lamp replacement
Optic	Narrow beam (12°) / Medium beam (24° and 36°)
Accessory	Protection glass, UV filter, glare control glass
Classifications	IP 20, Class I, Complies with IEC 60598

IP20 LOR(%) 0.7



Technical parameters

Magneos Micro

Type	MCS503 (baseplate, HID lamp version) MRS503 (1-circuit track, HID lamp version)
Features	Versatile lighting with a choice of lamps and optics Magneos Micro's compact design also suits lower ceiling heights Designed with high quality materials for excellent light effects
Light source	High intensity discharge: 1 x MASTERColour CDM-Tm Mini / 20, 35 W
Lamp included	No
Orientation	Horizontal 355°; Vertical 90°
Gear	Electronic, 220 - 240V / 50, 60 Hz: Electronic ballast (EB)
Materials and finish	Materials: die-casted aluminum housing, aluminum reflector Color: white (WH) / black (BK) / grey (GR)
Installation	Direct on ceiling baseplate with connection point (BA) On 1-circuit track (1C)
Maintenance	Remove front cover for lamp replacement
Optic	Narrow beam (12°) / Medium beam (24° and 36°)
Classifications	IP 20, Class I, Complies with IEC 60598

Accessories

Type	ZZS551 (For Magneos Mini 502 series)
Description	Protection glass, sculptural lens, glare control glass, UV filter



Protective glass and UV filter
Mini:
ZZS551 C PG D89 PROTECTION GLASS
ZZS551 C UV FILTER



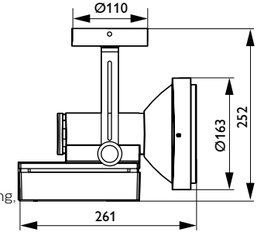
Glare control glass
Mini:
ZZS551 C GCG D89 GLARE CONTROL GLASS



Sculptural lens to elongate the beam in one direction
Mini:
ZZS551 C LS D89 SCULPTURAL LENS

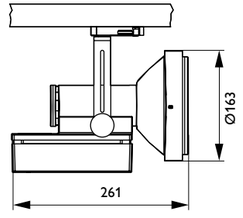
Product details and product size (dimensions in mm)





Magneos Compact MCS501
projector for baseplate mounting, with MASTERColour lamp and narrow or medium-beam optic

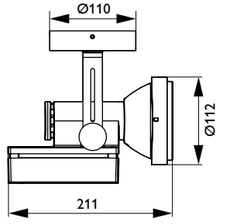




Magneos Compact MRS501
projector for track mounting, with MASTERColour lamp and narrow or medium-beam optic

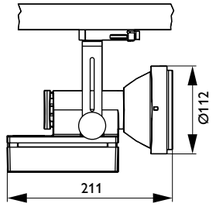
Product details and product size (dimensions in mm)





Magneos Mini MCS502
projector for baseplate mounting, with MASTERColour lamp and narrow or medium-beam optic



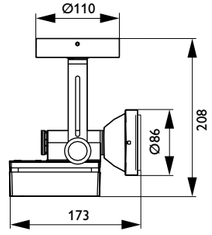


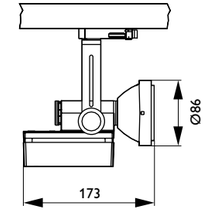
Magneos Mini MRS502
projector for track mounting, with MASTERColour lamp and narrow or medium-beam optic

Product details and product size (dimensions in mm)



Magneos Micro







Key Portfolio*

Product Description	Weight (kg)
Magneos Compact MCS501	
MCS501 C 1xCDM-R30-35W EB BA WH	1.90
MCS501 C 1xCDM-R30-35W EB BA BK	1.90
MCS501 C 1xCDM-R30-35W EB BA GR	1.90
MCS501 C 1xCDM-R30-70W EB BA WH	1.90
MCS501 C 1xCDM-R30-70W EB BA BK	1.90
MCS501 C 1xCDM-R30-70W EB BA GR	1.90
MCS501 C 1xCDM-T150W EB 12 BA WH	2.20
MCS501 C 1xCDM-T150W EB 12 BA BK	2.20
MCS501 C 1xCDM-T150W EB 12 BA GR	2.20
MCS501 C 1xCDM-T150W EB 24 BA WH	2.20
Magneos Compact MRS501	
MRS501 C 1xCDM-R30-35W EB 1C WH	1.80
MRS501 C 1xCDM-R30-35W EB 1C BK	1.80
MRS501 C 1xCDM-R30-35W EB 1C GR	1.80
MRS501 C 1xCDM-R30-70W EB 1C WH	1.80
MRS501 C 1xCDM-R30-70W EB 1C BK	1.80
MRS501 C 1xCDM-R30-70W EB 1C GR	1.80
MRS501 C 1xCDM-T150W EB 12 1C WH	2.10
MRS501 C 1xCDM-T150W EB 12 1C BK	2.10
MRS501 C 1xCDM-T150W EB 12 1C GR	2.10
MRS501 C 1xCDM-T150W EB 24 1C WH	2.10
MRS501 C 1xCDM-T150W EB 12 1C GR	2.10
MRS501 C 1xCDM-T150W EB 24 1C WH	2.10
Magneos Mini MCS502	
MCS502 C 1xCDM-TC35W EB 12 BA WH	1.40
MCS502 C 1xCDM-TC35W EB 12 BA BK	1.40
MCS502 C 1xCDM-TC35W EB 12 BA GR	1.40
MCS502 C 1xCDM-TC35W EB 24 BA WH	1.40
MCS502 C 1xCDM-TC35W EB 24 BA BK	1.40
MCS502 C 1xCDM-TC35W EB 24 BA GR	1.40
MCS502 C 1xCDM-TC35W EB 36 BA WH	1.40
MCS502 C 1xCDM-TC35W EB 36 BA BK	1.40
MCS502 C 1xCDM-TC35W EB 36 BA GR	1.40
MCS502 C 1xCDM-TC70W EB 12 BA WH	1.40

Product Description	Weight (kg)
Magneos Mini MRS502	
MRS502 C 1xCDM-TC35W EB 12 1C WH	1.30
MRS502 C 1xCDM-TC35W EB 12 1C BK	1.30
MRS502 C 1xCDM-TC35W EB 12 1C GR	1.30
MRS502 C 1xCDM-TC35W EB 24 1C WH	1.30
MRS502 C 1xCDM-TC35W EB 24 1C BK	1.30
MRS502 C 1xCDM-TC35W EB 24 1C GR	1.30
MRS502 C 1xCDM-TC35W EB 36 1C WH	1.30
MRS502 C 1xCDM-TC35W EB 36 1C BK	1.30
MRS502 C 1xCDM-TC35W EB 36 1C GR	1.30
MRS502 C 1xCDM-TC70W EB 12 1C WH	1.30
Magneos Micro MRS503	
MRS503 C 1xCDM-Tm20W EB 12 1C WH	0.8
MRS503 C 1xCDM-Tm20W EB 12 1C BK	0.8
MRS503 C 1xCDM-Tm20W EB 12 1C GR	0.8
MRS503 C 1xCDM-Tm20W EB 24 1C WH	0.8
MRS503 C 1xCDM-Tm20W EB 24 1C BK	0.8
MRS503 C 1xCDM-Tm20W EB 24 1C GR	0.8
MRS503 C 1xCDM-Tm20W EB 36 1C WH	0.8
MRS503 C 1xCDM-Tm20W EB 36 1C BK	0.8
MRS503 C 1xCDM-Tm20W EB 36 1C GR	0.8
MRS503 C 1xCDM-Tm35W EB 12 1C WH	0.9

* For full product portfolio please contact your local Philips Representative



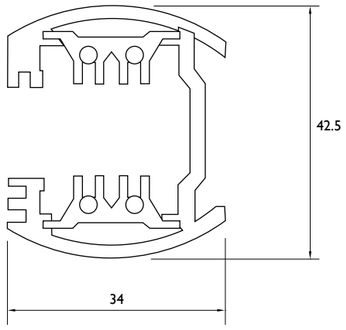
RCS350

A3-circuit track system consists of an aluminum profile in painted white in lengths of 1, 2 and 3 meters. RCS350 contains four electrical conductors allowing easy creation of any required configuration. All luminaires have their separate power supply and can be switched selectively by phase or by circuit. Because the luminaires are easy to move, by simply clicking them in place in the adaptor on the track, changes in the lighting and presentation can be made very simply. All 220-240 V projectors (3C) in the Philips range can be installed on this track system.

Features and benefits

- The basis of this 3-circuit track system is its solid aluminum track
- The accessories guarantee good electrical and mechanical connection

Product size (dimensions in mm)



Retail



Technical parameters

Type	RCS350
Materials and finish	Material: aluminum Color: White (WH)
Installation	Fixation: surface 3-circuit: 220V, 16A, 3x3.5KW 230V, 16A, 3x3,7KW 240V, 16A, 3x3.8KW 3-phase: Output 220/ Input 380V, 16A, 10.6KW Output 230/ Input 400V, 16A, 11.0KW Output 240/ Input 415V, 16A, 11.5KW When connecting the 3-phase supply, the electrical load for every phase must be equal so that the 3-phase voltage is well-balanced 1-circuit: 220-240V, 6A, 3.5-3.8KW Loading: max. 6x5Kg per meter
Accessory	Range of power supply connections: ZRS350

Product details



ZRS350 3C CCP
WH L Coupler



ZRS350 3C TCP
WH T Coupler



ZRS350 3C CPX
WH X Coupler



ZRS350 3C CPS
WH Supply Central



ZRS350 3C EPS
WH Supply

Key Portfolio*

Product Description	Weight (kg)
RCS350 3C L1000 WH	1.20
RCS350 3C L2000 WH	2.40
RCS350 3C L3000 WH	3.60
ZRS350 3C TCP WH T COUPLER	0.20
ZRS350 3C CPX WH X COUPLER	0.14
ZRS350 3C CCP WH L COUPLER	0.14
ZRS350 3C EPS WH SUPPLY	0.07
ZRS350 3C CPS WH SUPPLY CENTRAL	0.27

* For full product portfolio please contact your local Philips Representative

IEC EN60598 · CE · CB

PHILIPS

High-bay and Low-bay

High-bay and Low-bay



GreenPerform LED Highbay

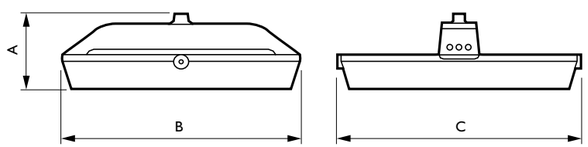
Philips GreenPerform LED Highbay luminaire is designed to replace traditional up to 400W HID Highbays. This advanced lighting system can deliver up to 77% energy savings. The system delivers simple, point-to-point replacement of up to 400W HID Highbays with three easy installation methods. The unique flat design means you have the flexibility to install by hook, pendant or bracket. GreenPerform LED Highbay will also reduce downtime. In the event of a power failure they turn on instantly, compared to the slower warm up of traditional HID lamps. They provide exceptionally high-performance in a range of applications. There are three beam shapes to choose from and the high-rack optics are engineered to illuminate vertical planes with exceptionally high accuracy.

Features and benefits

- Solid die-cast housing design ensures long fixture lifetime
- Energy-efficient
- Application flexibility (hook/ pendant/bracket)
- Application flexibility (multiple beam)
- Energy savings up to 77% compared to HID systems
- Long life-time
- Comfortable light with low glare ratings
- Unique flat design for various mounting
- Wide Beam, Narrow Beam & High Rack Optic Beam

Product size (dimensions in mm)

Product ID	A	B	C
BY687P	165	Ø520	530
BY688P	158	Ø457	466
BY689P	153	Ø366	374



Industry

IP65 | IK07 | 50K hrs



Technical parameters

Type	BY687P	BY688P	BY689P
System power	240W/ 200W	160W/ 140W	100W/ 90W
System output	24000lm/ 20000lm	16000lm/ 14000lm	10000lm/ 9000lm
System efficiency	>100lm/W	>100lm/W	>100lm/W
CCT	NW (4000K) / CW (6500K)	NW (4000K) / CW (6500K)	NW (4000K) / CW (6500K)
CRI	85	85	85
SDCM	SDCM<5	SDCM<5	SDCM<5
Optical	WB/NB/HRO	WB/NB/HRO	WB/NB/HRO
Classification	Class I	Class I	Class I
Materials	Body: High-quality die-cast aluminum / Seal: heat-proof silicone rubber ring Lens: PMMA / Cover: high transmittance tempered glass		
Lifetime	50000 hrs (LM70)	50000 hrs (LM70)	50000 hrs (LM70)
Color	Silvery grey	Silvery grey	Silvery grey
Weight	9.5kg	7kg	5kg
Control	1~10V	Fixed/ DALI/ 1~10V	Fixed
Driver	Philips Xitanium LED driver	Philips Xitanium LED driver	Philips Xitanium LED driver
Input Voltage	220-240V, 50/60 Hz	220-240V, 50/60 Hz	220-240V, 50/60 Hz
Power factor	> 0.95	> 0.95	> 0.95
Ta	-30°C – +50°C	-30°C – +50°C	-30°C – +50°C
Mounting	Hook/pole/bracket	Hook/pole/bracket	Hook/pole/bracket

Related Products



BY619Z MB
Mounting Bracket for BY689P



BY618Z MB
Mounting Bracket for BY688P



BY617Z MB
Mounting Bracket for BY687P



Hook
Chain Hook

IEC EN60598 | CB



Key Portfolio*

Product Description	Weight (kg)
Tempered Glass Cover Version	
BY687P LED240/CW PSR S-HRO L3000	9.5
BY687P LED240/CW PSR S-NB L3000	9.5
BY687P LED240/CW PSR S-WB L3000	9.5
BY687P LED240/NW PSR S-HRO L3000	9.5
BY687P LED240/NW PSR S-NB L3000	9.5
BY687P LED240/NW PSR S-WB L3000	9.5
BY687P LED200/CW PSR S-HRO L3000	9.5
BY687P LED200/CW PSR S-NB L3000	9.5
BY687P LED200/CW PSR S-WB L3000	9.5
BY687P LED200/NW PSR S-HRO L3000	9.5
BY687P LED200/NW PSR S-NB L3000	9.5
BY687P LED200/NW PSR S-WB L3000	9.5
BY688P LED160 L3000/CW PSU S-HRO	7.0
BY688P LED160 L3000/CW PSU S-NB	7.0
BY688P LED160 L3000/CW PSU S-WB	7.0
BY688P LED160 L3000/NW PSU S-HRO	7.0
BY688P LED160 L3000/NW PSU S-NB	7.0
BY688P LED160 L3000/NW PSU S-WB	7.0
BY688P LED 140/CW PSD S-NB	7.0
BY688P LED 140/CW PSD S-WB	7.0
BY688P LED 140/CW PSR S-NB	7.0
BY688P LED 140/CW PSR S-WB	7.0
BY688P LED 140/NW PSD S-NB	7.0
BY688P LED 140/NW PSD S-WB	7.0
BY688P LED 140/NW PSR S-NB	7.0
BY688P LED 140/NW PSR S-WB	7.0
BY688P LED140/CW PSU S-NB	7.0
BY688P LED140/CW PSU S-WB	7.0
BY688P LED140/NW PSU S-NB	7.0
BY688P LED140/NW PSU S-WB	7.0
BY689P LED100 L3000/CW PSU S-HRO	5.0
BY689P LED100 L3000/CW PSU S-NB	5.0
BY689P LED100 L3000/CW PSU S-WB	5.0
BY689P LED100 L3000/NW PSU S-HRO	5.0
BY689P LED100 L3000/NW PSU S-NB	5.0
BY689P LED100 L3000/NW PSU S-WB	5.0
BY689P LED90/CW PSU S-NB	5.0
BY689P LED90/CW PSU S-WB	5.0
BY689P LED90/NW PSU S-NB	5.0
BY689P LED90/NW PSU S-WB	5.0

Product Description	Weight (kg)
Polycarbonate Version	
BY687P LED240 L3000/CW PSR S-HRO PC	9.5
BY687P LED240 L3000/CW PSR S-NB PC	9.5
BY687P LED240 L3000/CW PSR S-WB PC	9.5
BY687P LED240 L3000/NW PSR S-HRO PC	9.5
BY687P LED240 L3000/NW PSR S-NB PC	9.5
BY687P LED240 L3000/NW PSR S-WB PC	9.5
BY687P LED200 L3000/CW PSR S-HRO PC	9.5
BY687P LED200 L3000/CW PSR S-NB PC	9.5
BY687P LED200 L3000/CW PSR S-WB PC	9.5
BY687P LED200 L3000/NW PSR S-HRO PC	9.5
BY687P LED200 L3000/NW PSR S-NB PC	9.5
BY687P LED200 L3000/NW PSR S-WB PC	9.5
BY688P LED160 L3000/CW PSU S-HRO PC	7.0
BY688P LED160 L3000/CW PSU S-NB PC	7.0
BY688P LED160 L3000/CW PSU S-WB PC	7.0
BY688P LED160 L3000/NW PSU S-HRO PC	7.0
BY688P LED160 L3000/NW PSU S-NB PC	7.0
BY688P LED160 L3000/NW PSU S-WB PC	7.0
BY689P LED100 L3000/CW PSU S-HRO PC	5.0
BY689P LED100 L3000/CW PSU S-NB PC	5.0
BY689P LED100 L3000/CW PSU S-WB PC	5.0
BY689P LED100 L3000/NW PSU S-HRO PC	5.0
BY689P LED100 L3000/NW PSU S-NB PC	5.0
BY689P LED100 L3000/NW PSU S-WB PC	5.0

* For full product portfolio please contact your local Philips Representative



Mini 500 Gen2

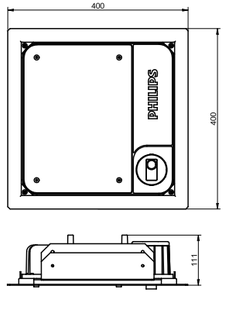
In a transparent market like petrol stations, operators are under constant pressure to maintain its profitability through lower operating cost, while at the same time attracting more customers with clean and crisp stations that give feelings of comfort and safety. The Philips Mini 500 LED is an intuitive under-canopy lighting that ensures optimal visual conditions while enabling huge energy savings. The luminaire's precision-control optics enables light to be distributed where it is needed the most. Its integrated components and long-life LED technology make this an easy-to-install, zero-maintenance solution.

Features and benefits

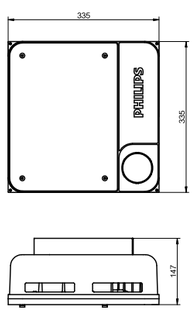
- Solid die-cast housing design ensures long fixture lifetime
- Increases visibility and safety at night
- Up to 60% energy saving compared to traditional high-intensity discharge lamp solutions
- Easy to install
- Precision-control optics
- Wide range of options:
  - Basic on and off - PSU
  - Basic Dimmable - PSR
  - Auxiliary Lamp version – PSU GU5.3
  - Intelligent Version – PSD ACD2 IS
- Surface-mounted, Recessed –mounted, Side entry Pole mounted version.

Product size (dimensions in mm)

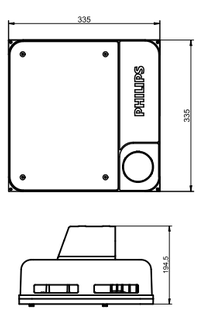
BBP500



BCP500



BGP500



Supermarket Industry Petrol Stations



IP65 IK07 50K hrs



Technical parameters

Type	BBP500	BCP500	BGP500
Installation	Recessed	Surface	Pole
System power	100W	100W	100W
System output	11000lm	11000lm	11000lm
System efficiency	110lm/W	110lm/W	110lm/W
CCT	NW (4000K)/CW (6500K)	NW (4000K)/CW (6500K)	NW (4000K)/CW (6500K)
CRI	85	85	85
SDCM	SDCM<5	SDCM<5	SDCM<5
Optical	S-WB / S-MB / A-WB	S-WB / S-MB / A-WB	S-WB / S-MB / A-WB
Classification	Class 1	Class 1	Class 1
Materials	Housing: High-quality die-cast aluminum Sealed loop: Heatproof silicone Lens: PMMA Cover: Tempering glass of high transmittance		
Ta	-30°C ~ +40°C	-30°C ~ +40°C	-30°C ~ +40°C
Lifetime	50000 hrs (LM70)	50000 hrs (LM70)	50000 hrs (LM70)
Color	White (RAL9003)	White (RAL9003)	White (RAL9003)
Weight	8.1kg	8.1kg	7.2kg
Control	PSU/PSR/PSD	PSU/PSR/PSD	PSU
Driver	Philips Xitanium LED driver	Philips Xitanium LED driver	Philips Xitanium LED driver
Controller	ActiLume DALI Gen2	ActiLume DALI Gen2	ActiLume DALI Gen2
Sensor	ActiLume Gen2 H513 sensor (5m~15m sensing height)	ActiLume Gen2 H513 sensor (5m~15m sensing height)	ActiLume Gen2 H513 sensor (5m~15m sensing height)
Input voltage	220-240V, 50/60 Hz	220-240V, 50/60 Hz	220-240V, 50/60 Hz
Power factor	> 0.95	> 0.95	> 0.95
Certification	CCC / CB / EMC	CCC / CB / EMC	CCC / CB / EMC

IEC EN60598 CB



Key Portfolio*

Product Description	Weight (kg)
Surface Mounted Version	
BCP500 LED110/NW PSU A-WB	8.1
BCP500 LED110/NW PSU S-WB	8.1
BCP500 LED110/NW PSU S-MB	8.1
BCP500 LED110/NW PSU GU5.3 A-WB	8.1
BCP500 LED110/NW PSU GU5.3 S-MB	8.1
BCP500 LED110/NW PSU GU5.3 S-WB	8.1
BCP500 LED110/NW PSR A-WB	8.1
BCP500 LED110/NW PSR S-MB	8.1
BCP500 LED110/NW PSR S-WB	8.1
BCP500 LED110/NW PSD ACD2 IS A-WB	8.1
BCP500 LED110/NW PSD ACD2 IS S-MB	8.1
BCP500 LED110/NW PSD ACD2 IS S-WB	8.1
BCP500 LED110/CW PSU S-MB	8.1
BCP500 LED110/CW PSU S-WB	8.1
BCP500 LED110/CW PSU A-WB	8.1
BCP500 LED110/CW PSU GU5.3 S-WB	8.1
BCP500 LED110/CW PSU GU5.3 S-MB	8.1
BCP500 LED110/CW PSU GU5.3 A-WB	8.1
BCP500 LED110/CW PSR S-WB	8.1
BCP500 LED110/CW PSR S-MB	8.1
BCP500 LED110/CW PSR A-WB	8.1
BCP500 LED110/CW PSR S-MB	8.1
BCP500 LED110/CW PSR A-WB	8.1
BCP500 LED110/CW PSD ACD2 IS S-WB	8.1
BCP500 LED110/CW PSD ACD2 IS S-MB	8.1
BCP500 LED110/CW PSD ACD2 IS A-WB	8.1
Side Entry Pole Mounted Version	
BGP500 LED110/CW PSU A-WB	7.2
BGP500 LED110/NW PSU A-WB	7.2

Product Description	Weight (kg)
Recessed Mounted Version	
BBP500 LED110/NW PSU S-MB	8.1
BBP500 LED110/NW PSU S-WB	8.1
BBP500 LED110/NW PSU A-WB	8.1
BBP500 LED110/NW PSU GU5.3 S-WB	8.1
BBP500 LED110/NW PSU GU5.3 S-MB	8.1
BBP500 LED110/NW PSU GU5.3 A-WB	8.1
BBP500 LED110/NW PSR S-WB	8.1
BBP500 LED110/NW PSR S-MB	8.1
BBP500 LED110/NW PSR A-WB	8.1
BBP500 LED110/NW PSD ACD2 IS S-WB	8.1
BBP500 LED110/NW PSD ACD2 IS S-MB	8.1
BBP500 LED110/NW PSD ACD2 IS A-WB	8.1
BBP500 LED110/CW PSU S-MB	8.1
BBP500 LED110/CW PSU S-WB	8.1
BBP500 LED110/CW PSU A-WB	8.1
BBP500 LED110/CW PSU GU5.3 S-WB	8.1
BBP500 LED110/CW PSU GU5.3 S-MB	8.1
BBP500 LED110/CW PSU GU5.3 A-WB	8.1
BBP500 LED110/CW PSR S-WB	8.1
BBP500 LED110/CW PSR S-MB	8.1
BBP500 LED110/CW PSR A-WB	8.1
BBP500 LED110/CW PSD ACD2 IS S-WB	8.1
BBP500 LED110/CW PSD ACD2 IS S-MB	8.1
BBP500 LED110/CW PSD ACD2 IS A-WB	8.1

* For full product portfolio please contact your local Philips Representative



SmartBay

Philips's new generation of LED Lowbay, SmartBay, delivers substantial energy saving in a simple way, by adopting a brand-new LED platform and optical technology.

It has an optimal color CRI and UGR to improve the comfort of lighting, satisfying the requirements of various applications such as factories, shopping malls and public areas. SmartBay is the ideal replacement solution for HPI, CDM and MH lamps.

Features and benefits

- Energy efficient
- Comfortable light with high color rendering index
- Reliable and long lifetime
- Versatile applications

Product size (dimensions in mm)

Product ID	H	D
BY268P	250	Ø132
BY269P	150	Ø102



Retail Supermarket Industry

IP40 | 50K hrs | 95 Lm/W | CRI 85



Technical parameters

Type	BY268P
Weight	4.5kg
Housing material	High-quality die-cast aluminum
IP & IK	IP40
Color	Silvery gray (Pantone 429U)
Lumen	5800 lm / 8400 lm
System wattage	60/85
Efficacy (lm/W)	> 95
CCT (K)	4000 / 6500 / 3000
Lumen maintenance (L70)	50,000 hrs
SDCM	< 5
Voltage range	220 – 240V, 50 / 60 Hz
Power factor	> 0.95
CRI	85
Ambient temperature	35°C

IP40 | 50K hrs | 95 Lm/W | CRI 85



Technical parameters

Type	BY269P
Weight	2.5kg
Housing material	High-quality die-cast aluminum
IP & IK	IP40
Color	Silvery gray (Pantone 429U)
Lumen	3800 lm
System wattage	40
Efficacy (lm/W)	> 95
CCT (K)	4000 / 6500 / 3000
Lumen maintenance (L70)	50,000 hrs
SDCM	< 5
Voltage range	220 – 240V, 50 / 60 Hz
Power factor	> 0.95
CRI	85
Ambient temperature	35°C

Accessories


Hook


Mounting bracket


Reflector


Pipe kit


Chain kit

Key Portfolio*

Product Description
BY268P
BY268P LED80/CW PSU
BY268P LED80/NW PSU
BY268P LED80/WW PSU
BY268P LED60/CW PSU
BY268P LED60/NW PSU
BY268P LED60/WW PSU
BY269P
BY269P LED40/CW PSU
BY269P LED40/NW PSU
BY269P LED40/WW PSU
Accessories
BY268Z RL – BY268P reflector
BY269Z RL – BY269P reflector
BY268Z MB – BY268P mounting bracket
BY269Z MB – BY269P mounting bracket
BY268Z SM C – Chain kit (suitable for 268 and 269)
BY268Z SM P – Pipe kit (suitable for 268 and 269)
BY268Z HOOK – Hook (suitable for 268 and 269)

* For full product portfolio please contact your local Philips Representative

IEC EN60598 | CB



GreenUp LED WelGlass

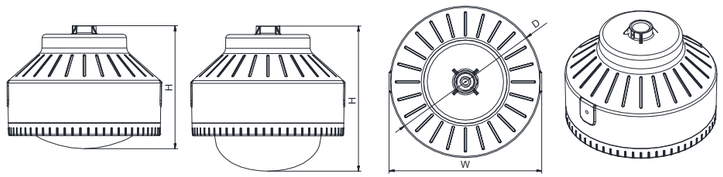
The Philips GreenUp LED WelGlass luminaire is designed to replace traditional WelGlass up to 70W with only 35% of the load for similar illumination.

It is a perfect LED solution for outdoor applications and industry– like power plants, metal, and non hazardous areas in the chemical and petrochemical industry.

Compared to conventional HID WelGlass, it improves reliability and comfort, while reducing energy and maintenance cost dramatically.

GreenUp WelGlass comes with two different mounts, pipes and brackets, and comes with two beam, lambertian and batwing.

Product size (dimensions in mm)



Product ID	H	W	D
BY200P .. B-W	174	218	Ø215
BY200P .. L-B	205	218	Ø215

Features and benefits

- Solid die-cast housing design with corrosion proof coating to ensure long fixture lifetime
- Extra protection against impact with optional stainless steel wire guard
- Energy-efficient
- Application flexibility (pipe mounting and bracket for wall/ ceiling mounting)
- Energy savings up to 68% compared to HID systems
- Long lifetime
- Comfortable light with low glare ratings
- Unique flat design for various mounting
- Wide Beam, Narrow Beam & High Rack Optic Beam

Industry

IP65 | IK08 | 50K hrs



Technical parameters

Type	BY200P .. L-B	BY200P .. B-W
System power	27W/15W	27W/15W
System output	2600lm/1400lm	2600lm/1400lm
System efficiency	>95lm/W	>95lm/W
CCT	NW (4000K)/CW (6500K)	NW (4000K)/CW (6500K)
CRI	85	85
SDCM	SDCM<5	SDCM<5
Optical	Lambertian (PC)	Batwing (Glass)
Classification	Class 1	Class 1
Materials	Body: High-quality die-cast aluminum Body Coating: Corrosion Proof WF2 Cover: Heat Resistant Glass/PC	
Lifetime	50000 hrs (LM70)	50000 hrs (LM70)
Color	Gray	Gray
Driver	Fixed Output	Fixed Output
Input voltage	220-240V, 50/60 Hz	220-240V, 50/60 Hz
Power factor	> 0.95	> 0.95
Ta	-30°C – +50°C	-30°C – +50°C
Mounting	Pipe/Bracket	Pipe/Bracket

Accessories



BY200Z MB
Mounting Bracket for BY200P



BY200Z WG
Wire Guard for BY200P

Key Portfolio*

Product Description	Weight (kg)
BY200P LED25 B-W/NW PSU	2.4
BY200P LED25 B-W/CW PSU	2.4
BY200P LED12 B-W/NW PSU	2.4
BY200P LED12 B-W/CW PSU	2.4
BY200P LED25 L-B/NW PSU	2.2
BY200P LED25 L-B/CW PSU	2.2
BY200P LED12 L-B/NW PSU	2.2
BY200P LED12 L-B/CW PSU	2.2

* For full product portfolio please contact your local Philips Representative

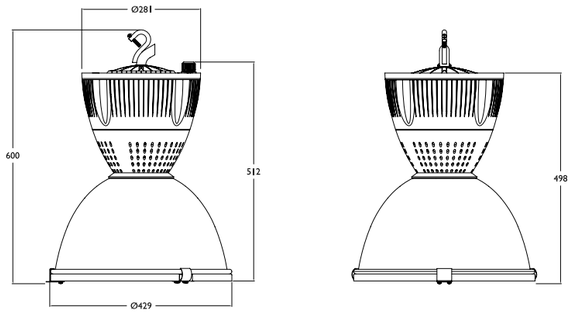
IEC EN60598 | CB



VerseBay Elite

Philips VerseBay has 115-120lm/W efficacy, combined with an EL gear efficacy of 92%, power factor >0.95 and fixture LOR >76%. This results in more than 47% energy savings compared to conventional metal halide lamps. It provides very brilliant lighting performance with color rendering of over 90. Wide and narrow beam makes the fixture suitable for versatile applications, and Ingress Protection Rating of IP65 ensures the luminaire is able to withstand heavy duty usage.

Product size (dimensions in mm)



Features and benefits

- Energy Effcient
  - CDM Elite efficacy:115-120 lm/W while HPI-T is 84-89lm/W
  - Driver efficacy: PrimoVision is 92% with good thermal control
  - Fixture LOR: 76% while ordinary is 60-65%
- Versatile choice for different applications
  - Wide beam and narrow beam suitable for different applications
  - Hook and pipe mounting suitable for different applications
  - Value added CRI>90 make the luminaire suitable for the most stringent requirements
- Safety
  - IP65 makes the luminaire suitable for wet and dusty conditions
  - Anti-vibration test ensures the toughest working enviroment

Industry

IP65 | 20Khrs



Technical parameters

Type	MPK518
Lamp Resource	MasterColour Elite CDM-TMW 210W PGZ18/MasterColour Elite CDM-TMW 315W PGZ18
Light Colors	Warm White(3000K); Neutral White(4200K)
Beam Angle	Wide Beam; Narrow beam
Lamp Lumen Output	24200 / 37800lm
Lamp life Time	20000hr
Lumen Maintenance	>80% @ 12khr
Power Requirement	220-240V AC 50-60Hz
Power Consumption	210W(16.5W);315W(25.5W)
Interface	HID PrimaVision 210W/HID PrimaVision 315W
THD	<12%
Power Factor	>0.95
Weight	12.85 kg
Material	Die-cast aluminum gear housing with powder-coated black finish; Anodized aluminum reflector; Tempered glass; Silicon gasket.
Fixture Mounting	Pipe mounting/Hook mounting
Enviroment	Ambient temperature: -20° – 35°C
Certification	CB, CCC, IP65, Class I
Accessories	Zinc-coated hook

Key Portfolio*

Product Description	Type	Weight (kg)
MPK518 CDM-TMW 210W EB WB	Gear Unit	9.50
MPK518 CDM-TMW 315W EB WB	Gear Unit	9.50
MPK518 CDM-TMW 210W EB NB	Gear Unit	9.50
MPK518 CDM-TMW 315W EB NB	Gear Unit	9.50
GPK518 CDM-TMW R	Reflector	1.35
ZDK518 PG IP65 D425	Glass cover	2.00
MOUNTING HOOK	Hook	0.20

* For full product portfolio please contact your local Philips Representative

IEC EN60598 | CB



VerseBay

Reliable, effective lighting in the industrial workplace is a crucial factor influencing productivity, safety and staff well-being. The Philips VerseBay high-bay luminaire clearly embodies such lighting requirements. Its solid, quality construction and reliable performance excels even in the toughest working environments. Its specially designed beam regulator allows light distribution to be optimally set for a broad range of work areas using just a single reflector.

VerseBay also embodies extraordinary features that dramatically eases installation and maintenance.

An external waterproof connector makes installation faster than ever while its tool-less lamp replacement is quick and hassle-free. So whatever your high-bay lighting requirements – industrial areas, logistics centers or public spaces – VerseBay offers a host of innovative features that can add new dimensions to versatility and ease of installation.

Features and benefits

- Ideal for industrial applications with extreme conditions such as high temperatures, dusty and even humid environments
- Owing to its high-quality materials, functional design and the modular construction, VerseBay is also particularly suitable for many large spaces with high ceilings
- An integrated beam regulator allows you to adjust beam spread to accommodate two different light beams with only one reflector
- Tool-less installation and wiring
- Easy to maintain
- Made of top quality materials

Industry



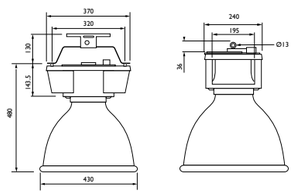
IP65

Technical parameters

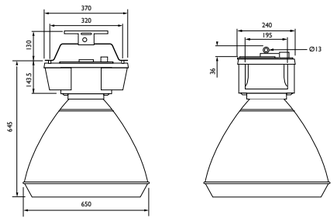
Type	HPK518
Light source	High-intensity discharge: 1 x HPL-N / E40 / 250W, 400 W 1 x HPI-Plus / E40 / 250 W 1 x HPI-Plus / E40 / 400 BUS 1 x SON / E40 / 150, 250, 400 W
Gear	Electro magnetic (low loss), 220V/50Hz, 230-240V/50Hz; 220V/60Hz: Parallel compensated (IC)
Optics	Light output ratio of 70% with glass cover Wide-beam; narrow beam with aluminum reflector Prismatic reflector for 150W & 250W lamp options Thermoplastic cover
Materials and finish	Sandblasted aluminum die-cast housing plate Black-painted aluminum die-cast housing Anodized aluminum reflector Tempered glass and silicon gasket PA66 + 30% glass fibre lamp holder adapter Zinc-coated mounting bracket
Installation	Suspension, surface or pipe-mounted
Classifications	Class I, IP65 with aluminum reflector, IP20 with prismatic reflector
Ambient temperature	-20°C – 35°C (aluminum reflector with or without glass cover)
Norms compliance	Electrical: IEC60598/GB7000 Vibration: GB/T 4857.18 (for aluminum reflector version)

Product size (dimensions in mm)

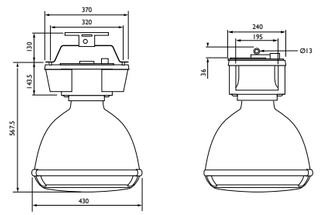
Aluminium Reflector + Glass Cover



Prismatic Reflector + Cover Lens



Aluminium Reflector + Thermoplastic Cover





Aluminum reflector with protection glass cover

Prismatic reflector with cover lens

Aluminum reflector with thermoplastic cover

IEC EN60598 CB



Key Portfolio*

Product Description	Type	Weight (kg)
HPK518 1xSON150W IC PR 220 50	Gear Unit	12.00
HPK518 1xSON150W IC PR 220 60	Gear Unit	12.00
HPK518 1xSON150W IC PR 230-240	Gear Unit	12.00
HPK518 1xSON250W IC 220 50	Gear Unit	12.00
HPK518 1xSON250W IC 220 60	Gear Unit	12.00
HPK518 1xSON250W IC 230-240	Gear Unit	12.00
HPK518 1xSON250W IC PR 220 50	Gear Unit	12.00
HPK518 1xSON250W IC PR 220 60	Gear Unit	12.00
HPK518 1xSON250W IC PR 230-240	Gear Unit	12.00
HPK518 1xSON400W IC 220 50	Gear Unit	12.00
HPK518 1xSON400W IC 220 60	Gear Unit	12.00
HPK518 1xSON400W IC 230-240	Gear Unit	12.00
GPK518 C-WB/NB Alu Φ425mm	Aluminum reflector	4.50
ZDK518 PG IP65 425mm	Glass cover	5.00
GPK518 PC-L IP20 Φ645mm	Prismatic reflector	22.00
GPK518 PC-C IP20 Φ645mm	Prismatic cover	9.50
ZPK518 Mounting Blacket	Mounting bracket	3.00

* For full product portfolio please contact your local Philips Representative



EnduraBay HPK238

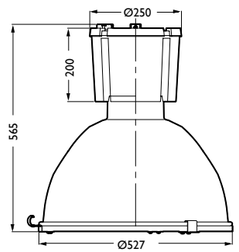
Philips EnduraBay HPK238's attractive and unobtrusive presence energizes your interior surroundings, assuring you functionality, safety and overall product performance. Its robust, dependable construction along with its ease of installation and maintenance truly make this high-bay luminaire a durable, yet appealing solution.

Features and benefits

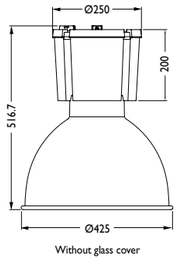
- Attractive outlook with a tangible product quality
- Good light performance with more options for lamp & optics choices
- Designed for safety and durability
- Easy to install and maintain
- Reliable ingress protection
- Easy to specify

Product size (dimensions in mm)

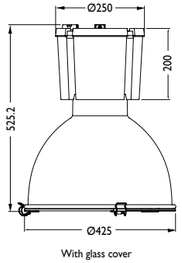
Narrow beam



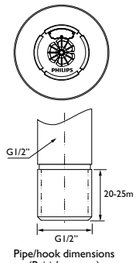
Wide beam



Without glass cover



With glass cover



Pipe/hook dimensions (British system)

Industry



IP43

Technical parameters

Type	HPK238
Light source	High-intensity discharge: 1 x HPI Plus / E40 / 250 W BU 1 x HPI Plus / E40 / 400 W BUS 1 x HPL-N / E40 / 250, 400 W 1 x SON / E40 / 150, 250, 400 W
Lamp included	No
Gear	Electro magnetic (low loss), 220-240 V / 50 Hz or 220V/60Hz: Inductive, parallel compensated (IC)
Materials and finish	Gear cover: Die-cast aluminum with sand blast Housing: Die-cast aluminum with black paint Reflector: Semi-matt anodized wide beam reflector; narrow beam as option Glass cover kit: Tempered glass cover with gasket and clip
Options	Empty Housing and emergency lighting on request
Classifications	IP43, IK06, Class I, IEC60598, GB7000

Key Portfolio*

Product Description	Weight (kg)
HPK238 1xCDM-EP250W IC 220 50 BK	7.17
HPK238 1xCDM-EP250W IC 220 60 BK	7.17
HPK238 1xCDM-EP250W IC 230/240 50 BK	7.17
HPK238 1xHPI-P250W-BU IC 220 50 BK	7.65
HPK238 1xHPI-P250W-BU IC 220 60 BK	7.65
HPK238 1xHPI-P250W-BU IC 230 50 BK	7.65
HPK238 1xHPI-P250W-BU IC 240 50 BK	7.65
HPK238 1xHPI-P400W-BUS IC 220 50 BK	8.78
HPK238 1xHPI-P400W-BUS IC 220 60 BK	8.78
HPK238 1xHPI-P400W-BUS IC 230 50 BK	8.78
HPK238 1xHPI-P400W-BUS IC 240 50 BK	8.78
HPK238 1xHPL-N250W IC 220 50 BK	5.97
HPK238 1xHPL-N250W IC 220 60 BK	5.97
HPK238 1xHPL-N250W IC 230 50 BK	5.97
HPK238 1xHPL-N250W IC 240 50 BK	5.97
HPK238 1xHPL-N400W IC 220 50 BK	7.07
HPK238 1xHPL-N400W IC 220 60 BK	7.07
HPK238 1xHPL-N400W IC 230 50 BK	7.07
HPK238 1xHPL-N400W IC 240 50 BK	7.07
HPK238 1xSON150W IC 220 50 BK	6.15
HPK238 1xSON150W IC 220 60 BK	6.15
HPK238 1xSON150W IC 230 50 BK	6.15

Product Description	Weight (kg)
HPK238 1xSON150W IC 240 50 BK	6.15
HPK238 1xSON250W IC 220 50 BK	7.17
HPK238 1xSON250W IC 220 60 BK	7.17
HPK238 1xSON250W IC 230/240 50 BK	7.17
HPK238 1xSON400W IC 220 50 BK	8.95
HPK238 1xSON400W IC 220 60 BK	8.95
HPK238 1xSON400W IC 230/240 50 BK	8.95

Accessory	Type
GPK238 C-WB Semi-Matt Φ425mm	Wide Beam Aluminum Reflector
ZDK004 GC-WB	Glass cover for wide beam
GPK238 C-NB Semi-Matt Φ525mm	Narrow Beam Aluminum Reflector
ZDK005 (MDK900 NB Glass)	Glass cover for narrow beam

* For full product portfolio please contact your local Philips Representative

IEC EN60598 CB



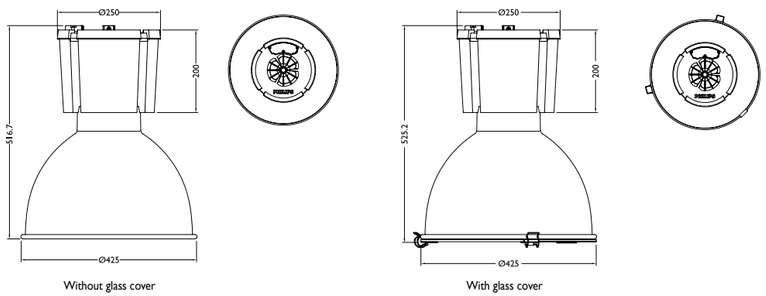
EnduraBay LX

Elegance and efficiency were the themes driving the design of Philips EnduraBay LX. Its attractive yet unobtrusive presence energizes your interior surroundings, assuring you functionality, safety and overall product performance. What's more, it is easy on your budget. EnduraBay LX truly offers you peace of mind in your high-bay installation.
This robust luminaire makes it an impressive light source, as does its attractive minimalist design. The most striking feature of this high-bay luminaire is its four "shields" on the upper part of the housing, giving any lighting installation a distinctive elegance.

Features and benefits

- The grooves divide the skin of the cylinder in four robust looking 'shields' which extend beyond the top and bottom of the gear housing, giving a touch of elegance to the luminaire's unique appearance
- For ease of installation EnduraBay is equipped with an external mains entry cable, therefore no access is required into the main body of the fitting saving labor and time
- Re-lamping is simple and does not require the use of any tools or the dismantling of any parts

Product size (dimensions in mm)



Without glass cover

With glass cover

Industry

IP20



Technical parameters

Type	HPK138
Light source	High-intensity discharge: 1 x HPI-Plus / E40 / 250 W BU 1 x HPI-Plus / E40 / 400 W BUS 1 x HPL-N / E40 / 250, 400 W 1 x SON / E40 / 150, 250, 400 W 1 x MasterColour CDM-EP / E40 / 250 W
Lamp included	No
Optics	LOR of 60% Wide beam (WB)
Gear	Electro magnetic (low loss), 220 V / 50 Hz: Inductive, parallel compensated (IC)
Materials and finish	Sand-blasted die cast aluminum housing Anodized matt aluminum reflector Tempered glass Zinc-coated steel hanging hook
Installation	Suspension; pipe mounting
Classifications	IP20, IK06, Class I, IEC60598
Remarks	Gear unit and reflector must be ordered separately Glass cover is required for HPI lamp versions

Key Portfolio*

Product Description	Weight (kg)
HPK138 1xHPL-N250W ICA 220 50	4.1
HPK138 1xHPL-N400W ICA 220 50	5.2
HPK138 1xHPI-P250W-BU ICA 220 50	5.8
HPK138 1xHPI-P400W-BUS ICA 220 50	6.9
HPK138 1xSON150W ICA 220 50	4.3
HPK138 1xSON250W ICA 220 50	5.3
HPK138 1xSON400W ICA 220 50	7.1
HPK138 1xCDM-EP250W ICA 220 50	5.3
GPK138 C-WB Alu Matt Ø425mm (accessory)	2.74
ZDK138 PG IP20 Ø425mm (accessory)	7.22

* For full product portfolio please contact your local Philips Representative



IEC EN60598 CB



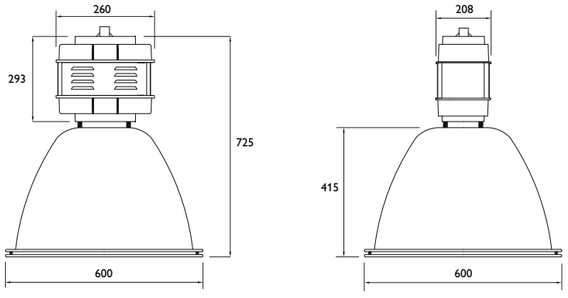
Phoenix 1000W

The Philips Phoenix 1000W is a high wattage high-bay for applications with a height of 15 meters or greater. The luminaire features a uniquely designed dedicated ballast, ensuring a more reliable system, customizable security components which enhance safety and well-designed optics for a light output ratio of up to 70%.

Features and benefits

- Robust and reliable
  - Housing and security chain made from good quality die-cast aluminum
  - Optional grid protection
- Good lighting performance
  - Specially designed reflector
  - Return air slot design for good thermal control
- Flexible
  - Integrated design
  - Compact size

Product size (dimensions in mm)



Industry



IP20

Technical parameters

Type	MDK900
Lamp	1x MS1000W
Power requirement	220 50Hz / 230V 50Hz
Ballast	Electro magnetic ballast with capacitor
Optic	LOR 70% Wide beam
Material	Housing: Die cast aluminum Reflector: High purity aluminum Glass cover: Heat resistant toughened glass
Environment	Ambient temperature: -5° +25°C
Installation	Suspension by hook Pipe mounting
Certification	CCC, IP20, Class I
Norms Compliance	IEC60598

Key Portfolio*

Product Description	Type	Lamp Wattage	Cap Base
MDK900 1000W 230V	Gear Unit	1x 1000W	E39
GDK900 R-WB	Reflector	N/A	N/A
ZDK900 PG	Glass Cover	N/A	N/A
MDK900 1000W 220V	Gear Unit	1x 1000W	E40

Recommended lamp:
230V version – MS1000/C/BU from Philips
220V version – JLZ1000KN-BT from Philips & Yaming

* For full product portfolio please contact your local Philips Representative

IEC EN60598 CB



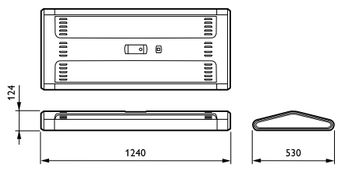
ProLux

Today's businesses operate in an increasingly competitive landscape. To stay ahead, there is a need to look for new ways of improving energy savings and overall efficiency – worker productivity, running costs and maintenance. Our Philips ProLux T5 highbay luminaire can achieve energy savings of up to 45% as compared to a one to one replacement of current HID highbay luminaires. With a robust design of the housing (steel), high reflectance material together with specially designed reflectors, this helps contribute to the high efficiency of this luminaire.

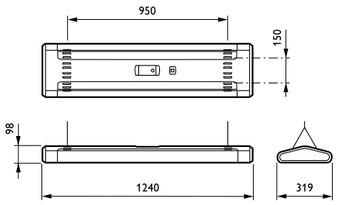
Features and benefits

- Energy savings
- Improved working environment
- Energy savings of up to 45% vs. HID
- Responsive system - On/off with no run up times
- Flexible layout and positioning of the system
- Constant light levels, uniformity and visual comfort
- High output lamps and optics
- Slim and light housing design, easy maintenance and installation

Product size (dimensions in mm)



4 & 6 lamp version



2 & 3 lamp version

Accessories



Transparent PC cover



Mounting Plate (for pipe installation)



Extension Data Cable for HF-R version

Industry



IP20 T5

Technical parameters

Type	TPS550
Lamp	T5 HO 54W / T5 HE 28W / T5 HO Eco 50W / T5 HE Eco 25W / T5 HO TOP54W (recommended for 6 lamp version)
Lamp configuration	2 lamp / 3 lamp / 4 lamp / 6 lamp
Beam angle	Narrow Beam / Middle Beam / Wide Beam
Power requirement	220 – 240V 50 / 60Hz
Ballast	Philips EB-P(28W or 25W) / HF-P (54W or 50W)/ HF-R
Material	Housing: Steel / Optic: High reflectance Aluminium (95% reflectance)
Environment	Ambient temperature: Ta=25°C
Certification	CCC / CB, IP20, Class I

Key Portfolio*

Product Description	Weight (kg)
TPS550 2×TL5-54W HFP NB	7.3
TPS550 2×TL5-54W HFP MB	7.3
TPS550 2×TL5-54W HFP WB	7.3
TPS550 2×TL5-54W HFR NB	7.3
TPS550 2×TL5-54W HFR MB	7.3
TPS550 2×TL5-54W HFR WB	7.3
TPS550 2×TL5-28W HFR NB	7.3
TPS550 2×TL5-28W HFR MB	7.3
TPS550 2×TL5-28W HFR WB	7.3
TPS550 2×TL5-54W HFP MB W3	7.3
TPS550 2×TL5-54W HFP WB W3	7.3
TPS550 2×TL5-54W HFP NB W3	7.3
TPS550 2×TL5-54W HFR NB W3	7.3
TPS550 2×TL5-54W HFR MB W3	7.3
TPS550 2×TL5-54W HFR WB W3	7.3
TPS550 2×TL5-28W HFR NB W3	7.3
TPS550 2×TL5-28W HFR MB W3	7.3
TPS550 2×TL5-28W HFR WB W3	7.3
TPS550 3xTL5-54W HFP WB	7.8
TPS550 3xTL5-54W HFR WB	7.8
TPS550 3xTL5-54W HFP WB W3	7.8
TPS550 3xTL5-54W HFR WB W3	7.8
TPS550 4×TL5-54W HFP NB	11
TPS550 4×TL5-54W HFR NB	11
TPS550 4×TL5-54W HFR MB	11
TPS550 4×TL5-54W HFR WB	11

Product Description	Weight (kg)
TPS550 4×TL5-28W HFR NB	11
TPS550 4×TL5-28W HFR MB	11
TPS550 4×TL5-28W HFR WB	11
TPS550 4×TL5-54W HFP MB	11
TPS550 4×TL5-54W HFP WB	11
TPS550 4×TL5-54W HFP NB W3	11
TPS550 4×TL5-54W HFP MB W3	11
TPS550 4×TL5-54W HFP WB W3	11
TPS550 4×TL5-54W HFR NB W3	11
TPS550 4×TL5-54W HFR MB W3	11
TPS550 4×TL5-54W HFR WB W3	11
TPS550 4×TL5-28W HFR NB W3	11
TPS550 4×TL5-28W HFR MB W3	11
TPS550 4×TL5-28W HFR WB W3	11
TPS550 6×TL5-54W HFP MB	11.5
TPS550 6×TL5-54W HFP WB	11.5
TPS550 6×TL5-54W HFP NB	11.5
TPS550 6×TL5-54W HFR NB	11.5
TPS550 6×TL5-54W HFR MB	11.5
TPS550 6×TL5-54W HFR WB	11.5
TPS550 6×TL5-54W HFP NB W3	11.5
TPS550 6×TL5-54W HFP MB W3	11.5
TPS550 6×TL5-54W HFP WB W3	11.5
TPS550 6×TL5-54W HFR NB W3	11.5
TPS550 6×TL5-54W HFR MB W3	11.5
TPS550 6×TL5-54W HFR WB W3	11.5

* For full product portfolio please contact your local Philips Representative

IEC EN60598



EnduLux

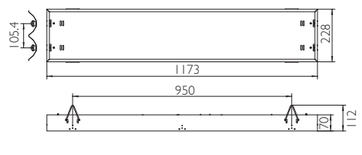
In industry, the bottom line is affected by a whole host of factors – worker productivity, running costs and maintenance, to name just a few. In today's economic environment, with margins under pressure, all businesses operating high-bay facilities are faced with the pressing need to save energy.

Philips EnduLux TPS150 solution is a direct replacement for current HID high-bay systems and enables significant energy savings. The simple housing, good reflectance material and high output lamps add up to a good efficiency luminaire that can help drive profitability and quicker return of investments.

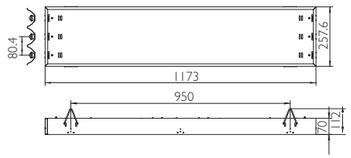
Features and benefits

- Highly efficient, energy savings of up to 35% as compared to HID
- Superior light quality, better vertical illuminance, uniformity and color rendering
- Choice of 2x, 3x, 4x lamp configurations for flexible applications

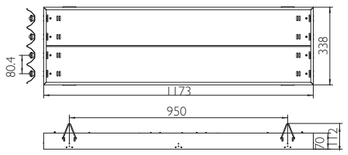
Product size (dimensions in mm)



TPS150 2xTL5-54W HFS



TPS150 3xTL5-54W HFS



TPS150 4xTL5-54W HFS

Industry



IP20 T5

Technical parameters

Type	TPS150
Housing material	Steel
IP & IK	IP20, Class I
Lumen (lm)	10680 (3 lamps x 54W)
System wattage (W)	178 (3 lamps x 54W)
Lumen maintenance @ 10,000 hrs	90%
Voltage range	220 – 240V, 50 / 60 Hz
Dimming	Yes – DALI
CRI	80
Ambient temperature	Ta=35°C

Key Portfolio*

Product Description	Weight (kg)
TPS150 4xTL5-54W HFS	4.7
TPS150 3xTL5-54W HFS	3.9
TPS150 2xTL5-54W HFS	3.3

Accessories



ZPS150 W400
Mesh cover for 4x54W



ZPS150 W300
Mesh cover for 3x54W



ZPS150 W200
Mesh cover for 2x54W



ZPS150 MB
Suspension unit

IEC EN60598

PHILIPS

Battens

Battens



GreenPerform LED Batten

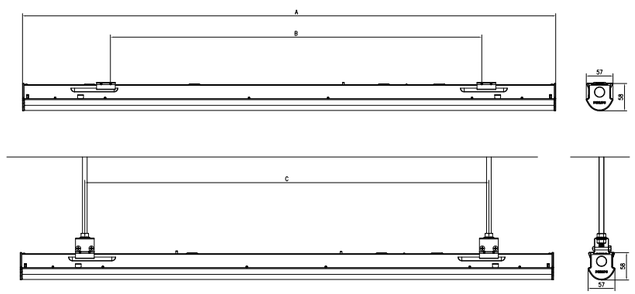
Philips GreenPerform LED Batten is a high-quality LED batten and a high system efficacy that delivers significant energy savings of up to 50% as compared to conventional T8 battens. With a reliable and robust housing structure, this maximizes the endurance and contributes to its long lifetime.

With its flexible optics and mounting accessories, it is suitable for symmetrical, asymmetrical, direct and indirect lighting applications. It can be used in a wide variety of applications.

Features and benefits

- High system efficacy
- Easy to install for various applications
- Quality lighting with good color uniformity
- Reliable and sustainable lifetime
- More than 100lm/w
- Symmetrical and asymmetrical mounting brackets
- Color rendering index of 80
- Life of 50,000 hours with 70% lumen maintained

Product size (dimensions in mm)



Product ID	A	B	C
BN208C LED40/L1200	1135	823±20	843±20
BN208C LED20/L1200	1135	823±20	843±20
BN208C LED20/L600	573	365±20	385±20
BN208C LED10/L600	573	365±20	385±20
BN209C LED40/L1200	1135	823±20	843±20
BN209C LED40/L1200	1135	823±20	843±20

Office · Retail · Healthcare · Supermarket · Industry · Education



IP20 | 50Khrs

Technical parameters

Type	BN208C (Standalone)		BN209C (Trunkable)
Lumen / Watt	4000 lm / 40 W 2000 lm / 20 W	2000 lm / 20 W 1000 lm / 10 W	4000 lm / 40 W 2000 lm / 20 W
Length	1.2 m	0.6 m	80
System Efficacy	> 100 lm / W	> 100 lm / W	> 100 lm / W
CCT	NW (4000 K) CW (6500 K) WW (3000 K)	NW (4000 K) CW (6500 K) WW (3000 K)	NW (4000 K) CW (6500 K) WW (3000 K)
CRI	> 80	> 80	> 80
SDCM	< 3.5	< 3.5	< 3.5
Optics	Diffused / Clear	Diffused / Clear	Diffused / Clear
LED	Philips Fortimo LP modular	Philips Fortimo LP modular	Philips Fortimo LP modular
Driver	Philips Xitanium® driver	Philips Xitanium® driver	Philips Xitanium® driver
Material	Housing: 0.6 mm SPCC Cover: PMMA	Housing: 0.6 mm SPCC Cover: PMMA	Housing: 0.6 mm SPCC Cover: PMMA
Class	Class I	Class I	Class I
Ta	35°C	35°C	35°C
Life	50,000 hours (Ta = 35°C @ LM70)	50,000 hours (Ta = 35°C @ LM70)	50,000 hours (Ta = 35°C @ LM70)
Input Voltage	220 – 240 V, 50/60 Hz	220 – 240 V, 50/60 Hz	220 – 240 V, 50/60 Hz

Key Portfolio*

Product Description	Weight
BN208C LED40/CW L1200 S	1.7
BN208C LED40/CW L1200 FR	1.7
BN208C LED40/NW L1200 S	1.7
BN208C LED40/NW L1200 FR	1.7
BN208C LED40/WW L1200 S	1.7
BN208C LED40/WW L1200 FR	1.7
BN208C LED20/CW L1200 S	1.7
BN208C LED20/CW L1200 FR	1.7
BN208C LED20/NW L1200 S	1.7
BN208C LED20/NW L1200 FR	1.7
BN208C LED20/CW L600 S	.75
BN208C LED20/CW L600 FR	.75
BN208C LED20/NW L600 S	.75
BN208C LED20/NW L600 FR	.75
BN208C LED20/WW L600 S	.75
BN208C LED20/WW L600 FR	.75

Product Description	Weight
BN208C LED10/CW L600 S	.75
BN208C LED10/CW L600 FR	.75
BN208C LED10/NW L600 S	.75
BN208C LED10/NW L600 FR	.75
BN209C LED40/CW L1200 S	
BN209C LED40/CW L1200 FR	
BN209C LED40/NW L1200 S	
BN209C LED40/NW L1200 FR	
BN209C LED40/WW L1200 S	
BN209C LED40/WW L1200 FR	
BN209C LED20/CW L1200 S	
BN209C LED20/CW L1200 FR	
BN209C LED20/NW L1200 S	
BN209C LED20/NW L1200 FR	

* For full product portfolio please contact your local Philips Representative

IEC EN60598 | CB

Accessories

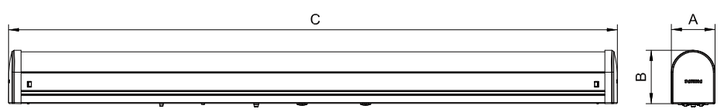
Product Description
BY208Z MB-A Surface mounting bracket for asymmetric installation
BY208Z MB-S Surface mounting bracket for symmetric instal-lation
BY209Z MB-A Suspension bracket for asymmetric installation
BY209Z MB-S Suspension bracket for symmetric installation
BY208Z SP Suspension pole
BY208Z TB Connecting block
BY208Z C600-P Connecting cable 0.6 m
BY208Z C200-P Connecting cable 0.2 m
BY208Z C-2 Power cable 0.2 m



GreenUp LED Batten

Philips GreenUp LED Batten is a highly energy-efficient solution to replace existing single or twin lamp battens (Conventional or LED). With its low system consumption, firm structure and integrated design it is an easy and attractive solution to install in most batten applications.

Product size (dimensions in mm)



Product ID	A	B	C
BN108C L1200	42	54	1146
BN108C L600	42	54	585

Features and benefits

- Double brightness: System output equivalent to two T8 LED
- Highly energy-efficient: good system efficacy (>95lm/W), save over 65% energy than T8.
- Comfort and long lifetime: Good CCT and color consistency, SDCM <4 CRI.85
- Remarkable quality: Philips Lumileds chip and Xitanium driver, lifetime ≥30,000
- Intelligent control: 1~10V and DALI interface,, saving 80% combined with ActiLume Gen2

Office · Retail · Healthcare

Supermarket · Industry · Education

IP20 | 30Khrs

Technical parameters

Type	BN108C (PSU)		BN108C (dimming)	
Product family	full lumen (two tube)	half lumen (single tube)	full lumen (two tube)	half lumen (single tube)
System 4 feet Output 2 feet	2700lm 1350lm	1450lm 750lm	2700lm 1400lm	2000lm 1050lm
System power	28W / 14W	15W / 8W	30W / 16W	23W / 13W
Length	1.2m / 0.6m	1.2m / 0.6m	1.2m / 0.6m	1.2m / 0.6m
Lifetime	>30000hrs	>30000hrs	>30000hrs	>30000hrs
System efficiency	>95lm/W	>95lm/W	>90lm/W	>85lm/W
Driver	Fixed	Fixed	DALI/ 1~10V	DALI/ 1~10V
CCT	CW (6500K)/ NW (4000K)/ WW (3000K)			
CRI	85	85	85	85
SDCM	<4 SDCM	<4 SDCM	<4 SDCM	<4 SDCM
Optic	Matt	Matt	Matt	Matt
LED chip	Philips Lumileds	Philips Lumileds	Philips Lumileds	Philips Lumileds
Material	Body: 0.5mm Steel Sheet; Cover: PC			
Classification	Class I	Class I	Class I	Class I
Input voltage	220-240V, 50/60 Hz	220-240V, 50/60 Hz	220-240V, 50/60 Hz	220-240V, 50/60 Hz

Key Portfolio*

Product Description	Product Description	Product Description
PSU	Dimming	BN108C LED20 WW L1200 PSR
BN108C LED28 CW L1200	BN108C LED28 CW L1200 PSD	BN108C LED15 CW L600 PSR
BN108C LED28 NW L1200	BN108C LED28 NW L1200 PSD	BN108C LED15 NW L600 PSR
BN108C LED28 WW L1200	BN108C LED28 WW L1200 PSD	BN108C LED15 WW L600 PSR
BN108C LED15 CW L1200	BN108C LED20 CW L1200 PSD	BN108C LED10 CW L600 PSR
BN108C LED15 NW L1200	BN108C LED20 NW L1200 PSD	BN108C LED10 NW L600 PSR
BN108C LED15 WW L1200	BN108C LED20 WW L1200 PSD	BN108C LED10 WW L600 PSR
BN108C LED15 CW L600	BN108C LED15 CW L600 PSD	
BN108C LED15 NW L600	BN108C LED15 NW L600 PSD	
BN108C LED15 WW L600	BN108C LED15 WW L600 PSD	
BN108C LED8 CW L600	BN108C LED10 CW L600 PSD	
BN108C LED8 NW L600	BN108C LED10 NW L600 PSD	
BN108C LED8 WW L600	BN108C LED10 WW L600 PSD	
Accessories	BN108C LED28 CW L1200 PSR	
BN108Z MB Surface Mounting Bracket	BN108C LED28 NW L1200 PSR	
ActiLume Gen2	BN108C LED28 WW L1200 PSR	
LLC1685/10 ActiLume Wireless DALI Gen 2	BN108C LED20 CW L1200 PSR	
LRI1663/00 ActiLume Gen 2 multisensor	BN108C LED20 NW L1200 PSR	

* For full product portfolio please contact your local Philips Representative

IEC EN60598 | CB



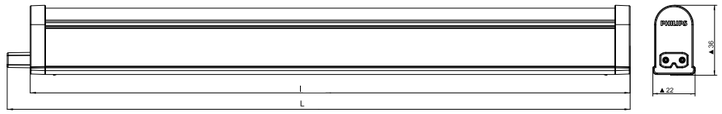
SmartBright LED Batten II

Philips LED Essential Batten inherits the elegant design of the T5 batten while providing more energy savings. The improved LED technology greatly enhances product life while the new, slim design allows for greater flexibility and convenience.

Features and benefits

- 28% more energy efficient than T5 batten
- Lifetime of 25,000 hours
- Slim in design that fits in many applications
- Easy to install with reduced end cap
- Available in 4 color temperatures
- Flexible – mix and match with various batten lengths available

Product size (dimensions in mm)



Product ID	L	I
BN066 LED12/L1200	1185	1173
BN066 LED10/L1000	999.5	987.5
BN066 LED9/L900	885	973
BN066 LED6/L600	585	573
BN066 LED3/L300	325	313





IP20 | 25K hrs

Technical parameters

Type	BN066C LED12/ CW L1200	BN066C LED12/ NW L1200	BN066C LED12/ WW L1200	BN066C LED10/ CW L1000	BN066C LED10/ NW L1000	BN066C LED10/ WW L1000	BN066C LED9/ CW L900	BN066C LED9/ WW L900	BN066C LED9/ NW L900	BN066C LED6/ CW L600	BN066C LED6/ NW L600	BN066C LED6/ WW L600	BN066C LED3/ CW L300	BN066C LED3/ NW L300	BN066C LED3/ WW L300
Lumen (lm)	1200	1200	1200	1000	1000	1000	900	900	900	600	600	600	300	300	300
Wattage (w)	14	14	14	12	12	12	10.8	10.8	10.8	7	7	7	4	4	4
Color temp (K)	6500	4000	3000	6500	4000	3000	6500	4000	3000	6500	4000	3000	6500	4000	3000
Color rendering index CRI	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Color tolerance SDCM	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Voltage (V)	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240
Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Life time	25,000 hours (70% when the ambient temperature Ta =25°C)														

Key Portfolio*

Product Description
BN066C LED12/CW L1200
BN066C LED12/NW L1200
BN066C LED12/WW L1200
BN066C LED10/CW L1000
BN066C LED10/NW L1000
BN066C LED10/WW L1000
BN066C LED9/CW L900
BN066C LED9/WW L900
BN066C LED9/NW L900
BN066C LED6/CW L600
BN066C LED6/NW L600
BN066C LED6/WW L600
BN066C LED3/CW L300
BN066C LED3/NW L300
BN066C LED3/WW L300

* For full product portfolio please contact your local Philips Representative

IEC EN60598 | CB

PHILIPS

Waterproof
and Cleanroom

Waterproof and Cleanroom



GreenPerform LED Waterproof

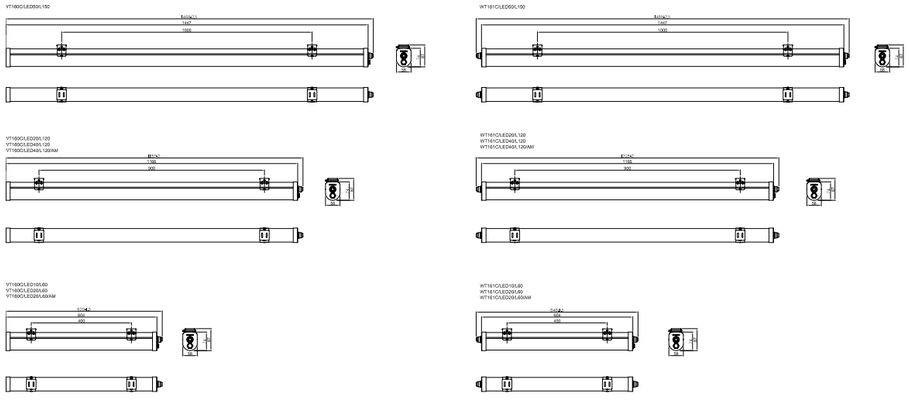
Philips GreenPerform LED Waterproof is a high-quality luminaire with a high system efficacy that delivers significant energy savings of up to 50% as compared to conventional T8 battens. With a reliable and robust housing structure, this maximizes the endurance and contributes to its long lifetime.

It is suitable to be used in both direct and indirect lighting applications. This is due to its flexible optics and choice of symmetric or asymmetric mounting accessories that allows for a variety of different lighting applications.

Features and benefits

- Good energy savings
- Easy to install for various applications
- Quality lighting with good color uniformity
- Reliable and sustainable lifetime
- System efficacy of more than 90lm/w
- Stand alone and continuous version
- IP65 and IK08 ratings
- Lifetime of 50,000 hours with 70% lumen maintained

Product size (dimensions in mm)



Industry

IP65 | IK08 | 50K hrs

Technical parameters

Type	WT160C Standalone WT161C Trunkable
System output	3800 lm / 1900 lm (4 ft) 1900 lm / 950 lm (2 ft) 4800 lm / 2400 lm (5 ft)
Lifetime	50,000 hrs
CCT	4000 K / 6500 K
CRI	80
SDCM	< 3.5
Optics	Symmetrical wide beam (120°)
Input voltage	220 – 240 / 50 – 60 Hz
System efficiency	> 90 lm / W
System wattage	40 W / 20 W (4 ft) 20 W / 10 W (2 ft) 50 W / 25 W (5 ft)
Operating temperature	- 25°C < Ta < 40°C
IP rating	IP65
IK rating	IK08
Classification	Class I
Connection	Standalone / trunkable (max 25pcs in connection)
Installation	Surface

IEC EN60598 | CB



Key Portfolio*

Product Description
WT160C
WT160C LED40 NW L1200
WT160C LED20 NW L1200
WT160C LED40 CW L1200
WT160C LED20 CW L1200
WT160C LED20 NW L600
WT160C LED10 NW L600
WT160C LED20 CW L600
WT160C LED10 CW L600
WT160C LED50 NW L1500
WT160C LED25 NW L1500
WT160C LED50 CW L1500
WT160C LED25 CW L1500
WT161C
WT161C LED40 NW L1200
WT161C LED20 NW L1200
WT161C LED40 CW L1200
WT161C LED20 CW L1200
WT161C LED20 NW L600
WT161C LED10 NW L600
WT161C LED20 CW L600
WT161C LED10 CW L600
WT161C LED50 NW L1500
WT161C LED25 NW L1500
WT161C LED50 CW L1500
WT161C LED25 CW L1500

* For full product portfolio please contact your local Philips Representative



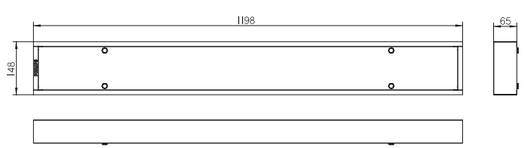
Hygeia LED

Customers operating highly hygienic facilities require easy-to-clean, dust-free luminaires that meet all lighting requirements and norms. The Philips Hygeia with an IP40 and compliance to 1,000 – 100,000 class cleanroom makes it a good choice. The new Hygeia CR308 has a streamlined shape that minimizes dust gathering and disturbed airflow. The cleanroom luminaire uses the latest Philips LED Line platform to provide most value for money. This means extremely low operational cost over the total lifetime of the luminaire, and so an excellent financial return on investment.

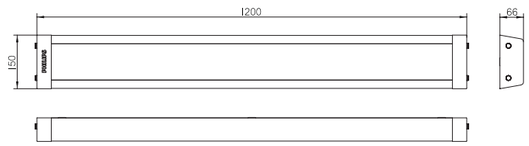
Features and benefits

- Suitable for 1,000 to 100,000 Class cleanroom
- IP40 with smooth surface and easy to clean
- 30% lighter compared to the older version

Product size (dimensions in mm)



CR418B



CR418C

Industry

IP40 | 50K hrs

Technical parameters

Type	CR418B (recessed) / CR418C (surface)
Lumen	3800 / 470 (yellow) / 7200
Lm/w	> 70
System wattage W	80 / 40
Voltage range	220 – 240V / 50 - 60 Hz
CRI	80
Ambient temperature	-25°C < Ta < 30°C
Class	1

Key Portfolio*

Product Description	Weight (kg)
CR418B LED80/NW	4.5
CR418B LED40/NW	4.5
CR418B LED80/Y	4.5
CR418C LED80/NW	4.5
CR418C LED40/NW	4.5
CR418C LED80Y	4.5

* For Full portfolio please contact you local Philips Representative



IEC EN60598 | CB



Hygeia

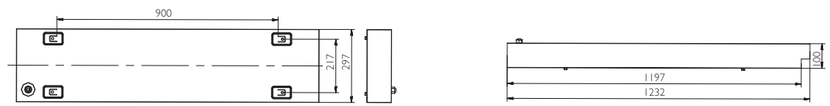
Customers operating highly hygienic facilities require easy-to-clean, dust-free luminaires that meet all lighting requirements and norms. The Philips Hygeia with an IP40 and compliance to 1,000 – 100,000 class cleanroom makes it a good choice. The new Hygeia CR308 has a streamlined shape that minimizes dust gathering and disturbed airflow. The cleanroom luminaire uses the TLD & T5 platform to provide most value for money. This means extremely low operational cost over the total lifetime of the luminaire, and so an excellent financial return on investment.

Features and benefits

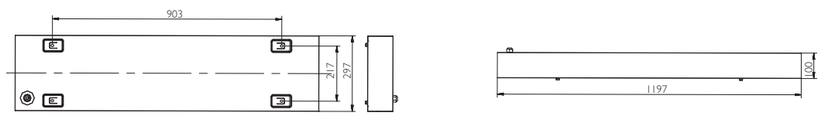
- Suitable for 1,000 to 100,000 Class cleanroom
- IP40 with smooth surface and easy to clean
- 30% lighter compared to the older version

Product size (dimensions in mm)

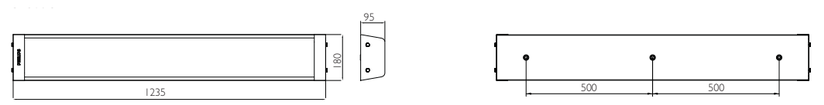
CR308B 2xTLD 36W



CR308B 2xTLD 28W/54W



CR308C



Industry

IP40

Technical parameters

Type	CR308B (recessed) / CR308C (surface)
Lumen	4000 / 6000 / 7000
LOR	> 70
System wattage W	60 / 78 / 113
Voltage range	220 – 240V / 50 - 60 Hz
CRI	80
Ambient temperature	-25°C < Ta < 30°C
Class	1

Key Portfolio*

Product Description	Weight (kg)
CR308C 2xTL5-54W HFS	7.0
CR308C 2xTLD-36W HFS	7.0
CR308C 2xTL5-28W HFS	7.0
CR308B 2xTLD-36W HFS	7.0
CR308B 2xTL5-54W HFS	7.0
CR308B 2xTL5-28W HFS	7.0
CR308C 2xTL5-54W HFS	7.0

* For Full portfolio please contact you local Philips Representative

IEC EN60598 CB



Teardrop LED

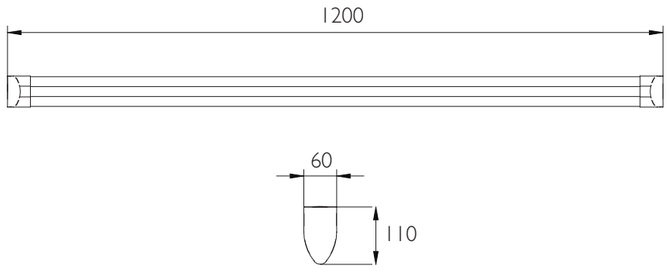
Highly hygienic facilities require special easy to clean, dust free luminaires that meet all lighting requirements and norms.

Philips Teardrop LED CR385 is suitable for 10 to 1000 Class cleanroom facilities. With the latest LED engine on board, this LED cleanroom luminaire represents the ideal solution, delivering market leading energy performance – far beyond fluorescent solutions – over 50,000 hours of maintenance-free operation. In short, Teardrop LED represents an excellent deal for those looking for pleasant and efficient cleanroom lighting.

Features and benefits

- Suitable for 10 to 1000 Class cleanroom
- 93lm/W that provides best value for money
- 2.4 kg only, can be installed by 1 person

Product size (dimensions in mm)



Industry

IP40 50K hrs



Technical parameters

Type	CR385C
Color	RAL
Lumen	3725 / 1880 / 2655 (yellow)
System wattage W	20 / 40
Efficacy (lm/W)	93
CCT (K)	4000 / (Yellow > 520nm)
Voltage range	220 – 240V / 50 - 60 Hz
CRI	80
Ambient temperature	-25°C < Ta < 30°C
Class	1

Key Portfolio*

Product Description	Weight (kg)
CR385C LED40/NW	2.6
CR385C LED20/NW	2.6
CR385C LED40/Y	2.6

* For Full portfolio please contact you local Philips Representative

IEC EN60598 CB



Pacific II

Functional impact-, dust- and jetproof luminaire for single and twin TL-D and TL-5 fluorescent lamps for indoor and semi-outdoor applications. The housing and cover of the Philips Pacific II TCW097 are made of high quality polycarbonate which has an excellent impact resistant property. The cover has anti-UV additives which bring additional performance levels to UV protection. Available with conventional or high-frequency electronic control gears. Can be ceiling mounted or suspended. Equipped with mounting brackets, mounting is made easy via screws without drilling into the luminaire housing. Gear tray and metal toggles are re-installed; cable gland and mounting brackets are delivered with the luminaire.

Features and benefits

- Dust-and moisture-proof, impact resistant
- Anti-UV function cover, effective from wavelength 240nm to 370nm
- Specially designed toggles protect against dust and water ingress
- Easy installation and maintenance using toggles and stainless steel mounting brackets
- Luminaire is integrated and pre-wired with control gear

Industry

IP65 T8 T5

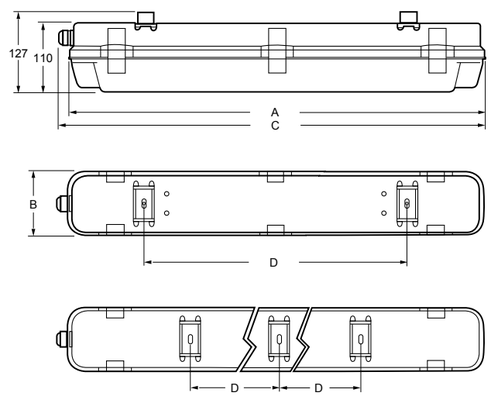


Technical parameters

Type	TCW097
Light source	Fluorescent: 1 x or 2 x MASTER TLD / G13 / 18, 36, 58 W 1 x or 2 x MASTER TL5 / G5 / 14, 28, 35 W
Lamp included	No
Gear	Electronic, 220 - 240 V / 50 - 60 Hz: High Frequency Standard (HFA) EB-Primalume (EBP) EB-Selectalume (EBS) Electro magnetic (low loss), 230 or 240V / 50Hz: Inductive (I) Inductive, parallel compensated (IC)
Materials and finish	Housing: polycarbonate (PC) Cover: clear polycarbonate (PC) Toggles: stainless steel Mounting bracket: stainless steel
Installation	Electrical connection through the provided cable gland (PG13.5) Method: surface mount or suspension (with provided mounting bracket) Integrated and pre-wired with control gear
Classifications	IP65, Class I, Complies with IEC 598

Product size (dimensions in mm)

Product ID	A (mm)	B (mm)	C (mm)	D (mm)
TCW097 1x14W	660	100	676	417
TCW097 1x18W	660	100	676	417
TCW097 1x28W	1270	100	1276	880
TCW097 1x35W	1570	100	1586	590
TCW097 1x36W	1270	100	1276	880
TCW097 1x58W	1570	100	1586	590
TCW097 2x14W	660	150	676	417
TCW097 2x18W	660	150	676	417
TCW097 2x28W	1270	150	1276	880
TCW097 2x35W	1570	150	1586	590
TCW097 2x36W	1270	150	1276	880
TCW097 2x58W	1570	150	1586	590



IEC EN60598 CB



Key Portfolio*

Product ID	Weight (kg)
TCW097 1×18W TL-D EBS 220-230V 50/60Hz	1.40
TCW097 1×18W TL-D EBS 220-230V 50/60HZ	1.30
TCW097 1×36W TL-D EBS 220-230V 50/60Hz	2.22
TCW097 1×36W TL-D EBS 220-230V 50/60HZ	2.20
TCW097 1×58W TL-D EBP	4.80
TCW097 1×58W TL-D EBP	4.80
TCW097 1×TL5-14W EBP	1.60
TCW097 1×TL5-14W EBP	1.30
TCW097 1×TL5-28W EBP	2.22
TCW097 1×TL5-28W EBP	2.20
TCW097 1×TL5-35W EBP	3.58
TCW097 1×TL5-35W EBP	3.80
TCW097 1X14W HFA	1.26
TCW097 1x14W HFA Anti-UV+stainless BK	1.26
TCW097 1x14W TL5 EBE	1.26
TCW097 1x18W I	1.26
TCW097 1x18W I Anti-UV+stainless BK	1.26
TCW097 1X18W IC	1.26
TCW097 1X18W IC 240V/50Hz E	1.26
TCW097 1x18W IC Anti-UV+stainless BK	1.26
TCW097 1x18W TL EBE 220V 50Hz	1.26
TCW097 1x18W TL-D I LW-B1	1.26
TCW097 1x18W TL-D IC LW-B1	1.26
TCW097 1X28W HFA	2.22
TCW097 1x28W HFA Anti-UV+stainless BK	2.22
TCW097 1x28W TL5 EBE	2.22
TCW097 1X35W HFA	3.58
TCW097 1x35W HFA Anti-UV+stainless BK	3.58
TCW097 1X36W I	2.22
TCW097 1x36W I Anti-UV+stainless BK	2.22
TCW097 1X36W IC	2.22
TCW097 1X36W IC 240V/50Hz E	2.22
TCW097 1x36W IC Anti-UV+stainless BK	2.22
TCW097 1x36W TL-D EBE 220V 50Hz	2.22
TCW097 1x36W TL-D I LW-B1	2.22
TCW097 1x36W TL-D IC LW-B1	2.22
TCW097 1X58W I	3.58
TCW097 1x58W I Anti-UV+stainless BK	3.58
TCW097 1X58W IC	3.58
TCW097 1x58W IC Anti-UV+stainless BK	3.58

Product ID	Weight (kg)
TCW097 2×14W TL5 EBP	2.00
TCW097 2×14W TL5 EBP	1.70
TCW097 2×18W TL-D EBP	2.00
TCW097 2×18W TL-D EBS 220-230V 50/60Hz	2.00
TCW097 2×18W TL-D EBS 220-230V 50/60HZ	1.30
TCW097 2×28W TL5 EBP	3.50
TCW097 2×28W TL5 EBP	3.60
TCW097 2×35W TL5 EBP	4.20
TCW097 2×35W TL5 EBP	5.60
TCW097 2×36W TL-D EBP	3.40
TCW097 2×36W TL-D EBS 220-230V 50/60Hz	3.40
TCW097 2×36W TL-D EBS 220-230V 50/60HZ	3.60
TCW097 2×58W TL-D EBP	5.60
TCW097 2×58W TL-D EBP	5.60
TCW097 2X14W HFA	1.50
TCW097 2x14W HFA Anti-UV+stainless BK	1.50
TCW097 2x14W TL5 EBE	1.50
TCW097 2X18W I	1.50
TCW097 2x18W I Anti-UV+stainless BK	1.50
TCW097 2X18W IC	1.50
TCW097 2X18W IC 240V/50Hz E	1.50
TCW097 2x18W IC Anti-UV+stainless BK	1.50
TCW097 2x18W TL-D EBE 220V 50Hz	1.50
TCW097 2x18W TL-D I LW-B1	1.50
TCW097 2x18W TL-D IC LW-B1	1.50
TCW097 2X28W HFA	3.22
TCW097 2x28W HFA Anti-UV+stainless BK	3.22
TCW097 2x28W TL5 EBE	3.22
TCW097 2X35W HFA	5.58
TCW097 2x35W HFA Anti-UV+stainless BK	5.58
TCW097 2X36W I	3.22
TCW097 2x36W I Anti-UV+stainless BK	3.22
TCW097 2X36W IC	3.22
TCW097 2X36W IC 240V/50Hz E	3.22
TCW097 2x36W IC Anti-UV+stainless BK	3.22
TCW097 2x36W TL-D EBE 220V 50Hz	3.22
TCW097 2x36W TL-D I LW-B1	3.22
TCW097 2x36W TL-D IC LW-B1	3.22
TCW097 2X58W I	5.58
TCW097 2x58W I Anti-UV+stainless BK	5.58
TCW097 2X58W IC	5.58
TCW097 2x58W IC Anti-UV+stainless BK	5.58

* For Full portfolio please contact you local Philips Representative



Smart Waterproof

The Philips Smart Waterproof Lum is an attractive, enclosed luminaire for surface mounting in areas requiring protection against the harmful effects of moisture, dust and impact. It comes in a variety of lamp options and features a sturdy polycarbonate housing and cover that is both collision and UV-resistant. Smart Waterproof is suitable for harsh environments including car parks, warehouses and general industrial applications, as well as applications in the food and beverage industry.



Features and benefits

- Dedicated housings for TLD and for TL5 types
- Fully complies with IP65 ingress protection norms
- Provides protection against moderate to challenging impact of moisture and dust particles
- Available in 1- and 2-lamp TL-D and TL5 versions
- Electronic HF driver is energy efficient, and produces less noise and flicker
- Easy-to-use clippers ensure flexibility in installation and ease in maintenance

Supermarket Industry



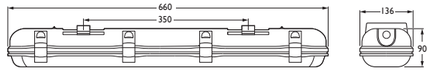
IP65 T8 T5

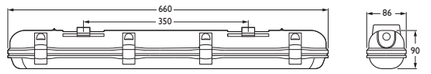
Technical parameters

Type	TCW060
Light output ratio	69%-77%
Ambient temperature	-5 to +25°C
Materials	Polycarbonate housing Polycarbonate (UV-resistant) cover Polycarbonate clips (one extra clip included) White painted (RAL9003) steel gear tray with maintenance position Stainless steel ceiling clips
Electronic driver	220V / 50Hz
Classifications	Class I, IP65, IK08
Approbation	CCC

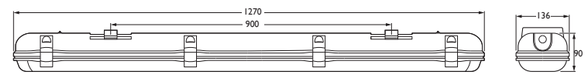
Key Portfolio*

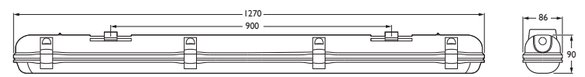
TLD18W



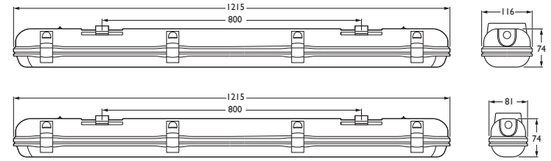


TLD-30W





TLD-28W



Preferred selection

Product Description
TCW060 1×TLD-18W ELB 220V
TCW060 2×TLD-18W ELB 220V
TCW060 1×TLD-36W ELB 220V
TCW060 2×TLD-36W ELB 220V
TCW060 1×TL5-28W ELB 220V
TCW060 2×TL5-28W ELB 220V

* For Full portfolio please contact you local Philips Representative

IEC EN60598 CE CB



Vandalite

Philips Vandalite is a surface mounted fluorescent luminaire that, as its name implies, is a tough, dustproof and watertight product for situations where vandalism can be a problem. Vandalite's robust construction is well suited for applications such as schools, public amenity areas, prisons, industrial sites and car parks. The Vandalite has an IP65 rating, being totally dustproof and waterproof.

Its robust construction makes it virtually vandal-proof. The new Vandalite range has also been updated with a T5 solution and electronic ballast, resulting in increased benefits in energy-saving.

Features and benefits

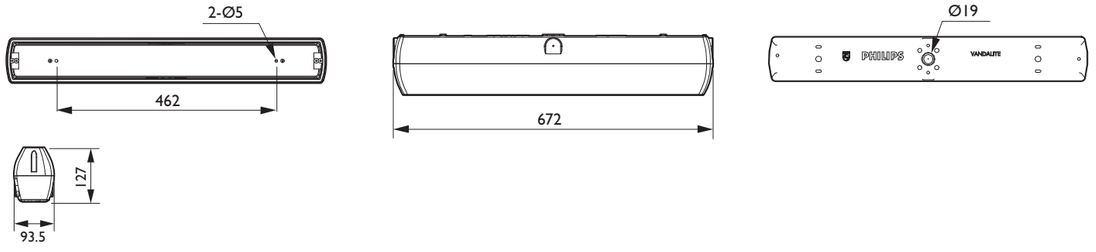
· Robust and reliable
- IK10 (top of luminaire) & IP65
- Polycarbonate diffuser able to withstand physical abuse

· Energy-efficient
- Newly introduced T5 solution with electronic ballast achieves around 35% energy saving compared to T8 solution

· Easy installation
- More mounting points for greater stability on uneven surfaces
- Conduit entry supplied with each luminaire

· Flexible choice
- Available in opaque and clear finish for different applications
- Security model complete with photocell

Product size (dimensions in mm)



Supermarket Education Industry Carpark

IP65 IK10 IK08 T5 T8



Technical parameters

Type	TCW098
Lamp	1xTL5 14W, 1xPLL18W, 2xPLL18W, 1xPLL36W, 2xPLL36W
Power requirement	220-240V 50Hz
Ballast	Electronic ballast for T5 Electro magnetic ballast with capacitor for PLL
Weight	2.8 kg
Materials	Diffuser: polycarbonate Housing: injection molded ABS Gear tray: painted steel
Environment	Ambient temperature: -5° +25°C
Certifications	CB, IP65, IK10/IK08, Class I
Accessories	No
Lamp	Included

Key Portfolio*

Product ID	Weight (kg)
Vandalite 1xTLD18W IC Clear	2.8
Vandalite 1xTLD18W IC Opal	2.8
Vandalite 2xPLL18W IC Clear	2.8
Vandalite 2xPLL18W IC Opal	2.8
Vandalite 1xTLD18W IC Opal PE Cell	2.8
Vandalite 1xPLL36W IC Opal	2.8
Vandalite 1xPLL36W IC Clear	2.8
Vandalite 1x18W IC FTB Clear	2.8
Vandalite 1x18W IC FTB Opal	2.8
Vandalite 1xPLL36W IC FTB Opal	2.8

Product ID	Weight (kg)
TCW098 1×TL-D18W IC 220-50 CL	2.8
TCW098 1×TL-D18W IC 220-50 OP	2.8
TCW098 2×PLL18W IC 220-50 CL	2.8
TCW098 2×PLL18W IC 220-50 OP	2.8
TCW098 1×PLL36W IC 220-50 CL	2.8
TCW098 1×PLL36W IC 220-50 OP	2.8
TCW098 1xTL5 14W K EBS CL	2.4
TCW098 1xTL5 14W K EBS OP	2.4
TCW098 1xTL5 14W K EBS OP SH	2.4
TCW098 1xTL5 14W K EBS OP PK	2.4
TCW098 1xTL5 14W K EBS FTB CL	2.4
TCW098 1xTL5 14W K EBS FTB OP	2.4

* For Full portfolio please contact you local Philips Representative

IEC EN60598 CE CB

PHILIPS

Urban Street

Urban Street



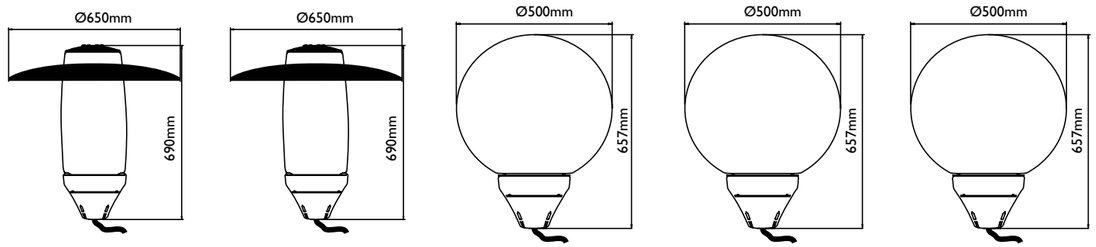
Urbana

Comprising five different decorative models, the Urbana range can be deployed in a wide variety of urban applications. At the same time, a distinct family design aesthetic is maintained thanks to the use of a single standard pole mount across the entire range. Whatever the application, Urbana's combination of excellent lighting performance and attractive day-time and night-time appearance adds to the ambience of the surroundings.

Features and benefits

- High brightness LED, low power consumption
- 2 shapes with 5 models to fit different ambiances
- 2 color temperature choices (3000K and 4000K)
- Unique design, ease of maintenance
- Ease of installation

Product size (dimensions in mm)



BDS250 BK PCC-R | BDS250 BK PCO-R | BDS251 PCC-D500 | BDS251 PCO-D500 | BDS251 BK PCCRD500

IP65 | 30Khrs | IK08



Technical parameters

Type	BDS250 BK PCC-R
Light source	72x Mid Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 1516lm, NW 1713lm
CRI	WW>80, NW>80
Optic	Symmetrical
Power consumption	43W
Power input	100-240V / 50-60 Hz
Material and Finish	Clear Polycarbonate cover, highly reflective aluminum reflector
Housing color	Black
Lumen Maintenance	30Khrs (L70, Ta=25°C)
Weight	7.4Kg
Mounting	Post-top mount (Ø60-76mm), recommended mounting height 4~5m. Fitting c/w 6m flying lead cable.
Classifications	Class I, IP65, IK08
Operating Temperature	-20°C ~ + 40°C

Technical parameters

Type	BDS250 BK PCO-R
Light source	72x Mid Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 730lm, NW 842lm
CRI	WW>80, NW>80
Optic	Symmetrical
Power consumption	43W
Power input	100-240V / 50-60 Hz
Material and Finish	Frosted Polycarbonate cover, highly reflective aluminum reflector
Housing color	Black
Lumen Maintenance	30Khrs (L70, Ta=25°C)
Weight	7.4Kg
Mounting	Post-top mount (Ø60-76mm), recommended mounting height 4~5m. Fitting c/w 6m flying lead cable.
Classifications	Class I, IP65, IK08
Operating Temperature	-20°C ~ + 40°C

Product details



Forest
BDS250 BK PCC-R

Product details



Arctic
BDS250 BK PCO-R

IEC 60598 | CB

Technical parameters

Type	BDS251 BK PCC-D500
Light source	72x Mid Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 1629lm, NW 1825lm
CRI	WW>80, NW>80
Optic	Symmetrical
Power consumption	43W
Power input	100-240V / 50-60 Hz
Material and Finish	Clear Polycarbonate cover, highly reflective aluminum reflector
Housing color	Black
Lumen Maintenance	30Khrs (L70, Ta=25°C)
Weight	6.9Kg
Mounting	Post-top mount (Ø60-76mm), recommended mounting height 4~5m. Fitting c/w 6m flying lead cable.
Classifications	Class I, IP65, IK08
Operating Temperature	-20°C ~ + 40°C

Technical parameters

Type	BDS251 BK PCO-D500
Light source	72x Mid Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 1011lm, NW 1123lm
CRI	WW>80, NW>80
Optic	Symmetrical
Power consumption	43W
Power input	100-240V / 50-60 Hz
Material and Finish	Frosted Polycarbonate cover, highly reflective aluminum reflector
Housing color	Black
Lumen maintenance	30Khrs (L70, Ta=25°C)
Weight	6.9Kg
Mounting	Post-top mount (Ø60-76mm), recommended mounting height 4~5m. Fitting c/w 6m flying lead cable.
Classifications	Class I, IP65, IK08
Operating Temperature	-20°C ~ + 40°C

Technical parameters

Type	BDS251 BK PCCRD500
Light source	72x Mid Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 1348lm, NW 1516lm
CRI	WW>80, NW>80
Optic	Symmetrical
Power consumption	43W
Power input	100-240V / 50-60 Hz
Material and Finish	Clear Polycarbonate cover, highly reflective aluminum reflector
Housing color	Black
Lumen Maintenance	30Khrs (L70, Ta=25°C)
Weight	6.9Kg
Mounting	Post-top mount (Ø60-76mm), recommended mounting height 4~5m. Fitting c/w 6m flying lead cable.
Classifications	Class I, IP65, IK08
Operating Temperature	-20°C ~ + 40°C

Key Portfolio*

Product ID
BDS250 72LED/WW PSU 100-240V BK PCC-R
BDS250 72LED/NW PSU 100-240V BK PCC-R
BDS250 72LED/WW PSU 100-240V BK PCO-R
BDS250 72LED/NW PSU 100-240V BK PCO-R
BDS251 72LED/WW PSU 100-240V PCC-D500
BDS251 72LED/NW PSU 100-240V PCC-D500
BDS251 72LED/WW PSU 100-240V PCO-D500
BDS251 72LED/NW PSU 100-240V PCO-D500
BDS251 72LED/WW PSU 100-240V BK PCCRD500
BDS251 72LED/NW PSU 100-240V BK PCCRD500

* For full product portfolio please contact your local Philips Representative

Product details



Cristal
BDS251 BK PCC-D500

Product details



Polar
BDS251 BK PCO-D500

Product details



Luner
BDS251 BK PCCRD500



Bamboo Post-top

The Philips Bamboo Post-top combines the look of bamboo with an environmentally friendly LED light source.

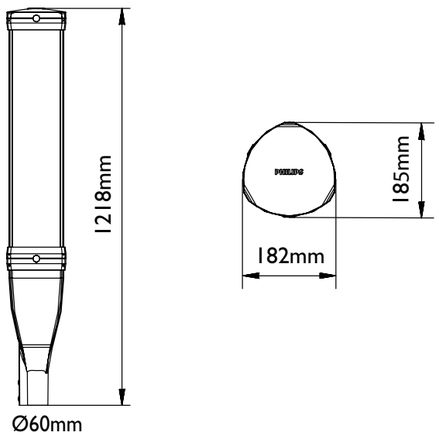
The luminaire has 3 triangle light emitting parts which are integrated by 3 Green LED strips.

The luminaire provides illuminance for squares, parks, car parks, public spaces and other landscaped areas.

Features and benefits

- Unique design inspired by bamboo
- Long lifetime low-power LED light source to create a nice light effect with a uniform appearance
- Environmentally friendly LED solution – no hazardous substances (no mercury, no lead, no UV)
- Robustly designed through strict process control to ensure IP65 protection and IK09 impact resistance throughout lifetime

Product size (dimensions in mm)



Outdoor



IP65 | 50Khrs | IK09

Technical parameters

Type	BDS720
Light source	144x Mid Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 3100lm, NW 3500lm
CRI	WW >75, NW>75
Optic	Asymmetrical
Power consumption	72W
Power input	100-240V / 50-60 Hz
Material and Finish	Die-cast Alu housing, Aluminum Spinning Reflector and Polycarbonate Optical cover
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	50Khrs (L70, Ta=35°C)
Weight	12Kg
Mounting	Post-top mount, recommended mounting height 4-6m. Fitting c/w 6m flying lead cable
Classifications	Class I, IP65, IK09
Operating Temperature	-25°C ~ + 35°C

Key Portfolio*

Product ID
BDS720 LED31/WW PSU 100-240V 360 GR
BDS720 LED35/NW PSU 100-240V 360 GR
BDS720 LED31/WW PSU 100-240V 360 SI
BDS720 LED35/NW PSU 100-240V 360 SI

* For full product portfolio please contact your local Philips Representative

IEC 60598



Bamboo Column

The Philips Bamboo Column combines the look of bamboo with an environmental-friendly LED light source.

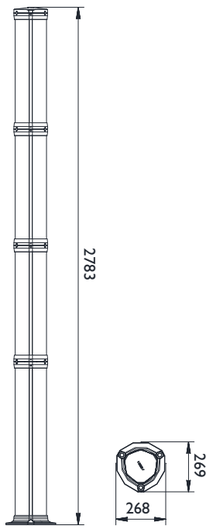
The luminaire has 3 triangle light emitting parts which are integrated by 3 Green LED strips.

The luminaire provides light and guides for multitask, single sided areas and other landscaped areas.

Features and benefits

- Segments resemble fragments of the bamboo plant
- Green strips resemble bamboo appearance.
- LED light engine with carefully designed louvre provides a glare-free illuminance for a safe environment
- Each segment can have either 120° or 360° light distribution, to enable the ambience you would like to create.
- The Bamboo family of products address complex landscape lighting requirements in a harmonized way

Product size (dimensions in mm)



Outdoor



IP65 | 50Khrs | IK09

Technical parameters

Type	BGP720
Light source	BGP720 1LED 360: 90x Mid Power LED BGP720 2LED 360: 180x Mid Power LED BGP720 3LED 360: 270x Mid Power LED BGP720 3LED 120-S/-Y : 90x Mid Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	BGP720 1LED 360: WW 433lm, NW 500lm BGP720 2LED 360: WW 867lm, NW 1000lm BGP720 3LED 360: WW 1300lm, NW 1500lm BGP720 3LED 120-S/-Y : WW 433lm, NW 500lm
CRI	WW>70, NW>70
Optic	BGP720 1LED 360: 1st segment 360° lights up BGP720 2LED 360: 1st & 2nd segments 360° light up BGP720 3LED 360: 3 segments 360° light up BGP720 3LED 120-S/-Y : 3 segments 120° light up at same direction(120-S) or 3 segments 120° light up at different direction(120-Y)
Power consumption	BGP720 1LED 360: 36W BGP720 2LED 360: 47W BGP720 3LED 360: 60W BGP720 3LED 120-S/-Y : 36W
Power input	100-240V / 50-60 Hz
Material and Finish	Die-cast Alu housing, Polycarbonate Optical cover
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	50Khrs (L70, Ta=35°C)
Weight	26Kg
Mounting	On ground surface mount
Classifications	Class I, IP65, IK09
Operating Temperature	-25°C ~ + 35°C

Key Portfolio*

Product ID	Product ID
BGP720 3 LED13/WW PSU 100-240V 360 GR	BGP720 1 LED13/WW PSU 100-240V 360 GR
BGP720 3 LED13/WW PSU 100-240V 360 SI	BGP720 1 LED13/WW PSU 100-240V 360 SI
BGP720 3 LED15/NW PSU 100-240V 360 GR	BGP720 1 LED15/NW PSU 100-240V 360 GR
BGP720 3 LED15/NW PSU 100-240V 360 SI	BGP720 1 LED15/NW PSU 100-240V 360 SI
BGP720 2 LED13/WW PSU 100-240V 360 GR	BGP720 3 LED13/WW PSU 100-240V 120-S GR
BGP720 2 LED13/WW PSU 100-240V 360 SI	BGP720 3 LED13/WW PSU 100-240V 120-S SI
BGP720 2 LED15/NW PSU 100-240V 360 GR	BGP720 3 LED13/WW PSU 100-240V 120-Y GR
BGP720 2 LED15/NW PSU 100-240V 360 SI	BGP720 3 LED13/WW PSU 100-240V 120-Y SI
	BGP720 3 LED15/NW PSU 100-240V 120-S GR
	BGP720 3 LED15/NW PSU 100-240V 120-S SI
	BGP720 3 LED15/NW PSU 100-240V 120-Y GR
	BGP720 3 LED15/NW PSU 100-240V 120-Y SI

* For full product portfolio please contact your local Philips Representative

IEC 60598



Bamboo Bollard

The Philips Bamboo Bollard combines the look of bamboo with an environmental-friendly LED light source.

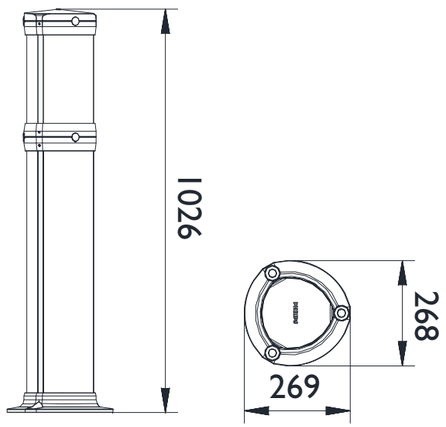
The luminaire has 3 triangle light emitting parts which are integrated by 3 Green LED strips.

The luminaire provides illuminance and guides for pathway,s bicycle tracks and other landscape areas.

Features and benefits

- Green strips resemble bamboo appearance.
- LED light engine with carefully designed louvre provides a glare-free illuminance for a safe environment
- Engineered to a high degree of water and impact resistance (proven IP and IK standards) making them ideal candidates for outdoor environments
- The Bamboo family of products address complex landscape lighting requirements in a harmonized way

Product size (dimensions in mm)



Outdoor

IP65 | 50Khrs | IK09



Technical parameters

Type	BCP720
Light source	36x Mid Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 400lm, NW 450lm
CRI	WW >75, NW>75
Optic	Asymmetrical
Power consumption	19W
Power input	100-240V / 50-60 Hz
Material and Finish	Die-cast Alu housing, Aluminum Spinning Reflector and Polycarbonate Optical cover
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	50Khrs (L70, Ta=35°C)
Weight	13Kg
Mounting	on ground surface mount
Classifications	Class I, IP65, IK09
Operating Temperature	-25°C ~ + 35°C

Key Portfolio*

Product ID
BCP720 LED4/WW PSU 100-240V 360 GR
BCP720 LED5/NW PSU 100-240V 360 GR
BCP720 LED5/NW PSU 100-240V 360 SI
BCP720 LED4/WW PSU 100-240V 360 SI

* For full product portfolio please contact your local Philips Representative

IEC 60598



CitySoul

Philips CitySoul's classic design merges well with today's urban environment. Its simple, flat, ellipsoidal form of the luminaire creates an elegant light-point while improving the attractiveness of a city.

CitySoul helps to create a positive image of a city, stimulating a sense of communal identity and pride.

This family of modular street lighting luminaires features state-of-the-art lamp and gear technologies and offers outstanding optical performance. CitySoul is also highly versatile. Suitable for side-entry and post-top installation and with its adjustable beam, it fits every application.

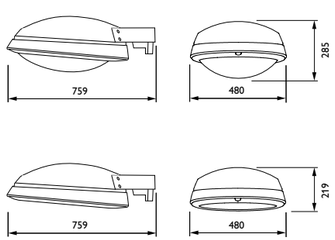
Incorporating highly energy-efficient technologies, CitySoul has been designated as a Philips 'Green Flagship'.

Features and benefits

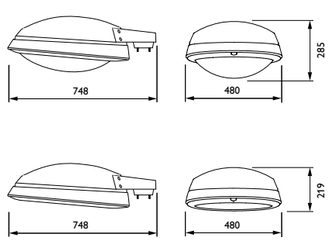
- Integrated with the latest innovative CosmoPolis system for lower energy consumption, outstanding lighting performance and bright, natural white light
- Well-concealed screw design on the spigot for post-top installation effortlessly synchronizes the luminaire with the pole and with its environment as well as facilitates fast installation
- Adjustable lamp holder position and a choice of flat glass and bowl glass deliver maximum flexibility for different road uses and appearance
- Tool-less 'click & release' gear tray and housing contribute less maintenance time and savings in cost
- Re-lamping from below provides easy access to the lamp and prevents water from dropping into the luminaire during wet conditions

Product size (dimensions in mm)

Standard post top



Standard side entry



Related products



CitySoul CGP431 urban lighting luminaire with flat glass (FG)



CitySoul CGP431 urban lighting luminaire with glass bowl (BG)

Outdoor



IP66 IK05

Technical parameters

Type	CGP431
Light source	HID: 1 x MASTER CosmoPolis CPO-T White / PGZ12 / 60, 140 W / 1 x SON-T/ E27 / 70 W / 1 x SON-T/ E40 / 150, 250 W
Lamp included	No / Yes (K)
Gear	Electromagnetic (low loss), 230 or 240 V / 50 Hz: / Inductive (IN) / Electronic, 220 - 240 V / 50 - 60 Hz: High Frequency (HF) / Electronic (EB)
Optics	CosmoPolis optic (OC) / Facetted open CT-POT (OR)
Optical cover	Flat glass (FG) / Glass bowl (BG)
Weight	12.50Kg
Materials and finish	Non corrosive high-pressure die-cast aluminum for the canopy and frame / High purity aluminum reflector Toughened glass bowl and flat glass / High quality silicon rubber gasket / Standard color: RAL7043 (GR)
Installation	Post-top mounting: axial entry Ø 60 or 76 mm (76P) / Side-entry mounting: lateral entry Ø 42 to 60 mm (60S)
Classifcations	IP66. IK05, Class 1

Key Portfolio*

Product ID	Product ID	Product ID
CGP431 CPO-T60W 220-240V K OC FG GR 42/60S	CGP431 SON-T150W 240V 50Hz OR FG GR 42/60S	CGP431 SON-T70W 230V 50Hz OR GB GR 42/60S
CGP431 CPO-T60W 220-240V K OC FG GR 60/76P	CGP431 SON-T150W 240V 50Hz OR FG GR 60/76P	CGP431 SON-T70W 230V 50Hz OR GB GR 60/76P
CGP431 CPO-T60W 220-240V OC FG GR 42/60S	CGP431 SON-T250W 220V 50Hz OR FG GR 42/60S	CGP431 SON-T70W 240V 50Hz OR GB GR 42/60S
CGP431 CPO-T60W 220-240V OC FG GR 60/76P	CGP431 SON-T250W 220V 50Hz OR FG GR 60/76P	CGP431 SON-T70W 240V 50Hz OR GB GR 60/76P
CGP431 CPO-T140W 220-240V K OC FG GR 42/60S	CGP431 SON-T250W 230V 50Hz OR FG GR 42/60S	CGP431 SON-T150W 220V 50Hz OR GB GR 42/60S
CGP431 CPO-T140W 220-240V K OC FG GR 60/76P	CGP431 SON-T250W 230V 50Hz OR FG GR 60/76P	CGP431 SON-T150W 220V 50Hz OR GB GR 60/76P
CGP431 CPO-T140W 220-240V OC FG GR 42/60S	CGP431 SON-T250W 240V 50Hz OR FG GR 42/60S	CGP431 SON-T150W 230V 50Hz OR GB GR 42/60S
CGP431 CPO-T140W 220-240V OC FG GR 60/76P	CGP431 SON-T250W 240V 50Hz OR FG GR 60/76P	CGP431 SON-T150W 230V 50Hz OR GB GR 60/76P
CGP431 SON-T70W 220V 50Hz OR FG GR 42/60S	CGP431 CPO-T60W 220-240V K OC GB GR 42/60S	CGP431 SON-T150W 240V 50Hz OR GB GR 42/60S
CGP431 SON-T70W 220V-50Hz OR FG GR 60/76P	CGP431 CPO-T60W 220-240V K OC GB GR 60/76P	CGP431 SON-T150W 240V 50Hz OR GB GR 60/76P
CGP431 SON-T70W 230V 50Hz OR FG GR 42/60S	CGP431 CPO-T60W 220-240V OC GB GR 42/60S	CGP431 SON-T250W 220V 50Hz OR GB GR 42/60S
CGP431 SON-T70W 230V 50Hz OR FG GR 60/76P	CGP431 CPO-T60W 220-240V OC GB GR 60/76P	CGP431 SON-T250W 220V 50Hz OR GB GR 60/76P
CGP431 SON-T70W 240V 50Hz OR FG GR 42/60S	CGP431 CPO-T140W 220-240V K OC GB GR 42/60S	CGP431 SON-T250W 230V 50Hz OR GB GR 42/60S
CGP431 SON-T70W 240V 50Hz OR FG GR 60/76P	CGP431 CPO-T140W 220-240V K OC GB GR 60/76P	CGP431 SON-T250W 230V 50Hz OR GB GR 60/76P
CGP431 SON-T150W 220V 50Hz OR FG GR 42/60S	CGP431 CPO-T140W 220-240V OC GB GR 42/60S	CGP431 SON-T250W 240V 50Hz OR GB GR 42/60S
CGP431 SON-T150W 220V 50Hz OR FG GR 60/76P	CGP431 CPO-T140W 220-240V OC GB GR 60/76P	CGP431 SON-T250W 240V 50Hz OR GB GR 60/76P
CGP431 SON-T150W 230V 50Hz OR FG GR 42/60S	CGP431 SON-T70W 220V 50Hz OR GB GR 42/60S	
CGP431 SON-T150W 230V 50Hz OR FG GR 60/76P	CGP431 SON-T70W 220V 50Hz OR GB GR 60/76P	

* For full product portfolio please contact your local Philips Representative

IEC 60598



Metronomis



Metronomis Torino

The simple, elegant outline of Torino CDS530 integrates harmoniously with most modern urban environments. The housing has been kept as small as possible and has a smooth transition from luminaire to column. Depending on the combination of light sources and bowls chosen, CDS530 can create a variety of different lighting effects.



Metronomis Malmö

Metronomis Malmö combines direct lighting with a gently reflected light effect through the use of a reflective disc. With its transparent design, Metronomis Malmö is eminently suitable for promenades and parks where an atmospheric lighting effect is desired.



Metronomis Annecy

Metronomis Annecy is ideally suited to modern residential areas. Variations in lighting effect and design can be achieved through the use of a clear or opaque cover. By using different light sources and optical elements, it is possible to create different accents and atmospheres within the living environment.



Metronomis Berlin

Metronomis Berlin combines a traditional outline with contemporary styling. Resembling traditional gas lanterns, it has been designed primarily for urban areas with historical themes.



Metronomis Cambridge

Metronomis Cambridge can be seen as a contemporary version of the classic street lantern. It particularly suits urban environments where romance, tradition and history are important aesthetic considerations. With Metronomis Cambridge, special attention has been devoted to the lighting effects required to enhance the ambience of historical areas.

Outdoor

IP65 IK09

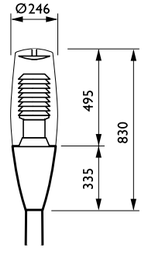
Technical parameters

Type	CDS530
Features	Optical louver for efficient light distribution Post-top installation
Light source	HID: 1 x MASTERColour CDM-T / G12 / 70, 150 W 1 x SON-T / E27 / 70 W 1 x SON-T / E40 / 150 W
Lamp included	No
Gear	Electronic, 220 - 240 V / 50 Hz: Electronic (EB)
Optics	Louver
Optical cover	Transparent bowl (TT)
Materials and finish	High-pressure die-casted aluminum housing Polycarbonate bowls (PC) High-pressure die-cast aluminum louvers High-grade dark gray finishing
Installation	Optimized for post-top mounting on a column with a section diameter of 60mm
Classifications	IP65 Class I IK09

Product details (dimensions in mm)



Metronomis Torino CDS530
luminaire with clear bowl (TB/TT)



IEC 60598



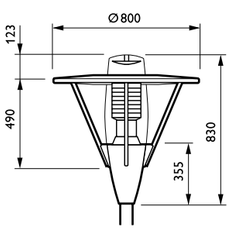
Technical parameters

Type	CDS550
Features	Post-top mounting
Light source	HID: 1 x MASTERColour CDM-T / G12 / 70, 150 W 1 x SON-T / E27 / 70 W 1 x SON-T / E40 / 150 W
Lamp included	No
Gear	Electronic, 220 - 240 V / 50 - 60 Hz: Electronic (EB)
Optics	Louver
Optical cover	Transparent bowl and cover (TT)
Materials and finish	High-pressure die-casted aluminum housing Polycarbonate (PC) bowls Extruded aluminum disc support rods High-pressure die-cast aluminum louvers PMMA horizontal reflective disc High-grade dark gray finishing
Installation	Optimized for post-top mounting on a column with a section diameter of 60 mm
Classifications	IP65 Class I IK09

Product details (dimensions in mm)



Metronomis Malmö CDS550
luminaire with clear bowl (TT)



Technical parameters

Type	CDS560
Features	Post-top mounting
Light source	HID: 1 x MASTERColour CDM-T / G12 / 70, 150 W 1 x SON-T / E27 / 70 W 1 x SON-T / E40 / 150 W
Lamp included	No
Gear	Electronic, 220 - 240 V / 50 - 60 Hz: Electronic (EB)
Optics	Louver
Optical cover	Transparent bowl and cover (TT)
Materials and finish	High-pressure die-casted aluminum housing Polycarbonate (PC) bowls and bowl covers High-pressure die-cast aluminum louvers High-grade dark gray finishing
Installation	Optimized for post-top mounting on a column with a section diameter of 60 mm
Classifications	IP65 Class I

Technical parameters

Type	CDS570
Features	Post-top mounting
Light source	HID: 1 x MASTERColour CDM-T / G12 / 70, 150 W 1 x SON-T / E27 / 70 W 1 x SON-T / E40 / 150 W
Lamp included	No
Gear	Electronic, 220 - 240 V / 50 - 60 Hz: Electronic (EB)
Optics	Louver
Optical cover	Transparent bowl and cover (TT)
Materials and finish	High-pressure die-casted aluminum housing Die-cast aluminum decorative arms Polycarbonate (PC) bowls and bowl covers High-pressure die-cast aluminum louvers High-grade dark gray finishing
Installation	Optimized for post-top mounting on a column with a section diameter of 60 mm
Classifications	IP65 Class I

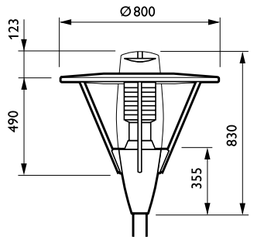
Technical parameters

Type	CDS580
Features	Post-top mounting
Light source	HID: 1 x MASTERColour CDM-T / G12 / 70, 150 W 1 x SON-T / E27 / 70 W 1 x SON-T / E40 / 150 W
Lamp included	No
Gear	Electronic, 220 - 240 V / 50 - 60 Hz: Electronic (EB)
Optics	Louver
Optical cover	Transparent bowl and cover (TT)
Materials and finish	High-pressure die-casted aluminum housing Die-cast aluminum decorative arms Polycarbonate (PC) bowls and bowl covers High-pressure die-cast aluminum louvers High-grade dark gray finishing
Installation	Optimized for post-top mounting on a column with a section diameter of 60 mm
Classifications	IP65 Class I

Product details (dimensions in mm)



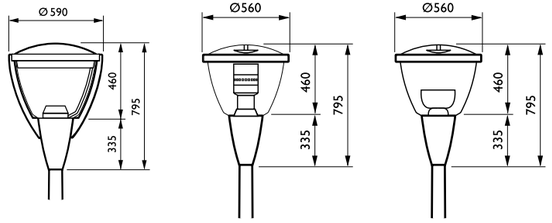
Metronomis Annecy CDS560
luminaire with clear bowl (TT)



Product details (dimensions in mm)



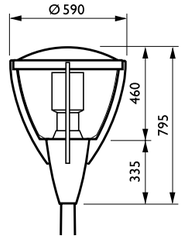
Metronomis Berlin CDS570
luminaire with clear bowl (TT)



Product details (dimensions in mm)



Metronomis Cambridge CDS580
luminaire with clear bowl (TT)







Key Portfolio*

Product ID	Weight (kg)
CDS530	
CDS530 CDM-T70W 220V-50Hz TT	10.00
CDS530 CDM-T150W 220V-50Hz TT	11.00
CDS530 CDM-T150W 230V-50Hz TT	11.00
CDS530 CDM-T150W 240V-50Hz TT	11.00
CDS530 SON-T70W 220V-50Hz TT	10.00
CDS530 SON-T70W 230V-50Hz TT	10.00
CDS530 SON-T70W 240V-50Hz TT	10.00
CDS530 SON-T150W 220V-50Hz TT	11.00
CDS550	
CDS550 CDM-T70W 220V-50Hz TT	15.50
CDS550 CDM-T70W 230V-50Hz TT	15.50
CDS550 CDM-T150W 220V-50Hz TT	16.50
CDS550 CDM-T150W 240V-50Hz TT	16.50
CDS550 SON-T70W 220V-50Hz TT	15.50
CDS550 SON-T70W 240V-50Hz TT	15.50
CDS550 SON-T150W 220V-50Hz TT	16.50
CDS560	
CDS560 CDM-T70W 220V-50Hz TT	13.30
CDS560 CDM-T150W 220V-50Hz TT	13.80
CDS560 CDM-T150W 240V-50Hz TT	13.80
CDS560 SON-T70W 220V-50Hz TT	13.30
CDS560 SON-T70W 240V-50Hz TT	13.30
CDS560 SON-T150W 220V-50Hz TT	13.80

Product ID	Weight (kg)
CDS570	
CDS570 CDM-T70W 220V-50Hz TT	14.50
CDS570 CDM-T150W 220V-50Hz TT	15.00
CDS570 CDM-T150W 240V-50Hz TT	15.00
CDS570 SON-T70W 220V-50Hz TT	14.50
CDS570 SON-T70W 240V-50Hz TT	14.50
CDS570 SON-T150W 220V-50Hz TT	15.00
CDS580	
CDS580 CDM-T70W 220V-50Hz TT	16.00
CDS580 CDM-T150W 220V-50Hz TT	16.00
CDS580 CDM-T150W 240V-50Hz TT	16.00
CDS580 SON-T70W 220V-50Hz TT	16.00
CDS580 SON-T70W 230V-50Hz TT	15.50
CDS580 SON-T70W 240V-50Hz TT	15.50
CDS580 SON-T150W 220V-50Hz TT	16.00

* For full product portfolio please contact your local Philips Representative

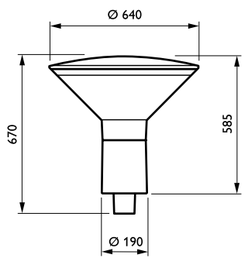


CitySpirit

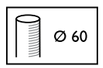
Philips CitySpirit is a range of street-lighting luminaires designed to provide excellent, environmentally-friendly lighting without compromising on architectural appearance.

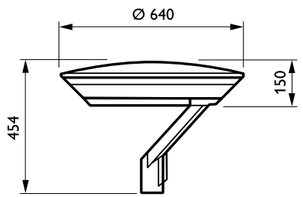
To ensure perfect integration in the urban streetscape, the luminaire, mast and bracket of CitySpirit have been developed as one design. With CitySpirit, we are offering dedicated optical solutions that have been optimized to allow the very best spacing.

Product size (dimensions in mm)



CitySpirit Cone CDS470





CitySpirit Street CDS480

Features and benefits

- Unobtrusive design blends in with any environment.
- Transparent materials used so the inner design of the luminaire can be seen in the day, presenting a clean and classy look.
- Covers, pole mounts and inner components are made of aluminum for robustness.
- Wide range of new optical concepts to fit any application.
- Variety of solutions to limit upward light, control light glare and direct it where it's needed for comfort and ambience.
- Optimized to allow the very best spacing for energy efficiency and less clutter.
- Family of distinctive, modular designs that can be customized to complement architectural beauty.
- Prismatic refractors and diffusers limit glare, improve light distribution and help reduce energy bills.

Outdoor

IP65

Technical parameters

Type	CDS470 CitySpirit Cone
Light source	CPO-TW60/140 W* CDM-70/150 W* SON-T70/100 W* * Some limitations apply, depending on the optic
Optical element	Indirect symmetric (TS-IO), Indirect bi-directional (TB-IO) Indirect asymmetric (TA-IO)
Gear	Integrated: Conventional or Electronic (EB)
Ignitor	Semi-parallel (SP)
Power supply	220V, 230 V, 240 V
Material	Housing: die-cast aluminum painted silver-gray Pole mount: die-cast aluminum painted Philips dark gray Bowl and skirt: UV-stabilized PC Top cover: die-cast aluminum painted Philips dark gray with heat shield or reflector
Installation	Available for post-top mounting on pole diameter 60 mm (60P) Electrical connection: via automatic connector at the base



Technical parameters

Type	CDS480 CitySpirit Street
Light source	CPO-TW60/140 W CDM-T70/150 W SON-T70/150 W
Optical element	Closed or open CT-POT252, depending on lamp
Gear	Integrated: Conventional or Electronic (EB)
Ignitor	Semi-parallel (SP)
Power supply	220V, 230 V, 240 V
Material	Housing, pole mount and cover: die-cast aluminum painted Philips dark gray Tempered glass
Installation	Available for post-top mounting on pole diameter 60 mm (60P) Electrical connection: via automatic connector at the base

Product details



CitySpirit Cone
CDS470

Optical Elements



Indirect symmetric



Indirect bi-directional



Indirect asymmetric

Product details



CitySpirit Street
CDS480

IEC 60598



Key Portfolio*

Product ID
CDS470
CDS470 C SON-T70W 220V-50Hz TS IO
CDS470 C CDM-T70W 220V-50Hz TS IO
CDS470 C CDM-T150W 220V-50Hz TS IO
CDS470 C SON-T70W 230V-50Hz TS IO
CDS470 C CDM-T70W 230V-50Hz TS IO
CDS470 C CDM-T150W 230V-50Hz TS IO
CDS470 C SON-T70W 240V-50Hz TS IO
CDS470 C CDM-T70W 240V-50Hz TS IO
CDS470 C CDM-T150W 240V-50Hz TS IO
CDS470 C CPO-TW60W 220-240V TS IO
CDS470 C CPO-TW140W 220-240V TS IO
CDS470 C SON-T70W 220V-50Hz TA IO
CDS470 C CDM-T70W 220V-50Hz TA IO
CDS470 C CDM-T150W 220V-50Hz TA IO
CDS470 C SON-T70W 230V-50Hz TA IO
CDS470 C CDM-T70W 230V-50Hz TA IO
CDS470 C CDM-T150W 230V-50Hz TA IO
CDS470 C SON-T70W 240V-50Hz TA IO
CDS470 C CDM-T70W 240V-50Hz TA IO
CDS470 C CDM-T150W 240V-50Hz TA IO
CDS470 C CPO-TW60W 220-240V TA IO
CDS470 C CPO-TW140W 220-240V TA IO
CDS470 C SON-T70W 220V-50Hz TB IO
CDS470 C CDM-T70W 220V-50Hz TB IO
CDS470 C CDM-T150W 220V-50Hz TB IO
CDS470 C SON-T70W 230V-50Hz TB IO
CDS470 C CDM-T70W 230V-50Hz TB IO
CDS470 C CDM-T150W 230V-50Hz TB IO
CDS470 C SON-T70W 240V-50Hz TB IO
CDS470 C CDM-T70W 240V-50Hz TB IO
CDS470 C CDM-T150W 240V-50Hz TB IO
CDS470 C CPO-TW60W 220-240V TB IO
CDS470 C CPO-TW140W 220-240V TB IO

Product ID
CDS480
CDS480 C SON-T70W 220V-50Hz CR
CDS480 C SON-T150W 220V-50Hz OR
CDS480 C CDM-T70W 220V-50Hz CR
CDS480 C CDM-T150W 220V-50Hz CR
CDS480 C SON-T70W 230V-50Hz CR
CDS480 C SON-T150W 230V-50Hz OR
CDS480 C CDM-T70W 230V-50Hz CR
CDS480 C CDM-T150W 230V-50Hz CR
CDS480 C SON-T70W 240V-50Hz CR
CDS480 C SON-T150W 240V-50Hz OR
CDS480 C CDM-T70W 240V-50Hz CR
CDS480 C CDM-T150W 240V-50Hz CR
CDS480 C CPO-TW60W 220-240V CR
CDS480 C CPO-TW140W 220-240V CR

* For full product portfolio please contact your local Philips Representative



CitySpirit LED

Philips CitySpirit LED is a functional LED post-top with excellent lighting performance, helping to create a modern, sustainable urban space.

Features and benefits

- Energy saving with high efficacy and intelligent dimming function (80lm/w)
- Modern and stylish product design
- Comfortable lighting performance and good night preservation (ULOR <5%)
- Advanced optical design and high lumen output, good for road lighting application

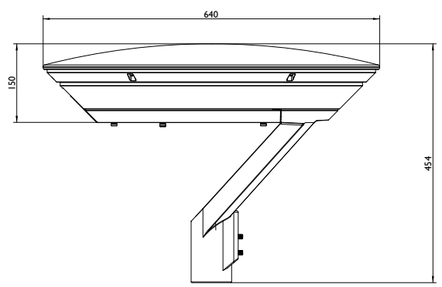
IP65 | 50Khrs | IK09



Technical parameters

Type	BDS480
Light source	16/32 x High Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	16 LED: WW 2700lm, NW 3150lm 32 LED: WW 5400lm, NW 6300lm
CRI	>70
Optic	Configured for road or landscape
Power consumption	36W/70W
Power input	220-240V / 50-60 Hz
Control	PSU: On/Off only PSD: Self-Dimmable
Material and Finish	Die-cast aluminum housing, tempered glass
Housing color	Dark gray
Lumen Maintenance	50Khrs (L70, Ta=25°C)
Weight	17.5Kg
Mounting	Post top mount (4-7m)
Classifications	Class I, IP65, IK09
Operating Temperature	-40°C ~ + 35°C

Product size (dimensions in mm)



Key Portfolio*

Product ID
BDS480 16xLED/NW PSU 220-240V
BDS480 16xLED/WW PSU 220-240V
BDS480 16xLED/NW PSD 220-240V
BDS480 16xLED/WW PSD 220-240V
BDS480 32xLED/NW PSD 220-240V
BDS480 32xLED/WW PSD 220-240V
BDS480 32xLED/NW PSU 220-240V
BDS480 32xLED/WW PSU 220-240V

* For full product portfolio please contact your local Philips Representative

Outdoor

IEC 60598



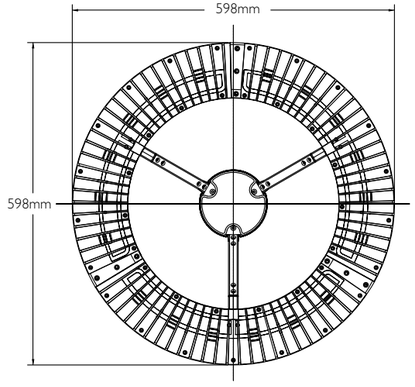
Smart LED Post Top Gen2

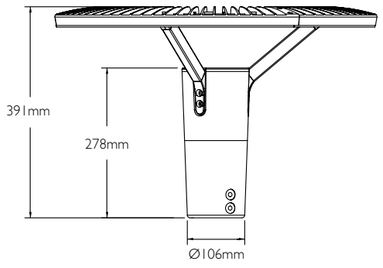
Philips Smart LED Post-top G2 inherits the classic design of the first generation, and increases the light performance. With its pleasing proportions and well sculpted lines, the LED Post Top is an affordable LED lighting fixture that is extremely reliable with beautiful light throw.

Features and benefits

- Lumen output increases more than 50% vs Gen1
- High-quality long lifetime LED light source and better light output uniformity
- Lumen maintenance more than 25,000 hours
- Proven IP65 compliance for exceptional water resistance

Product size (dimensions in mm)





Outdoor

IP65 | 25Khrs | IK08



Technical parameters

Type	BGP151 LED2000	BGP151 LED3000
Light source	48x LED-MP	72x LED-MP
CCT	WW(3000K), NW(4000K)	WW(3000K), NW(4000K)
Lumen output	WW>1800lm, NW>1900lm	WW>2700lm, NW>2800lm
CRI	>70	>70
Optic	Frosted optical diffuser	Frosted optical diffuser
Power consumption	30W	43W
Power supply	220-240V/50-60Hz	220-240V/50-60Hz
Material and Finish	High Pressure Die-Cast Aluminum Housing Frosted Polycarbonate Optical Diffuser	High Pressure Die-Cast Aluminum Housing Frosted Polycarbonate Optical Diffuser
Housing color	Dark Grey(RAL7043), Light Grey(RAL9006)	Dark Grey(RAL7043), Light Grey(RAL9006)
Lumen Maintenance	25Khrs (L70, Ta=25°C)	25Khrs (L70, Ta=25°C)
Weight	7.5Kg	7.5Kg
Mounting	Post top mounting, pole size of Ø60mm. Recommended mounting height of 3-5m come with M16 cable gland, and 0.5m length of 3x1.0mm² flying lead cable	Post top mounting, pole size of Ø60mm. Recommended mounting height of 3-5m come with M16 cable gland, and 0.5m length of 3x1.0mm² flying lead cable
Classification & Operating temperature	Class I, IP65, IK08 Ta: -20°C to 35°C	Class I, IP65, IK08 Ta: -20°C to 35°C
Approvals	CB, CQC	CB, CQC

Key Portfolio*

Product ID
BGP151 LED2000/NW PSU 220-240V 9006
BGP151 LED2000/NW PSU 220-240V 7043
BGP151 LED2000/WW PSU 220-240V 9006
BGP151 LED2000/WW PSU 220-240V 7043
BGP151 LED3000/NW PSU 220-240V 9006
BGP151 LED3000/NW PSU 220-240V 7043
BGP151 LED3000/WW PSU 220-240V 9006
BGP151 LED3000/WW PSU 220-240V 7043

* For full product portfolio please contact your local Philips Representative

IEC 60598 | CB



Smart LED Bollard

A reliable and impact-resistant lighting bollard perfectly suited for the outdoor environment. The Philips Smart LED Bollard is easy to install and provides comfortable soft lighting, offering an adequate source of light without consuming a large amount of energy.

Features and benefits

- Provides you choice and flexibility
- The exclusive use of LED technology also means an environmentally friendly lighting solution that needs less maintenance
- Engineered to a high degree of water and impact resistance (proven IP and IK standards) making them ideal candidates for outdoor environments

IP65 | IK10 | 25Khrs

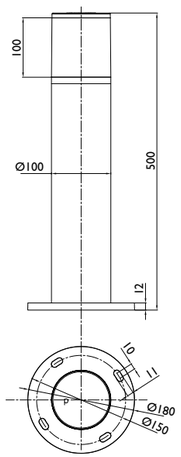


Technical parameters	
Type	BCP150
Light source	96x Low Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 300lm, NW 400lm
CRI	WW>80, NW>75
Optic	Closed,diffused
Power consumption	8W
Power input	220-240V / 50-60 Hz
Material and Finish	Extrusion Alu housing, Polycarbonate Diffuser tube
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	25Khrs (L70, Ta=25°C)
Weight	1.32Kg
Mounting	on ground surface mount
Classifications	Class I, IP65, IK10
Operating Temperature	-20°C ~ + 40°C

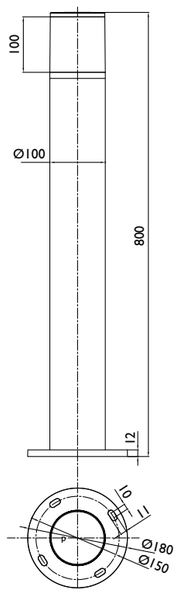
Technical parameters	
Type	BCP151
Light source	96x Low Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 300lm, NW 400lm
CRI	WW>80, NW>75
Optic	Closed,diffused
Power consumption	8W
Power input	220-240V / 50-60 Hz
Material and Finish	Extrusion Alu housing, Polycarbonate Diffuser tube
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	25Khrs (L70, Ta=25°C)
Weight	1.85Kg
Mounting	on ground surface mount
Classifications	Class I, IP65, IK10
Operating Temperature	-20°C ~ + 40°C

Product size (dimensions in mm)

BCP150



BCP151



Outdoor

Key Portfolio*

Product ID
BCP151 LED150/NW PSU 220-240V 9006
BCP151 LED150/WW PSU 220-240V 9006
BCP151 LED150/NW PSU 220-240V 7043
BCP151 LED150/WW PSU 220-240V 7043
BCP150 LED150/NW PSU 220-240V 9006
BCP150 LED150/WW PSU 220-240V 9006
BCP150 LED150/NW PSU 220-240V 7043
BCP150 LED150/WW PSU 220-240V 7043

* For full product portfolio please contact your local Philips Representative

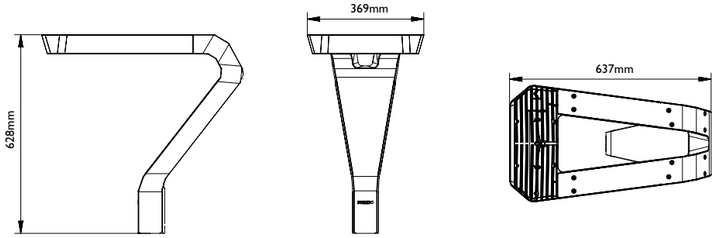
IEC 60598



Flow Post-top

A family of four distinctive landscape luminaires inspired by modern city style. With its optimized lighting output, stylish design and aluminum housing it is the perfect addition to modern city urban life.

Product size (dimensions in mm)



Features and benefits

- Family available
  – holistic and integrated impressions on landscape application
- LED-based
  – perfect control of light distribution & long-lasting performances
  – little energy consumption & environmental friendly
- Precise selected photometric packages
  – various alternatives for beam angles, beam combinations, intensity distributions, CCT, etc. cover complete requirements of all landscape applications
  – flexibility in urban, landscape and residential areas

Outdoor

IP65 IK09 50Khrs

Technical parameters

Type	BDS760 S
Light source	16x High Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 2100lm, NW 2500lm
CRI	WW>75, NW>70
Optic	Symmetrical
Power consumption	37.5W
Power input	220-240V / 50-60 Hz
Material and Finish	Die-cast aluminum housing, Polycarbonate Optical cover
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lifetime	50Khrs (L70, Ta=25°C)
Weight	13Kg
Dimension(mm)	369X737XH628
Mounting	pole size Ø 60mm, recommend pole height 4-6m
Classifications	Class I, IP65, IK09
Operating Temperature	-40°C ~ + 50°C

Technical parameters

Type	BDS760 A
Light source	16x High Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 2100lm, NW 2500lm
CRI	WW>75, NW>70
Optic	Asymmetrical
Power consumption	37.5W
Power input	220-240V / 50-60 Hz
Material and Finish	Die-cast aluminum housing, Polycarbonate Optical cover
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lifetime	50Khrs (L70, Ta=25°C)
Weight	13Kg
Dimension(mm)	369X737XH628
Mounting	pole size Ø 60mm, recommend pole height 4-6m
Classifications	Class I, IP65, IK09
Operating Temperature	-40°C ~ + 50°C

Key Portfolio*

Product ID
BDS760 LED25/WW PSU 220-240V A SI
BDS760 LED25/WW PSU 220-240V A GR
BDS760 LED25/WW PSU 220-240V S SI
BDS760 LED25/WW PSU 220-240V S GR
BDS760 LED25/NW PSU 220-240V A SI
BDS760 LED25/NW PSU 220-240V A GR
BDS760 LED25/NW PSU 220-240V S SI
BDS760 LED25/NW PSU 220-240V S GR

* For full product portfolio please contact your local Philips Representative

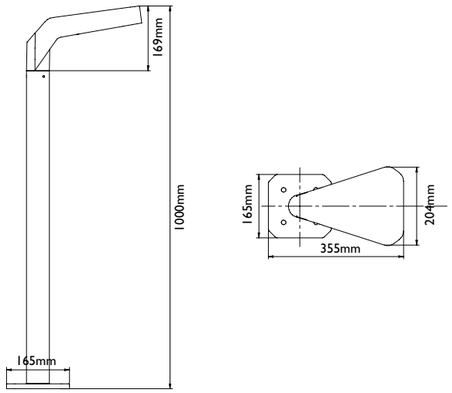
IEC 60598



Flow Bollard

A family of four distinctive landscape luminaires inspired by modern city style. With its optimized lighting output, stylish design and aluminum housing it is the perfect addition to modern city urban life.

Product size (dimensions in mm)



Features and benefits

- Family available
  – holistic and integrated impressions on landscape application
- LED-based
  – perfect control of light distribution & long-lasting performances
  – little energy consumption & environmental friendly
- Precise selected photometric packages
  – various alternatives for beam angles, beam combinations, intensity distributions, CCT, etc. cover complete requirements of all landscape applications
  – flexibility in urban, landscape and residential areas

Outdoor

IP65 | IK10 | 50KHrs

Technical parameters

Type	BCP760
Light source	5x Low Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 127lm, NW 142lm
CRI	WW>75, NW>70
Optic	Diffused glass
Power consumption	4W
Power input	220-240V / 50-60 Hz
Material and Finish	Die-cast Alu housing, Polycarbonate Optical cover
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	50Khrs (L70, Ta=25°C)
Weight	4.8Kg
Mounting	On ground surface mount
Classifications	Class I, IP65, IK10
Operating Temperature	-40°C ~ + 50°C

Key Portfolio*

Product ID
BCP760 LED1/WW PSU 220-240V GR
BCP760 LED1/WW PSU 220-240V SI
BCP760 LED1/NW PSU 220-240V GR
BCP760 LED1/NW PSU 220-240V SI

* For full product portfolio please contact your local Philips Representative

IEC 60598

PHILIPS

Road

Road



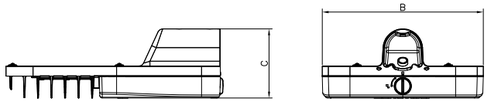
GreenVision Xceed

Philips GreenVision Xceed offers an affordable LED road lighting solution to the customer for both pedestrian and vehicle road applications. It offers 3 housing sizes and a range of beam optics to fully cater to different road configurations and conditions. It is designed to achieve better light uniformity and maximum spacing between poles, while ensuring sufficient light on the road. Its die-cast aluminum housing and Philips LED platform ensures long lifetime and reliability. Best of all, GreenVision Xceed offers up to 50% of energy savings when compared to conventional lamp systems.

Features and benefits

- Solid die-cast housing design ensures long fixture lifetime
- Excellent thermal management ensures long system lifetime
- World class, approbated quality components (LEDs / Driver / etc.)
- Tool-less opening of gear compartment & gear tray replacement for ease of maintenance
- Up to 50% energy savings with full compliance to road lighting safety standards
- Superior W/m² performance delivered through different optics for greater flexibility to fit different road applications
- High quality cool and neutral white light with high color consistency

Product size (dimensions in mm)



Product ID	A=Length (mm)	B=Width (mm)	C=Height (mm)
Small	422	318	136
Medium	522	318	136
Large	853	318	136

Outdoor

IP66 | 50K hrs | IK08



Technical parameters

Type	BRP371/372/373
Light source	LED
Power requirement	220-240V 50/60Hz
Power factor	> 0.95 (nominal power)
LED driver & driving current	Constant current or programmable driver options 100mA - 700mA
System lumen output	Up to 31,700 lumen
CRI	Minimum 70
Color temperature	CW-5700K / NW-4000K / WW-3000K ± 500K
Optics	DNE, DME, DWE, DWV, DWP, DW, DM MP1, DW MP1, DW2 MP1
Materials and finishing	Housing: High pressure die-cast aluminum Gasket: Heat resistant silicone rubber Glass: Tempered Glass Grey Paint RAL7040
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 35°C)
Working Temperature Range	-40°C < Ta < 55°C
Installation	Ø48-60mm pole, side entry
Weight	BRP371:6.5kg BRP372:8kg BRP373:14kg
Windage area	BRP371:0.134m² BRP372:0.166m² BRP373:0.271m²
Recommended mounting height	< 12 m
Classifications	IP66; IK08; Class I
Wind force	Up to 60m/s
Relative Humidity	Up to 95% RH
Surge protection	10KV
Controls	Standalone dimming program Tele-managed CityTouch, StarSense and AmpLight compatible NEMA and D2 Type PE Cell
Maintenance	Tool-less opening of gear compartment Tool-less gear tray replacement
Certifications	CB, CQC, AS1158, RoHS

Key Portfolio*

Product ID
BRP371 LED53/NW 55W 220-240V DNE
BRP371 LED70/NW 70W 220-240V DNE
BRP371 LED87/NW 90W 220-240V DME
BRP371 LED104/NW 105W 220-240V DME
BRP372 LED122/NW 120W 220-240V DME
BRP372 LED139/NW 140W 220-240V DME
BRP372 LED157/NW 155W 220-240V DME
BRP373 LED174/NW 175W 220-240V DME
BRP373 LED192/NW 195W 220-240V DME
BRP373 LED209/NW 210W 220-240V DME
BRP373 LED226/NW 225W 220-240V DME
BRP373 LED243/NW 240W 220-240V DME
BRP373 LED260/NW 260W 220-240V DME
BRP373 LED277/NW 275W 220-240V DME
BRP373 LED294/NW 290W 220-240V DME
BRP373 LED311/NW 305W 220-240V DME
BRP371 LED56/NW 55W 220-240V DM MP1
BRP371 LED75/NW 75W 220-240V DM MP1
BRP371 LED93/NW 90W 220-240V DM MP1
BRP371 LED112/NW 110W 220-240V DM MP1
BRP372 LED131/NW 125W 220-240V DM MP1
BRP372 LED150/NW 145W 220-240V DM MP1
BRP372 LED159/NW 150W 220-240V DM MP1
BRP373 LED187/NW 185W 220-240V DM MP1
BRP373 LED206/NW 200W 220-240V DM MP1
BRP373 LED224/NW 220W 220-240V DM MP1
BRP373 LED243/NW 240W 220-240V DM MP1
BRP373 LED262/NW 255W 220-240V DM MP1
BRP373 LED280/NW 270W 220-240V DM MP1
BRP373 LED300/NW 290W 220-240V DM MP1
BRP373 LED317/NW 305W 220-240V DM MP1

*Please contact your local Philips representative for additional configurations

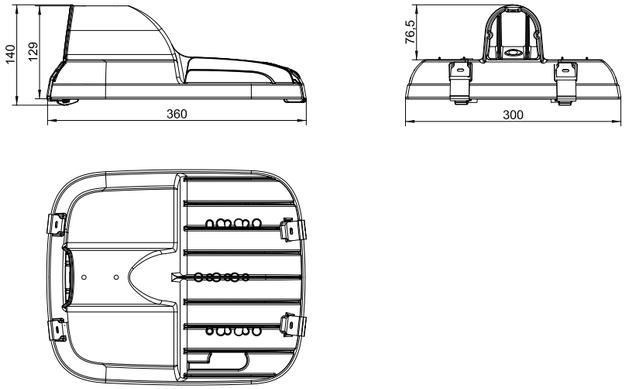
IEC EN60598 | AS/NZS 60598 | AS/NZS 1158 | CB | RoHS



GreenVision Mini

Philips GreenVision Mini offers an affordable LED road lighting solution to the customer for small pedestrian, residential and industrial roads. Its die-cast aluminum housing and Philips LED platform ensures long lifetime and reliability.

Product size (dimensions in mm)



Features and benefits

- Maximize Energy Savings
  - Up to 50% energy savings with full compliance to road lighting safety standards
  - Superior W/m² performance delivered through different optics for greater flexibility to fit different road applications
- Reliable and Future Proof
  - Solid die-cast housing design ensures long fixture lifetime
  - Excellent thermal management ensures long system lifetime
  - World class, approbated quality components (LEDs/Driver/etc)
  - Tool-less opening of the housing for ease of maintenance
- Safety & Comfort
  - Complies to P category road lighting safety standards
  - High quality cool and neutral white light with high colour consistency

Outdoor

IP65 | 50Khrs | IK08



Technical parameters

GreenVision Mini	
Type	BRP330
Light source	LED
Power requirement	220-240V 50/60Hz
Power factor	> 0.90 (nominal power)
LED driver & driving current	Constant current or programmable driver options 100mA - 700mA
System lumen output	Up to 7,500 lumen
CRI	Minimum 70
Color temperature	CW-5700K / NW-4000K / WW-3000K ± 500K
Optics	DNE, DME, DWE, DWV, DWP, DW, DM MP1, DW MP1, DW2 MP1
Materials and finishing	Housing: High pressure die-cast aluminum Gasket: Heat resistant silicone rubber Glass: Tempered Glass Grey Paint RAL7040
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 35°C)
Working Temperature Range	-40°C < Ta < 55°C
Installation	Ø48-60mm pole, side entry
Weight	4.5 kg
Windage area	0.108m²
Recommended mounting height	< 10m
Classifications	IP65; IK08; Class I
Surge protection	10KV
Controls	Standalone dimming program Tele-managed CityTouch, StarSense and AmpLight compatible
Maintenance	Tool-less opening of housing
Certifications	CB, CQC

Key Portfolio*

Product ID
BRP330 LED25/NW 28W 220-240V DME
BRP330 LED34/NW 37W 220-240V DME
BRP330 LED51/NW 55W 220-240V DME
BRP330 LED68/NW 70W 220-240V DME
BRP330 LED23/WW 28W 220-240V DME
BRP330 LED31/WW 37W 220-240V DME
BRP330 LED47/WW 55W 220-240V DME
BRP330 LED62/WW 70W 220-240V DME
BRP330 LED68/NW 70W 220-240V DME SD
BRP330 LED62/WW 70W 220-240V DME SD
BRP330 LED37/NW 37W 220-240V DM MP1
BRP330 LED56/NW 55W 220-240V DM MP1
BRP330 LED75/NW 75W 220-240V DM MP1
BRP330 LED34/WW 37W 220-240V DM MP1
BRP330 LED51/WW 55W 220-240V DM MP1
BRP330 LED68/WW 75W 220-240V DM MP1

*Please contact your local Philips representative for additional configurations

IEC EN60598 | CB



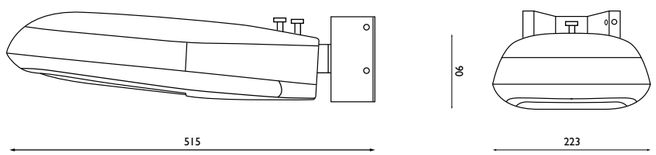
Metro LED

The Philips Metro LED luminaire brings a fresh new light to conveyor lighting, general mining lighting, residential streets, areas requiring good security, footpaths, access ways and industrial lighting estates. Its ergonomic curve-shaped design prevents dust collection. Designed with die-cast aluminum housing and polycarbonate cover, it provides vibration, dust and heat resistant capabilities to meet harsh application environments such as mining. It uses the Philips Ledgine LED platform to ensure long lifetime and reliability and offers significant energy savings when compared with conventional lamp systems.

Features and benefits

- Maximize Energy Savings
  - Significant energy savings compared with conventional lamp systems
- Reliable
  - Solid die-cast housing design ensures long fixture lifetime
  - Excellent thermal management ensures long system lifetime
  - World class, approbated quality components (LEDs/Driver/etc)
- Applicable for Dusty Environment
  - Ergonomic curve-shaped housing
  - Vibration, dust and heat resistant

Product size (dimensions in mm)



Outdoor

IP65 | 50Khrs | IK06



Technical parameters

Type	BGS007
Light source	LED
Power requirement	220-240V 50/60Hz
Power Factor	> 0.90 (nominal power)
LED driver & driving current	Constant current or programmable driver options 350mA - 700mA
System lumen output	Up to 3,200 lumen
System efficacy	90 lm/W ± 5%
CRI	Minimum 70
Color temperature	4000K ± 500K
Optics	Symmetrical Beam
Materials and finishing	Housing: Die-cast aluminum with Gray Paint RAL7040 Gasket: Heat resistant silicone rubber Cover : Polycarbonate
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 35°C)
Working Temperature Range	-40°C < Ta < 55°C
Installation	Ø 34mm pole, 80mm depth, side entry A standard mounting bracket is supplied for mounting flexibility
Weight	3.5 kg
Windage area	0.134m²
Recommended mounting height	< 12m
Classifications	IP65; IK06; Class I
Surge protection	10KV
Certifications	CB IEC60598, AS/NZ60598, RoHS

Key Portfolio*

Product ID
BGS007 LED20/NW 20W 220-240V SNE-V

*Please contact your local Philips representative for additional configurations

IEC EN60598 | AS/NZS 60598 | CB | RoHS



Iridium

The Philips Iridium family of road luminaires is comprised of three sizes – suited for different application heights and up to 400W lamps – all based on the same concept while offering a coherent, elegant family design. Iridium upholds a true family approach. Iridium also offers a wide choice of optical, electrical and mechanical combinations to suit many outdoor applications. In addition, its modularity has allowed the integration of the latest CosmoPolis technology to adapt to the growing demand for white light.

Features and benefits

SGS452
Iridium SGS452 has been optimized for lamps up to SON-T 70W, CDM-TT 70W and Cosmopolis CPO-TW 60W. Its main applications are secondary roads and industrial areas.

- An enduring luminaire with elegant and gently rounded form
- Two concepts within one luminaire: Opti-C and Opti-O
- A future-proof luminaire: IP66 for the whole luminaire
- Higher efficiency with integration of the Cosmopolis system; the CPO-T lamp with high efficient reflector and electronic ballast, better luminaire spacing (in new installations) and less energy consumption (in new and existing installations)
- Optics: CT-POT delivers outstanding performance with CPO-T lamp as well as the SON-T lamp
- Glass bowl for reducing light pollution and enhancing the design
- Fast installaion: side-entry or post-top
- Easy maintenance from above. Tool-free lamp and gear replacement

SGS453
Iridium SGS453 has been optimized for SON-T 250W and Cosmopolis CPO-T lamps. Its main applications are motorways and major roads.

- An everlasting luminaire with an elegant and gently rounded form
- Two concepts within one luminaire: Opti-C and Opti-O
- A future-proof luminaire: IP66 for the whole luminaire
- Higher efficiency with integration of the Cosmopolis system: the CPO-T lamp with a high efficient reflector and electronic ballast, better luminaire spacing (in new installations) and less energy consumption (in new and existing installations)
- Optics:
  - CT-POT delivers outstanding performance with CPO-T lamp as well as SON-T lamp
  - XT-POT allows you to use the luminaire when the pole height is bigger than the road width
- Glass bowl for reducing light pollution and enhancing the design
- Fast installation: side-entry or post-top
- Easy maintenance from above. Tool-free lamp and gear replacement

SGS454
Iridium SGS454 has been optimized for lamps up to 400W and suitably applied at motorways, major roads and high mast systems.

- An enduring luminaire with an elegant and gently rounded form
- Two concepts within one luminaire: Opti-C and Opti-O
- A future-proof luminaire: IP66 for the whole luminaire
- Optics: highly successful T-POT reflector performs best with SON-T lamp reflector or adjustable lamp holder
- Choice of bowls:
  - Glass bowl: reducing light pollution and enhancing the design
  - Flat glass: preventing glare and light pollution
- Fast installation: side entry or post-top
- Easy maintenance from above. Tool-free lamp and gear replacement

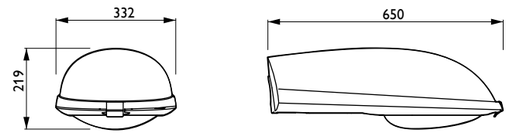
Outdoor

IP66 IK05

Technical parameters

Type	SGS452
Light source	HID: 1 x MASTER CosmoPolis CPO-T / PGZ12 / 60 W 1 x MASTERColour CDM-TT / E27 / 70 W 1 x SON-T / E27 / 70 W
Lamp included	No / Yes (K)
Gear	Electro magnetic (low loss), 220 - 240 V / 50 Hz: Inductive, parallel compensated (IC) Electronic, 220 - 240 V / 50-60 Hz: Electronic (EB)
Optics	Closed CT-POT (CR) Open CT-POT (OR)
Optical cover	Glass bowl (GB)
Materials and finish	Non-corrosive, high-pressure die-cast aluminum housing and spigot High-purity aluminum reflector, toughened flat glass and glass bowl Silicone rubber gasket Stainless steel front clip Color: Gray (GR)
Installation	Integrated spigot, flexible for side-entry 42-60 mm and post top 60-76 mm
Classifications	IP66 Class I

Product size (dimensions in mm)



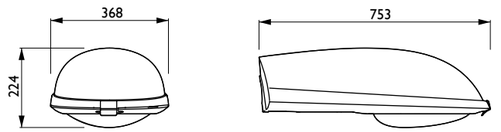
IP66 IK05



Technical parameters

Type	SGS453
Light source	HID 1 x MASTER CosmoPolis CPO-T / PGZ12 / 60, 90, 140W 1 x MASTERColour CDM-TT / E27 / 70 W 1 x MASTERColour CDM-TT / E40 / 150 W 1 x SON-T / E27 / 150, 250 W
Lamp included	No / Yes (K)
Gear	Electro magnetic (low loss), 220 - 240 V / 50 Hz: Inductive, parallel compensated (IC) Electronic, 220 - 240 V / 50 Hz: Electronic (EB)
Optics	Closed CT-POT (CR) Closed XT-POT (CX) Open CT-POT (OR) Open XT-POT (OX)
Optical cover	Glass bowl (GB)
Materials and finish	Non-corrosive, high-pressure die-cast aluminum housing and spigot High-purity aluminum reflector, toughened flat glass and glass bowl Silicone rubber gasket Stainless steel front clip Color: Gray (GR)
Installation	Integrated spigot, flexible for side-entry 42-60 mm and post top 60-76 mm
Classifications	IP66 Class I

Product size (dimensions in mm)



IEC 60598 AS/NZS 60598 AS/NZS 1158

IP66

Technical parameters

Type	SGS454
Light source	HID: 1 x SON-T / E27 / 150, 250, 400 W
Lamp included	No
Gear	Electro magnetic (low loss), 220 - 240 V / 50 Hz: Inductive, parallel compensated (IC)
Optics	Closed T-POT (CP) Open T-POT (TP)
Optical cover	Flat glass (FG) Glass bowl (GB)
Materials and finish	Non-corrosive, high-pressure die-cast aluminum housing and spigot High-purity aluminum reflector, toughened flat glass and glass bowl Silicone rubber gasket Stainless steel front clip
Installation	Integrated spigot, flexible for side-entry 42-60 mm and post top 60-76 mm
Classifications	IP66 Class I and II

Product details

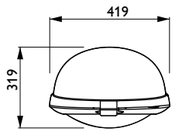


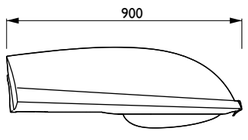
Iridium SGS454
road lighting luminaire with flat glass (FG)



Iridium SGS454
road lighting luminaire with glass bowl (GB)

Product size (dimensions in mm)





Key Portfolio*

Product ID	Weight (kg)
Iridium SGS452	
SGS452 CPO-T60W 220-240v EB I GB GR	7.20
SGS452 CPO-T60W 220-240V GB RAL7040	7.20
SGS452 CPO-T60W 220-240v K EB I GB GR	7.20
SGS452 CPO-T60W K 220-240V GB RAL7040	7.20
SGS452 CDM-TT70W 220V-50Hz I CR GB	8.00
SGS452 CDM-TT70W 220V-50Hz I OR GB	8.00
SGS452 CDM-TT70W 230V-50Hz I CR GB	8.00
SGS452 CDM-TT70W 230V-50Hz I OR GB	8.00
SGS452 CDM-TT70W 240V-50Hz I CR GB	8.00
SGS452 CDM-TT70W 240V-50Hz I OR GB	8.00
SGS452 SON-T70W 220V-50Hz I CR GB	8.00
SGS452 SON-T70W 220V-50Hz I OR GB	8.00
SGS452 SON-T70W 230V-50Hz I CR GB	8.00
SGS452 SON-T70W 230V-50Hz I OR GB	8.00
SGS452 SON-T70W 240V-50Hz I CR GB	8.00
SGS452 SON-T70W 240V-50Hz I OR GB	8.00
Iridium SGS453	
SGS453 CPO-T60W K 220-240V GB RAL7040	10.00
SGS453 CPO-T60W 220-240v K EB I GB GR	10.00
SGS453 CPO-T60W 220-240V GB RAL7040	10.00
SGS453 CPO-T60W 220-240v EB I GB GR	10.00
SGS453 CPO-T140W K 220-240V GB RAL7040	10.00
SGS453 CPO-T140W 220-240v K EB I GB GR	10.00
SGS453 CPO-T140W 220-240V GB RAL7040	10.00
SGS453 CPO-T140W 220-240v EB I GB GR	10.00
SGS453 CDM-TT150W 220V-50Hz I CR GB	10.10
SGS453 CDM-TT150W 220V-50Hz I OR GB	10.10
SGS453 CDM-TT150W 230V-50Hz I CR GB	10.10
SGS453 CDM-TT150W 230V-50Hz I OR GB	10.10
SGS453 CDM-TT150W 240V-50Hz I CR GB	10.10
SGS453 CDM-TT150W 240V-50Hz I OR GB	10.10
SGS453 SON-T150W 220V-50Hz I CR GB	10.10
SGS453 SON-T150W 220V-50Hz I CX GB	10.10
SGS453 SON-T150W 220V-50Hz I OR GB	10.10
SGS453 SON-T150W 220V-50Hz I OX GB	10.10
SGS453 SON-T150W 230V-50Hz I CR GB	10.10
SGS453 SON-T150W 230V-50Hz I CX GB	10.10
SGS453 SON-T150W 230V-50Hz I OR GB	10.10

Key Portfolio*

Product ID	Weight (kg)
SGS453 SON-T150W 230V-50Hz I OX GB	10.10
SGS453 SON-T150W 240V-50Hz I CR GB	10.10
SGS453 SON-T150W 240V-50Hz I CX GB	10.10
SGS453 SON-T150W 240V-50Hz I OR GB	10.10
SGS453 SON-T150W 240V-50Hz I OX GB	10.10
SGS453 SON-T250W 220V-50Hz I CR GB	11.10
SGS453 SON-T250W 220V-50Hz I OR GB	11.10
SGS453 SON-T250W 230V-50Hz I OR GB	11.10
SGS453 SON-T250W 230V-50Hz I CR GB	11.10
SGS453 SON-T250W 240V-50Hz I CR GB	11.10
SGS453 SON-T250W 240V-50Hz I OR GB	11.10
Iridium SGS454	
SGS454 SON-T150W 220V-50Hz II CP FG	15.00
SGS454 SON-T150W 220V-50Hz II TP FG	15.00
SGS454 SON-T150W 230V-50Hz II CP FG	15.00
SGS454 SON-T150W 230V-50Hz II TP FG	15.00
SGS454 SON-T150W 240V-50Hz II CP FG	15.00
SGS454 SON-T150W 240V-50Hz II TP FG	12.50
SGS454 SON-T250W 220V-50Hz II CP FG	16.00
SGS454 SON-T250W 220V-50Hz II TP FG	16.00
SGS454 SON-T250W 230V-50Hz II CP FG	16.00
SGS454 SON-T250W 230V-50Hz II TP FG	16.00
SGS454 SON-T250W 240V-50Hz II CP FG	16.00
SGS454 SON-T250W 240V-50Hz II TP FG	16.00
SGS454 SON-T400W 220V-50Hz II CP FG	18.00
SGS454 SON-T400W 220V-50Hz II TP FG	18.00
SGS454 SON-T400W 230V-50Hz II CP FG	18.00
SGS454 SON-T400W 230V-50Hz II TP FG	18.00
SGS454 SON-T400W 240V-50Hz II CP FG	18.00
SGS454 SON-T400W 240V-50Hz II TP FG	18.00
SGS454 SON-T150W 220V CP GB RAL7040	16.40
SGS454 SON-T150W 220V TP GB RAL7040	16.40
SGS454 SON-T150W 220V-50Hz II CP GB	16.40

Product ID	Weight (kg)
SGS454 SON-T150W 220V-50Hz II TP GB	16.40
SGS454 SON-T150W 230V CP GB RAL7040	16.40
SGS454 SON-T150W 230V TP GB RAL7040	16.40
SGS454 SON-T150W 230V-50Hz II CP GB	16.40
SGS454 SON-T150W 230V-50Hz II TP GB	16.40
SGS454 SON-T150W 240V CP GB RAL7040	16.40
SGS454 SON-T150W 240V TP GB RAL7040	16.40
SGS454 SON-T150W 240V-50Hz II CP GB	16.40
SGS454 SON-T150W 240V-50Hz II TP GB	16.40
SGS454 SON-T250W 220V CP GB RAL7040	17.50
SGS454 SON-T250W 220V TP GB RAL7040	17.50
SGS454 SON-T250W 220V-50Hz II CP GB	17.50
SGS454 SON-T250W 220V-50Hz II TP GB	17.50
SGS454 SON-T250W 230V CP GB RAL7040	17.50
SGS454 SON-T250W 230V TP GB RAL7040	17.50
SGS454 SON-T250W 230V-50Hz II CP GB	17.50
SGS454 SON-T250W 230V-50Hz II TP GB	17.50
SGS454 SON-T250W 240V CP GB RAL7040	17.50
SGS454 SON-T250W 240V TP GB RAL7040	17.50
SGS454 SON-T250W 240V-50Hz II CP GB	17.50
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SGS454 SON-T400W 220V CP GB RAL7040	19.20
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SGS454 SON-T400W 230V CP GB RAL7040	19.20
SGS454 SON-T400W 230V TP GB RAL7040	19.20
SGS454 SON-T400W 230V-50Hz II CP GB	19.20
SGS454 SON-T400W 230V-50Hz II TP GB	19.20
SGS454 SON-T400W 240V CP GB RAL7040	19.20
SGS454 SON-T400W 240V TP GB RAL7040	19.20
SGS454 SON-T400W 240V-50Hz II CP GB	19.20
SGS454 SON-T400W 240V-50Hz II TP GB	19.20

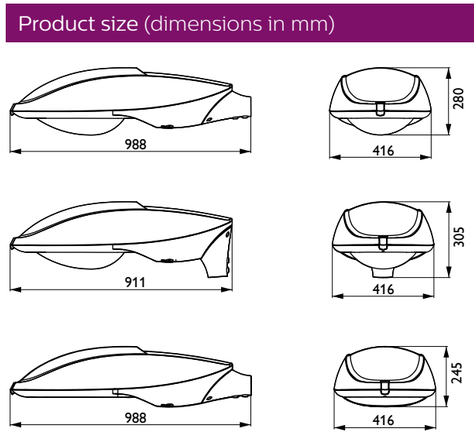
*Please contact your local Philips representative for additional configurations



SGP398

Philips SGP398 is the first luminaire in its class to bring together beauty and lighting efficiency, and harmoniously combines elegance as well as photometric performance. The SGP398 range of luminaires is suitable for lamps up to SON-T 400W. It is equipped with an adjustable lamp holder so that lamp position can be adjusted to different light distribution for flexible application.

Product size (dimensions in mm)



Features and benefits

- Strong and distinctive visual character with a fluid and rounded form
- Smooth side-entry mounting, ensuring visual consistency between the luminaire and the bracket
- Standard color in metallic gray other RAL colors available on request
- IP66 protection for optical system, guaranteeing long-lasting optical performance; IP43 for gear compartment
- Easy maintenance from above, tool-free lamp replacement
- Optics: well accepted T-pot reflector for SON-T lamps
- Adjustable lamp holders, ensuring maximum flexibility for optical performance
- Choice of optic covers: Glass bowl to reduce light pollution; Flat glass for minimum glare
- Energy saving option with step dimming gear system up to SON-T 400W lamps (GB). All parts can be recycled separately

Outdoor

OPTIC IP66 | GEAR IP43 | IK05



Technical parameters

Type	SGP398
Light source	HID: 1 x SON-T / E40 / 150, 250, 400 W
Lamp included	No
Gear	Electro magnetic (low loss), 220 V / 50 Hz: Inductive, parallel compensated (IC)
Optics	T-POT
Optical cover	Flat glass (FG) Glass bowl (GB)
Materials and finish	Canopy, frame, spigot and closing clip: die-cast aluminum Standard color: metallic gray, other RAL colors available on request Optics: high purity aluminum Bowls: hardened safety glass (GB) or hardened safety flat glass (FG)
Installation	Suitable for post top or lateral mounting on mast arms of 42 mm to 60 mm
Classifications	Lamp compartment IP66 Gear compartment IP43 Class I
Options	Light regulation: Step dimming (SD) up to SON-T 400W

Key Portfolio*

Product ID	Weight (kg)
SGP398 SON-T150W 220V-50Hz FG RAL9006	14.00
SGP398 SON-T150W 220V-50Hz FG GR	14.00
SGP398 SON-T250W 220V-50Hz FG RAL9006	14.50
SGP398 SON-T250W 220V-50Hz FG GR	14.50
SGP398 SON-T250W 220V-50Hz FG SD RAL9006	14.50
SGP398 SON-T250W 220V-50Hz FG SD GR	14.50
SGP398 SON-T150W 220V-50Hz GB RAL9006	14.00
SGP398 SON-T150W 220V-50Hz GB GR	14.00
SGP398 SON-T150W 220V-50Hz GB RAL7040	14.00
SGP398 SON-T250W 220V-50Hz GB RAL9006	14.50
SGP398 SON-T250W 220V-50Hz GB GR	14.50
SGP398 SON-T250W 220V-50Hz GB RAL7040	14.50
SGP398 SON-T250W 220V-50Hz GB SD RAL9006	14.50
SGP398 SON-T250W 220V-50Hz GB SD GR	14.50
SGP398 SON-T250W 220V-50Hz GB SD RAL7040	14.50
SGP398 SON-T400W 220V-50Hz GB RAL9006	15.50
SGP398 SON-T400W 220V-50Hz GB GR	15.50
SGP398 SON-T400W 220V-50Hz GB RAL7040	15.50
SGP398 SON-T400W 220V-50Hz GB SD RAL9006	15.50
SGP398 SON-T400W 220V-50Hz GB SD GR	15.50
SGP398 SON-T400W 220V-50Hz GB SD RAL7040	15.50

*Please contact your local Philips representative for additional configurations

Product details



SGP398
road lighting luminaire with flat glass (FG)



SGP398
road lighting luminaire with glass bowl (GB)

IEC 60598



Broadway

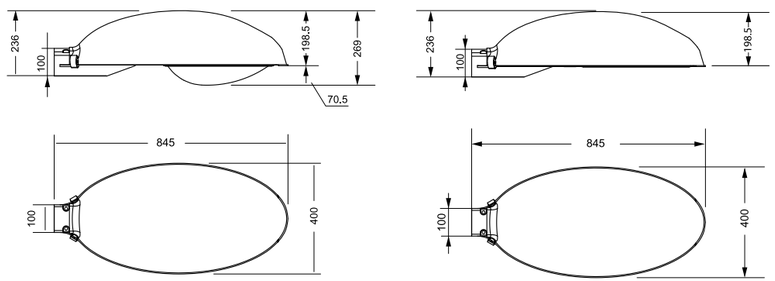
A road lighting luminaire which embodies functionality and aesthetics, reflecting the aspirations of modern cities.

A step dimming option is available for SON-T 400W and SON 250W lamp versions.

Features and benefits

- Dedicated faceted optics to optimize beam control and maximize light output
- Adjustable optics
- Choice of different bowls: curved or flat glass
- High IP: IP66 lamp compartment, IP43 gear compartment
- Dimming option available for SON-T 250/400W lamp versions
- Maintenance from above in an ergonomic position

Product size (dimensions in mm)



Outdoor

OPTIC IP66 | GEAR IP43 | IK05



Technical parameters

Type	SGP268
Light source	HID: 1 x SON-T / E40 / 150, 250, 400 W
Lamp included	No
Gear	Electro magnetic (low loss), 220-240 V / 50-60 Hz: Inductive, parallel compensated (IC)
Optic	T-POT
Optical cover	Glass bowl (GB) or Flat Glass (FG)
Options	Light regulation: Step dimming (SD) for SON-T 250 / 400 W versions
Materials and finish	Non-corrosive, high-pressure die-cast aluminum housing and spigot High purity aluminum reflector, clear curved glass toughened bowl Silicone rubber gasket All external fixings in stainless steel Ceramic E40 lamp holder
Color options	Aluminum (ALU) Silver (SI) RAL7040
Installation	Suitable for lateral mounting on mast arms of 50mm - 60 mm
	Lamp compartment IP66
Classifications	Gear compartment IP43 Class I

Product details



Broadway SGP268
road lighting
luminaire
with glass bowl
(GB)

IEC 60598

Key Portfolio*

Product ID	Weight (kg)
SGP268 SON-T150W 220V-50Hz GB RAL7040	12.20
SGP268 SON-T150W 220V-50Hz GB SI	12.20
SGP268 SON-T150W 230V-50Hz GB RAL7040	12.20
SGP268 SON-T150W 230V-50Hz GB SI	12.20
SGP268 SON-T150W 240V-50Hz GB RAL7040	12.20
SGP268 SON-T250W 220V GB SD SI	13.85
SGP268 SON-T250W 220V GB SD SI CN	13.85
SGP268 SON-T250W 220V-50Hz GB RAL7040	13.00
SGP268 SON-T250W 220V-50Hz GB SD RAL7040	13.85
SGP268 SON-T250W 220V-50Hz GB SI	13.00
SGP268 SON-T250W 230V GB SD SI	13.85
SGP268 SON-T250W 230V-50Hz GB RAL7040	13.00
SGP268 SON-T250W 230V-50Hz GB SD RAL7040	13.85
SGP268 SON-T250W 230V-50Hz GB SI	13.00
SGP268 SON-T250W 240V-50Hz GB ALU	13.00
SGP268 SON-T250W 240V-50Hz GB RAL7040	13.00
SGP268 SON-T400W 220V GB SD SI	15.85
SGP268 SON-T400W 220V GB SD SI CN	15.85
SGP268 SON-T400W 220V-50Hz GB RAL7040	15.00
SGP268 SON-T400W 220V-50Hz GB SD RAL7040	15.85
SGP268 SON-T400W 220V-50Hz GB SI	15.00
SGP268 SON-T400W 230V GB SD SI	15.85
SGP268 SON-T400W 230V-50Hz GB RAL7040	15.00
SGP268 SON-T400W 230V-50Hz GB SD RAL7040	15.85
SGP268 SON-T400W 240V-50Hz GB ALU	15.00
SGP268 SON-T400W 240V-50Hz GB RAL7040	15.00

*Please contact your local Philips representative for additional configurations



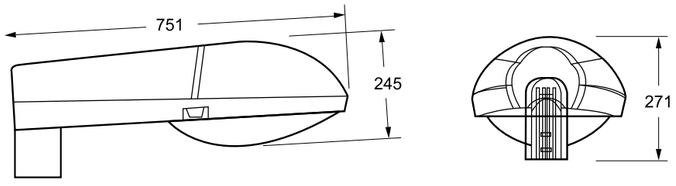
VeloCity

A road lighting luminaire for tubular high-pressure sodium lamps up to 400 watt. Step dimming option available for SON-T 250W lamp versions.

Features and benefits

- High quality optical system for clear tubular lamps
- Adjustable lamp position to obtain several light distributions
- Dustproof and jetproof (IP66) lamp compartment: no internal cleaning required
- Easy access and maintenance of gear and lamp

Product size (dimensions in mm)



Outdoor

OPTIC IP66 | GEAR IP44 | IK05



Technical parameters

Type	SGP338
Light source	HID: 1 x SON-T / E40 / 150, 250, 400 W
Lamp included	No
Gear	Electro magnetic (low loss), 220-240 V / 50-60 Hz: Inductive, parallel compensated (IC)
Optic	T-POT
Optical cover	Flat glass (FG) Glass bowl (GB)
Materials and finish	Non-corrosive, high-pressure die-cast aluminum housing and spigot High-purity aluminum reflector, clear curved glass toughened bowl Silicone rubber gasket All external fixings in stainless steel
Installation	Suitable for post-top or side entry of 50 mm to 65 mm
Classifications	Gear compartment IP44 Lamp compartment IP66 Class I
Options	Light regulation: Step dimming (SD) up to SON-T 250W

Key Portfolio*

Product ID	Weight (kg)
SGP338 SON-T150W 220V-50Hz GB	11.00
SGP338 SON-T150W 220V-50Hz GB RAL7040	11.00
SGP338 SON-T150W 230V-50Hz GB RAL7040	11.00
SGP338 SON-T150W 240V-50Hz GB RAL7040	14.30
SGP338 SON-T250W 220V GB SD ALU	12.85
SGP338 SON-T250W 220V GB SD ALU CN	12.85
SGP338 SON-T250W 220V-50Hz GB	12.00
SGP338 SON-T250W 220V-50Hz GB RAL7040	12.00
SGP338 SON-T250W 220V-50Hz GB SD RAL7040	12.85
SGP338 SON-T250W 220V-60Hz GB ALU	12.00
SGP338 SON-T250W 220V-60Hz GB WH	12.00
SGP338 SON-T250W 230V-50Hz GB RAL7040	12.00
SGP338 SON-T250W 230V-50Hz GB SD ALU	12.85
SGP338 SON-T250W 230V-50Hz GB SD RAL7040	12.85
SGP338 SON-T250W 240V-50Hz GB RAL7040	12.85
SGP338 SON-T400W 220V-50Hz GB	14.30
SGP338 SON-T400W 220V-50Hz GB RAL7040	14.30
SGP338 SON-T400W 220V-60Hz GB ALU	14.30
SGP338 SON-T400W 220V-60Hz GB WH	14.30

*Please contact your local Philips representative for additional configurations



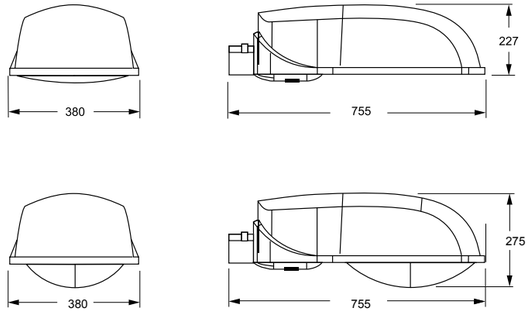
IEC 60598



Spectrum

A road lighting luminaire for tubular high-pressure sodium lamps up to 600W. With its compact design and T-pot reflector, it brings optimal lighting performance while minimizing cost. A step dimming option is available for SON-T 400W and SON-T 250W lamps.

Product size (dimensions in mm)



Features and benefits

- Patented design
- High pressure die-cast aluminum housing for strength and anti-corrosion
- High purity aluminum T-POT reflector
- Toughened flat or curved glass cover
- Easy maintenance and lamp replacement from above in an ergonomic position
- Lamps in wattages 400W and above are available with curved bowl versions only

Outdoor



OPTIC IP65 | GEAR IP43 | IK05

Technical parameters

Type	SPP368
Light source	HID: 1 x SON-T / E40 / 150, 250, 400, 600 W
Lamp included	No
Gear	Electro magnetic (low loss), 220-240 V / 50-60 Hz: Inductive, parallel compensated (IC)
Optics	T-POT
Optical cover	Flat glass (FG) Flat glass with frame (FG-FRM) Glass bowl (GB)
Materials and finish	Non-corrosive, high-pressure die-cast aluminum housing and spigot with low copper content High-purity aluminum reflector, clear curved glass toughened bowl Silicone rubber gasket All external fixings in stainless steel Ceramic E40 lamp holder
Installation	Suitable for lateral mounting on mast arms of 48 to 60mm
Classifications	Lamp compartment: IP65 Gear compartment: IP43 Class I
Options	Light regulation: Step dimming (SD) up to SON-T 400W

Product details



SPP368
road lighting luminaire with flat glass (FG)

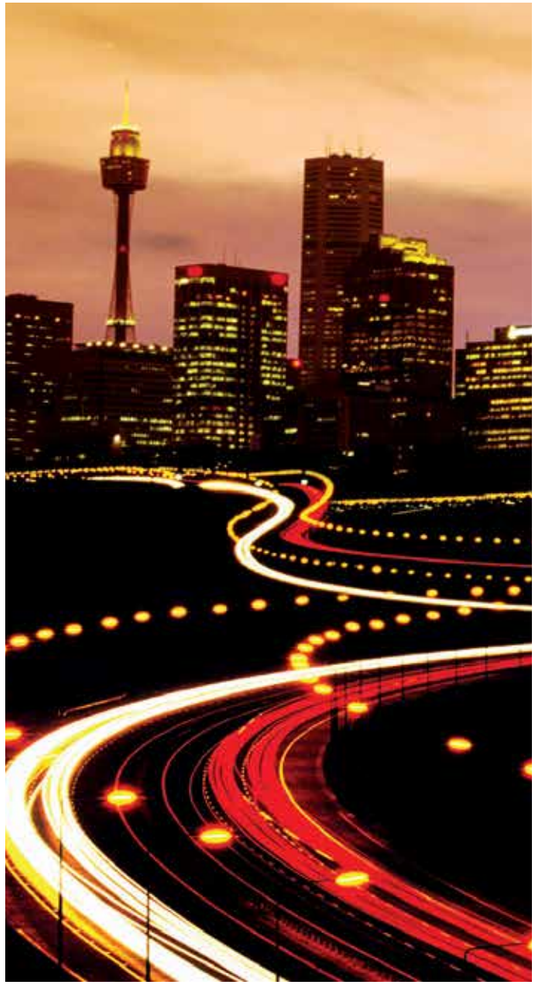


SPP368
road lighting luminaire with flat glass and frame (FG-FRM)



SPP368
road lighting luminaire with glass bowl (GB)

IEC 60598



Key Portfolio*

Product ID	Weight (kg)
SPP368 road lighting luminaire with flat glass (FG)	
SPP368 SON-T150W 220V-50Hz FG ALU	10.80
SPP368 SON-T150W 220V-50Hz FG BL	10.80
SPP368 SON-T150W 220V-50Hz FG SI	10.80
SPP368 SON-T150W 220V-50Hz FG SI-BL	10.80
SPP368 SON-T150W 220V-60Hz FG SI	10.60
SPP368 SON-T250W 220V FG SD SI	13.65
SPP368 SON-T250W 220V-50Hz FG	12.80
SPP368 SON-T250W 220V-50Hz FG BL	12.80
SPP368 SON-T250W 220V-50Hz FG SI	12.80
SPP368 SON-T250W 220V-50Hz FG SI-BL	12.80
SPP368 SON-T250W 220V-60Hz FG BL	12.80
SPP368 SON-T250W 220V-60Hz FG SI	12.80
SPP368 SON-T250W 230V FG SD SI	13.65
SPP368 SON-T400W 220V FG SD SI	15.65
SPP368 SON-T400W 230V FG SD SI	15.65
SPP368 road lighting luminaire with flat glass and frame (FG-FRM)	
SPP368 SON-T150W 220V-50Hz FG RAL7040	10.80
SPP368 SON-T150W 220V-50Hz FG-FRM BL	10.80
SPP368 SON-T150W 220V-50Hz FG-FRM SI	10.80
SPP368 SON-T150W 220V-50Hz FG-FRM SI-BL	10.80
SPP368 SON-T150W 230V-50Hz FG-FRM SI	10.80
SPP368 SON-T150W 230V-50Hz FG-FRM SI-BL	10.80
SPP368 SON-T150W 230V-50Hz FG RAL7040	10.80
SPP368 SON-T150W 240V-50Hz FG RAL7040	10.80
SPP368 SON-T250W 220V-50Hz FG RAL7040	12.80
SPP368 SON-T250W 220V-50Hz FG SD RAL7040	13.65
SPP368 SON-T250W 220V-50Hz FG-FRM BL	12.80
SPP368 SON-T250W 220V-50Hz FG-FRM SI	12.80
SPP368 SON-T250W 220V-50Hz FG-FRM SI-BL	12.80
SPP368 SON-T250W 230V-50Hz FG RAL7040	12.80
SPP368 SON-T250W 230V-50Hz FG SD RAL7040	13.65
SPP368 SON-T250W 240V-50Hz FG RAL7040	12.80
SPP368 SON-T400W 220V-50Hz FG SD RAL7040	15.65
SPP368 SON-T400W 220V-50Hz FG-FRM BL	14.80
SPP368 SON-T400W 220V-50Hz FG-FRM SI	14.80
SPP368 SON-T400W 220V-50Hz FG-FRM SI-BL	14.80
SPP368 SON-T400W 230V-50Hz FG SD RAL7040	15.65

Key Portfolio*

Product ID	Weight (kg)
SPP368 road lighting luminaire with glass bowl (GB)	
SPP368 SON-T150W 220V-50Hz GB	10.80
SPP368 SON-T150W 220V-50Hz GB BL	10.80
SPP368 SON-T150W 220V-50Hz GB RAL7040	10.80
SPP368 SON-T150W 220V-50Hz GB SI	10.80
SPP368 SON-T150W 220V-50Hz GB SI-BL	10.80
SPP368 SON-T150W 230V-50Hz GB RAL7040	10.80
SPP368 SON-T150W 240V-50Hz GB RAL7040	10.80
SPP368 SON-T250W 220V GB SD SI	13.65
SPP368 SON-T250W 220V-50Hz GB	12.80
SPP368 SON-T250W 220V-50Hz GB BL	12.80
SPP368 SON-T250W 220V-50Hz GB RAL7040	12.80
SPP368 SON-T250W 220V-50Hz GB SD RAL7040	13.65
SPP368 SON-T250W 220V-50Hz GB SI	12.80
SPP368 SON-T250W 220V-50Hz GB SI-BL	12.80
SPP368 SON-T250W 220V-60Hz GB BL	12.80
SPP368 SON-T250W 220V-60Hz GB SI	12.80
SPP368 SON-T250W 230V GB SD SI	13.65
SPP368 SON-T250W 230V-50Hz GB RAL7040	12.80
SPP368 SON-T250W 230V-50Hz GB SD RAL7040	13.65
SPP368 SON-T250W 230V-50Hz GB SI	12.80
SPP368 SON-T250W 240V-50Hz GB RAL7040	12.80
SPP368 SON-T400W 220V GB SD SI	15.65
SPP368 SON-T400W 220V-50Hz GB	14.80
SPP368 SON-T400W 220V-50Hz GB BL	14.80
SPP368 SON-T400W 220V-50Hz GB RAL7040	14.80
SPP368 SON-T400W 220V-50Hz GB SD RAL7040	15.65
SPP368 SON-T400W 220V-50Hz GB SI	14.80
SPP368 SON-T400W 220V-50Hz GB SI-BL	14.80
SPP368 SON-T400W 220V-60Hz GB BL	14.80
SPP368 SON-T400W 220V-60Hz GB SI	14.80
SPP368 SON-T400W 230V GB SD SI	15.65
SPP368 SON-T400W 230V-50Hz GB RAL7040	14.80
SPP368 SON-T400W 230V-50Hz GB SD RAL7040	15.65
SPP368 SON-T400W 230V-50Hz GB SI	14.80
SPP368 SON-T400W 240V-50Hz GB RAL7040	14.80

Product ID	Weight (kg)
SPP368 SON-T400W 240V-50Hz GB SI	14.80
SPP368 SON-T600W 220V-50Hz GB	16.50
SPP368 SON-T600W 220V-50Hz GB BL	16.50
SPP368 SON-T600W 220V-50Hz GB SI	16.50
SPP368 SON-T600W 220V-50Hz GB SI-BL	16.50
SPP368 SON-T600W 240V-50Hz GB SI	16.50

*Please contact your local Philips representative for additional configurations



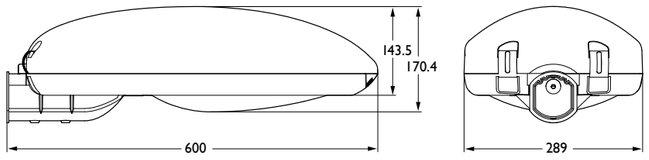
Aurora

The Philips Aurora range of street light luminaires brings a new quality of light to residential areas, cycle paths, local roads and industrial estates. Aurora unites superior optics, a weatherproof housing and easy maintenance. Moreover, its sleek shape combining a variety of attractive pole designs and compact size make a significant contribution to a pleasant and more comfortable environment while being cost-efficient.

Features and benefits

- High pressure die-cast aluminum housing is designed to last
- High IP: the whole luminaire is rated IP65
- High purity aluminum CT-POT Aurora reflector
- Lamp replacement from above in an ergonomic position
- Fitted with SON-T lamps from 70W to 250W
- Toughened curved glass cover
- Lateral entry installation spigot on mast arms of 48mm to 60mm

Product size (dimensions in mm)



Outdoor

IP65 IK05



Technical parameters

Type	SPP202
Light source	HID: 1 x SON-T / E27 / 70 W 1 x SON-T / E40 / 150, 250 W
Lamp included	No
Gear	Electro magnetic (low loss), 220-240 V / 50-60 Hz: Inductive, parallel compensated (IC)
Optic	CT-Pot Aurora reflector
Optical cover	Glass bowl (GB)
Materials and finish	Non-corrosive, high-pressure die-cast aluminum housing and spigot High-purity aluminum reflector, toughened and clear curved glass bowl Silicone rubber gasket All external fixings is in stainless steel Ceramic E40/E27 lamp holder
Color options	Blue (BL) Silver (SI) White (WH) RAL7040
Installation	Suitable for lateral mounting on mast arms of 48 mm to 60 mm
Classifications	IP65 Class I

Key Portfolio*

Product ID	Weight (kg)
SPP202 SON-T70W 240V-50Hz GB SI	7.30
SPP202 SON-T70W 240V-50Hz GB RAL7040	7.30
SPP202 SON-T70W 230V-50Hz GB SI	7.30
SPP202 SON-T70W 230V-50Hz GB RAL7040	7.30
SPP202 SON-T70W 220V-60Hz GB SI	7.30
SPP202 SON-T70W 220V-50Hz GB WH	7.30
SPP202 SON-T70W 220V-50Hz GB SI	7.30
SPP202 SON-T70W 220V-50Hz GB RAL7040	7.30
SPP202 SON-T70W 220V-50Hz GB BL	7.30
SPP202 SON-T150W 240V-50Hz GB SI	8.40
SPP202 SON-T150W 240V-50Hz GB RAL7040	8.40
SPP202 SON-T150W 230V-50Hz GB SI	8.40
SPP202 SON-T150W 230V-50Hz GB RAL7040	8.40
SPP202 SON-T150W 220V-60Hz GB SI	8.40
SPP202 SON-T150W 220V-50Hz GB WH	8.40
SPP202 SON-T150W 220V-50Hz GB SI	8.40
SPP202 SON-T150W 220V-50Hz GB RAL7040	8.40
SPP202 SON-T150W 220V-50Hz GB BL	8.40
SPP202 SON-T250W 240V-50Hz GB SI	9.40
SPP202 SON-T250W 240V-50Hz GB RAL7040	9.40
SPP202 SON-T250W 230V-50Hz GB SI	9.40
SPP202 SON-T250W 230V-50Hz GB RAL7040	9.40
SPP202 SON-T250W 220V-60Hz GB SI	9.40
SPP202 SON-T250W 220V-50Hz GB WH	9.40
SPP202 SON-T250W 220V-50Hz GB SI	9.40
SPP202 SON-T250W 220V-50Hz GB RAL7040	9.40
SPP202 SON-T250W 220V-50Hz GB BL	9.40

*Please contact your local Philips representative for additional configurations

IEC 60598

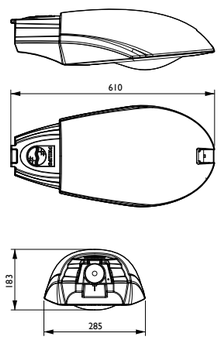


Smartway

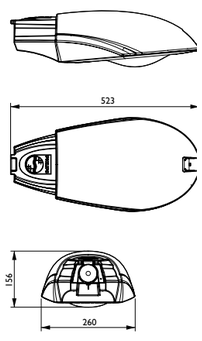
This cost effective road lighting delivers a fresh new light to city roads, residential areas and industrial estates while making a significant contribution to a safer and more comfortable environment.

Product size (dimensions in mm)

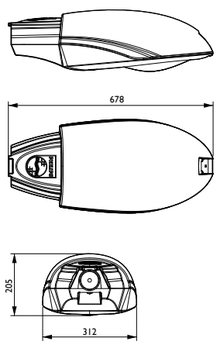
SPP180



SPP185



SPP186



Features and benefits

- Well designed for good daytime aesthetics
- Long-lasting and robust die cast housing
- Ribbed cover for good impact resistance
- High quality gasket and glue-free lamp compartment installation for IP65 ingress protection
- Intelligent raised frame design for better ingress protection
- Breathing filter and heat sink for good air circulation and heat dissipation
- 'Twist and Release' lamp replacement and easy gear replacement for safety and time efficient maintenance
- High purity aluminum reflector for good lighting performance
- Double fold strong open arm for durable and repeated use

Outdoor

OPTIC IP65 | GEAR IP43 | IK05



Technical parameters

Type	SPP180 SPP185 SPP186
Power supply	220/230/240V 50Hz for SON-T 220/230/240V 50-60Hz for CPO-T
Power factor	>0.85
Classification	IP65/IP43, IK05, Class I
Ambient temperature	- 20°C - 35°C
Materials and finish	Non corrosive high-pressure die-cast aluminum for canopy and frame High purity aluminum reflector Toughened glass bowl Stainless steel clip Silicon rubber gasket Color: RAL7040
Installation	Side-entry with pole diameter of 48-60mm for SPP180 & SPP186 Side-entry with pole diameter of 34-50mm for SPP185
Lamp options	SON-T70/150/250 W CPO-TW 60/90/140W

Key Portfolio*

Product ID	Weight (kg)
SPP180 SON-T150W 220V-50Hz GB GR	6.0
SPP180 SON-T150W 230V-50Hz GB GR	6.0
SPP180 SON-T150W 240V-50Hz GB GR	6.0
SPP185 SON-T70W 220V-50Hz GB GR 34/50S	3.7
SPP185 SON-T70W 230V-50Hz GB GR 34/50S	3.7
SPP185 SON-T70W 240V-50Hz GB GR 34/50S	3.7
SPP186 CPO-T140W K 220-240V GB GR	6.0
SPP186 CPO-TW60W 220-240V K GB GR	6.0
SPP186 SON-T250W 220V GB SD GR	7.4
SPP186 SON-T250W 230V GB SD GR	7.4
SPP186 SON-T150W 220V-50Hz GB GR 48/60S	6.8
SPP186 SON-T150W 230V-50Hz GB GR 48/60S	6.8
SPP186 SON-T150W 240V-50Hz GB GR 48/60S	6.8
SPP186 SON-T250W 220V-50Hz GB GR 48/60S	7.4
SPP186 SON-T250W 230V-50Hz GB GR 48/60S	7.4
SPP186 SON-T250W 240V-50Hz GB GR 48/60S	7.4

*Please contact your local Philips representative for additional configurations



IEC 60598 | CB | AS/NZS 60598 | AS/NZS 1158



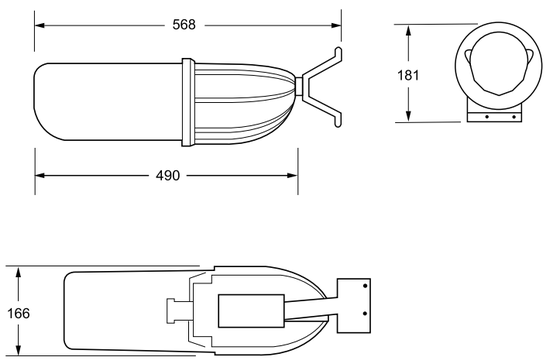
Metro

The Philips Metro streetlight luminaire brings a fresh new light to your residential areas, local roads and industrial estates. Metro's compact yet attractive housing easily blends in with your surroundings while making a significant contribution to a safer and more comfortable environment. It comes with a choice of SON, HPL, CDM-ET and PL-T lamps for a high light output as well as fully integrated gear and mounting brackets for swift and simple installation and maintenance.

Features and benefits

- Compact luminaire body, designed to accept a variety of lamps: SON, HPL-N, CDM-ET and PL-C/T
- Quick and easy lamp replacement by removal of twist-lock bowl
- Maintenance of the control gear and lamp holder is via a single slide-out gear/ lamp holder assembly
- Mounting bracket for easy and flexible installation
- Anti-vibration spring supplied for HID lamp versions

Product size (dimensions in mm)



Outdoor

IP65 IK05



Technical parameters

Type	HGC007
Light source	HID: 1 x HPL-N / E27 / 50, 80 W 1 x MASTERColour CDM-ET / E27 / 70W 1 x MASTER PL-C 2-Pin / G24q-2 / 18W 1 x MASTER PL-T 4-Pin / GX24q-3 / 32 W 1 x SON / E27 / 70 W
Lamp included	No / Yes (K)
Gear	Electro magnetic (low loss), 220-240 V / 50 Hz: Inductive, parallel compensated (IC)
Optic	Painted metal sheet reflector
Materials and finish	Glass filled nylon body Polycarbonate cover and refractor Painted metal sheet reflector Metal sheet gear tray Silicone gasket Galvanized iron mounting bracket All other external fixings in stainless steel
Installation	Easy installation on a 34-mm standard pipe. A standard mounting-bracket is supplied for more flexible installation
Classifications	IP65 Class I

Key Portfolio*

Product ID	Weight (kg)
HGC007 CDM-ET 70W 240V-50Hz	3.10
HGC007 HPL-N 50W K 240V-50Hz	2.74
HGC007 HPL-N 80W K 240V	2.95
HGC007 HPL-N 80W K 240V-50Hz	2.95
HGC007 HPL-N 80W K HD 240V-50Hz	2.95
HGC007 MAX70W-E27 E	1.80
HGC007 PL-C/2P 18W 220V-50Hz	2.20
HGC007 PL-C/2P 18W 240V-50Hz	2.20
HGC007 PL-T/4P 32W 840 240V-50Hz	2.60
HGC007 SON-I 70W 220V-50Hz	3.10
HGC007 SON-I 70W 240V-50Hz	3.10
HGC007 SON-I 70W K 240V-50Hz	3.21
HGC007 SON-I 70W K HD 240V-50Hz	3.21

*Please contact your local Philips representative for additional configurations



IEC 60598

Outdoor Systems

Outdoor Systems

At a time of heightened awareness for ecological issues, costs of public lighting significantly impact a city's total energy bill. Reducing carbon footprint while maintaining a safe, sufficiently-lighted environment is a challenge cities must face.

Philips LED Road Lighting Solutions are equipped with intelligent management solutions such as remote controllers, which can apply varying levels of lighting power per chosen light point, depending on specifications. This generates up to 70% in energy savings.

Reliability, stability, and consistency are key elements of an effective road lighting system. Philips Outdoor Control system is a complete, web-based lighting system that helps achieve these goals. The state of the art telemanagement enables remote monitoring, controlling, metering and diagnosing of outdoor lighting ensuring that all light points are fully functional and operating at optimal levels. The system enables light points to be switched on/off and dimming as required, yielding considerable energy savings while improving light quality and reliability. People can relax and feel safe on the road, even after dark. Philips offers 2 solutions, namely:

- Philips CityTouch for individual light point management
- Philips AmpLight for group management.

Features and Benefits

Lighting asset management
- Bring transparency into your lighting data
- Efficient management of all lighting related workflows

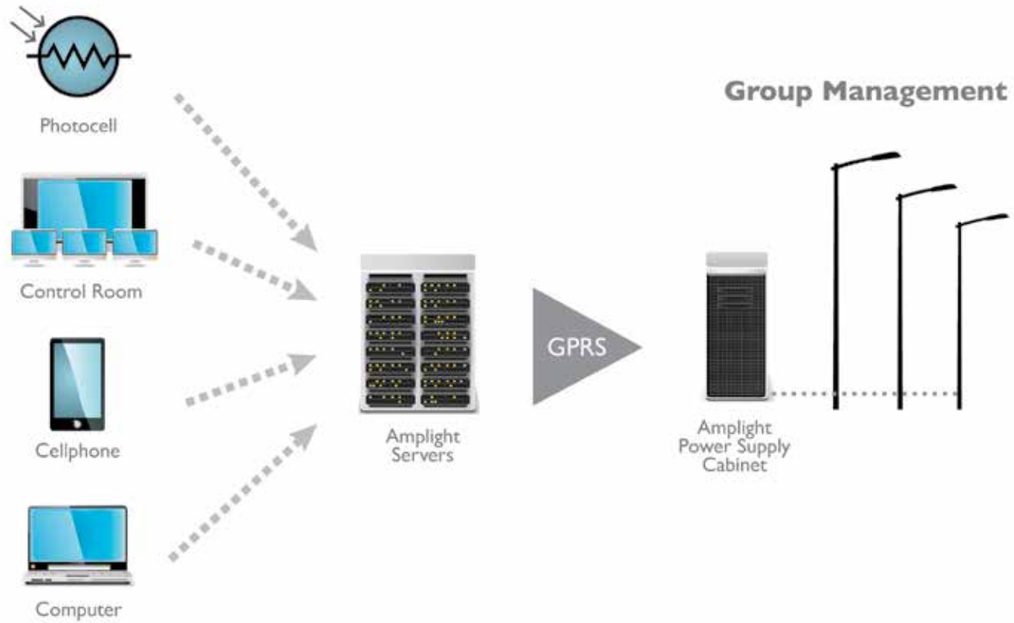
Remote lighting management
- Be in control of your lighting
- Remote monitoring including auto-notification of faults
- Energy measurement

Benefits
- Save costs through savings in energy and maintenance
- Make your city "green" and sustainable
- Increase security and well-being
- Make reliable and fact-based decisions

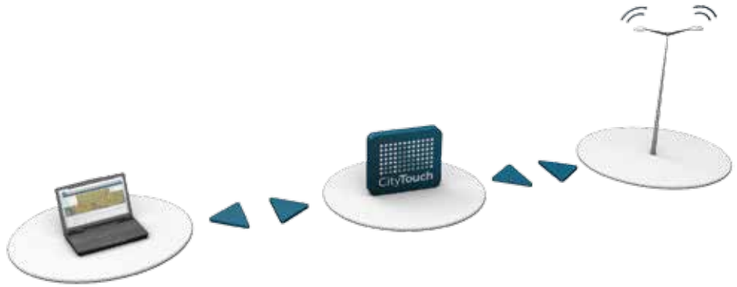
AmpLight

The Philips Outdoor Control system uses the GPRS/3G wireless communications network to connect to the central server or cloud server to enable control and monitoring of the outdoor lights. The AmpLight system controls and monitors groups of light points from the power supply cabinet. Access to the central server or cloud via a web-based interface enables the user to connect to the system from a control room, laptop, and/or mobile phone. Through a secure connection, the system is accessible from any location and provides a fast assessment of the system's status, alarms and other events.

AmpLight Platform



CityTouch



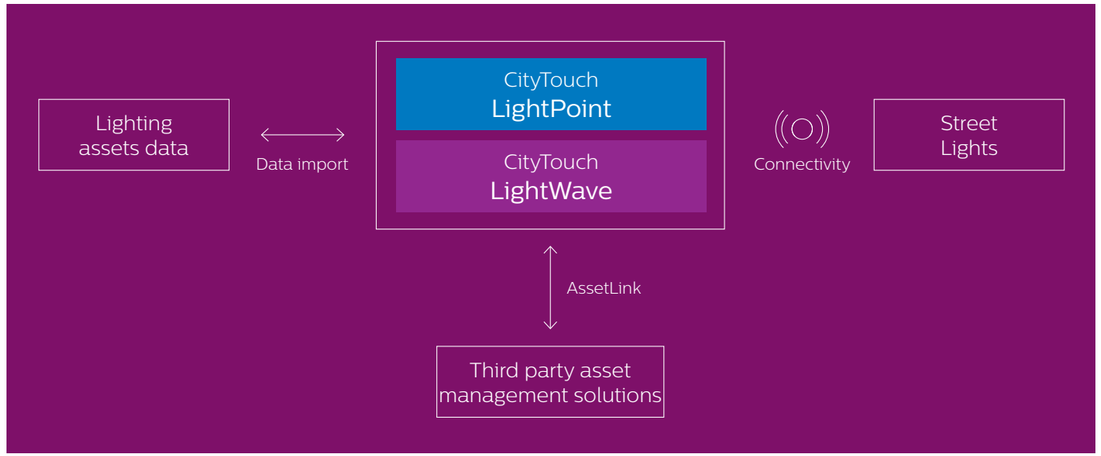
CityTouch Platform

We practice advanced lighting management using a special ecosystem, consisting of the following elements:

LightPoint, the lighting asset management system from CityTouch is a sophisticated tool for data and maintenance management. It creates transparency over your assets and workflows.

LightWave, lighting remote management system from CityTouch acts as the control center for adjusting and monitoring city lighting.

AssetLink, an interface that combines CityTouch with an existing third party asset management system.



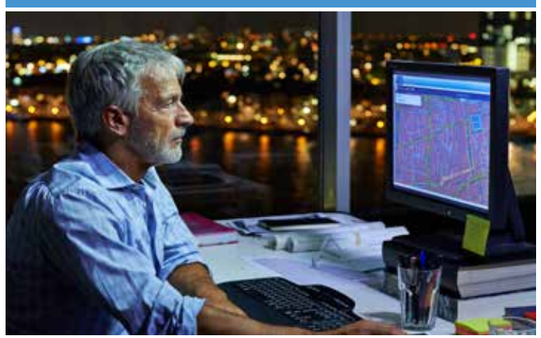
What is CityTouch LightPoint?

CityTouch LightPoint is a specialized asset management system enabling a professional and efficient management of all outdoor lighting data & operations.

CityTouch LightPoint

Lighting Data Management
- Increased transparency
- Deep insights
- Improved decision making

Lighting Maintenance Management
- Predictive maintenance
- Reactive failure handling
- Continuous monitoring & recording



“If you can’t measure it you can’t manage it.”

What is CityTouch LightWave?

CityTouch LightWave is a specialized remote management system enabling full control and efficient monitoring of your entire street lighting.

CityTouch LightWave

Remote management
- Flexible adaptation of light levels with a simple click
- Efficient planning through calendar tool

Performance monitoring
- Displaying of current lighting status
- Auto-notification of faults (incl. full history)
- Verification of service level agreements

Energy measurement
- Displaying real energy consumption (incl. history)
- Verification of energy billing



Solar powered LED road and area lighting

Solar powered LED road and area lighting

Using grid power to support road lighting requires a huge investment in terms of power plants and wiring. A more efficient solution is harnessing renewable energy sources to light up these areas for a fraction of the original cost.

The Philips Solar Powered Lighting systems sets the industry standard for power efficiency, reliability and light quality. It also offers easy installation and maintenance while ensuring low total cost of ownership.

The systems consists of a Solar LED luminaire (with DC driver), PV panel, VRLA battery and controller for off-grid and hybrid lighting applications. With excellent thermal management, high temperature durability, and future-proof features, expect consistent excellent lighting performance and greener quality of life.

Philips offers low Total Cost of Ownership

With the Philips optimized system design, every aspect of Solar road and area lighting including energy management and controls operate at optimal performance – hence lowering investment costs.

Reliable and robust system design

Philips Solar system is designed and tested under harsh operating environment conditions. Each sub-system is designed with water ingress protection. Solar Hybrid version also incorporates surge protection. These features ensures long term reliability and a robust system.

Ease of installation and maintenance

Philips Solar system features fool-proof plug-and-play modular design, easy installation on site, maintenance free battery over the lifetime and future-proof upgradable design.

Features of the Solar System

PV Panels

PV Panels are high efficiency poly-crystalline or mono-crystalline silicon solar cells. The PV panels have a life expectancy of more than 25 years, with minimal power efficiency degradation. The PV panels comply to IEC61215.

Philips advanced charge controller

Philips has the most advanced controllers for optimal power efficiency. The charge and light controllers are the brains of the Solar lighting setup. Philips has engineered and programmed a wide range of capabilities into our latest controllers. The controller also:

- Protects the battery from overcharging or overdischarging
- Protects the solar panel from reverse polarity
- Offers high efficiency
- Uses MPPT (Max Power Point Tracking) technology resulting in smaller panel size requirements and lowering cost

VRLA battery technology

Valve Regulated Lead Acid (VRLA) batteries (gel and lead crystal batteries for Solar powered lighting systems) offer maintenance free and high performance for minimal capital outlay and features long cycle lifetime.

- Under Ta=25°C, >2500 times @ 25% DOD, >900 times @ 70% DOD
- Low self-discharge rate: <3% per month
- Long shelf life: 5-12 months
- Future integration with lithium batteries is being planned.

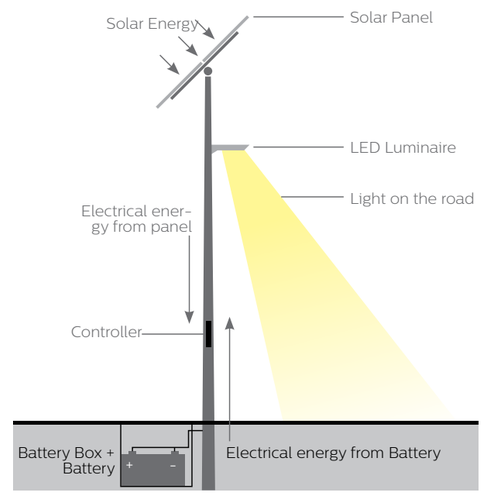
Solar Luminaires



Philips Solar Luminaires

Philips Solar luminaires provide the best-in-class high quality lighting. System efficacy reaches up to 120 lm/W ± 5% at 5700K, 4000K or 3000K color temperatures with CRI > 70. Different optical beam choices are available for different area and road configurations to maximize W/m² efficiency. The luminaires are rated for full IP66 and/or IP65 protection, including gear and optical compartments without glue. Luminaire housings are made of high pressure die-cast aluminum, heat resistant gasket and stainless steel clips for maximum heat dissipation to ensure reliability.

Dimming function is incorporated for more energy savings. Designed and tested for harsh environments, luminaire lifetime is rated at 50,000 hrs with 70% lumen maintenance @ Ta=35°C. Tool-less housing opening ensures easy maintenance of the LED modules and gears.



How a solar lighting system works

When the sun shines during the day, the solar panel converts solar energy to electrical energy and stores it in the battery. During the night, the battery is discharged, releasing electrical energy to power the LED luminaire and light the road.

PHILIPS

Tunnel and Underpass

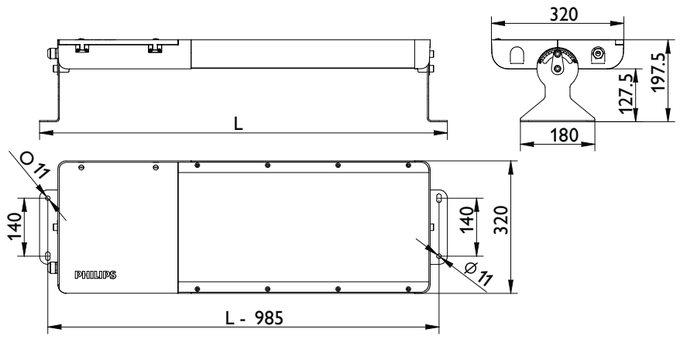
Tunnel and Underpass



LED Tunnel Light BWP350

Philips LED Tunnel helps you maximize your energy savings and ensures safe lighting levels in the tunnel. It also provides you with easy maintenance.

Product size (dimensions in mm)



Features and benefits

Maximize Energy Savings

- Up to 50% energy savings compared to conventional tunnel light solution.
- 2 different optical lenses to fit different tunnel applications and optimize light distribution

Reliable and Future Proof

- Die-cast and extruded aluminum housing design ensures long fixture lifetime
- Excellent thermal management ensures long system lifetime
- World class, approbated quality components (LEDs/Driver/etc)
- Robust IP66 construction

Easy Installation and Maintenance

- Front panel maintenance and quick-release screws to save installation and maintenance time.
- Removable gear tray and quick connector reduce maintenance time

Outdoor

IP66 | 50Khrs | IK08



Technical parameters

Type	BWP350
Light source	Up to 144xLED
Power requirement	220-240V 50/60Hz
Power Factor	> 0.95 (nominal power)
LED driver & driving current	Constant current or programmable driver options 100mA - 700mA
System lumen output	Up to 31,100 lumen
CRI	70 ± 5
Color temperature	5700K / 4000K / 3000K ± 500K
Optics	Symmetrical
Materials and finishing	Housing: Die-cast aluminum for driver cavity; extruded aluminum for LED cavity Gasket: Heat resistant silicone rubber Glass: Tempered Glass Gray Paint RAL7040
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 35°C)
Installation	Ceiling/Wall mount with ± 60 degrees adjustment
Weight	Max 17kg
Classifications	IP66; IK08; Class I; Ta=35°C
Surge protection	10KV
Controls	Standalone dimming program DALI & 1-10V dimming interface
Maintenance	Front panel with quick-release screws Removable gear tray
Certifications	CB, CQC

Key Portfolio*

Product Description
BWP350 LED122/NW 120W 220-240V SNE-V
BWP350 LED139/NW 140W 220-240V SNE-V
BWP350 LED157/NW 155W 220-240V SNE-V
BWP350 LED174/NW 175W 220-240V SNE-V
BWP350 LED192/NW 195W 220-240V SNE-V
BWP350 LED209/NW 210W 220-240V SNE-V
BWP350 LED226/NW 225W 220-240V SNE-V
BWP350 LED243/NW 240W 220-240V SNE-V
BWP350 LED260/NW 260W 220-240V SNE-V
BWP350 LED277/NW 275W 220-240V SNE-V
BWP350 LED294/NW 290W 220-240V SNE-V
BWP350 LED311/NW 305W 220-240V SNE-V

* For Full portfolio please contact your local Philips Representative

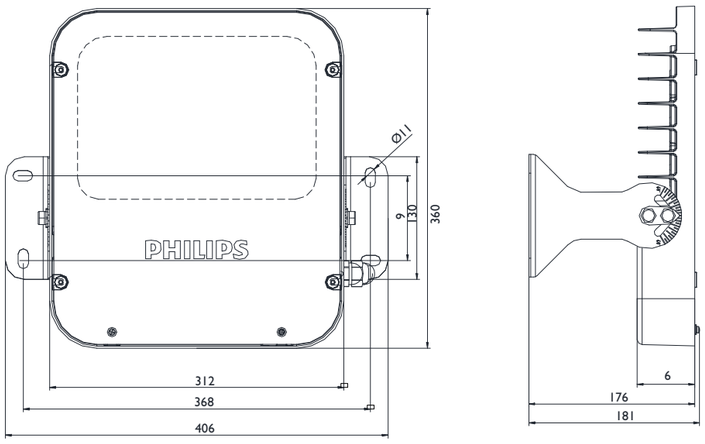
IEC EN60598 | CE | CB



LED Tunnel Light BWP351

Philips LED Tunnel helps you maximize your energy savings and ensures safe lighting levels in the tunnel. It also provides you with easy maintenance.

Product size (dimensions in mm)



Features and benefits

Maximize Energy Savings

- Up to 50% energy savings compared to conventional tunnel light solution.
- 2 different optical lenses to fit different tunnel applications and optimize light distribution

Reliable and Future Proof

- Die-cast and extruded aluminum housing design ensures long fixture lifetime
- Excellent thermal management ensures long system lifetime
- World class, approbated quality components (LEDs/Driver/etc)
- Robust IP66 construction

Easy Installation and Maintenance

- Front panel maintenance and quick-release screws to save installation and maintenance time.
- Removable gear tray and quick connector reduce maintenance time

Outdoor

IP66 | 50Khrs | IK08



Technical parameters

Type	BWP351
Light source	up to 48xLED
Power requirement	220-240V 50/60Hz
Power factor	> 0.95 (nominal power)
LED driver & driving current	Constant current or programmable driver options 100mA - 700mA
System lumen output	Up to 10,100 lumen
CRI	70 ± 5
Color temperature	5700K / 4000K / 3000K ± 500K
Optics	Symmetrical
Materials and finishing	Housing: Die-cast aluminum Gasket: Heat resistant silicone rubber Glass: Tempered Glass
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 35°C)
Installation	Ceiling/Wall mount with ± 60 degrees adjustment
Weight	~ 5.7kg
Classifications	IP66; IK08; Class I; Ta=45°C
Surge protection	10KV
Controls	Standalone dimming program DALI & 1-10V dimming interface
Certifications	CB, CQC

Key Portfolio*

Product Description
BWP351 LED34/NW 37W 220-240V SNE-H
BWP351 LED51/NW 55W 220-240V SNE-H
BWP351 LED68/NW 70W 220-240V SNE-H
BWP351 LED84/NW 90W 220-240V SNE-H
BWP351 LED101/NW 105W 220-240V SNE-H

* For Full portfolio please contact your local Philips Representative

IEC EN60598 | CE | CB



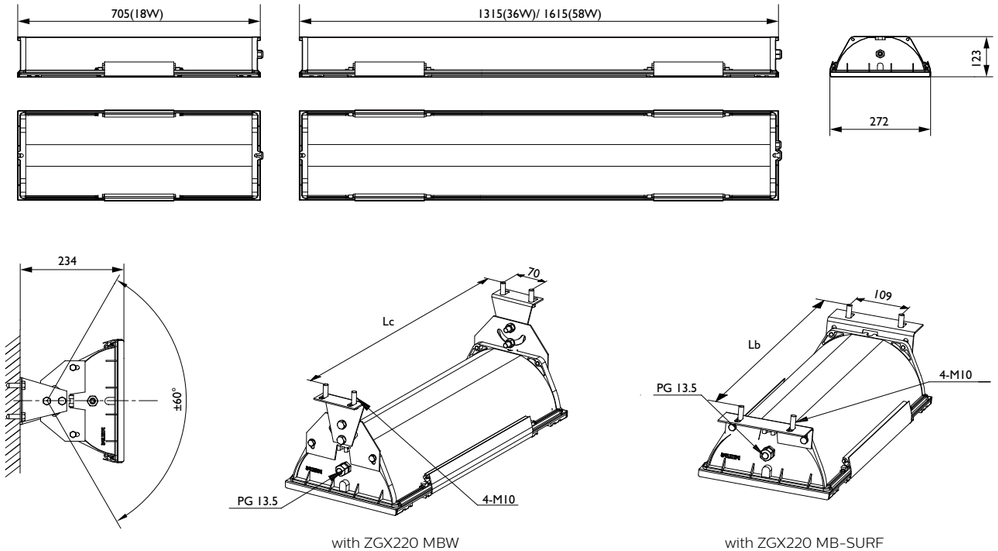
Tunnelite TGX220

Tunnel luminaire suitable for use with 18-58W TL-D lamps.

Features and benefits

- The housing consists of an extruded aluminum body with die-cast end plates painted in black
- Symmetric reflector
- Detachable gear tray for easy repair and maintenance
- Tool-free lamp replacement

Product size (dimensions in mm)



with ZGX220 MBW

with ZGX220 MB-SURF

Outdoor

IP65



Technical parameters

Type	TGX220
Light source	Fluorescent: 1 x or 2 x MASTER TL-D / G13 / 18, 36, 58 W
Lamp included	No
Gear	Electro magnetic (low loss), 220 - 240 V / 50 Hz: Inductive, parallel compensated (IC) Electronic, 220 or 240 V / 50 Hz: High Frequency Standard (HFE)
Optic	Symmetric reflector
Materials and finish	Shock resistant tempered glass cover Aluminum hinge with a closing device EPDM gasket
Installation	Luminaire can be installed on ceiling or wall Luminaire brackets to be ordered separately Cable gland PG13.5
Classifications	IP65

Key Portfolio*

Product Description	Weight
TGX220 1xTL-D36W IC 220V-50Hz	13.5
TGX220 1xTL-D58W HFE 220V-50Hz	16.5
TGX220 1xTL-D58W IC 220V-50Hz	16.5
TGX220 2xTL-D18W 240V-50Hz	8.5
TGX220 2xTL-D36W IC 220V-50Hz	15.5
TGX220 2xTL-D58W IC 220V-50Hz	18
TGX220 2xTL-D58W IC 230V-50Hz	18
Mounting Bracket	
ZGX220 MBW (2PCS)	
ZGX220 MB-SURF (2PCS)	

* For Full portfolio please contact your local Philips Representative



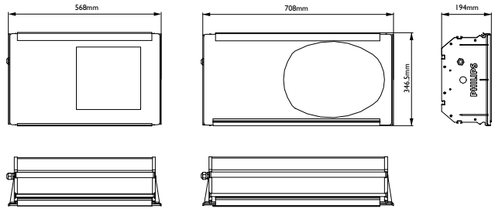
IEC EN60598

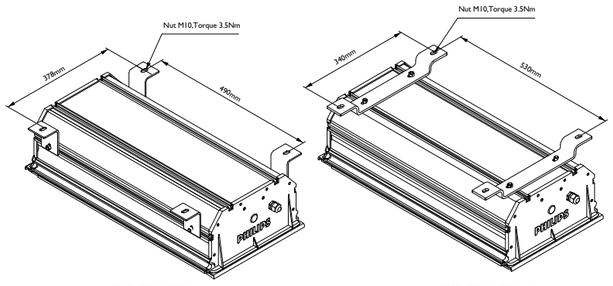


Tunnelite SGX320

Tunnel luminaire suitable for use with SON-T 150-400W high-pressure sodium vapour lamps.

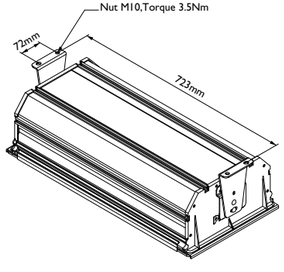
Product size (dimensions in mm)





with ZGX320 TR (4pcs)

with ZGX320 TR (2pcs)



with ZGX320 MBA

Features and benefits

- The housing consists of extruded aluminum body with die cast end plates
- Reflector options: T-pot, asymmetric or symmetric
- Detachable gear tray for easy repair and maintenance
- Tool-free lamp replacement
- 3 types of installation options

Outdoor

IP65 IK05



Technical parameters

Type	SGX320
Light source	HID: 1 x SON-T / E40 / 100, 150, 250, 400W
Lamp included	No
Gear	Electro magnetic (low loss), 220 - 240 V / 50 Hz: Inductive, parallel compensated (IC)
Optic	Closed T-POT (CP) Asymmetric reflector (A) Symmetric reflector (S)
Materials and finish	Shock resistant tempered glass cover One continuous aluminum hinge with a full length closing device EPDM gasket E40 ceramic lamp holder
Installation	Luminaire can be installed on ceiling or wall Luminaire brackets to be ordered separately Cable gland PG13.5
Classifications	IP65 Class I

Key Portfolio*

Product Description	Weight
Tunnelite SGX320 luminaire with closed T-POT reflector (CP)	
SGX320 1xSON-T100W 220V-50Hz CP	12.7
SGX320 1xSON-T150W 220V-50Hz CP	13.7
SGX320 1xSON-T250W 220V-50Hz CP	14.7
SGX320 MAX400W-E40 E CP	11
Tunnelite SGX320 luminaire with symmetrical reflector (S)	
SGX320 1xSON-T100W 220V-50Hz S	12.7
SGX320 1xSON-T150W 220V-50Hz S	13.7
SGX320 1xSON-T250W 220V-50Hz S	14.7
SGX320 1xSON-T400W 220V-50Hz S	17
SGX320 1xSON-T400W 230V-50Hz S	17
SGX320 MAX400W-E40 E S	11
Tunnelite SGX320 luminaire with asymmetrical reflector (A)	
SGX320 1xSON-T100W 220V-50Hz A	12.7
SGX320 1xSON-T150W 220V-50Hz A	13.7
SGX320 1xSON-T250W 220V-50Hz A	14.7
SGX320 1xSON-T250W 230V-50Hz A	14.7
SGX320 1xSON-T250W 240V-50Hz A	14.7
SGX320 1xSON-T400W 220V-50Hz A	17
SGX320 1xSON-T400W 220V-50Hz A	17
SGX320 MAX400W-E40 E A	11
Mounting Bracket	
ZGX320 TR (4PCS)	
ZGX320 TR (2PCS)	
ZGX320 MBA (2PCS)	

* For Full portfolio please contact your local Philips Representative

Product details



Tunnelite SGX320 luminaire with closed T-POT reflector (CP)



Tunnelite SGX320 luminaire with symmetrical reflector (S)



Tunnelite SGX320 luminaire with asymmetrical reflector (A)

IEC EN60598



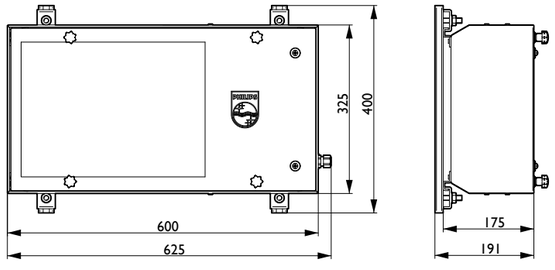
SRX509

Underpass luminaire suitable for use with SON-T 150, 250 or 400W high-pressure sodium vapour lamps.

Features and benefits

- Reflector is made of high purity anodised aluminum to give a wide beam and maximum optical efficiency
- Removable gear tray for easy repair and maintenance
- Socket plug terminal for easy and fast lamp connection
- Gear unit uses Philips standard basic ballast
- Ambient temperature of max 45˚C

Product size (dimensions in mm)



Outdoor

IP54 IK05



Technical parameters

Type	SRX509
Light source	HID: 1 x SON-T / E40 / 150, 250, 400 W
Gear	Electro magnetic (low loss), 220 or 240 V / 50 Hz: Inductive, parallel compensated (IC)
Optic	Symmetrical reflector (S) Asymmetrical reflector (A)
Materials and finish	Housing consists of 2 mm aluminumsheet and is covered by a Gray polyester powder coat (RAL 7030) with a minimum thickness of 60 m, high-graded in a specific surface treatment Shock resistant tempered glass cover of 5mm is installed to the housing by 2 stainless steel hinges and luminaire is closed by means of 4 efficient stainless steel and quick-closure dart screws Gasket is made up of EPDM foam rubber of high heat resistance Screw fix power connection block 3x2.5 mm^2
Installation	2 rails are provided for concrete ceiling mounting by 4 dyna bolts and made up of 3 mm hot dip galvanised steel plate Removable gear tray for easy repair and maintenance provided with a 3-pole terminal block for power supply and a socket-plug terminal for lamp connection
Classifications	IP54 Class I

Key Portfolio*

Product Description	Weight
SRX509 SON-T150W 220V-50Hz S	13.6
SRX509 SON-T150W 240V-50Hz A	13.6
SRX509 SON-T250W 220V-50Hz A	14.5
SRX509 SON-T250W 220V-50Hz S	14.5
SRX509 SON-T400W 220V-50Hz A	16.1
SRX509 SON-T400W 220V-50Hz S	16.1
SRX509 SON-T400W 240V-50Hz A	16.1

* For Full portfolio please contact your local Philips Representative



IEC EN60598

PHILIPS

Sports
and Area

Sports and Area

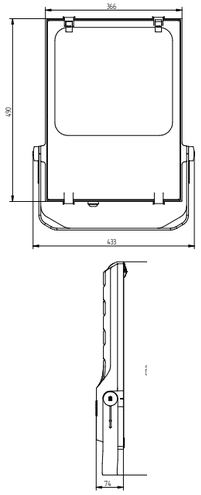


Tango LED

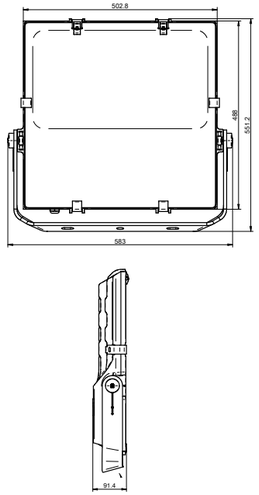
Tango LED is a general purpose LED flood lighting luminaire for various lighting applications, such as area lighting, bill board, facade, industry area, and other general applications. The Tango LED flood light general applications. The Tango LED flood light incorporates LED light source, optical system, heat sink and driver into one compact housing. Its specially designed heat sink incorporates aesthetics and functionality ensures reliability and long lifetime. Tango LED takes advantage of LED technology which provides energy savings and a longer lifetime, bringing area lighting into a new era.

Product size (dimensions in mm)

BVP361



BVP363



Features and benefits

- Energy saving: system efficacy reaches 90lm/w, which gives more than 40% of energy saving when compared to conventional floodlight
- Free from lamp replacement: Lifetime reaches 50,000 hours at L70, which requires no lamp replacement after installation
- Low maintenance cost: IP65 housing ensures low maintenance with no need for internal cleaning, resulting in a lower total cost of ownership
- Flexibility on lighting application: Optical beam choice of wide, medium, symmetric and asymmetric fulfils majority needs of lighting application
- Good reliability: Painted non-corrosive die-cast aluminum housing and steel bracket gives extra strength when the luminaire is installed in a rough environment
- Easy installation and maintenance: Universal “U” shape mounting bracket

Industry Outdoor

IP65 IK07 50Khrs



Technical parameters

Type	BVP361/ BVP363
Light source	Ledgine3.0 platform (Philips Lumileds LUXEON-T Chip)
Power requirement	220-240V 50/60Hz
Power Factor	0.95
Power Consumption	55W,105W,155W,175W, 210W,245W,280W
LED driver & driving current	Constant current at 700mA
System lumen output	5,300lumen ~ 28,000 lumen
System efficacy	100lm/W ± 5%(NW/CW), 85lm/W ± 5%(WW)
CRI	75
Color temperature	5700K ± 500K / 4000K ± 500K / 3000K ± 500K
Optics	A-WB, NB, S-WB
Materials and finishing	Housing: Die-cast aluminum Gasket: Heat resistant silicone rubber Glass: Tempered Glass Housing Color : Grey Aluminum RAL9007
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 35°C)
Installation	Universal Bracket
Weight	16.0 kg(BVP363) 10.5 kg(BVP361)
Classifications	IP65; IK07; Class I; RoHS
Operating Temperature	-40°C to 50°C (Outdoor)
Surge protection	10KV
Controls	DALI & 1-10V Dimming options
Certifications	CB, CQC, CE

IEC EN60598 CE CB F AS/NZS E60598 RoHS

Key Portfolio*	
Product ID	Weight (kg)
BVP361 LED53/CW 55W 220-240V AWB V	10.5
BVP361 LED53/CW 55W 220-240V SWB V	10.5
BVP361 LED104/CW 105W 220-240V AWB V	10.5
BVP361 LED104/CW 105W 220-240V SWB V	10.5
BVP361 LED155/CW 155W 220-240V AWB V	10.5
BVP361 LED155/CW 155W 220-240V SWB V	10.5
BVP361 LED53/NW 55W 220-240V AWB V	10.5
BVP361 LED53/NW 55W 220-240V SWB V	10.5
BVP361 LED104/NW 105W 220-240V AWB V	10.5
BVP361 LED104/NW 105W 220-240V SWB V	10.5
BVP361 LED155/NW 155W 220-240V AWB V	10.5
BVP361 LED155/NW 155W 220-240V SWB V	10.5
BVP361 LED48/WW 55W 220-240V AWB V	10.5
BVP361 LED48/WW 55W 220-240V SWB V	10.5
BVP361 LED95/WW 105W 220-240V AWB V	10.5
BVP361 LED95/WW 105W 220-240V SWB V	10.5
BVP361 LED143/WW 155W 220-240V AWB V	10.5
BVP361 LED143/WW 155W 220-240V SWB V	10.5

* For full product portfolio please contact your local Philips Representative

Key Portfolio*	
Product ID	Weight (kg)
BVP363 LED280/CW 280W 220-240V AWB V	16
BVP363 LED280/CW 280W 220-240V SWB V	16
BVP363 LED280/CW 280W 220-240V NB V	16
BVP363 LED245/CW 245W 220-240V AWB V	16
BVP363 LED245/CW 245W 220-240V SWB V	16
BVP363 LED245/CW 245W 220-240V NB V	16
BVP363 LED210/CW 210W 220-240V AWB V	16
BVP363 LED210/CW 210W 220-240V SWB V	16
BVP363 LED210/CW 210W 220-240V NB V	16
BVP363 LED175/CW 175W 220-240V AWB V	16
BVP363 LED175/CW 175W 220-240V SWB V	16
BVP363 LED175/CW 175W 220-240V NB V	16
BVP363 LED280/NW 280W 220-240V AWB V	16
BVP363 LED280/NW 280W 220-240V SWB V	16
BVP363 LED280/NW 280W 220-240V NB V	16
BVP363 LED245/NW 245W 220-240V AWB V	16
BVP363 LED245/NW 245W 220-240V SWB V	16
BVP363 LED245/NW 245W 220-240V NB V	16
BVP363 LED210/NW 210W 220-240V AWB V	16
BVP363 LED210/NW 210W 220-240V SWB V	16
BVP363 LED210/NW 210W 220-240V NB V	16
BVP363 LED175/NW 175W 220-240V AWB V	16
BVP363 LED175/NW 175W 220-240V SWB V	16
BVP363 LED175/NW 175W 220-240V NB V	16
BVP363 LED260/WW 280W 220-240V AWB V	16
BVP363 LED260/WW 280W 220-240V SWB V	16
BVP363 LED260/WW 280W 220-240V NB V	16
BVP363 LED222/WW 245W 220-240V AWB V	16
BVP363 LED222/WW 245W 220-240V SWB V	16
BVP363 LED222/WW 245W 220-240V NB V	16
BVP363 LED190/WW 210W 220-240V AWB V	16
BVP363 LED190/WW 210W 220-240V SWB V	16
BVP363 LED190/WW 210W 220-240V NB V	16
BVP363 LED160/WW 175W 220-240V AWB V	16
BVP363 LED160/WW 175W 220-240V SWB V	16
BVP363 LED160/WW 175W 220-240V NB V	16

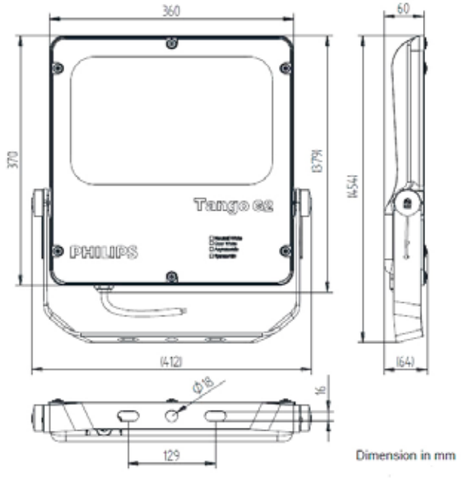
* For full product portfolio please contact your local Philips Representative



Tango LED Gen2

Tango LED Gen2 is a general purpose LED flood lighting luminaire for various lighting applications, such as area lighting, bill-board, façade, industry area, recreational sports and other general applications. The Tango LED Gen2 flood light incorporates LED light source, optical system, heat sink and driver into one compact housing. Its specially designed heat sink incorporates aesthetics and functionality to ensure reliability and long lifetime. Tango LED Gen2 takes advantage of LED technology which provides energy savings and a longer lifetime, bringing area lighting into a new era.

Product size (dimensions in mm)



Dimension in mm

Features and benefits

- Energy saving: system efficacy reaches 100lm/w, which gives more than 40% of energy saving when compared to conventional floodlight
- Free from lamp replacement: Lifetime reaches 50,000 hours at L70, which requires no lamp replacement after installation
- Low maintenance cost: IP65 housing ensures low maintenance with no need for internal cleaning, resulting in a lower total cost of ownership
- Flexibility on lighting application: Optical beam choice of symmetric and asymmetric fulfils majority needs of lighting application
- Good reliability: Painted non-corrosive die-cast aluminum housing and steel bracket gives extra strength when the luminaire is installed in a rough environment
- Easy installation and maintenance: Universal “U” shape mounting bracket.

Industry Outdoor

IP65 IK07 50Khrs



Technical parameters

Type	BVP281
Light source	Mid Power LED
Power requirement	220-240V 50/60Hz
Power factor	0.95
Power Consumption	40W; 80W; 120W
LED driver & driving current	Constant current at 700mA
System lumen output	4,000; 8,000; 12,000 lumen
CRI	Min. 80
Color temperature	6500K ± 500K / 4000K ± 500K
Optics	AMB – Asymmetric, SWB – Symmetric
Materials and finishing	Housing: Die-cast aluminum (ADC1) Gasket: Heat resistant silicone rubber Glass: Tempered glass Housing Colour: Grey Aluminum RAL9007
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 35°C)
Installation	Universal Bracket
Weight	6.0 – 6.5 kg
Classifications	IP65; IK07; Class I; RoHS
Operating Temperature	-40°C to 50°C (Outdoor)
Surge protection	10KV
Controls	Optional - DALI & 1-10V Dimming (ETO)
Certifications	CB, CQC, AS/NZ

Key Portfolio*

Product ID	Weight (kg)
BVP281 LED40/NW 40W 220-240V SWB	6
BVP281 LED80/NW 80W 220-240V SWB	6.5
BVP281 LED120/NW 120W 220-240V SWB	6.5
BVP281 LED40/NW 40W 220-240V AMB	6
BVP281 LED80/NW 80W 220-240V AMB	6.5
BVP281 LED120/NW 120W 220-240V AMB	6.5
BVP281 LED40/CW 40W 220-240V SWB	6
BVP281 LED80/CW 80W 220-240V SWB	6.5
BVP281 LED120/CW 120W 220-240V SWB	6.5
BVP281 LED40/CW 40W 220-240V AMB	6
BVP281 LED80/CW 80W 220-240V AMB	6.5
BVP281 LED120/CW 120W 220-240V AMB	6.5

* For full product portfolio please contact your local Philips Representative

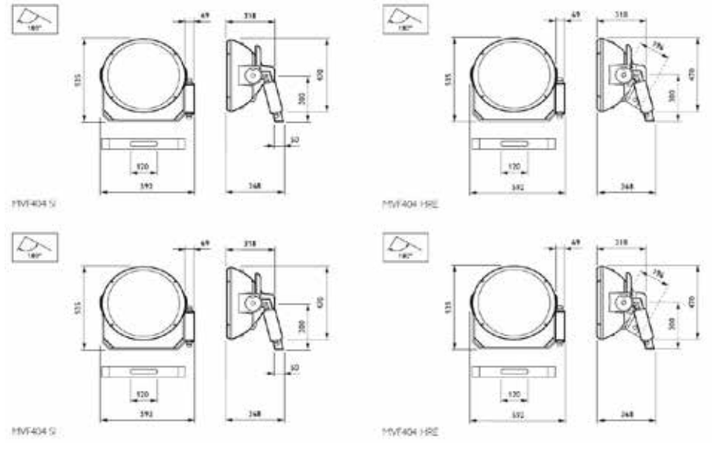
IEC EN60598 CE CB RoHS



ArenaVision MVF404

The ArenaVision MVF404 floodlight – designed for outdoor sports stadiums – dramatically increases the theatrical and emotional impact of sports for TV audiences and spectators, while allowing the players to perform under optimal visual conditions. Thanks to the innovative Philips MHN-SE 2000 W high-output compact single-ended metal-halide lamp and high-tech single-piece precision optics, ArenaVision MVF404 offers much higher optical efficiency than ever before. In addition, this 2 kW floodlight boasts easy lamp fitting and replacement, full IP65 compliance, a new safety knife connector system and a breakthrough electronic hot-restrike solution – while continuing to deliver all the traditional benefits of Philips ArenaVision systems.

Product size (dimensions in mm)



Features and benefits

- Innovative floodlight with a new compact single-ended lamp which has been developed exclusively for ArenaVision and brings out the best in the game
- New quartz metal halide lamp meets the most demanding lighting and TV broadcast requirements with excellent color rendering
- New lamp and special optics ensure maximum optical efficiency and enable accurate light distribution with a minimum of spill light
- High-output compact single-ended metal-halide lamp with excellent color rendering
- Dedicated precision optics
- IP65
- Safety knife connector system
- Electronic hot-restrike

Industry Outdoor

IP65 IK07



Technical parameters

Type	MVF404
Light Source	HID: - 1 x MASTER MHN-SE HO / GX22-HR / 2000 W
Lamp included	Yes (light color 956)
Optic	Beam category B1 (B1) Beam category B2 (B2) Beam category B3 (B3) Beam category B4 (B4) Beam category B5 (B5) Beam category B6 (B6) Beam category B7 (B7) Beam category B8 (B8)
Optical cover	Front-glass for downlighting (DOWN) and uplighting versions (UP)
Ignitor	Series (SI), integral Hot-restrike, electronic (HRE), integral
Options	Aiming memory (AM) to safeguard the original aiming position of the luminaire during servicing Hot re-strike versions enabling immediate restoration of lighting after power supply failure Uplighting versions available for architectural lighting Special cable sleeve version for tropical regions
Materials and finishing	Housing and rear cover: non-corrosive, high-pressure die-cast aluminum Glass: chemically toughened, 3 mm thick (for downlighting versions), ceramic 3 mm thick (for uplighting versions) Mounting bracket: Zinc Nickel treated, painted steel Clips: stainless steel (to secure the back cover) Reflector: anodized and brightened 99.99% aluminum Finishing in raw aluminum
Installation	On mast head frame, ceiling, wall and floor mounting The lamp is easily installed and lamping/relamping can be done with one hand only Precision aiming facilities at both top and bottom of the housing for use in conjunction with the ZVF403 PAD accessory Adjustment of mounting bracket: 360° Ambient temperature outdoor: 35°C (25°C indoor) Drag factor (Cx): 0.93 Projected area in 70° position: 0.20 m^2
Maintenance	Lamp access by opening clips of rear cover (tool-less) Equipped with knife connector system, which automatically disconnects the mains power when the rear-access back cover is opened (no need for additional relay/contactor or any extra cabling) No internal cleaning required
Remarks	Equipped with series ignitor (SI) and terminal block in aluminum connection box on the bracket Color filters for architectural lighting are available on request Wire mesh to prevent large glass falling out Pre-wired 380 - 415 V / 50 Hz gear trays (ZVF320) are available, to be ordered separately

IEC EN60598

Key Portfolio*

Product ID	Weight (kg)
Series ignitor versions Downlighting	
MVF404 MHN-SE2000W/956 B1 SI	15
MVF404 MHN-SE2000W/956 B2 SI	15
MVF404 MHN-SE2000W/956 B3 SI	15
MVF404 MHN-SE2000W/956 B4 SI	15
MVF404 MHN-SE2000W/956 B5 SI	15
MVF404 MHN-SE2000W/956 B6 SI	15
MVF404 MHN-SE2000W/956 B7 SI	15
MVF404 MHN-SE2000W/956 B8 SI	15
Series ignitor versions Uplighting	
MVF404 MHN-SE 2000W/956 B1 UP SI	15.52
MVF404 MHN-SE 2000W/956 B2 UP SI	15.52
MVF404 MHN-SE 2000W/956 B3 UP SI	15.52
MVF404 MHN-SE 2000W/956 B4 UP SI	15.52
MVF404 MHN-SE 2000W/956 B5 UP SI	15.52
MVF404 MHN-SE 2000W/956 B6 UP SI	15.52
MVF404 MHN-SE 2000W/956 B7 UP SI	15.52
MVF404 MHN-SE 2000W/956 B8 UP SI	15.52
Hot restrike versions Downlighting	
MVF404 MHN-SE2000W/956 B1 HRE	19.15
MVF404 MHN-SE2000W/956 B2 HRE	19.15
MVF404 MHN-SE2000W/956 B3 HRE	19.15
MVF404 MHN-SE2000W/956 B4 HRE	19.15
MVF404 MHN-SE2000W/956 B5 HRE	19.15
MVF404 MHN-SE2000W/956 B6 HRE	19.15
MVF404 MHN-SE2000W/956 B7 HRE	19.15
MVF404 MHN-SE2000W/956 B8 HRE	19.15
Hot restrike versions Uplighting	
MVF404 MHN-SE 2000W/956 B1 UP HRE	19.67
MVF404 MHN-SE 2000W/956 B2 UP HRE	19.67
MVF404 MHN-SE 2000W/956 B3 UP HRE	19.67
MVF404 MHN-SE 2000W/956 B4 UP HRE	19.67
MVF404 MHN-SE 2000W/956 B5 UP HRE	19.67
MVF404 MHN-SE 2000W/956 B6 UP HRE	19.67
MVF404 MHN-SE 2000W/956 B7 UP HRE	19.67
MVF404 MHN-SE 2000W/956 B8 UP HRE	19.67
Accessories of MVF404	
ZVF403 PAD Precision aiming device	
ZVF403 GS External louvre	

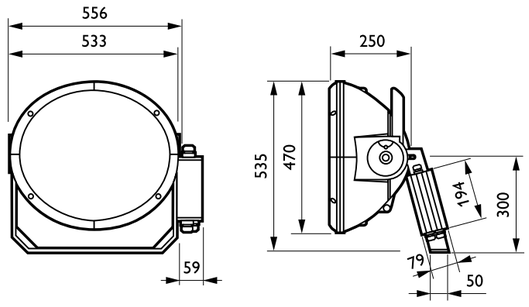
* For full product portfolio please contact your local Philips Representative



ArenaVision MVF403

ArenaVision MVF403 is ideal for indoor sports halls as well as many outdoor sports and other illumination uses. It comes with a variety of reflectors and lamps and offer a choice of optical systems and three levels of power output for every conceivable application.

Product size (dimensions in mm)



Features and benefits

- Together with the unique oval optics, the MHN-SA 2000W lamp guarantees the highest possible system efficiency, low glare and best-ever lighting levels on the field
- Built-in reflector reduces spill light and glare
- Rear opening access for easy lamp replacement
- The MHN-LA lamp version is equipped as standard with series ignitor and terminal block in an aluminum connection box on the bracket
- Wire mesh to prevent large pieces of glass falling out
- Optional safety switch to cut off current when luminaire is opened (requires additional contactor - supplied by others)
- Uplighting versions available (220/240V MHN-LA 1000W and MHN-SA 1800W) for architectural lighting
- Integrated system of optics, gear and transverse MHN-SA 1800W, MHN-SA 2000W or MHN-LA 1000W lamp in a single housing, ensuring high efficiency and low glare

Industry Outdoor

IP65



Technical parameters

Type	MVF403
Light source	HID: 1 x MASTER MHN-LA / XWH / 1000 W 1 x MASTER MHN-SA / XW / 1800, 2000 W (1800w is only available for China Version)
Lamp included	No
Optic	Beam category A1 (A1) / Beam category A2 (A2) / Beam category A3 (A3) / Beam category A4 (A4) / Beam category A5 (A5) / Beam category A6 (A6) / Beam category A7 (A7)
Optical cover	Front glass for downlighting (DOWN) and uplighting (UP) versions
Ignitor	Series (SI) for MHN-LA lamp versions/Hot-restrike (HR) integral only available for Europe version
Options	Aiming memory to safeguard the original aiming position of the luminaire during servicing Safety switch to cut off current when luminaire is opened (requires additional contactor - supplied by others) Uplighting versions available (220/240V MHN-LA 1000W and MHN-SA 1800W) for architectural lighting
Materials and finish	Non-corrosive, high-pressure die-casted aluminum housing and hinged rear cover Anodized and brightened 99.98% aluminum reflector Chemically toughened 1.6 mm-thick glass for downlighting versions and 3.2mm thick ceramic glass for the uplighting versions Stainless steel clips for direct access to the lamp Hot-dipped galvanized steel mounting bracket painted in black Hot-dipped galvanized steel mounting bracket painted in black (China version) Steel with Zinc Nickel coating bracket (Europe version)
Installation	Light weight and easy to carry thanks to the integrated handle The floodlight has a 360° mounting bracket adjustment. Precision aiming facilities at both the top and bottom of the housing for use in conjunction with the ZVF403 PAD accessory. Alternatively,the ZVF401 SAD simple aiming device can be used. Horizontal adjustment of the floodlight is possible to allow close group arrangements Ambient temperature: Outdoor: 35°C for 1800/2000W versions / Indoor and outdoor: 35°C for 1000W versions Projected area under 70° = 0.20 m^2 Drag factor Cx= 0.93
Accessories	Precision aiming device (ZVF403 PAD) or simple aiming device (ZVF401 SAD)
Classifications	IP65 IP44 ignitor box Class I Complies with IEC 60598

IEC EN60598 CE CB

Key Portfolio*

Product ID	Weight (kg)
MVF403 MHN-LA1000W 220-240V A1	13.80
MVF403 MHN-LA1000W 220-240V A2	13.80
MVF403 MHN-LA1000W 220-240V A2 UP	13.80
MVF403 MHN-LA1000W 220-240V A3	13.80
MVF403 MHN-LA1000W 220-240V A3 UP	13.80
MVF403 MHN-LA1000W 220-240V A4	13.80
MVF403 MHN-LA1000W 220-240V A4 UP	13.80
MVF403 MHN-LA1000W 220-240V A5	13.80
MVF403 MHN-LA1000W 220-240V A5 UP	13.80
MVF403 MHN-LA1000W 220-240V A6	13.80
MVF403 MHN-LA1000W 220-240V A6 UP	13.80
MVF403 MHN-LA1000W 220-240V A7	13.80
MVF403 MHN-LA1000W 220-240V A7 UP	13.80
MVF403 MHN-LA1000W A3 HR	13.80
MVF403 MHN-SA1800W 220-240V A1	13.80
MVF403 MHN-SA1800W 220-240V A1 UP	13.80
MVF403 MHN-SA1800W 220-240V A2	13.80
MVF403 MHN-SA1800W 220-240V A2 UP	13.80
MVF403 MHN-SA1800W 220-240V A3	13.80
MVF403 MHN-SA1800W 220-240V A4	13.80
MVF403 MHN-SA1800W 220-240V A4 UP	13.80
MVF403 MHN-SA1800W 220-240V A5	13.80
MVF403 MHN-SA1800W 220-240V A5 UP	13.80
MVF403 MHN-SA1800W 220-240V A6	13.80
MVF403 MHN-SA1800W 220-240V A6 UP	13.80
MVF403 MHN-SA1800W 220-240V A7	13.80
MVF403 MHN-SA1800W 220-240V A7 UP	13.80
MVF403 MHN-SA2000W 380-415V A1	13.80
MVF403 MHN-SA2000W 380-415V A1 UP	13.80
MVF403 MHN-SA2000W 380-415V A3	13.80
MVF403 MHN-SA2000W 380-415V A4	13.80
MVF403 MHN-SA2000W 380-415V A5	13.80
MVF403 MHN-SA2000W 380-415V A6	13.80
MVF403 MHN-SA2000W 380-415V A7	13.80

* For full product portfolio please contact your local Philips Representative



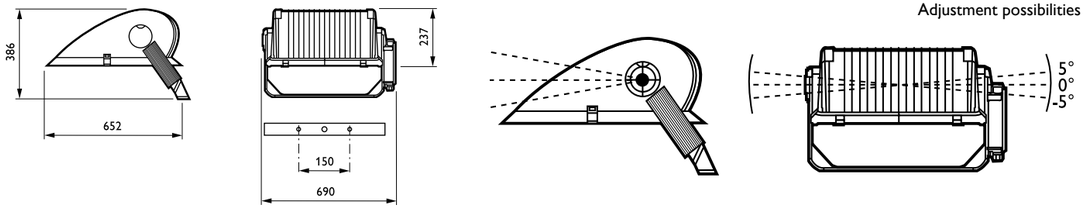
Optivision

Optivision is an asymmetric downlighting luminaire that combines compact dimensions with very high efficiency. Available with narrow, medium and wide beams for flexibility in application, it provides excellent control of spill light and limitation of glare and upward leakage of light. Optivision can accommodate metal-halide lamps for good color rendering or high-pressure sodium lamps for economical operation. Excellent spill-light control, limitation of glare and upward leakage of light is secured by asymmetric optics that achieve peak intensity at 60° and a sharp cut-off of light at 80°. The MHN-LA/FC lamps guarantee pleasant and natural color rendering and comfortable atmosphere.

Features and benefits

- Breakthrough asymmetrical downlighting luminaire combines compact dimensions with high efficiency.
- Available with narrow, medium and wide beams for flexibility in use; sharp beam cut-off for excellent control of spill light and limitation of glare and upward light leakage.
- Can be used with metal-halide lamps for good color rendering or high-pressure sodium lamps for economical operation.

Product size (dimensions in mm)



Industry Outdoor

IP65



Technical parameters

Type	MVP507
Light source	HID: 1 x MASTER MHN-FC / XW / 1000, 2000 W 1 x MASTER MHN-LA / XWH / 1000, 2000 W 1 x MASTER HPI-T Plus / E40 / 1000 W 1 x MASTER SON-T PIA / E40 / 600 W 1 x SON-T / E40 / 600, 1000 W
Lamp included	Yes (K or light color 643, 740, 842 or 956) / No
Optic	Narrow beam (NB) / Medium beam (MB) / Wide beam (WB)
Ignitor	Series (SI), integral Semi-parallel (SP), external on a separate gear tray (ZVF320) Parallel (PA), external on a separate gear tray (ZVF320)
Materials and finish	Housing: non-corrosive, high-pressure die-cast aluminum Glass: thermally hardened, 4 mm thick Mounting bracket: hot-dipped galvanized steel Clips and hinges: stainless steel Reflector: high-reflectivity and high-purity anodized aluminum Finishing in raw aluminum
Installation	On mast headframe, ceiling and wall mounting Protractor scale integrated for aiming Ambient temperature outdoor: 35°C Drag factor (Cx): 0.447 Projected area in horizontal position: 0.127 m^2 Max adjustment from the horizontal: -10 / +10°, downlighting only
Maintenance	Lamp access by opening the hinged front glass for in-position lamp replacement Built-in safety switch to cut off current while opening the luminaire, only in MHN-LA lamp versions No internal cleaning required
Accessories	Simple aiming device (ZVP507 SAD)

Key Portfolio*

Product Description	Product Description
MVP507 SON-TP 600	MVP507 MHN-FC 1000
MVP507 SON-T 1000	MVP507 MHN-FC 2000
MVP507 HPI-T 1000	MVP507 MHN-FC 2000
MVP507 MHN-LA 1000	MVP507 MHN-FC 2000
MVP507 MHN-LA 2000	MVP507 MHN-FC 1000
MVP507 MHN-LA 2000	MVP507 MHN-FC 1000
MVP507 MHN-LA 2000	MVP507 MHN-FC 1000
MVP507 SON-T 600	MVP507 MHN-FC 1000
MVP507 SON-T 1000	MVP507 MHN-FC 1000
MVP507 HPI-T 1000	MVP507 MHN-LA 2000
MVP507 MHN-LA 1000	MVP507 MHN-LA 2000
MVP507 MHN-LA 2000	MVP507 MHN-LA 2000
MVP507 MHN-LA 2000	MVP507 MHN-LA 2000
MVP507 MHN-LA 2000	MVP507 MHN-LA 2000
MVP507 MHN-LA 1000	MVP507 MHN-LA 2000
MVP507 MHN-LA 2000	MVP507 MHN-LA 2000
MVP507 MHN-LA 2000	MVP507 MHN-LA 2000
MVP507 SON-T 600	MVP507 MHN-FC 2000
MVP507 SON-T 1000	MVP507 MHN-FC 2000
MVP507 MHN-LA 1000	MVP507 MHN-FC 2000
MVP507 SON-T 600	ZVP507
MVP507 SON-T 1000	
MVP507 MHN-LA 1000	

* For full product portfolio please contact your local Philips Representative

Related products



ZVP507 SAD
Simple aiming device (ZVP507 SAD)

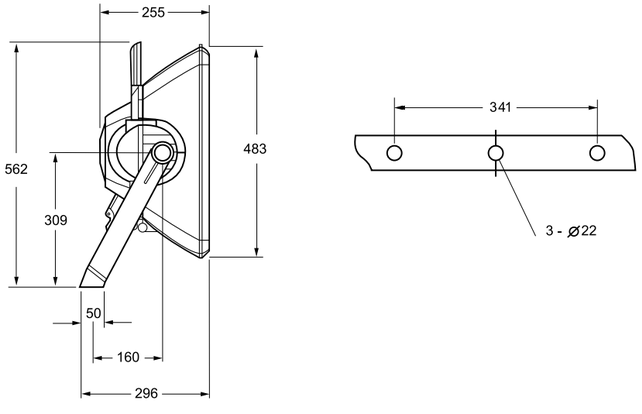
IEC EN60598 CE CB



Landmark

A high-performance general-purpose floodlight for sports lighting, general area lighting and facade illumination. This compact unit distributes a well-controlled, low glare, wide, medium or narrow beam evenly, accurately and efficiently. Excellent lighting results are achieved with the double-ended 2000W metal-halide lamp, and also with standard 1000W metal-halide or high-pressure sodium lamps. Rugged all-weather construction designed for easy aiming, simple cleaning and speedy servicing.

Product size (dimensions in mm)



Features and benefits

- Integrated system of optics, gear and transverse metal halide 2000W lamp in a single housing, ensuring high beam efficiency and a well-controlled beam. It is also excellent with SON-T or HPI-T 1000W lamps
- Built-in skirt in reflector assembly minimizes spill light and glare
- Suitable as standard for down lighting in two beam widths: medium beam (MB), wide beam (WB) and A1 to A7 optics
- High-efficiency, compact light source, with low weight and small wind area, allows more light per unit area of mast head frame, or smaller frames and masts, as well as low electrical loads
- With the MHN-LA 2000W/842 lamp, the pleasing and natural color rendering (Ra = 80) and the comfortable atmosphere (Tc = 4200K) are well suited to TV and filming
- Complies with the highest international CTV requirements (Ra = 90,Tc = 5600K) with the MHN-LA 2000W/956 lamp
- Safety switch to cut off current when luminaire is opened (2000W versions): requires additional contactor - supplied by others
- Wire mesh protection (2000W versions) against large pieces of glass falling out in the event of glass breakage
- With the 2000W models, a series ignitor mounted in the aluminum connection box on the mounting bracket, is supplied as standard

Industry Outdoor

IP65



Technical parameters

Type	MVF028
Light source	HID: 1 x MASTER MHN-LA / XWH / 1000, 2000 W 1 x MASTER MHN-SA / XW / 1000, 1800, 2000 W 1 x SON-T / E40 / 1000 W 1 x HPI-T / E40 / 1000 W
Lamp included	No
Optic	Wide beam (WB) / Medium beam (MB)
Materials and finishing	Non-corrosive, high-pressure die-casted aluminum housing and hinged rear cover Anodized and brightened 99.98% aluminum reflector Chemically toughened 1.6 mm-thick glass for downlighting versions and 4 mm-thick ceramic glass for the uplighting versions Stainless steel clips for direct access to the lamp Hot-dipped galvanized steel mounting bracket painted in black
Installation	Light weight and compact, easy to carry, mount, aim, connect and re-lamp (through the hinged rear cover without disturbing the aiming of the floodlight) Mounting bracket adjustment of 360° MVF028 can be aimed using the simple aiming accessory supplied with each floodlight which can be used on either side of the floodlight Ample vertical and horizontal adjustment to allow closely grouped arrays Maximum ambient temperature 35°C outdoors and indoors for 1000W lamps with external connection box Protected area under 65°= 0.309 m²
Classifications	IP65 IP44 ignitor box Class I Complies with IEC 60598

Key Portfolio*

Product ID	Weight (kg)
MVF028 MHN-LA1000W 220-240V A1	15.80
MVF028 MHN-LA1000W 220-240V A1	15.60
MVF028 MHN-LA1000W 220-240V A3	15.80
MVF028 MHN-LA1000W 220-240V A3	15.60
MVF028 MHN-LA1000W 220-240V MB	15.80
MVF028 MHN-LA1000W 220-240V MB	15.60
MVF028 MHN-LA1000W 220-240V WB	15.80
MVF028 MHN-LA2000W 380-415V MB	15.80
MVF028 MHN-LA2000W 380-415V WB	15.80

Product ID	Weight (kg)
MVF028 MHN-SA1800W 220-240V A1	15.80
MVF028 MHN-SA1800W 220-240V A3	15.80
MVF028 MHN-SA2000W 220-240V A1	15.80
MVF028 MHN-SA2000W 220-240V A3	15.80
MVF028 MHN-SA2000W 380-415V A5	15.80
MVF028 SON-T1000W 220-240V MB	15.80
MVF028 SON-T1000W 220-240V MB	15.80
MVF028 SON-T1000W 220-240V WB	15.80
MVF028 SON-T1000W 220-240V WB	15.80

* For full product portfolio please contact your local Philips Representative

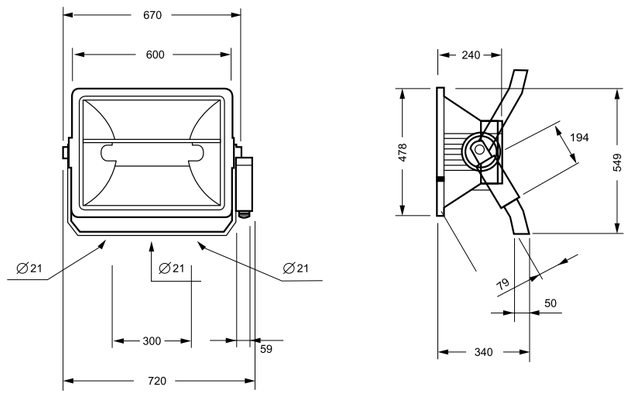
IEC EN60598



PowerVision

PowerVision is a high-performance general-purpose floodlight for sports lighting, general area lighting and façade illumination. This compact luminaire distributes a low-glare, wide, medium or narrow beam evenly, accurately and efficiently. With the MHN-LA 2000W/842 lamp, the natural color rendering (Ra = 80) and comfortable atmosphere (Tc = 4200 K) are well suited to TV and filming. With the MHN-LA 2000W/956 lamp, the highest international CTV requirements (Ra = 90, Tc = 5600 K) are met. A built-in skirt in the reflector assembly minimizes spill light and glare.

Product size (dimensions in mm)



Features and benefits

- Integrated system of optics, gear and transverse MHN-LA 2000W lamp in a single housing, ensuring high beam efficiency and a well-controlled beam. It is also excellent with SON-T or HPI-T 1000W lamps
- Built-in skirt in reflector assembly minimizes spill light and glare
- Protractor scale and simple aiming device for pre-aiming
- High-efficiency, compact light source (MHN-LA 2000W/842, 220,000 lm, MHN-LA 2000W/956 190,000lm) with low weight and small wind area, allows more light per unit area of mast headframe, or smaller frames and masts, as well as low electrical loads
- With the MHN-LA 2000W/956 lamp,t he highest international CTV requirements (Ra = 90,Tc = 5600K) are met
- Safety switch to cut off current when luminaire is opened (2000W versions): requires additional contactor - supplied by others
- Wire mesh protection (2000W versions) against large pieces of glass falling out in the event of glass breakage
- With 2000W models, a series ignitor mounted in the aluminum connection box on the mounting bracket, is supplied as standard

Industry Outdoor



IP55

Technical parameters

Type	MVF024
Light source	HID: 1 x MASTER MHN-LA / XWH / 1000 W 1 x SON-T / E40 / 1000 W 1 x HPI-T / E40 / 1000 W
Lamp included	No
Optic	Wide beam (WB) / Medium beam (MB)
Ignitor	Series (SI), integral / Semi-parallel (SP), external on a separate gear tray
Options	Connection box (H) with 1000W lamp versions for higher ambient temperatures of indoor applications
Materials and finishing	Non-corrosive, high-pressure die-casted aluminum housing and hinged rear cover Anodized and brightened 99.8% aluminum reflector Chemically toughened 1.6 mm-thick glass protected by stainless -steel wire mesh for the 2000W versions Thermally hardened 4mm-thick glass for the 1000W versions Hot-dipped galvanized steel mounting bracket
Installation	Light weight and compact, easy to carry, mount, aim, connect and re-lamp (through the hinged rear cover without disturbing the aiming of the floodlight) Mounting bracket adjustment of 360° MVF024 can be aimed using the simple aiming accessory supplied with each floodlight which can be used on either side of the floodlight Ample vertical and horizontal adjustment to allow closely grouped arrays Maximum ambient temperature: 35°C outdoor and indoor for 1000W lamps with external connection box Protected area under 65°= 0.30 m² Drag factor Cx = 1.08
Classifications	IP55 IP44 ignitor box Class I Complies with IEC 60598

Key Portfolio*

Product ID	Weight (kg)
MVF024 HPI-T1000W 220V-50Hz	12.50
MVF024 HPI-T1000W 240V-50Hz	12.50
MVF024 SON-T1000W 220V-50Hz	12.50
MVF024 SON-T1000W 230V NB	12.50
MVF024 SON-T1000W MB	12.50
MVF024 SON-T1000W WB	12.50

* For full product portfolio please contact your local Philips Representative

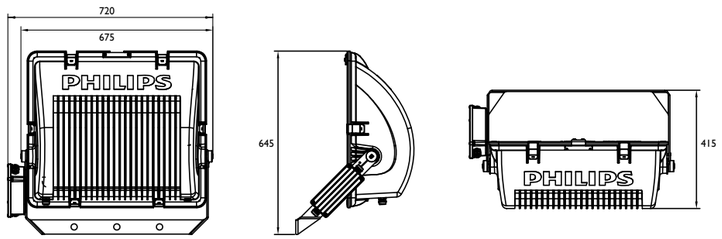
IEC EN60598



Tango4

Reliable, durable and flexible – Philips Tango4 MVP483 is a high wattage flood luminaire that is distinctive in both performance and design. Suitable for a wide range of outdoor applications – from architectural façades and billboards to recreational sports facilities and open areas – Tango4 is available in a variety of lamp types of up to 1000W and with symmetrical and asymmetrical reflectors. Its compact housing guarantees optimal visual integration while anodized aluminum reflectors ensure high-efficient beam distribution. Access to the lamp and gear is convenient, thanks to the hinged front glass featuring quick-release stainless steel clips.

Product size (dimensions in mm)



Features and benefits

- Wide choice of lamps and optics suitable for different application needs:
  - Lamps choice available as: 2xSON-T 400W, 2x SON-T 600W, HPI-T 2x400W, SON-T1000W, HPI-T 1000W, MHN-FC1000W
  - Optics choice available as: symmetric and asymmetric reflector with a combination of wide or narrow beam
  - The asymmetric beam provides a sharp cut-off at 75° when positioned horizontally which enables excellent light spill control
- Flexibility in application:
  - Tango4 is suitable for both up and down lighting assuring flexibility in lighting applications
- Good Ingress protection:
  - Lamp compartment complies with IP65 protection
  - Connection box IP44 acts as breathing device and ensures convenient wire connection

Industry Outdoor

IP65



Technical parameters

Type	MVP483
Light source	HID: 1 x MASTER MHN-FC / Cable, double ended / 1000W 1 x HPI-T / E40 / 1000 W 1 x SON-T / E40 / 1000 W 2 x MASTER HPI-T Plus / E40 / 400 W 2 x SON-T / E40 / 400, 600 W
Lamp included	No
Mains voltage	220-240 V / 50 Hz, 220V / 60Hz
Igniter	Series (SI) / Semi-parallel (SP)^ / Parallel (PA)^ ^ external on a separate gear tray
Optic	Asymmetrical, narrow beam (A-NB) Asymmetrical, wide beam (A-WB) Symmetrical, narrow beam (S-NB) Symmetrical, wide beam (S-WB)
Optical cover	Glass, flat (FG)
Materials and finishing	Housing: high-pressure, die-cast aluminum Glass: E40 version: thermally hardened, 4mm thick MHN-FC 1 kw version: thermally hardened, 3mm thick Gasket: silicone rubber, heat resistant Mounting bracket: powder-coated steel Aiming device cap: nylon Fixation clips: stainless steel Reflector: anodized, high-purity aluminum
Color	Housing not painted
Installation	Ceiling, wall or floor mounting Cable entry via M20 cable gland Operating temperature: 45°C both indoor and outdoor Drag factor (Cx): 1.2 Projected area in horizontal position: 0.335 m² Max. adjustment from the horizontal: 0 - 150°
Maintenance	Hinged front glass with quick-release clips for in-position lamp replacement No internal cleaning required
Remarks	Gear unit not integrated, to be ordered separately
Certification	CQC, CB
Remarks	For application within 3km from seaside a special anti-corrosion paint is required, this can be ordered through ETO

Key Portfolio*

Product ID
MVP483 2xSON-T400W H 220-240V S-WB
MVP483 2xHPI-T400W H 220-240V S-WB
MVP483 SON-T1000W H 220-240V A-WB
MVP483 SON-T1000W H 220-240V A-NB
MVP483 SON-T1000W H 220-240V S-WB
MVP483 SON-T1000W H 220-240V S-NB
MVP483 HPI-T1000W H 220-240V A-WB
MVP483 HPI-T1000W H 220-240V A-NB
MVP483 HPI-T1000W H 220-240V S-WB
MVP483 HPI-T1000W H 220-240V S-NB

* For full product portfolio please contact your local Philips Representative

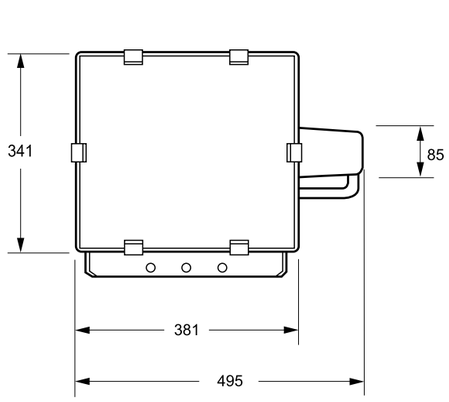
IEC EN60598 CE CB RoHS



HNF901

A versatile floodlight suitable for small to medium scale floodlighting for sports or similar areas. It offers good color rendering with HPI-T metal halide lamps, or economical operation with SON-T high pressure sodium lamps. Robust and simple construction designed for easy aiming, quick maintenance and long service life.

Product size (dimensions in mm)



Features and benefits

- Choice of wide or narrow reflector
- Quick, easy lamp replacement via side lamp holder, no re-aiming
- Floating lamp holder and support to minimise mechnical shock to the lamp
- Integral aluminum casts daylight aiming sight for fast aiming
- Separate or “Back-Pack” control gear available for installation flexibility

Industry Outdoor



IP55

Technical parameters

Type	HNF901
Light source	HID: 1 x SON-T / E40 / 250, 400, 1000 W 1 x HPI-T / E40 / 250, 400 W
Lamp included	No
Optic	Wide beam (WB) / Narrow beam (NB)
Materials and finish	Non-corrosive, gravity-casting aluminum housing, lampholder and maintenance cover High-grade aluminum reflector 5 mm toughened glass secured by stainless steel clips Hot-dipped galvanized mounting bracket Heat-resistant silicone rubber gaskets
Installation	Housing is dustproof and jetproof to IP55: no internal cleaning required Cable entry through fitted conduit located at lampholder block
Classifications	IP55 Class I Complies with IEC 60598

Key Portfolio*

Product ID	Weight (kg)
HNF901 MAX1000W-E40 E NB	8.00
HNF901 MAX1000W-E40 E NB BK	9.00
HNF901 MAX1000W-E40 E WB	8.00

* For full product portfolio please contact your local Philips Representative



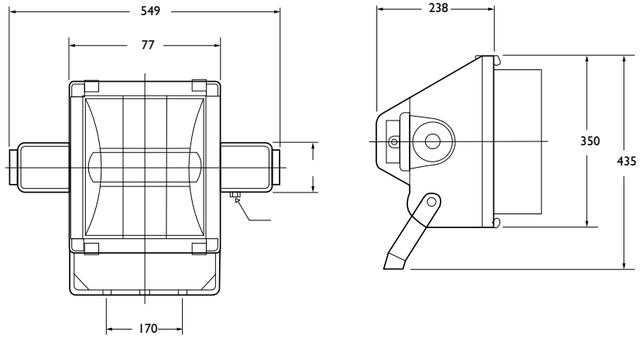
IEC EN60598



HNF003

Non-integral, general-purpose floodlight suitable for 1 x 250W to 400W metal halide or high pressure sodium lamps.

Product size (dimensions in mm)



Features and benefits

- High-grade symmetrical or asymmetrical reflector projects narrow or wide, highly efficient light beams
- Wall, ceiling or surface mounting with wide range of adjustments for both downlighting and uplighting
- Quick, easy access to lamp and gear, without affecting beam adjustment, through hinged rear cover
- Weatherproof housing hence minimal internal cleaning required
- Cast-on beam-aiming sight and protractor scale for quick daylight adjustment
- Also suitable for indoor use with ambient temperatures of up to 25°C
- Separate or backpack control gear available

Industry Outdoor





IP55

Technical parameters

Type	HNF003
Light source	HID: 1 x SON-T / E40 / 250, 400 W 1 x HPI-T / E40 / 250, 400 W
Lamp included	No
Optic	Narrow beam (NB) / Wide beam (WB) / Asymmetrical (A) / Symmetrical (S)
Materials and finish	Non-corrosive, high-pressure die-casted aluminum housing Pre-anodized high-purity aluminum reflector for accurate beam control Toughened glass fixed with stainless steel clips Silicone rubber seal Hot-dipped galvanized steel mounting bracket All external fixings in stainless steel
Installation	Universal mounting bracket allows for ceiling, wall or surface mounting Cable entry via cable gland Front glass with quick release hinge-clips for in-position lamp replacement
Classifications	IP55 Class I Complies with IEC 60598

Key Portfolio*

Product ID	Weight (kg)
HNF003 MAX250W-E40 E NB A	8.00
HNF003 MAX250W-E40 E WB S	8.00
HNF003 MAX400W-E40 E NB A	8.00
HNF003 MAX400W-E40 E WB S	8.00

* For full product portfolio please contact your local Philips Representative

IEC EN60598

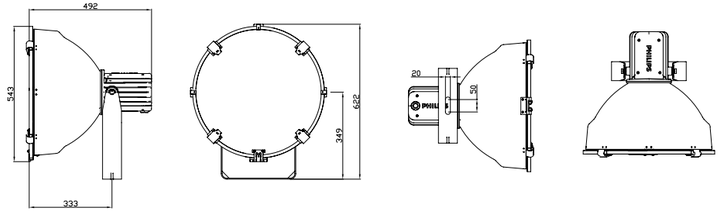




Rotational Flood

Philips' Rotational Flood MVP209 is a high wattage and highly efficient flood lighting luminaire that delivers flexibility and excellent quality in lighting performance with its rotational reflector design. It is suitable for mid-to-large scale venues such as recreational sports, area and façade lighting applications. Rotational Flood is available for MH 1500W, MH 1000W and SON-T 1000W lamps with 4 beam spreads ranging from narrow to wide. Its anodised aluminum reflector ensures a highly efficient light beam, while access to the lamp is easy thanks to the hinged front glass with quick-release stainless steel clips.

Product size (dimensions in mm)



Features and benefits

- Multiple choice of beam provides flexibility in various lighting applications
  - Rotational reflector design, which can project light over long distances
  - Four beam spread ranges from 24° narrowest to 115° widest (M2 to M6 according to NEMA classification)
- Optimal performance when using MH type lamps
  - LOR reaches 0.75 for MH 1500W and MH 1000W lamps
- High protection against water and dust, lead to low maintenance needs
  - IP65 for the lamp compartment, and IP44 for the connection box
- Meeting IEC safety standards
  - CQC certified

Industry Outdoor



IP65

Technical parameters

Type	MVP209
Light source	HID: MH1500W/E39 MH1000W/E39 SON-T 1000W/E40
Lamp included	No
Mains voltage	220-240 V/50 Hz, 220V/60Hz
Igniter	Semi-parallel (SP)^ ^ external on a separate gear tray
Optic	24°, 38°, 58°, 115°
Optical cover	Glass, flat (FG)
Materials and finishing	Housing: high-pressure, die-cast aluminum Reflector: high-purity aluminum Glass: thermally hardened, 3.2mm thick Gasket: silicone rubber, heat resistant Mounting bracket: powder-coated steel Fixation clips: stainless steel
Color	Grey RAL 9007, powder coated Color matched bracket
Installation	Wall or floor mounting Cable entry via M20 cable gland Operating temperature: 35°C Drag factor (Cx): 1.2 Projected area in horizontal position: 0.2 m² Max. allowed adjustment from the horizontal: (-90) - (+90°),
Maintenance	Hinged front glass with quick-release clips for in-position lamp replacement No internal cleaning required
Remarks	Gear unit not integrated, to be ordered separately
Certifications	CQC

Key Portfolio*

Product ID
MVP209 MH-R MAX1500W-E40 H 24
MVP209 MH-R MAX1500W-E40 H 38
MVP209 MH-R MAX1500W-E40 H 115
MVP209 MH-R MAX1500W-E40 H 58
MVP209 SON--T1000W-E40 H 58
MVP209 SON-T1000W-E40 H 24
MVP209 SON-T1000W-E40 H 38

* For full product portfolio please contact your local Philips Representative

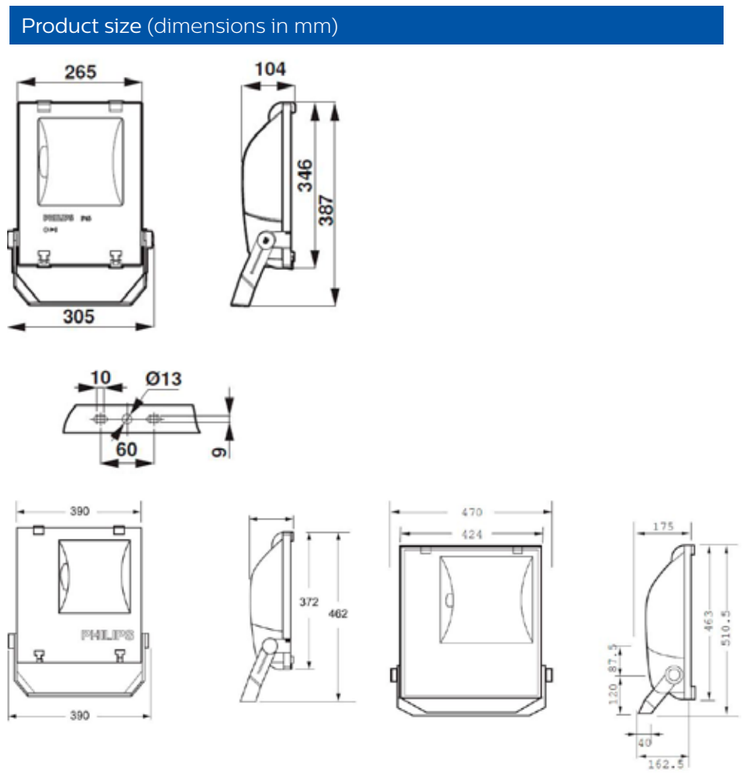
IEC EN60598



Tango

A compact and sturdy family of floodlights complete with integral gear, particularly suited for surface lighting using metal halide or high-pressure sodium lamps. Its all-weather construction is designed for simple cleaning and speedy servicing.

Product size (dimensions in mm)



Features and benefits

- High-grade symmetrical, asymmetrical or parabolic reflector projects a highly efficient light beam
- Wall, ceiling and surface mountings with wide range of adjustments for both down and up lighting
- Quick, easy access to lamp and gear, without affecting beam adjustment, through hinged front window with quick-release clips
- Housing dustproof and jetproof; no internal cleaning required

Industry Outdoor

IP65



Technical parameters

Type	SMF183/MMF183/SMF283/MMF283/SMF383/MMF383
Light source	SON-T 70W/100W/150W/250W/400W, HPI-TP250W/400W, MHN-TD70W/150W, CDM-TD70W
Materials and finish	Low copper and high grade aluminum housing
Installation	Tango can be easily installed onto walls, poles or to concrete bases in the ground. Its simple electrical connection also offers reliability. Replacement of lamps and gears is extremely convenient - just remove the four clips which seal the glass to its housing. The two clips at the bottom help secure the glass during maintenance procedures.
Classifications	IP65 Class I Complies with IEC 60598

Key Portfolio*

Product ID	Weight (kg)
MMF183 MHN-TD70W	5.8
SMF183 SON-T70W	5.8
MMF183 CDM-TD70W	5.8
MMF283 MHN-TD70W	7.6
MMF283 MHN-TD150W	7.6
SMF283 SON-T70W	7.3
SMF283 SON-T100W	7.5
SMF283 SON-T150W	8.3
SMF383 SON-T250W	11.9
SMF383 SON-T400W	13.9
MMF383 HPI-T250W	11.8
MMF383 HPI-T400W	11.8

* For full product portfolio please contact your local Philips Representative

IEC EN60598



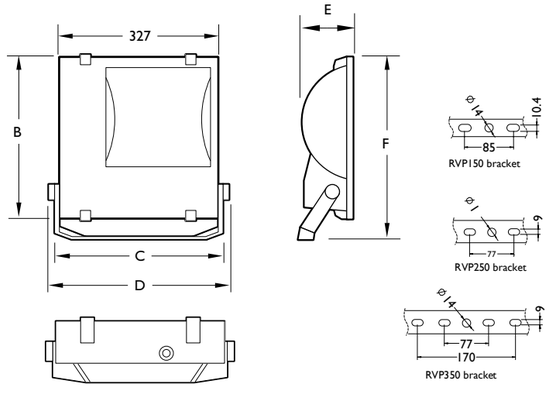
conTempo

The conTempo floodlight has a registered design that blends well with contemporary outdoor environments. It has a rugged pressure die-casted aluminum housing with corrosion resistant powder coating. conTempo also features an integrated energy saving copper and aluminum ballast, electronic semi-parallel ignitor and capacitor. The unit has passed rigorous tests for dust and water ingress protection.

Features and benefits

- Blends well with contemporary outdoor environments
- Rugged pressure die-casted aluminum housing with corrosion resistant powder coating
- Integrated energy saving copper and aluminum ballast, electronic semi-parallel ignitor and capacitor
- Custom-designed peened anodized reflector for efficient symmetric and asymmetric optics
- Hinged toughened glass cover for easy operation
- Rigorously tested for dust and water ingress protection
- Ergonomic installation and maintenance mechanisms

Product size (dimensions in mm)



Product ID	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
RVP150	267	303	284	306	109	347
RVP250	327	346	343	363	117	424
RVP350	425	430	440	460	137	476

Industry Outdoor

IP65

LOR(%) 67



Technical parameters

Type	RVP150 / RVP250 / RVP350
Light source	HID: 1 x CDM-TD / Rx7s / 70, 150 W 1 x CDM-TT / E27 / 70 W 1 x CDM-TT / E40 / 150 W 1 x SON-T / E27 / 70 W 1 x SON-T / E40 / 150, 250, 400 W 1 x SON-T Plus / E27 / 70 W 1 x SON-T Plus / E40 / 150, 250, 400 W 1 x HPI-T / E40 / 250, 400 W 1 x HPI-T Plus / E40 / 250, 400 W 1 x MHN-TD / Rx7s / 70, 150 W
Lamp included	No / Yes (K)
Gear	Electro magnetic (low loss), 220-240 V / 50-60 Hz: Inductive, parallel compensated (IC)
Optic	Symmetric reflector (S) Asymmetric reflector (AS)
Ignitor	Semi-parallel (SP)
Materials and finish	Die-casted aluminum housing with corrosion resistant powder coating Peened anodized reflector Premium bonded silicon gasket Quick-release steel toggles Copper and aluminum ballast, electronic ignitor and PF improvement capacitor Nylon grommet ,ceramic lamp holder, silicon cable with fiber-glass sleeving Shatter-resistant front safety glass
Installation	Mild steel mounting bracket One installation option available: standing Please turn off the power supply when product is not in use for a long time
Accessories	Front glass is available as a spare part
Classifications	IP65 Class I Complies with IEC 60598

IEC EN60598

Key Portfolio*

Product ID	Weight (kg)
conTempo L	
RVP350 SON-T250W IC 220V-50Hz S SP CN	10.40
RVP350 SON-T400W IC 220V-50Hz S SP CN	12.10
RVP350 HPI-T250W IC 220V-50Hz S SP CN	9.55
RVP350 HPI-T400W IC 220V-50Hz S SP CN	10.20
RVP350 SON-T250W IC 220V-50Hz A SP CN	10.40
RVP350 SON-T400W IC 220V-50Hz A SP CN	12.10
RVP350 HPI-T250W IC 220V-50Hz A SP CN	9.55
RVP350 HPI-T400W IC 220V-50Hz A SP CN	10.20
conTempo M	
RVP250 MHN-TD70W IC 220V-50Hz S SP CN	6.20
RVP250 MHN-TD150W IC 220V-50Hz S SP CN	7.05
RVP250 SON-T70W IC 220V-50Hz S SP CN	6.20
RVP250 SON-T150W IC 220V-50Hz S SP CN	7.05
RVP250 MHN-TD70W IC 220V-50Hz A SP CN	6.20
RVP250 MHN-TD150W IC 220V-50Hz A SP CN	7.05
RVP250 SON-T70W IC 220V-50Hz A SP CN	6.20
RVP250 SON-T150W IC 220V-50Hz A SP CN	7.05
conTempo S	
RVP150 SON-T70W K IC 220V-50Hz SP S	4.54
RVP150 SON-T70W K IC 220V-50Hz SP A	4.54
RVP150 CDM-TT70W K IC 220V-50Hz SP S	4.54
RVP150 CDM-TT70W K IC 220V-50Hz SP A	4.54
RVP150 MHN-TD70W K IC 220V-50Hz SP S	4.54
RVP150 MHN-TD70W K IC 220V-50Hz SP A	4.54
RVP150 CDM-TD70W K IC 220V-50Hz SP S	4.54
RVP150 CDM-TD70W K IC 220V-50Hz SP A	4.54
RVP150 SON-T70W IC 220V-50Hz SP S	4.54
RVP150 SON-T70W IC 220V-50Hz SP A	4.54
RVP150 CDM-TT70W IC 220V-50Hz SP S	4.54
RVP150 CDM-TT70W IC 220V-50Hz SP A	4.54
RVP150 MHN-TD70W IC 220V-50Hz SP S	4.54
RVP150 MHN-TD70W IC 220V-50Hz SP A	4.54
RVP150 CDM-TD70W IC 220V-50Hz SP S	4.54
RVP150 CDM-TD70W IC 220V-50Hz SP A	4.54

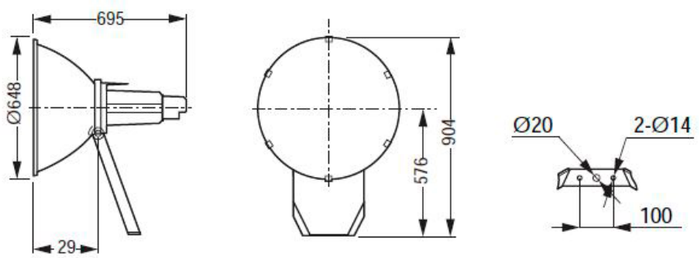
* For full product portfolio please contact your local Philips Representative



HNF207

Non-integral floodlight luminaire suitable for 1000W tubular high pressure sodium lamps or 1000/2000W tubular metal halide lamps.

Product size (dimensions in mm)



Features and benefits

- Symmetrical reflector, high efficiency, Narrow Beam(NB) and Wide Beam(WB) lighting distribution.
- IP55 Class I luminaire
- Two Hinge locked back cover and luminaire, easy maintenance

IP55

Technical parameters

Type	HNF207
Light source	SON-T 1000W, HPI -T2000W, MH1000W



Key Portfolio*

Product ID	Weight (kg)
HNF207 SON-T 1000W	15.2
HNF207 HPI-T 2000W	15.2

* For full product portfolio please contact your local Philips Representative

Industry Outdoor

IEC EN60598

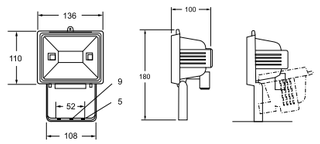


Halolite

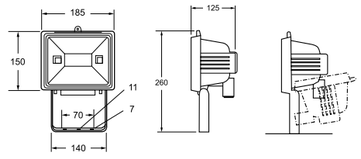
Halolite is a floodlight with a compact and sturdy design. It is light weight with a die-casted aluminum housing and corrosion-proof powder coating. Its high grade anodised reflectors provide an efficient beam for either downward or upward applications. Easy lamp replacement and rear access for mains connection. Merchandise packaging is available.

Product size (dimensions in mm)

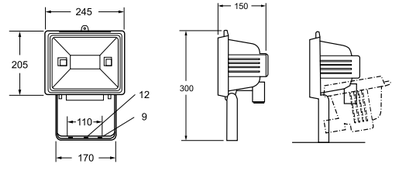
QVF133



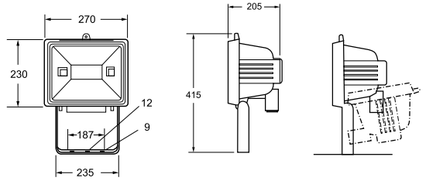
QVF135



QVF137



QVF139



Features and benefits

- Compact and sturdy design
- Rugged, light weight, corrosion-proof,
  die-casted aluminum housing with powder coating
- High-grade anodized reflectors to provide an efficient beam for either downward or upward applications
- Toughened glass cover
- IP54; waterproof and heat resistant silicone gaskets
- Wide light beam
- Easy lamp replacement through front window without affecting beam adjustment
- Easy rear access for main connections

Industry Outdoor



IP54

Technical parameters

Type	QVF133 / QVF135 / QVF137 / QVF139
Light source	Halogen: 1 x Halogen / R7s / 150, 500, 1000, 1500 W
Lamp included	No / Yes (K)
Materials and finish	Die-casted aluminum housing with powder coating Anodized reflectors Silicone gaskets
Installation	Mild steel mounting bracket One option available: standing Please turn off the power supply when product is not in use for a long time
Accessories	Front glass is available as a spare part
Classifications	IP54 Class I Complies with IEC 60598

Related products



Halolite QVF133
floodlight luminaire
with halogen lamp



Halolite QVF135
floodlight luminaire
with halogen lamp



Halolite QVF137
floodlight luminaire
with halogen lamp



Halolite QVF139
floodlight luminaire
with halogen lamp

IEC EN60598

Key Portfolio*

Product ID	Weight (kg)
QVF133	
QVF133 HAL-TDS150W 220V-50Hz	0.51
QVF133 HAL-TDS150W K 230V GR	0.40
QVF133 HAL-TDS150W K 240V GR	0.40
QVF135	
QVF135 HAL-TDS500W 220V-50Hz	1.00
QVF135 HAL-TDS500W K 230V GR	1.00
QVF135 HAL-TDS500W K 240V GR	1.00
QVF137	
QVF137 HAL-TDL1000W 220V-50Hz	1.42
QVF137 HAL-TDL1000W K 230V GR	1.75
QVF137 HAL-TDL1000W K 240V GR	1.75
QVF139	
QVF139 HAL-TDL1500W 220V-50Hz	3.25
QVF139 HAL-TDL1500W K 230V GR	2.75
QVF139 HAL-TDL1500W K 240V GR	2.75

* For full product portfolio please contact your local Philips Representative



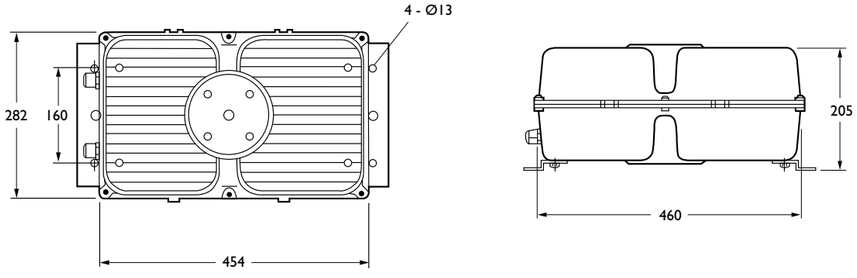
ZVF350 Gearbox

This is a range of pre-wired, high-pressure die-casted aluminum gear boxes. It is available for high wattage lamps, ranging from SON-T/HPI-T 10000W to MHN-SA 2000W. These gear boxes are normally used in combination with floodlights which are not able to integrate with electrical components due to lack of space or high temperatures.

Features and benefits

- Corrosion resistant, high pressure die-casted aluminum gear box, offers strong and long term protection to the gear components inside
- All electrical components are pre-wired up to the terminal block and easy to connect with luminaires
- One gear box can house several control gear components
- The cable entry glands facilitate loop-in-loop-out utility
- Screw holes are provided on the box for the luminaire to be mounted on the gear box directly
- Not suitable for hot restrike gear trays because of temperature restrictions

Product size (dimensions in mm)



Industry Outdoor

IP65



Technical parameters

Type	ZVF350
Light source	HID: 1 x MHN-LA / 1000, 2000 W 1 x MHN-SA / 1800, 2000 W 1 x SON / 600W 2 x SON / 400 W 1 x SON-T / 1000 W 1 x HPI / 400 W 1 x HPI-T / 1000 W
Supply voltage	220 - 240 V / 50 Hz and 380 V / 50 Hz
Capacitor	A set of parallel capacitors are used to obtain a power factor of the lamp/ballast circuit, higher than 0.85
Materials and finish	Corrosion resistant, high pressure die-casted aluminum All external fixings in stainless steel
Installation	Pre-mounted electrical components (capacitors, ballast, ignitor), wiring and terminal blocks All gear boxes are ready to use. Only the cabling between the gear box and luminaire and the gear box and the mains supply are required Connectors are all made with screw terminal blocks.The terminal live, neutral and earth for mains supply and lamp connections are clearly marked Cable entry via two PG 11 cable glands can accept cable with diameter between 5 mm and 10mm The gearbox can be mounted by means of 4 mounting holes
Classifications	IP65 Class I Complies with IEC 60598

Key Portfolio*

Product ID	Weight (kg)
ZVF350 HPI-T1000W 230-50Hz	16.00
ZVF350 HPI-T1000W 240V-50Hz	16.00
ZVF350 HPI-T2000W 220V-50Hz	19.50
ZVF350 MHN-LA1000W 220V-50Hz	16.00
ZVF350 MHN-LA1000W 230V-50Hz	16.00
ZVF350 MHN-LA2000W 380V	21.20
ZVF350 MHN-SA1800W 220V-50Hz	21.20
ZVF350 MHN-SA1800W 380V	21.20
ZVF350 MHN-SA2000W 380V	19.50
ZVF350 SON-T1000W 220V-50Hz	16.00
ZVF350 SON-T1000W 230-50Hz	16.00
ZVF350 SON-T1000W 240V-50Hz	16.00
ZVF350 SON-T600W 220V-50Hz	21.20

* For full product portfolio please contact your local Philips Representative

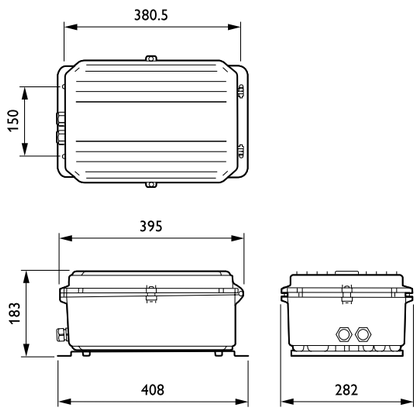
IEC EN60598



ZVF340 Gearbox

The ZVF340 gearbox is specially designed for flood lighting luminaires using 1000W and 600W HID lamps. With its compact design, the ZVF340 delivers excellent performance at low-cost and is available in different voltage and frequency specifications. Suitable for all kinds of outdoor applications, from architectural facade, recreational sports facilities to open areas.

Product size (dimensions in mm)



Features and benefits

- Compact size
  - -Specially designed for 1000W and 600W HID lamp
- Wide choice of settings to suit different needs
  - - Suitable for various lamp types: SON-T1000W, SON-T600W, HPI-T1000W, MHN-LA1000W, MHN-FC1000W
  - - Suitable for various voltage and frequency settings: 220v/230v/240v/50Hz, 220v/60Hz
- Good ingress protection and anti-corrosion materials ensures long service time in outdoor applications
  - - IP65 protection: Ensures reliable application for outdoor
  - - Anti-corrosion materials: Housing painted, screw made of stainless steel

Industry Outdoor

IP65

LOR(%) 67



Technical parameters

Type	ZVF340
Light source	HID : 1 x MASTER MHN-FC / Cable, double ended / 1000W 1 x MASTER MHN-LA / X528 Cable, double ended / 1000W 1 x HPI-T / E40 / 1000 W 1 x SON-T / E40 / 1000 W 1 x SON-T / E40 / 600 W
Main voltage	220 - 240 V / 50 Hz 220V / 60 Hz
Igniter	Series (SI) Semi-parallel (SP) Parallel (PA)
Materials and finishing	Housing: high-pressure, die-cast aluminum, painted Gasket: silicone rubber, heat resistant Fixation bolts: stainless steel Breather: GORE
Color	Grey RAL 9007, powder coated
Installation	Wall or floor mounting Cable entry via M20 cable gland Operating temperature: Ta 35°C max
Maintenance	Open-close with screw driver No internal cleaning required

Key Portfolio*

Product ID	Weight (kg)
ZVF340 HPI-T1000W 220V-50Hz IGN-UT	12
ZVF340 HPI-T1000W 230V-50Hz IGN-LE	12
ZVF340 MHN-LA1000W 220V-50Hz IGN-UT	12.5
ZVF340 MHN-LA1000W 220V-50Hz UT	12.5
ZVF340 SON-T1000W 220V-50Hz IGN-UT	13.8
ZVF340 SON-T1000W 230V-50Hz IGN-LE	13.8
ZVF340 SON-T600W 220V-50Hz IGN-LE	10.4
ZVF340 SON-T600W 220V-50Hz IGN-UT	10.4
ZVF340 MH1500W 220V-50Hz	20.7

* For full product portfolio please contact your local Philips Representative



IEC EN60598



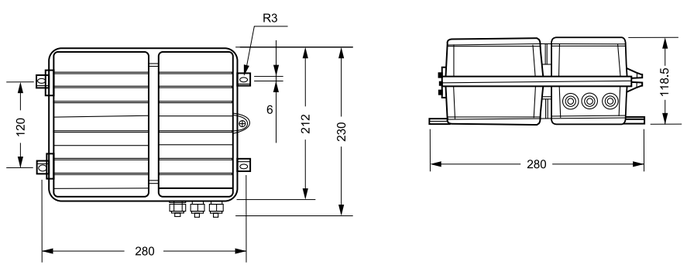
ZVF330 Gearbox

This is a range of pre-wired, high-pressure die-casted aluminum gear boxes. It is available for lamps ranging from SON-T/HPI-T 250W to 400W. These gear boxes are normally used in combination with floodlights which are not able to integrate with electrical components due to lack of space or high temperatures.

Features and benefits

- Corrosion resistant, high pressure die casted aluminum gear box offers strong and long term protection to the gear components inside
- All electrical components are pre-wired up to the terminal block and easy to connect with luminaires
- The cable entry glands facilitate loop-in-loop-out utility
- Screw holes are provided on the box for the luminaire to be mounted on the gear box directly
- Not suitable for hot restrike gear trays because of temperature restrictions

Product size (dimensions in mm)



Industry Outdoor

IP65

LOR(%) 67



Technical parameters

Type	ZVF330
Light source	HID: 1 x SON-T / 250, 400 W 1 x HPI-T / 250, 400 W
Supply voltage	220 V / 50 Hz
Capacitor	A set of parallel capacitors are used to obtain a power factor of the lamp/ballast circuit, higher than 0.85
Materials and finish	Corrosion resistant, high pressure die-casted aluminum All external fixings in stainless steel
Installation	Pre-mounted electrical components (capacitors, ballast, ignitor), wiring and terminal blocks All gear boxes are ready to use. Only the cabling between the gear box and luminaire and the gear box and the mains supply are required Connectors are all made with screw terminal blocks. The terminal live, neutral and earth for mains supply and lamp connections are clearly marked Cable entry via two PG 11 cable glands can accept cable with diameter between 5 mm and 10 mm The gearbox can be mounted by means of 4 mounting holes
Classifications	IP65 Class I
	Complies with IEC 60598

Key Portfolio*

Product ID	Weight (kg)
ZVF330 HPI-TP250W 220V-50Hz	3.40
ZVF330 HPI-TP400W 220V-50Hz	4.50
ZVF330 SON-T250W 220V-50Hz	4.50
ZVF330 SON-T400W 220V-50Hz	6.10

* For full product portfolio please contact your local Philips Representative

IEC EN60598



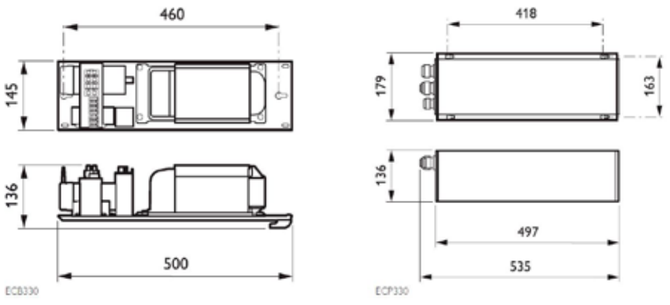
ECB/ECP Gearbox

Philips is one of the few companies able to provide total floodlight system solutions comprising all necessary elements – floodlight, lamp source and control gear unit. Our innovative high-power Gear Units are designed to meet our customers' need for a compact gear solution that is completely ready for installation. The pre-wired high power control gear units are intended for use in combination with floodlights that are suitable for high wattage HID lamps and cannot integrate electrical components because of limited space or high temperatures. A gear unit contains all electrical components (ballast, ignitors, capacitors), wiring and terminal blocks needed to ensure initial lamp ignition and proper operation of the lamp in stabilized current. The high-power Gear Units are available in both IP20 (ECB330) and IP65 (ECP330) versions.

Features and benefits

- Guarantees reliable functioning of total Philips floodlight system
- Compact in size and ready for easy installation
- Serviceable – all components are easily replaceable independently
- Compact form
- Sufficiently high power factor
- Available in IP20 and IP65 versions
- Suitable for 2000, 1000, 600 and 2x400/600 W lamps in Philips floodlights

Product size (dimensions in mm)



Industry Outdoor

IP65



Technical parameters

Type	ECB330 (IP20 version) ECP330 (IP65 version)
Applicable light sources	HID: - MASTER MHN- SE 2000W HO - MASTER MHN-LA / X528 / 1000, 2000 W - MASTER MHN-FC / Double ended / 1000, 2000 W - HPI-T / E40 / 1000, 2000 W - SON-T / E40 / 600, 1000 W - 2 x SON-T / E40 / 400, 600 W - 2 x HPI-TP / E40 / 400 W
Mains voltage	230 or 240 V / 50 Hz 380-400-415-430 V / 50 Hz 360-380-400-415 V / 50 Hz Note: mains supply voltage fluctuation not more than -8% and +6% from the rated voltage of the ballast
Ignitor	Semi-parallel (SP) in limited distance between floodlight (SON-T400, 600, 1000 W versions) and gear unit or parallel (PA) ignitors supplied on the gear unit Series (SI) ignitor versions of the gear units are not supplied with suitable ignitor and the series ignitor is provided with the floodlight and enables long distance between floodlight and gear unit Floodlights with MHN-SE 2000 W and MHN-LA 1000 W lamps in electronic hot re-strike (HRE) version do not need specific HRE gear unit The timer integral electronic hot restrike ignitor (HRE) is located at the back of the luminaire and acts at the same time as a normal series ignitor
Capacitor	A set of parallel capacitors is used to obtain a power factor of the lamp/ ballast circuit up to 0.90
Cable gland	Applicable only for ECP330 IP65 versions: 1-lamp versions: - 2 x M25 cable glands (one of them blinded) for mains IN/ OUT (through-wiring) suitable for mains supply cable Ø 13 to 18 mm (i.e. 3x2.5 to 5x6 mm² rigid or 5x4 mm² soft) - 1 x M20 for lamp supply cable Ø 10 to 14 mm 2-lamp versions: - 2 x M25 cable glands for individual mains supply per lamp circuit (no through-wiring)
Option	Fuse (FU) Note: fuse option applies as 1-phase protection for 230/240 V versions and 2-phase protection for 360-430 V versions
Materials and finishing	Gear tray (IP20 version): pre-galvanized steel Housing (IP65 version): aluminum extrusion and die-casting aluminum endcaps, painted in grey
Installation	Ready for mains connection, only cabling needs to be installed between gear unit and luminaire. Connectors made with screw terminals. Live, neutral, earth for mains supply. Mains and lamp connections are clearly marked and to be used for cable cores up to 16 mm² for mains connections and up to 4 mm² for lamp connections Ambient temperature: min. -30°C / max. 45°C indoor, 55°C outdoor for IP65 version (ECP330)
Maintenance	All components will be easily replaceable independently for maintenance reason (i.e. ballast, ignitor, capacitors), except gearbox version ballast is not possible to replace since it is potted inside gear unit housing.

IEC EN60598 CE CB RoHS

Key Portfolio*

Product ID	Weight (kg)
ECB330	
2 x HPI-TP 400W 230/240V	12
2 x SON-T 400W 230/240V	12
2 x SON-T 600W 230/240V	13
2 x SON-T 600W 230V	13
2 x SON-T 600W 240V	13
HPI-T 1000W 230/240V	15
HPI-T 2000W 380/400/415V	19.5
MHN-FC 1000W 230/240V	16
MHN-FC 2000W 360/380/400/415V	20.5
MHN-LA 1000W 230/240V	16
MHN-LA 2000W 360/380/400/415V	20.5
MHN-SE 2000W 380/400/415/430V	22
SON-T 1000W 230/240V	16
SON-T 600W 230/240V	7.5
SON-T 600W 230V	7.5
SON-T 600W 240V	7.5
ECP330	
2 x HPI-TP 400W 230/240V	18
2 x SON-T 400W 230/240V	18
2 x SON-T 600W 230/240V	19
2 x SON-T 600W 230V	19
2 x SON-T 600W 240V	19
HPI-T 1000W 230/240V	19
HPI-T 2000W 380/400/415V	24
MHN-FC 1000W 230/240V	20.5
MHN-FC 2000W 360/380/400/415V	25
MHN-LA 1000W 230/240V	20.5
MHN-LA 2000W 360/380/400/415V	25
MHN-SE 2000W 380/400/415/430V	26.5
SON-T 1000W 230/240V	20.5
SON-T 600W 230/240V	12
SON-T 600W 230V	12
SON-T 600W 240V	12

* For full product portfolio please contact your local Philips Representative

PHILIPS

Amenity

Amenity



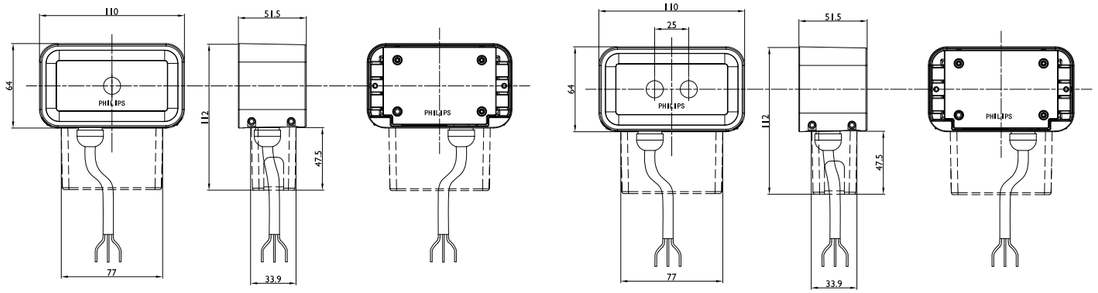
Smart LED Bracket

Philips Smart LED Bracket Light is a robust and highly reliable solution that's easily installed while providing a high degree of flexibility to create a unique lighting experience. Fully IP65 and IK08 compliant, it boasts of a system lifetime of over 25,000 hours (@ L70 Ta = 25˚C).

Features and benefits

- High-quality LEDs and integrated driver ensures a system lifetime of over 25,000 hours @ L70 Ta = 25˚C.
- Robustly designed through strict process control to ensure IP65 protection and IK08 impact resistant through lifetime.
- Comes with a mounting box for easy installation.
- Integrated driver makes installation simple.

Product size (dimensions in mm)



Outdoor



IP65 | IK08 | 25Khrs

Technical parameters

Type	BWG160
Light source	1 / 2 High Power Leds
Light Color	Warm white (3000K), Neutral white (4000K)
Lumens	BWG160 1LED 36˚ WW 146lm, NW 167lm BWG160 1LED 60˚ WW 138lm, NW 157lm BWG160 2LED 36˚ WW 292lm, NW 334lm BWG160 2LED 60˚ WW 275lm, NW 314lm
CRI	NW>75 WW>80
Beam angle	36˚ 60˚
Optic	Lens
System power	2.8W/5.1W
Driver	220-240V / 50-60Hz, integrated
Electrical class	Class I
Degree of protection / Impact resistance	IP65, IK08
Resistance to heat and fire	GWT= 850˚C for plastics parts
Main cabling	Via 1 x M12 cable gland accepting cable 3 core x >1.0mm²
Connection	Push in connector in 3 poles accepting wires 3core x >1.0mm²
Material	Housing: Die cast aluminum; Cover: PC plastic; Mounting box: Plastic
Color	Housing: Dark gray (RAL 7043), Light gray (RAL9006)
Operating temperature	-20˚C<Ta< 35˚C
Lumen Maintenance	25Khrs (L70, Ta=25˚C)
Weight	BWG160: 0.4kg
Installation	Wall Mounting

Key Portfolio*

Product Description
BWS160 2LED NW PSU 220-240V 36 7043
BWS160 2LED NW PSU 220-240V 36 9006
BWS160 2LED NW PSU 220-240V 60 7043
BWS160 2LED NW PSU 220-240V 60 9006
BWS160 2LED WW PSU 220-240V 36 7043
BWS160 2LED WW PSU 220-240V 36 9006
BWS160 2LED WW PSU 220-240V 60 7043
BWS160 2LED WW PSU 220-240V 60 9006
BWS160 1LED NW PSU 220-240V 36 7043
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BWS160 1LED NW PSU 220-240V 60 9006
BWS160 1LED WW PSU 220-240V 36 7043
BWS160 1LED WW PSU 220-240V 36 9006
BWS160 1LED WW PSU 220-240V 60 7043
BWS160 1LED WW PSU 220-240V 60 9006

* For full product portfolio please contact your local Philips Representative

IEC 60598

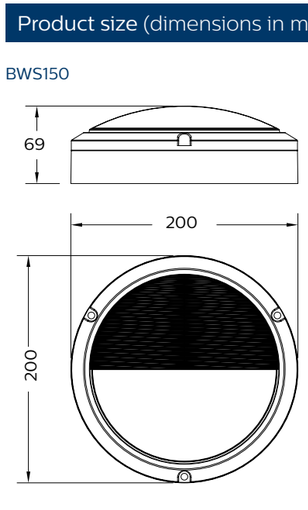


Smart LED Wall Mount

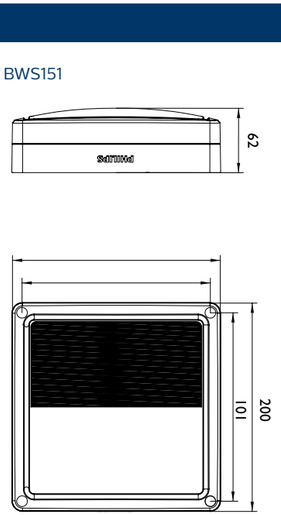
Presenting an affordable LED solution that is elegantly designed and compact, fitting seamlessly in a wide variety of scenarios and designs. Highly-reliable and robust, it also exudes comfortable, soft lighting quality, as well as being environmentally friendly.

Product size (dimensions in mm)

BWS150



BWS151



Features and benefits

- High-quality long lifetime LED light source and integrated electronic driver ensures a serviceable life of more than 25,000 hours.
- Proven IP65 protection and IK08 impact resistance.
- The low power LEDs create a comfortable lighting effect with uniform light spread.
- Complete with white opal diffuser for greater comfort, softer light and less glare.
- Environmentally friendly LED solution with no hazardous substances (no mercury, no lead) used. And with no UV emissions, it attracts less attention from insects.

Outdoor

IP65 | IK08 | 25Khrs



Technical parameters

Type	BWS150
Light soure	96x Low Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 180lm, NW 200lm
CRI	WW>75, NW>70
Optic	Closed, diffuser
Power consumption	6.5W
Power input	220-240V / 50-60 Hz
Material and Finish	ABS plastic, Polycarbonate diffuser
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	25Khrs (L70, Ta=25°C)
Weight	0.58Kg
Mounting	Wall surface mount
Classifications	Class II, IP65, IK08
Operating Temperature	-20°C ~+ 40°C

Technical parameters

Type	BWS151
Light soure	96x Low Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 180lm, NW 200lm
CRI	WW>80, NW>75
Optic	Closed, diffuser
Power consumption	6.5W
Power input	220-240V / 50-60 Hz
Material and Finish	ABS plastic, Polycarbonate diffuser
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	25Khrs (L70, Ta=25°C)
Weight	0.68Kg
Mounting	Wall surface mount
Classifications	Class II, IP65, IK08
Operating Temperature	-20°C ~+ 40°C

Product details



BWS150



BWS151

Key Portfolio*

Product Description
BWS150 LED200/WW PSU 220-240V 7043
BWS150 LED200/NW PSU 220-240V 7043
BWS150 LED200/WW PSU 220-240V 9006
BWS150 LED200/NW PSU 220-240V 9006
BWS151 LED200/WW PSU 220-240V 9006
BWS151 LED200/WW PSU 220-240V 7043
BWS151 LED200/NW PSU 220-240V 9006
BWS151 LED200/NW PSU 220-240V 7043

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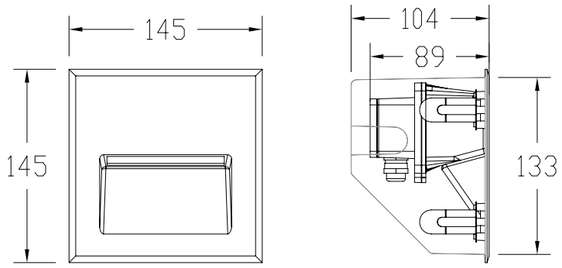
IEC 60598



Smart LED Step Light

Offers a reliable and safe solution to step lighting with its uniform asymmetrical lighting, easy installation with equipped mounting box.

Product size (dimensions in mm)



Features and benefits

- High- quality long lifetime LED light source and integrated electronic driver ensures a serviceable life of more than 25,000 hours.
- Proven IP67 compliance for exceptional water resistance throughout its lifetime.
- Comes with a mounting box for easy installation.
- Integrated driver makes installation simple.

Outdoor

IP67 | 25K hrs



Technical parameters

Type	BWG150
Light Source	36 x low power LEDs
Light Color	Warm white (3000K), Neutral white (4000K)
Lumens	WW: 40lm, NW: 50lm
CRI	NW>75 WW>80
Optic	Closed, diffuser
Optic cover	Polycarbonate diffuser
System power	4W
Driver	220-240V / 50-60Hz, integrated (non-dimmable)
Electrical class	Class I
Degree of protection	IP67
Resistance to heat and fire	GWT=850°C for plastic parts
Main cabling	Via 1 x M16 cable gland accepting cable 3 core x 1.0mm²
Connection	Push in connector in 3 poles accepting wires 3 core x 1.0mm²
Material	Housing: Die cast aluminum; Diffuser: PC; Mounting box: Plastic
Color	Dark gray (RAL 7043), Light gray (RAL 9006)
Operating temperature	-20°C < Ta < 40°C
Lumen Maintenance	25,000 hours 70% lumen maintenance @ Ta=25°C
Installation	Wall recessed mounting
Weight	0.55 Kg

Key Portfolio*

Product Description
BWG150 LED50/NW PSU 220-240V IP67 9006
BWG150 LED50/WW PSU 220-240V IP67 9006
BWG150 LED50/NW PSU 220-240V IP67 7043
BWG150 LED50/WW PSU 220-240V IP67 7043

* For full product portfolio please contact your local Philips Representative

IEC 60598



Bamboo – Wall mount

The Small Scaled Bollard takes the element of Bamboo, representing the ecological concept with environmentally friendly LED light source.

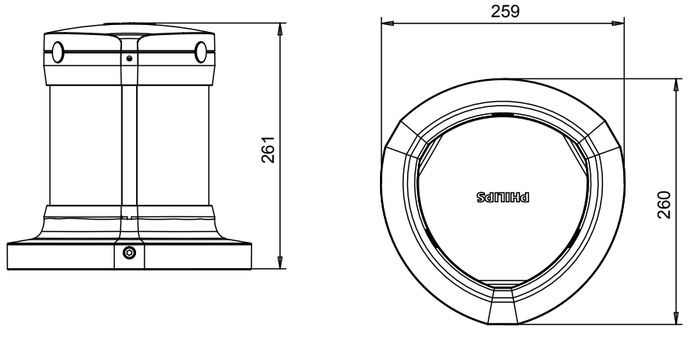
The luminaire has 3 triangle light emitting parts which are integrated by 3 Green LED strips.

The luminaire aims to provide ambient and guide lighting for pathway, alley & other landscape areas.

Features and benefits

- Unique design inspired by most popular plant- Bamboo
- Long lifetime low power LED light source to create nice light effect with a uniform appearance.
- Environmentally-friendly LED solution.No hazardous substances (no mercury, no lead), No UV.
- Robustly designed through strict process control to ensure the IP65 protection and IK09 impact resistance through lifetime.

Product size (dimensions in mm)



Outdoor

IP65 | IK09 | 50K hrs



Technical parameters

Type	BWS720
Light soure	18 x Mid power LEDs
CCT	WW(3000K), NW(4000K)
Lumen output	WW 350lm, NW 400lm
CRI	WW >75, NW>75
Optic	Asymmetrical
Power consumption	12W
Power input	100-240V / 50-60 Hz
Material and Finish	Die-cast Alu housing, Aluminum Spinning Reflector and Polycarbonate Optical cover
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	50Khrs (L70, Ta=35°C)
Weight	6Kg
Mounting	Surface mount
Classifications	Class I, IP65, IK09
Operating Temperature	-25°C ~ + 35°C

Key Portfolio*

Product Description
BWS720 LED4/WW PSU 100-240V 360 GR
BWS720 LED4/NW PSU 100-240V 360 GR
BWS720 LED4/WW PSU 100-240V 360 SI
BWS720 LED4/NW PSU 100-240V 360 SI

* For full product portfolio please contact your local Philips Representative

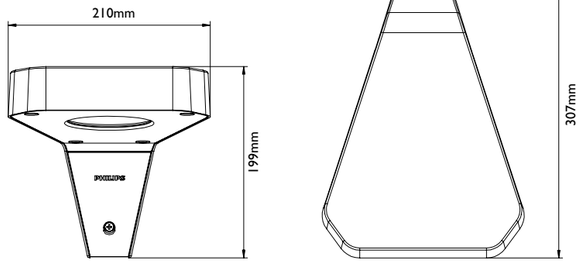
IEC 60598



Flow – Wall mount

A family of 4 distinctive landscape luminaires inspired by Modern City Style. Designed to let positive energy(windy), to flow free. Simplified luminaires designed by combining line and surface idea, and with optimized lighting output and aluminum housing used, make it wonderful to merge into modern city urban life.

Product size (dimensions in mm)



Features and benefits

· Family available
  – holistic and integrated impressions on landscape application

· LED-based
  – perfect control of light distribution & long-lasting performances
  – little energy consumption & environmentally friendly

· Precisely selected photometric packages
  – various alternatives for beam angles, beam combinations, intensity distributions, CCT, etc cover complete requirements of all landscape applications
  – flexibility in urban, landscape and residential areas

Outdoor

IP65 | IK10 | 50K hrs



Technical parameters

Type	BWS760
Light soure	5x Low Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 127lm, NW 142lm
CRI	WW>75, NW>70
Optic	Diffused
Power consumption	4W
Power input	220-240V / 50-60 Hz
Material and Finish	Die-cast Alu housing, Polycarbonate Optical cover
Housing color	Dark gray(RAL7043), Light gray(RAL9006)
Lumen Maintenance	50Khrs (L70, Ta=25°C)
Weight	1.8Kg
Mounting	Wall mount
Classifications	Class I, IP65, IK10
Operating Temperature	-40°C ~ + 50°C

Key Portfolio*

Product Description
BWS760 LED1/WW PSU 220-240V SI
BWS760 LED1/WW PSU 220-240V GR
BWS760 LED1/NW PSU 220-240V SI
BWS760 LED1/NW PSU 220-240V GR

* For full product portfolio please contact your local Philips Representative

IEC 60598



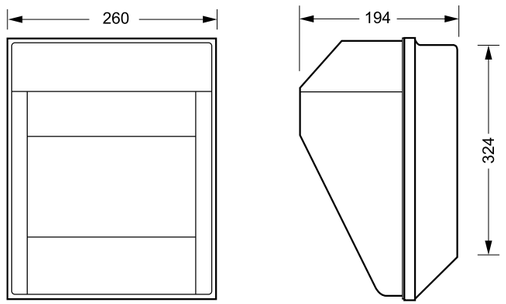
S/MGS113 Security light

Decorative luminaires for garden and pavement lighting with a choice of wall or lateral mounting with mounting bracket.

Features and benefits

- Available in wall or lateral mounting options
- Quick lamp replacement
- Corrosion-proof construction, dust and water proof degree IP54
- Suitable for SON-T 70W lamps

Product size (dimensions in mm)





IP54

Technical parameters

Type	SGS113
Light source	HID: 1 x SON-T / E27 / 70 W 1 x MASTERColour CDM-TT / E27 / 70 W
Lamp included	No
Gear	Electro magnetic (low loss), 220 V / 50 Hz: Inductive, parallel compensated (IC)
Materials and finish	Black painted high pressure die-casting aluminum housing, PC cover High purity aluminum reflector, stainless steel metal parts, silicone gasket
Installation	Wall mounting
Classifications	IP54, Class I

Key Portfolio*

Product Description
MGS113 C CDM-TT70W 220V-50Hz
SGS113 C SON-T70W 220V-50Hz
SGS113 C SON-T70W 220V-60Hz

* For full product portfolio please contact your local Philips Representative

Outdoor

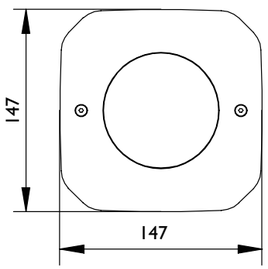
IEC 60598

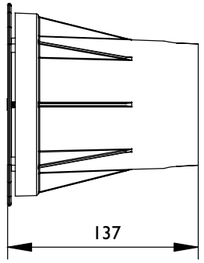


Flow – Marker

Designed to let positive energy to flow free, these simplified luminaires are designed by combining lines and surface ideas.

Product size (dimensions in mm)





Features and benefits

· Family available
  – holistic and integrated impressions on landscape application

· LED-based
  – perfect control of light distribution & long-lasting performances
  – little energy consumption & environmentally friendly

· Precisely selected photometric packages
  – various alternatives for beam angles, beam combinations, intensity distributions, CCT, etc cover complete requirements of all landscape applications
  – flexibility in urban, landscape and residential areas

IP67 | IK10 | 25Khrs



Technical parameters

Type	BBP760
Light soure	30x Low Power LED
CCT	WW(3000K), NW(4000K)
Lumen output	WW 50lm, NW 55lm
CRI	WW>80, NW>75
Optic	Diffused glass
Power consumption	3W
Power input	220-240V / 50-60 Hz
Material and Finish	Die-cast Alu housing, Forested tempered glass Polished stainless steel deco-cover PC pre-recessed mounting box
Housing color	Polished stainless steel cover, black housing box
Lumen Maintenance	25Khrs (L70, Ta=25°C)
Weight	0.94Kg
Mounting	In ground recessed
Classifications	Class I, IP67, IK10
Operating Temperature	-20°C ~ + 40°C

Key Portfolio*

Product Description
BBP760 LED50/ WW PSU 220-240V
BBP760 LED50/ NW PSU 220-240V

* For full product portfolio please contact your local Philips Representative

Outdoor

IEC 60598



Smart LED Marker

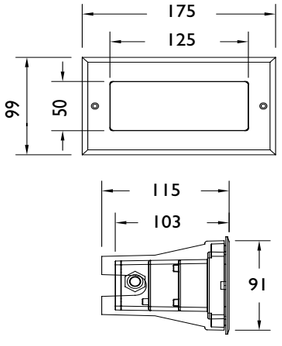
Built to withstand the rigours of outdoor use, this robustly designed LED marker is easy to install and comes equipped with a mounting box. High-quality long lifetime LED light source and integrated electronic driver ensures a serviceable life of more than 25,000 hours. Proven IP67 protection and IK10 impact resistance. Comes with mounting box and integrated driver for easy and simple installation.

Features and benefits

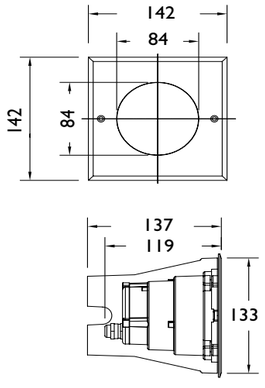
- High-quality long lifetime LED light source and integrated electronic driver ensures a serviceable life of more than 25,000 hours.
- Proven IP67 protection and IK10 impact resistance.
- Comes with a mounting box for easy installation.
- Integrated driver makes installation simple.

Product size (dimensions in mm)

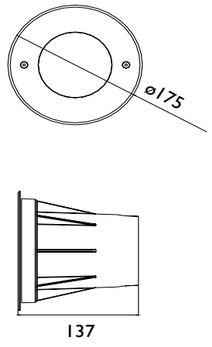
BBG150



BBG151



BBG152



Outdoor



IP67 | IK10 | 25Khrs

Technical parameters

Type	BBG150	BBG151	BBG152
Light soure	30x Low Power LED	30x Low Power LED	30x Low Power LED
CCT	WW(3000K), NW(4000K)	WW(3000K), NW(4000K)	WW(3000K), NW(4000K)
Lumen output	WW 50lm, NW 55lm	WW 50lm, NW 55lm	WW 50lm, NW 55lm
CRI	WW>80, NW>75	WW>80, NW>75	WW>80, NW>75
Optic	Closed, strengthened diffused tempered glass	Closed, strengthened diffused tempered glass	Closed, strengthened diffused tempered glass
Power consumption	3W	3W	3W
Power input	220-240V / 50-60 Hz	220-240V / 50-60 Hz	220-240V / 50-60 Hz
Material and Finish	Die-cast aluminum housing, Brushed stainless cover, tempered glass diffuser, pre-mount plastic box	Die-cast aluminum housing, Brushed stainless cover, tempered glass diffuser, pre-mount plastic box	Die-cast aluminum housing, Brushed stainless cover, tempered glass diffuser, pre-mount plastic box
Housing color	Housing Dark gray(RAL7043), Surface cover brushed stainless	Housing Dark gray(RAL7043), Surface cover brushed stainless	Housing Dark gray(RAL7043), Surface cover brushed stainless
Lumen Maintenance	25Khrs (L70, Ta=25°C)	25Khrs (L70, Ta=25°C)	25Khrs (L70, Ta=25°C)
Weight	1.06Kg	0.97Kg	0.94Kg
Mounting	In ground recessed mount	In ground recessed mount	In ground recessed mount
Classifications	Class II, IP67, IK10	Class II, IP67, IK10	Class II, IP67, IK10
Operating Temperature	-20°C ~+ 40°C	-20°C ~+ 40°C	-20°C ~+ 40°C

Product details



BBG150



BBG151



BBG152

Key Portfolio*

Product Description
BBG150
BBG150 LED50/NW PSU 220-240V IP67
BBG150 LED50/WW PSU 220-240V IP67
BBG151
BBG151 LED50/NW PSU 220-240V IP67
BBG151 LED50/WW PSU 220-240V IP67
BBG152
BBG152 LED50/WW PSU 220-240V IP67
BBG152 LED50/NW PSU 220-240V IP67

* For full product portfolio please contact your local Philips Representative

IEC 60598



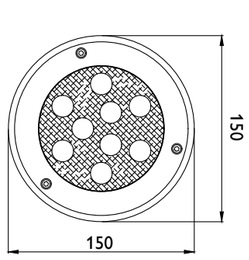
Vaya Uplite LED

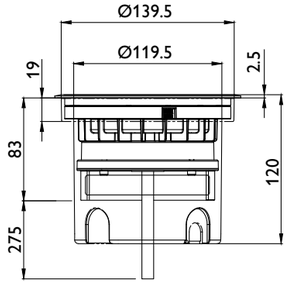
Vaya Uplite LED is an affordable and reliable LED solution that minimizes the initial investment, while offering various options of colors, for accent and general flood applications, creating a uniform and comfortable lighting effect. Vaya Uplite LED combines high power reliable LEDs and integrated driver, offering a “fit and forget” solution.

Features and benefits

- Affordable LED solution
- Wide choice of mono colors
- Robust design and maintenance free

Product size (dimensions in mm)





Outdoor

IP67 | IK10 | 25Khrs



Technical parameters	
Type	BBP330
No of LEDs	9pcs high power LEDs
Colors	Mono (WW 3000K, NW 4000K, AM, GN) ETO: RD/BL
Lumens output	790lm (4000K, 12d)
Beam angle	12D/24D/60D
System wattage	15.8W
Voltage	100-240V 50/60Hz
Control	Switch on/off
Lifetime	25,000 hours L50 @ Ta=25°C
Materials	Housing: Aluminum die cast
Installation	In-ground mounted with pre-mounting accessories
Environment	Ambient temperature: -20°–35°C 0–95% Humidity
Classification	IP67, IK10, Class I

Key Portfolio*

Product Description
BBP330 9xLED-HP/NW 220-240V 12
BBP330 9xLED-HP/NW 220-240V 24
BBP330 9xLED-HP/NW 220-240V 60
BBP330 9xLED-HP/WW 220-240V 12
BBP330 9xLED-HP/WW 220-240V 24
BBP330 9xLED-HP/WW 220-240V 60
BBP330 9xLED-HP/AM 220-240V 12
BBP330 9xLED-HP/AM 220-240V 24
BBP330 9xLED-HP/AM 220-240V 60
BBP330 9xLED-HP/GN 220-240V 12
BBP330 9xLED-HP/GN 220-240V 24
BBP330 9xLED-HP/GN 220-240V 60

* For full product portfolio please contact your local Philips Representative

IEC 60598



S/MBF205 Underground

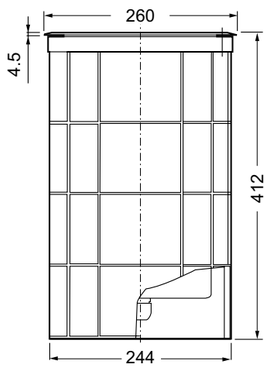
Recessed ground mounting floodlight for outdoor uplighting effects.

Features and benefits

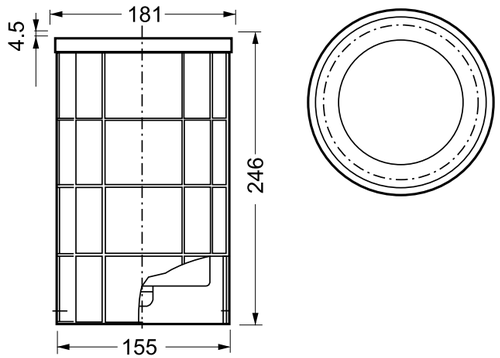
- Sealed with protection degree IP67 - suitable for permanent installation below ground with sustainable drainage
- Highly corrosion-resistant due to its stainless steel material
- Supplied with a mounting bucket for proper positioning and protection during installation

Product size (dimensions in mm)

MBF205



FBF203



Outdoor



IP67

Technical parameters		
Type	MBF205	FBF203
Light source	HID: 1 x MHN-TD / Rx7s / 70 W 1 x SON-T / E27 / 70 W	Compact fluorescent: 1 x MASTER PL-C 2 Pin / 13 W
Lamp included	No	No
Gear	Electro magnetic (low loss), 220 or 230 V / 50 Hz: Inductive, parallel compensated (IC)	
Materials and finish	Black painted high pressure die-casted aluminum housing, PC cover, high purity aluminum reflector, stainless steel metal parts, silicone gasket.	Black painted high pressure die-casted aluminum housing, PC cover High purity aluminum reflector, stainless steel metal parts, silicone gasket
Installation	In a recessed box	In a recessed box
Classifications	IP67, Class I	IP67, Class I

Product details



MBF205



FBF203



IEC 60598

Key Portfolio*

Product Description	Weight (kg)
MBF205	
MBF205 MAX70W-E40 E	6.40
MBF205 MAX70W-R7s E	6.40
MBF205 MHN-TD70 230V-50Hz	6.40
MBF205 MHN-TD70W 220V-50Hz	6.40
SBF205 SON-T70W 220V-50Hz	6.40
FBF203	
FBF203 PL-C/2P13W 220V-50Hz	2.63
FBF203 MAX13W-G24d-1 E	2.63

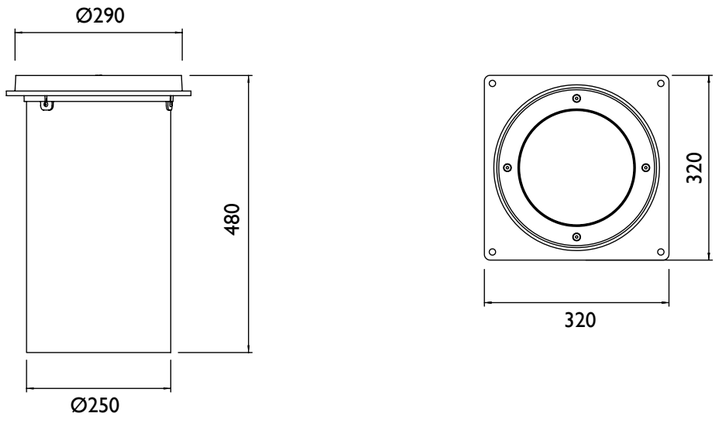
* For full product portfolio please contact your local Philips Representative



Pompeii

Pompeii is a professional ground recessed mounting floodlight for outdoor uplighting.

Product size (dimensions in mm)



Features and benefits

- Sealed with protection degree of IP67 and impact protection of IK10
- Suitable for permanent installation below ground with sustainable drainage
- Flexible choice of NB and WB for different applications
- Highly corrosion-resistant due to its die-cast alu material
- Supplied with pre-recessed mounting box for ease of installation
- >0.85 power factor, energy saving

IP67 IK10



Technical parameters

Type	DBP505
Light soure	CDM-T 35/70/150W
Lamp included	No
Material and finish	Corrosion-resistant high pressure die-cast aluminum housing, High purity aluminum reflector, tempered glass cover, silicone gasket and PVC pre-recessed box
Housing color	Dark gray (RAL7024)
Weight	14Kg
Mounting	In ground recessed mount
Classifications	Class I, IP67, IK10
Operating Temperature	-20°C ~+ 25°C

Key Portfolio*

Product Description
DBP505 CDM-T 35W IC 220V 50Hz NB
DBP505 CDM-T 35W IC 220V 50Hz WB
DBP505 CDM-T 70W IC 220V 50Hz NB
DBP505 CDM-T 70W IC 220V 50Hz WB
DBP505 CDM-T 150W IC 220V 50Hz NB
DBP505 CDM-T 150W IC 220V 50Hz WB

* For full product portfolio please contact your local Philips Representative

Outdoor

IEC 60598



Vaya Spot LED

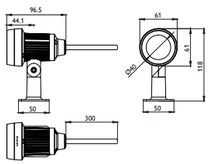
Vaya Spot LED is an affordable and reliable LED solution that minimizes the initial investment, while offering various options of colors, lumens and installations for architecture and landscape applications, creating a uniform and comfortable accent lighting effect. Vaya Spot LED combines high power reliable LEDs and integrated driver, offering a “fit and forget” solution.

Features and benefits

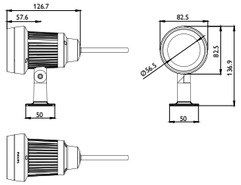
- Affordable LED solutions
- Wide choice of mono colors and mounting options
- Robust design and maintenance free

Product size (dimensions in mm)

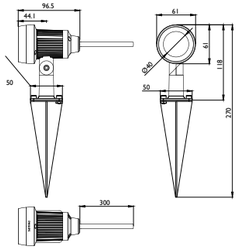
BGP310 1xLED



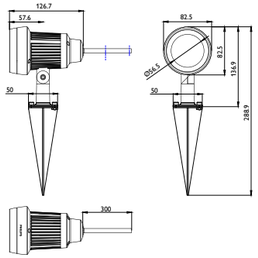
BGP310 3xLED



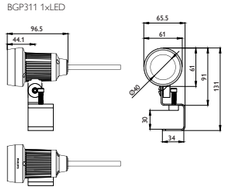
BGP310 SPK 1xLED



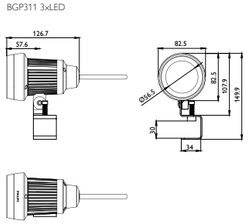
BGP310 SPK 3xLED



BGP311 1xLED



BGP311 3xLED



Outdoor

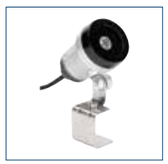


IP65 | IK08 | 50Khrs

Technical parameters	
Type	Vaya Spot 1
Light soure	1 x High Power LED
CCT	WW 3000K/NW 4000K/AM
Lumen output	WW 106lm @ 12° NW 126lm @ 12°
Optic	12° 24° 36°
Power consumption	2.15W
Power input	24V DC
Control	ON/OFF only
Material and Finish	Die-cast aluminium
Housing color	Black+Silver
Lumen Maintenance	50Khrs (L70, Ta=25°C)
Weight	0.36/0.41kg
Mounting	1. Surface-mounted 2. Landscape mounted 3. Clip-mounted
Classifications	Class III, CB, IP65, IK(12°: IK07, 24° & 36°: IK08)

Technical parameters	
Type	Vaya Spot 3
Light soure	3 x High Power LED
CCT	WW 3000K/NW 4000K/AM/RGB
Lumen output	WW 320lm @ 12° NW 378m @ 12° RGB 117m @ 12°
Optic	12° 24° 36°
Power consumption	Mono: 5.5W RGB: 6.6W
Power input	Mono: 220-240V AC RGB: 24V DC
Control	Mono: on/off only RGB: DMX control
Material and Finish	Die-cast aluminium
Housing color	Black+Silver
Lumen Maintenance	Mono: 50Khrs (L70, Ta=25°C) RGB: 50Khrs (L50, Ta=25°C)
Weight	0.7/0.75kg
Mounting	1. Surface-mounted 2. Landscape mounted 3. Clip-mounted
Classifications	Mono:Class III, RGB:Class I, CB, IP65, IK(12°: IK07, 24° & 36°: IK08)

Product details



Vaya Spot 1

Product details



Vaya Spot 3

IEC 60598 | CB

Technical parameters

Type	Vaya Spot 6
Light soure	6 x High Power LED
CCT	WW 3000K/NW 4000K/AM/RD/GN/ BL/RGB
Lumen output	WW 670lm @ 12° NW 763m @ 12° RGB 265m @ 12°
Optic	12° 24° 36°
Power consumption	Mono: 10.5W RGB: 12W
Power input	220-240V AC
Control	Mono: on/off only RGB: DMX control
Material and Finish	Die-cast aluminum
Housing color	Black+Silver gray
Lumen Maintenance	Mono: 50Khrs (L70, Ta=25°C) RGB: 50Khrs (L50, Ta=25°C)
Weight	1.6kg
Mounting	1. Surface-mounted 2. Landscape mounted
Classifications	Class I, CB, IP65, IK08

Product details



Vaya Spot 6

Key Portfolio*

Product Description
BGP310 1xLED-HP/NW 24V 12
BGP310 1xLED-HP/NW 24V 24
BGP310 1xLED-HP/NW 24V 36
BGP310 1xLED-HP/WW 24V 12
BGP310 1xLED-HP/WW 24V 24
BGP310 1xLED-HP/WW 24V 36
BGP310 1xLED-HP/AM 24V 12
BGP310 1xLED-HP/AM 24V 24
BGP310 1xLED-HP/AM 24V 36
BGP311 1xLED-HP/NW 24V 12
BGP311 1xLED-HP/NW 24V 24
BGP311 1xLED-HP/NW 24V 36
BGP311 1xLED-HP/WW 24V 12
BGP311 1xLED-HP/WW 24V 24
BGP311 1xLED-HP/WW 24V 36
BGP311 1xLED-HP/AM 24V 12
BGP311 1xLED-HP/AM 24V 24
BGP311 1xLED-HP/AM 24V 36
BGP310 3xLED-HP/NW 220-240V 12
BGP310 3xLED-HP/NW 220-240V 24
BGP310 3xLED-HP/NW 220-240V 36
BGP310 3xLED-HP/WW 220-240V 12
BGP310 3xLED-HP/WW 220-240V 24
BGP310 3xLED-HP/WW 220-240V 36
BGP310 3xLED-HP/AM 220-240V 12
BGP310 3xLED-HP/AM 220-240V 24
BGP310 3xLED-HP/AM 220-240V 36
BGP311 3xLED-HP/NW 220-240V 12
BGP311 3xLED-HP/NW 220-240V 24
BGP311 3xLED-HP/NW 220-240V 36
BGP311 3xLED-HP/WW 220-240V 12
BGP311 3xLED-HP/WW 220-240V 24
BGP311 3xLED-HP/WW 220-240V 36
BGP311 3xLED-HP/AM 220-240V 12
BGP311 3xLED-HP/AM 220-240V 24
BGP311 3xLED-HP/AM 220-240V 36

Key Portfolio*

Product Description
BGP310 6xLED-HP/NW 220-240V 12
BGP310 6xLED-HP/NW 220-240V 24
BGP310 6xLED-HP/NW 220-240V 36
BGP310 6xLED-HP/WW 220-240V 12
BGP310 6xLED-HP/WW 220-240V 24
BGP310 6xLED-HP/WW 220-240V 36
BGP310 6xLED-HP/AM 220-240V 12
BGP310 6xLED-HP/AM 220-240V 24
BGP310 6xLED-HP/AM 220-240V 36
BGP310 6xLED-HP/RD 220-240V 12
BGP310 6xLED-HP/RD 220-240V 24
BGP310 6xLED-HP/RD 220-240V 36
BGP310 6xLED-HP/GN 220-240V 12
BGP310 6xLED-HP/GN 220-240V 24
BGP310 6xLED-HP/GN 220-240V 36
BGP310 6xLED-HP/BL 220-240V 12
BGP310 6xLED-HP/BL 220-240V 24
BGP310 6xLED-HP/BL 220-240V 36
BGP311 3xLED-HP/RGB 12V 24
BGP311 3xLED-HP/RGB 12V 36
BGP311 3xLED-HP/RGB 12V 12
BGP310 3xLED-HP/RGB 12V 36
BGP310 3xLED-HP/RGB 12V 24
BGP310 3xLED-HP/RGB 12V 12
BGP310 6xLED-HP/RGB 220-240V 12
BGP310 6xLED-HP/RGB 220-240V 24
BGP310 6xLED-HP/RGB 220-240V 36
Accessoriess
ZGP311 SPK - Spike for Vaya Spot 1&3
ZGP311 SPK MX- Spike for Vaya Spot 6

* For full product portfolio please contact your local Philips Representative





Smart LED Underwater

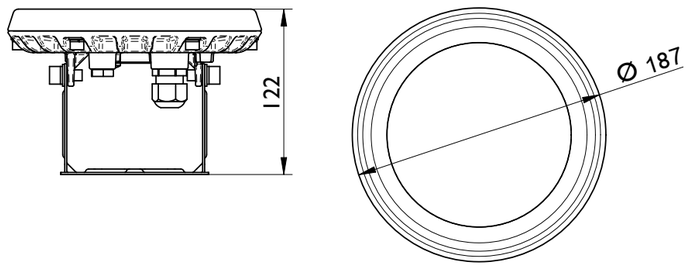
Philips Underwater LED is a compact, innovative spot and recessed solution designed to create amazing effects in wet or water environments. Fully IP68 to a depth of 3m, it offers a range of different beam angles for precision illumination. Underwater LED is made with copper housing with black coating to withstand water treated with bromide and chlorine.

And with a system lifetime of over 25,000 hours (L70 Ta=35˚C), it's truly a low maintenance choice.

Features and benefits

- Copper housing with black coating ensure it to be able to withstand water treated with bromine and chlorine
- High quality LEDs and driver integrated ensure the system lifetime of over 25,000 hours @ L70 Ta = 35˚C
- Robustly designed through strict process control to ensure IP68 protection (3m underwater) and IK05 impact resistance through lifetime
- Well designed bracket ensures easy mounting for both wall surface mount and ground surface mount

Product size (dimensions in mm)



Outdoor

IP68 | IK05 | 25Khrs



Technical parameters

Type	BCP170
Light soure	9x High Power LED
CCT	WW(3000K), NW(4000K), RGB
Lumen output	WW 1034lm, NW 1128lm, RGB 454lm
CRI	WW>75, NW>75
Optic	12°, 36°
Power consumption	mono: 14.5W, RGB:16.5W
Power input	12V DC
Light control	DMX control for RGB version
Material and Finish	Die-cast copper housing, stainless steel bracket, tempered glass cover
Housing color	Copper color; nickeled black
Lumen Maintenance	25Khrs (L70, Ta=35°C)
Weight	3.2Kg
Mounting	"max 3m depth underwater surface mount, fitting c/w 3m flying cable"
Classifications	Class III, IP68, IK05
Operating Temperature	-20˚C ~+ 35˚C

Key Portfolio*

Product Description
BCP170 9LED WW 12V 12 IP68 C
BCP170 9LED WW 12V 36 IP68 C
BCP170 9LED NW 12V 12 IP68 C
BCP170 9LED NW 12V 36 IP68 C
BCP170 9LED RGB 12V 12 IP68 C
BCP170 9LED RGB 12V 36 IP68 C
BCP170 9LED WW 12V 12 IP68
BCP170 9LED WW 12V 36 IP68
BCP170 9LED NW 12V 12 IP68
BCP170 9LED NW 12V 36 IP68
BCP170 9LED RGB 12V 12 IP68
BCP170 9LED RGB 12V 36 IP68

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IEC 60598 | F | III



ObstiVision

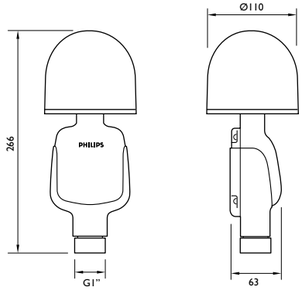
ObstiVision LED is a dedicated maintenance-free obstacle light for aviation warning purposes. Its advanced high-power LED with optimized optical design is able to create a reliable system based on only one single LED. It is suitable to be used as a Low Intensity Type A obstacle light according to ICAO standards. The key applications are telecom towers, buildings, power transmission towers, airports and general aviation warning purposes.

The efficiency, reliability and freedom from maintenance mean that ObstiVision will save you money over time. Considering the cost of ownership, you can have your payback period as short as one year by using ObstiVision as compared to the conventional obstruction lighting system.

Features and benefits

- Low cost of ownership, < 1 year payback time when compared to conventional obstruction lighting systems
- 6000V surge protection integrated
- Able to upgrade from surface-mounted to rack-mounted versions
- Long life time 50,000 hours (at 70% lumen maintenance)
- Plug & play, operates under multiple power inputs
- Exceptionally energy efficient

Product size (dimensions in mm)



Outdoor

IP66 | 50Khrs

Technical parameters

Type	XGP500 (AC version)
Light Source	1 x high powered LED
Light color	Aviation red (ICAO)
ICAO standard	Complies with International Civil Aviation Organization (ICAO) standards and recommended practices – Aerodromes Annex 14 Volume 1, 3rd edition – July 1999, Chapter 6
Light intensity (ICAO low intensity type A)	>15cd for Type A
Operating voltage	AC version: 90-265VAC 50/60 Hz
Power consumption per luminaire	AC version: <5W
Materials and finishing	Housing: high-pressure, die-cast aluminum Cover: glass, UV-protected clear, 5 mm thick Stainless steel plate to support LED unit
Weight	AC version: 1.5 kg
Wind load at 200 km/h	Less than 40N
Ambient temperature	AC version: -40° to +70°C
Control system scalability	AC version: On/Off only
Classifications	IP66 Class II
Lumen Maintenance	50,000 hours (at 70% lumen maintenance)



Key Portfolio*

Product Description
XGP500 1xLXM2/RD 100-240V

* For full product portfolio please contact your local Philips Representative



IEC 60598



Vaya Dot

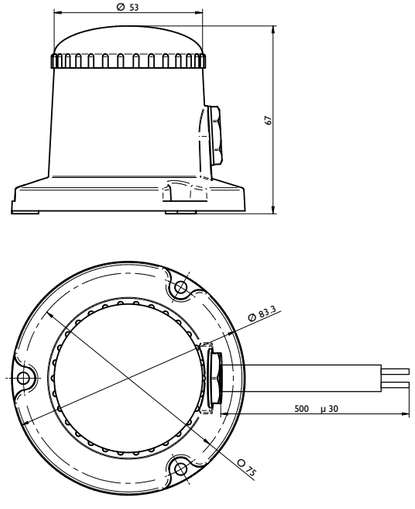
Vaya Dot has a choice of 16.7 mil dynamic colors and is very rich in color saturation, which can deliver starring effects tremendously when applying it to outdoor building façades. It can also help lighting designers to create a flexible and innovative lighting effect, i.e by creating a pixelized lighting matrix to show different kinds of effects or low resolution graphics.

Features and benefits

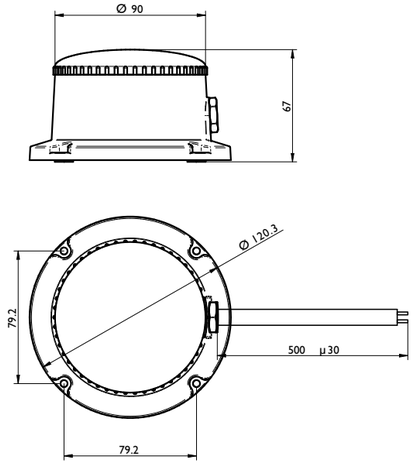
- Ease of experience by giving the choice of RGB color changing and mono color, RGB color controlled by DMX controller.
- Design around you with Low power consumption and high brightness LED, and wide viewing angle, uniform light output. Ease of installation, giving standard mounting method of surface mount, and having feasibility of recessed mount through ETO.

Product size (dimensions in mm)

BGS305



BGS309



Outdoor

IP65 | IK08 | 25Khrs



Technical parameters	
Type	BGS305
Light soure	RGB: 18x Low Power LED Mono: 12x Low Power LED
CCT	WW(3000K), CW(5000K), RGB
Lumen output	RGB 19lm, WW 19lm, CW 22lm
Optic	120°
Power consumption	RGB 2.5W, mono 1.3W
Power input	24V DC
Light control	DMX control for RGB version
Material and Finish	Die-cast Aluminum housing, Polycarbonate diffuser cover
Housing color	Light Gray Color
Lumen Maintenance	25Khrs (L70, Ta=35°C)
Weight	RGB 0.24Kg, mono 0.21Kg
Mounting	Surface mount
Classifications	Class III, IP65, IK08
Operating Temperature	-20°C ~+ 35°C

Technical parameters	
Type	BGS309
Light soure	RGB: 36x Low Power LED Mono: 30x Low Power LED
CCT	WW(3000K), CW(5000K), RGB
Lumen output	RGB 41lm, WW 46lm, CW 52lm
Optic	120°
Power consumption	RGB 4.5W, mono 3.3W
Power input	24V DC
Light control	DMX control for RGB version
Material and Finish	Die-cast Aluminum housing, Polycarbonate diffuser cover
Housing color	Light Gray Color
Lumen Maintenance	25Khrs (L70, Ta=35°C)
Weight	RGB 0.39Kg, mono 0.36Kg
Mounting	Surface mount
Classifications	Class III, IP65, IK08
Operating Temperature	-20°C ~+ 35°C

Product details



BGS305



BGS309

Key Portfolio*

Product Description
BGS305 LED-HB/RGB 24V
BGS305 LED-HB/WW 24V
BGS305 LED-HB/CW 24V
BGS305 LED-HB/AM 24V
BGS305 LED-HB/RD 24V
BGS305 LED-HB/GN 24V
BGS305 LED-HB/BL 24V
BGS309 LED-HB/RGB 24V
BGS309 LED-HB/CW 24V
BGS309 LED-HB/AM 24V
BGS309 LED-HB/RD 24V
BGS309 LED-HB/GN 24V
BGS309 LED-HB/WW 24V
BGS309 LED-HB/BL 24V

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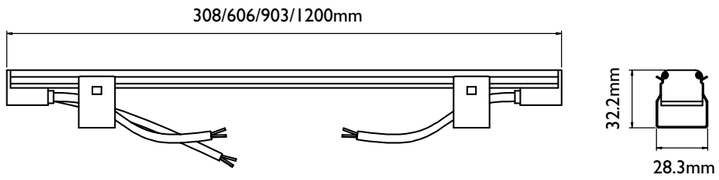
Vaya Linebar LED

Vaya Linebar LED is an ultra slim LED profile which provides tremendous flexibility to integrate seamlessly with architectural structures. It brings urban landscapes to life with LED technology – a property rarely possible with conventional lighting systems. Vaya Linebar also illuminates facades and intrinsic building details with vivid color light to accentuate building structures.

Features and benefits

- A specially designed built-in cover in its housing delivers better protection to the LEDs and minimizes the risk of ESDs.
- Exceptional Design Freedom and the ability to highlight architectural details
- Available in Mono colors including red, green, blue, amber, warm white and cool white
- Seamless lighting effects

Product size (dimensions in mm)



Outdoor

IP65 | 25K hrs



Technical parameters

Type	BCS503/506/509/512
Light soure	16/32/48/64 SMD high bright LED
CCT	RD/GN/BL/AM/CW/WW
Lumen output	BCS512 WW 289lm, NW 332lm
Optic	>120°
Power consumption	2.1W/4.2W/6.4W/8.5W (BCS503/506/509/512)
Power input	24V DC
Material and Finish	Housing: Extrusion aluminum Cover: Aluminum mix with plastics
Housing color	Copper color; nickeled black
Lumen Maintenance	25Khrs (L70, Ta=35°C)
Weight	0.15Kg/0.30Kg/0.45Kg/0.6Kg
Mounting	Surface mount, c/w mounting bracket, and 30cm flying cable
Classifications	Class III, IP65
Operating Temperature	-20°C ~+ 50°C

Key Portfolio*

Product Description
BCS512 LED-HB/CW 24V
BCS512 LED-HB/WW 24V
BCS512 LED-HB/GN 24V
BCS512 LED-HB/BL 24V
BCS512 LED-HB/RD 24V
BCS512 LED-HB/AM 24V
BCS509 LED-HB/CW 24V
BCS509 LED-HB/WW 24V
BCS509 LED-HB/GN 24V
BCS509 LED-HB/BL 24V
BCS509 LED-HB/RD 24V
BCS509 LED-HB/AM 24V
BCS506 LED-HB/CW 24V
BCS506 LED-HB/WW 24V
BCS506 LED-HB/GN 24V
BCS506 LED-HB/BL 24V
BCS506 LED-HB/RD 24V
BCS506 LED-HB/AM 24V
BCS503 LED-HB/CW 24V
BCS503 LED-HB/WW 24V
BCS503 LED-HB/GN 24V
BCS503 LED-HB/BL 24V
BCS503 LED-HB/RD 24V
BCS503 LED-HB/AM 24V

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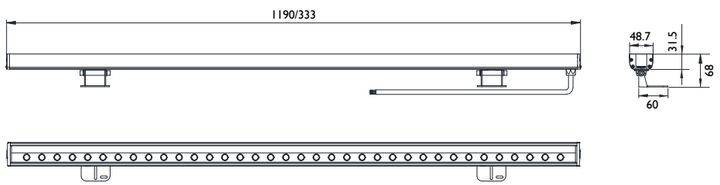
Strip III LED

Strip III LED is an improved fixture for illuminating and enhancing both contemporary and historical architecture. The linearity of Strip III creates a controlled soft wall-wash with precise light distribution and uniform luminance, and is ideal for scene setting, provides dynamic ambience and exciting light effects.

Features and benefits

- Innovative & compact
- 16.7 million (24 bit) RGB colors possible with standard DMX512 compatible
- Durable, high brightness and energy efficient components
- Asymmetric optics design makes it very suitable for wall washing
- Short color blending distance, as close to the fixture as possible
- Slim housing design provides illumination for compact architectural details
- High quality collimators together with optimized beam control provide uniform light distribution
- Reliable connectors enable fast and easy installation and wiring
- Flexible mounting brackets support simple, adjustable installation
- Maintenance free and high energy efficiency

Product size (dimensions in mm)



Outdoor

IP66 | IK07 | 50K hrs



Technical parameters

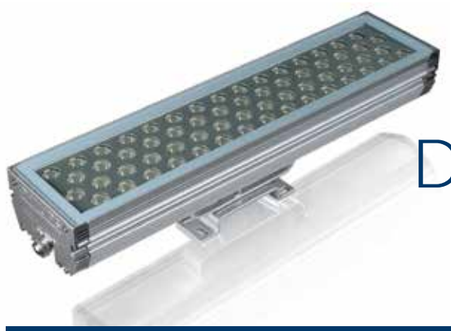
Type	BCP703, BCP712
Light source	9/36 High Power Leds
Light color	RGB/3000K/4000K/5000K
Beam angle	15°, 27° x 54°
Lumen output	BCP703: RGB 340lm, 3000K 930lm BCP712: RGB 1380lm, 3000K 3740lm
Power supply	24V DC
Power consumption	15W / 60W
Materials	Housing: Anodized aluminum + extruded aluminum Bracket: Aluminum
Control interface	RGB: DMX512 MONO: On/Off only
Ambient temperature	-20°C < Ta < +50°C
Classifications	IP66, IK07, Class III
Lumen Maintenance	50K hours (L70, Ta 35°C)

Key Portfolio*

Product Description
BCP703 9xLED-HP-Z/NW 24V NB
BCP703 9xLED-HP-Z/NW 24V A
BCP703 9xLED-HP-Z/WW 24V NB
BCP703 9xLED-HP-Z/WW 24V A
BCP703 9xLED-HP-Z/CW 24V NB
BCP703 9xLED-HP-Z/CW 24V A
BCP712 36xLED-HP-Z/NW 24V NB
BCP712 36xLED-HP-Z/WW 24V A
BCP712 36xLED-HP-Z/NW 24V A
BCP712 36xLED-HP-Z/WW 24V NB
BCP712 36xLED-HP-Z/CW 24V NB
BCP712 36xLED-HP-Z/CW 24V A
BCP703 9xLED-HP-Z/RGB 24V NB DMX
BCP703 9xLED-HP-Z/RGB 24V A DMX
BCP712 36xLED-HP-Z/RGB 24V NB DMX
BCP712 36xLED-HP-Z/RGB 24V A DMX

* For full product portfolio please contact your local Philips Representative

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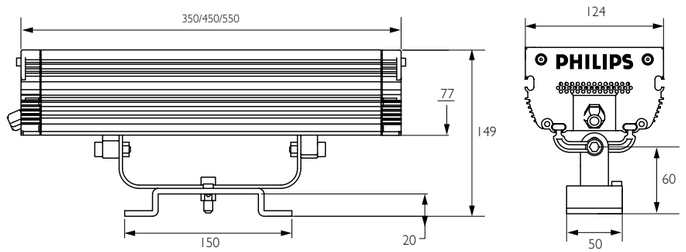
Dynaflood LED

Dynaflood LED is a distinctive floodlight for illuminating and enhancing structures with saturated colored light and is particularly suited for facade, wall-washing and spot lighting. With high lumen output and an endless choice of colors for maximum visual impact, Dynaflood LED is ideal for scene setting, opening up a wide range of creative options and dynamic flood lighting effects.

Features and benefits

- Standardized collimator provides precise light distribution and uniform luminance
- A choice of 3 versions: 36, 48 or 60 LEDs
- 16.7 million (24 bit) RGB colors @ DMX512
- Maintenance free and high energy efficiency
- Adjustable mounting brackets allow the floodlight to be mounted and tailored exactly to the architectural structure
- Long lifetime 50,000 hours (at 70% lumen maintenance)

Product size (dimensions in mm)



Outdoor

IP65 | 50Khrs



Technical parameters

Type	BCS835 BCS845 BCS855
Light source	BCS835: 36 x high powered LEDs BCS845: 48 x high powered LEDs BCS855: 60 x high powered LEDs
Light color	RGB/Red/Amber/Green/Blue
Beam angle	12°
Power supply	24V DC
Power consumption	BCS835: Max 42W BCS845: Max 56W BCS855: Max 70W
Installation	Surface-mounted: 0°- 60° plane, 0°-130° tilt Wall mounting: 0°-130° tilt
Material	Housing: Anodized extrusion aluminum Bracket: Galvanized steel Endcover: High pressure die cast aluminum
Control interface	RGB: DMX512 Mono: Switch only
Ambient temperature	-20°C < Ta < +35°C
Classifications	Class III IP65
Lumen Maintenance	50,000 hours (at 70% lumen maintenance)

Key Portfolio*

Product Description
BCS835 36xLED-HP/WW 24V 12
BCS835 36xLED-HP/CW 24V 12
BCS835 36xLED-HP/AM 24V 12
BCS835 36xLED-HP/BL 24V 12
BCS835 36xLED-HP/GN 24V 12
BCS835 36xLED-HP/RD 24V 12
BCS835 36xLED-HP/RGB 24V 12
BCS845 48xLED-HP/WW 24V 12
BCS845 48xLED-HP/CW 24V 12
BCS845 48xLED-HP/AM 24V 12
BCS845 48xLED-HP/BL 24V 12
BCS845 48xLED-HP/GN 24V 12
BCS845 48xLED-HP/RD 24V 12
BCS845 48xLED-HP/RGB 24V 12
BCS855 60xLED-HP/WW 24V 12
BCS855 60xLED-HP/CW 24V 12
BCS855 60xLED-HP/AM 24V 12
BCS855 60xLED-HP/BL 24V 12
BCS855 60xLED-HP/GN 24V 12
BCS855 60xLED-HP/RD 24V 12
BCS855 60xLED-HP/RGB 24V 12

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IEC 60598



Decoflood

Decoflood is a family of four high-performance floodlights, offering aesthetically pleasing yet surprisingly rugged luminaire designs. An extensive range of lamps provides a choice of color appearance and color rendering, while twenty different optics offer a wide selection of beam-spread patterns. Even more options are available, with further choices of refractive glass plates and stylish louvers. Their all-weather construction is designed for simple cleaning and speedy servicing and is well suited to city environments.

Features and benefits

- High-quality anodized aluminum reflector
- Fast access to the lamp and terminal blocks



Outdoor

IP65



Technical parameters

Type	MVF606
Light source	HID: 1 x MASTERColour CDM-T / G12 / 35, 70, 150 W 1 x SON-T / E27 / 70 W
Lamp included	Yes (K)
Gear	Electro magnetic (low loss), 220 V / 50 Hz: Inductive, parallel compensated (IC)
Optic	Narrow beam (NB) Medium beam (MB)
Materials and finish	Housing, front frame and rear cover in high-pressure die-casted aluminum, painted dark gray High-grade anodized aluminum reflectors Zinc-coated aluminum mounting bracket, painted in dark gray Toughened plate front glass Silicone rubber gaskets
Installation	Universal mounting bracket allows ceiling, wall or surface mounting Front window with snap action clip for in-position lamp replacement Housing dustproof and jetproof to IP65 - no internal cleaning required
Classifications	IP65 Class I

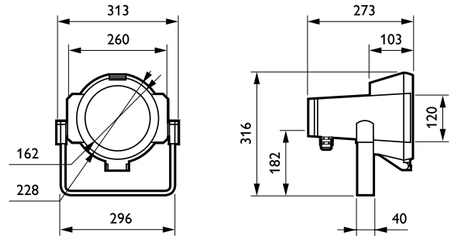
Technical parameters

Type	MVF607
Light source	HID: 1 x HPI-T Plus / E40 / 250, 400 W 1 x SON-T / E40 / 150, 250, 400 W
Lamp included	Yes (K)
Gear	Electro magnetic (low loss), 220 V / 50 Hz: Inductive, parallel compensated (IC)
Optic	Narrow beam (NB)
Materials and finish	Housing, front frame and rear cover in high-pressure die-casted aluminum, painted in dark gray High-grade anodized aluminum reflectors Zinc-coated aluminum mounting bracket, painted dark gray Toughened plate front glass Silicone rubber gaskets
Installation	Universal mounting bracket allows ceiling, wall or surface mounting Front window with snap action clip for in-position lamp replacement Housing dustproof and jetproof to IP65 - no internal cleaning required
Classifications	IP65 Class I

Product size (dimensions in mm)



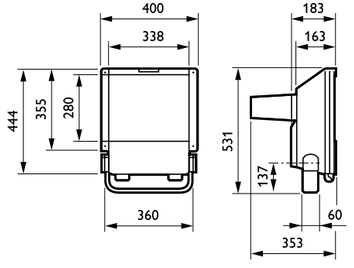
MVF606



Product size (dimensions in mm)



MVF607



IEC 60598

IP65

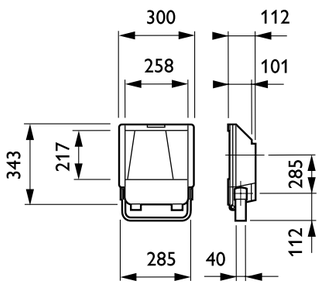
Technical parameters

Type	MVF616
Light source	HID: 1 x MHN-TD / Rx7s / 70, 150 W 1 x SON-T / E27 / 70 W 1 x SON-T / E40 / 100, 150 W
Lamp included	Yes (K)
Gear	Electro magnetic (low loss), 220 V / 50 Hz: Inductive, parallel compensated (IC)
Optic	Wide beam (WB) Medium beam (MB)
Materials and finish	Housing, front frame and rear cover in high-pressure die-casted aluminum, painted dark gray High-grade anodized aluminum reflectors Zinc-coated aluminum mounting bracket, painted in dark gray Toughened plate front glass Silicone rubber gaskets
Installation	Universal mounting bracket allows ceiling, wall or surface mounting Front window with snap action clip for in-position lamp replacement Housing dustproof and jetproof to IP65 - no internal cleaning required
Classifications	IP65 Class I

Product size (dimensions in mm)



MVF616



IP65

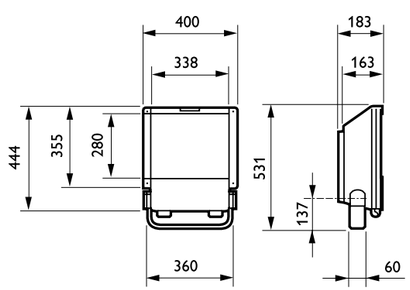
Technical parameters

Type	MVF617
Light source	HID: 1 x MHN-TD / Rx7s / 250 W 1 x HPI-T Plus / E40 / 250, 400 W 1 x SON-T / E40 / 250, 400 W
Lamp included	Yes (K)
Gear	Electro magnetic (low loss), 220 V / 50 Hz: Inductive, parallel compensated (IC)
Optic	Wide beam (WB) Medium beam (MB)
Materials and finish	Housing, front frame and rear cover in high-pressure die-casted aluminum, painted in dark gray High-grade anodized aluminum reflectors Zinc-coated aluminum mounting bracket, painted dark gray Toughened plate front glass Silicone rubber gaskets
Installation	Universal mounting bracket allows ceiling, wall or surface mounting Front window with snap action clip for in-position lamp replacement Housing dustproof and jetproof to IP65 - no internal cleaning required
Classifications	IP65 Class I

Product size (dimensions in mm)

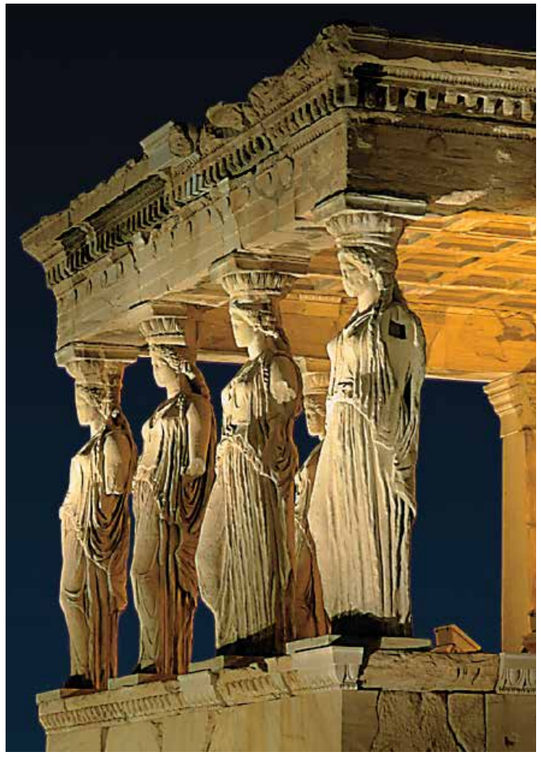


MVF617



Key Portfolio*

Product ID	Weight (kg)
MVF606	
MVF606 CDM-T70W K 220V-50Hz MB	6.20
MVF606 CDM-T70W K 220V-50Hz NB	6.20
MVF606 CDM-T150W K 220V-50Hz MB	6.80
MVF606 CDM-T150W K 220V-50Hz NB	6.80
MVF606 SON-T70W K 220V-50Hz NB	6.20
MVF607	
MVF607 HPI-TP250W K 220V-50Hz NB	12.90
MVF607 HPI-TP400W K 220V-50Hz NB	14.70
MVF607 SON-T150W K 220V-50Hz NB	11.90
MVF607 SON-T250W K 220V-50Hz NB	12.90
MVF607 SON-T400W K 220V-50Hz NB	14.70
MVF607 SON-T400W K 220V-50Hz NB	14.70



Product ID	Weight (kg)
MVF616	
MVF616 MHN-TD70W K 220V-50Hz MB	5.40
MVF616 MHN-TD70W K 220V-50Hz WB	5.40
MVF616 MHN-TD150W K 220V-50Hz MB	6.50
MVF616 MHN-TD150W K 220V-50Hz WB	6.50
MVF616 SON-T70W K 220V-50Hz MB	5.40
MVF616 SON-T70W K 220V-50Hz WB	5.40
MVF616 SON-T100W K 220V-50Hz MB	6.20
MVF616 SON-T100W K 220V-50Hz WB	6.20
MVF616 SON-T150W K 220V-50Hz MB	6.50
MVF616 SON-T150W K 220V-50Hz WB	6.50
MVF617	
MVF617 HPI-TP250W K 220V-50Hz MB	11.70
MVF617 HPI-TP250W K 220V-50Hz MB	11.70
MVF617 HPI-TP250W K 220V-50Hz WB	11.70
MVF617 HPI-TP400W K 220V-50Hz MB	13.60
MVF617 HPI-TP400W K 220V-50Hz WB	13.60
MVF617 MHN-TD250W K 220V-50Hz MB	11.70
MVF617 MHN-TD250W K 220V-50Hz WB	11.70
MVF617 SON-T250W K 220V-50Hz MB	11.70
MVF617 SON-T250W K 220V-50Hz MB	11.70
MVF617 SON-T250W K 220V-50Hz WB	11.70
MVF617 SON-T400W K 220V-50Hz MB	13.60
MVF617 SON-T400W K 220V-50Hz WB	13.60

* For full product portfolio please contact your local Philips Representative



Power Supply

IP65

High-quality universal LED power supply

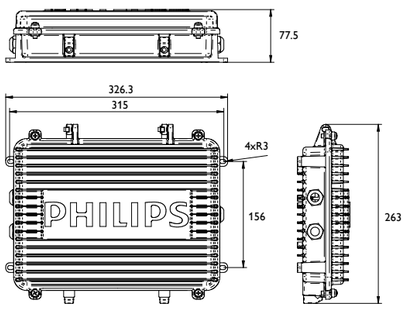
- Stable and accurate 24VDC & 12VDC voltage output by up to max 200W power output
- Reliable and safe
- Aluminum IP65 housing provides water-proof, robust construction, and suitable for outdoor applications
- Easy to experience
- Fast and simple installation with less components
- Supports both surface & suspension mounted

Technical parameters	
Type	PS100/PS200 PS60/PS120
Input voltage	100-240V AC 50-60Hz
Output voltage	24 V DC or 12V
Rated power	100W/100W*2(24V) 60W/60W*2(12V)
Power factor	> 0.9
Efficiency	80% typical
Power Consumption Range	Max 120W (100W 24V) Max 75W (60W 12V)
Classification	Class I, IP65 Ambient temperature: -20°C < Ta < +50°C

Key Portfolio*	
Product Description	Weight (kg)
PS100 24VDC 100-240VAC 50/60HZ	2.74
PS200 24VDC 100-240VAC 50/60HZ	3.35
PS120 12VDC 100-240VAC 50/60HZ	3.35
PS60 12VDC 100-240VAC 50/60HZ	2.74

* For full product portfolio please contact your local Philips Representative

Product size (dimensions in mm)



Outdoor

IEC 61347



ToBeTouched

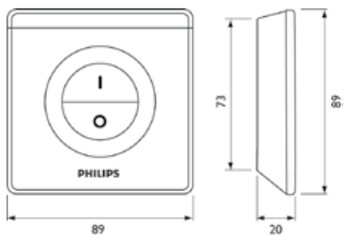
Imagine the power to create the perfect hue or color, combined with the right light intensity. Imagine doing it by touch. Philips ToBeTouched lighting control brings complete mastery over the room's light – all in stylish, intuitive and familiar interface that anyone can access. It features a user-friendly 'light, color and audio feedback' system as you glide your finger over the control ring. Just touch, glide and lift. Whether you require a control point to have full-color control, cool/warm-white control or just simple dimming, there is a model for every need. Finally a powerful lighting instrument that creates just the perfect ambiance for any room – easily and fun.



Technical parameters

Type	UID 8510
Features	- Sleek, contemporary design with touch interface. - Suitable for infrared remote control of lighting installations and other building-bound equipment. - Can be used to switch and/or regulate lighting. - Wake-up morning light feature for gradual increase in light intensity. - The unit is optimized for wall-mounted operation.
Protocol	IR RC5
Placement	On wall with docking: double sided tape or 2 screws
Functionality	IRT 8050 minus programming
Preset buttons	0
Mode buttons	0
Power supply	4 AAA Alkaline batteries
Power output	None
Default wake up mode	Dip switch determined
Accessories key caps	Various caps: 1/0; On/Off; no print
Accessories Power supply	None
Compatible with	LMM, Trios, Actilume, Occuplus

Product size (dimensions in mm)

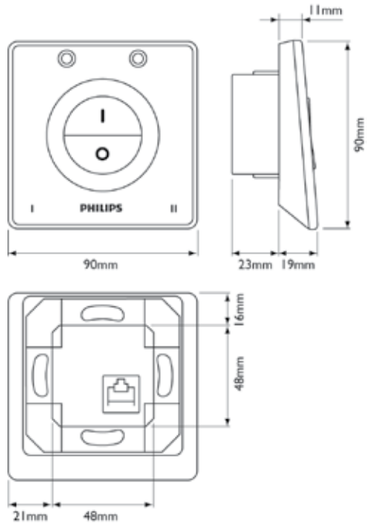




Technical parameters

Type	UID 8530
Features	- Direct selection of color temperature on DMX lighting system. - Operation via a touch-sensitive backlit color temperature selection ring. - Two user-defined presets available on the front of the panel. - Intuitive control with the iconic color ring as used in LivingColors. - Capacitive touch on a light guide to display the chosen color temperature.
Protocol	DMX
Placement	In-wall: MultiDim like bracket + frontplate
Functionality	On/Off, Intensity, Color temperature, Presets
Preset buttons	2 + On preset
Mode buttons	2
Power supply	48V Power over Ethernet (PoE)
Power output	None
Default wake up mode	Color temperature
Accessories key caps	Various caps: 1/0; On/Off
Accessories Power supply	Separate power supply 12NC: 913700338603
Compatible with	DMX Tc luminaires like: iW Cove, iW Profile

Product size (dimensions in mm)

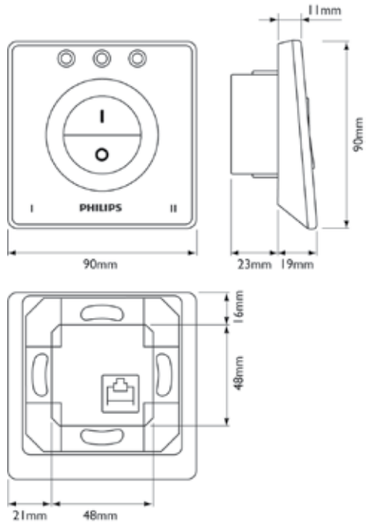




Technical parameters

Type	UID 8540
Features	- Direct selection of any color point on full-color DMX RGB lighting system. - Operation via a touch-sensitive backlit RGB color selection ring. - Two user-defined presets available on the front of the panel. - Intuitive control with the iconic color ring as used in LivingColors. - Capacitive touch on a light guide to display the chosen color.
Protocol	DMX
Placement	In-wall: MultiDim like bracket + frontplate
Functionality	On/Off, Intensity, Color (Hue), Saturation, Presets
Preset buttons	2 + On preset
Mode buttons	3
Power supply	48V Power over Ethernet (PoE)
Power output	None
Default wake up mode	Color (Hue)
Accessories key caps	Various caps: 1/0; On/Off
Accessories Power supply	Separate power supply 12NC: 913700338603
Compatible with	DMX RGB luminaires like: LedLine, Marker Led, Color Blast. iColorCove, Reach

Product size (dimensions in mm)



Key Portfolio*

Product Description	MOQ	EAN code level 1	EAN code level 3	EOC
UID 8510				
UID8510 TBT IR	1	8727900 873467	8727900 873474	87346700
UID 8530				
U1D8530 Color Temperature DMX	1	8727900 873504	8727900 873511	87350400
U1A8550 ToBeTouched PSU	1	87279 00 886832	8727900 886849	88683200
UID 8540				
U1D8540 COLOR DMX	1	8727900 873528	8727900 873535	7352800
UIA8550 ToBeTouched PSU	1	8727900 886832	8727900 886849	88683200

* For Full portfolio please contact your local Philips Representative



PHILIPS

Technical Data

Technical Data

Safety and protection of luminaires

Approvals and standards

Luminaires sold in the market are expected to comply with the appropriate safety requirements as laid down in the European series of standards EN 60598 prepared by CENELEC, the European Committee for Electrotechnical Standardisation, and which are almost fully harmonized with the worldwide series of standards IEC 60598. European standards are accepted as the national standards and published as such.

Since the issuing of the Low Voltage Directive the availability of the appropriate safety standards has improved the overall quality of our luminaires. The European testing institutes, in cooperation with the European Luminaire Industry, introduced the ENEC mark in January 1993.

All luminaires supplied by Philips comply with the ENEC criteria and many indeed carry the ENEC mark to show the involvement of objective third parties. The CE mark, which is a condition for the free circulation on the entire European market of products that are safe, for example, is the way our organization demonstrates its compliance with the relevant European legislation.

For more information on the European platform of Testing agencies, please consult their website www.EEPCA.org

Electrical supply

An important step has been taken to harmonise the European mains supply voltage. From 2003 onwards the voltage delivered for use in buildings is 230 V/400 V with a tolerance of ± 10%.

Philips luminaires are designed for the future and will operate well on the supply of today and tomorrow. An example is the electronic ballast designed for a rated mains voltage of 220-240 V, with tolerance for safety of +/- 10% and tolerances for performance of –8% and +6%, covering the full range between 202 V and 254 V.

Electrical safety classes

Electrical equipment is classified according to the protection level against electrical shock. In normal operation as well as during service and maintenance, luminaires should be protected against electrical shock. The safety of a luminaire depends on electrical, mechanical and thermal aspects, both under normal and fault conditions. The electrical safety classification drawn up by the IEC embraces 3 luminaire classes: Class I, II and III. Low voltage luminaires designed to meet the Safety Extra-Low Voltage (SELV) limits can be categorized as Class III.

The table gives a brief description of each electrical safety class.

The official definitions are too long to be reproduced in full here, but can be summarized as printed below. If a protective earth connection is available, Class I luminaires are applied. However, if there is no earth connection or if eddy currents are present, Class II luminaires shall be applied. Class II water-protected luminaires are applied in wet and outdoor locations. Local electricity boards can provide the appropriate advice.

Class I - symbol

Luminaires in this class have basic insulation and are fitted with an earthing point (identified) for the connection of all those exposed metal parts that could conceivably become live in the presence of a fault.

Where the Class I luminaire is provided with a flexible power lead, it must include an earth wire.

Class II - symbol

Luminaires in this class are designed and constructed in such a way that exposed metal parts cannot become live. This can be achieved by means of either reinforced or double insulation, but without a provision for protective earthing.

Class III - symbol

The luminaires in this class are those in which protection against electric shock relies on supply at Safety Extra-Low Voltage (SELV), typically 12 V or 24 V, and in which voltages higher than those of SELV (50 V a.c. r.m.s.) are not generated. A Class III luminaire should not be fitted with a facility for protective earthing.

Ambient temperature

Philips luminaires are designed to meet the (environmental) conditions under which they are most likely to be used. The maximum ambient temperature Ta under which a luminaire can be operated safely, is indicated on the type label on the product; if no indication is given the product is intended for a maximum ambient temperature of 25°C. The ambient temperature always refers to the typical use of the luminaire: indoors or outdoors. The majority of luminaires developed for office, shop and general indoor applications show no Ta, thus indicating 25°C. Luminaires designed for industrial high-bay applications are designed for ambient temperatures as high as 40 to 45°C. The use of luminaires above their specified maximum ambient temperature may reduce safety margins and will mostly lead to a reduction of the lifetime of the various components. Electronic equipment, ballasts and lighting controls are particularly sensitive to overheating. Although (extremely) low temperatures do not normally affect the safety of luminaires, this may affect operation during the starting-up phase of the lamp. Fluorescent lamps should not be used below –5°C to –10°C. Upon request special solutions are often possible for higher or lower ambient temperatures. High-intensity discharge lamps function well below –20°C and are the most suitable lamps for outdoor use.

Protection against electrical shock

Safety class	Symbol	Protection
I		Basic insulation plus protective earth connector
II		Double or reinforced insulation, no provision for protective earthing
III		Supply of safety extra-low voltage

Safety and protection of luminaires

Protection against ingress of solid objects, dust and moisture
The Ingress Protection system (IP) EN 60529, 1991 defines various degrees of protection against the ingress of foreign bodies, dust and moisture. The term 'foreign bodies' includes things like fingers and tools coming into contact with the electrical live parts of the product.

Both safety aspects (contact with live parts) and harmful effects on the function of the luminaire are defined. The exact testing method for luminaires for each IP classification is described in the standard EN 60598, chapter 9. Some testing methods from EN 60529 were found to be inappropriate for luminaries and it must be noted that the specific conditions in an application may differ from the conditions during testing.

The designation to indicate the degree of protection consists of the characteristic letters IP followed by 2 digits indicating conformity with the conditions stated in the two tables. All Philips luminaires fulfil the minimum classification: IP20 (protected against finger contact with live parts), however a selection of luminaires, especially those for industrial and outdoor (road) applications, meet a higher IP classification. It is important to realize that the specification and safety of luminaires are only secured if the necessary maintenance is carried out according to the instructions of the manufacturer within the time schedules indicated.

Protection against ingress of dust, solid objects and moisture

First number Degree of protection against accidential contact/contact with external elements			Second number: Degree of protection against ingress of moisture		
First number	Description	Explanation	Second number	Description	Explanation
0	Non-protected	Not protected	0	Non-protected	Not protected against moisture
1	Hand-protected	Protected against solid objects exceeding 50 mm in diameter	1	Drip-proof against vertical water drops	Water drips falling vertically shall have no harmful effect
2	Finger-protected	Protected against finger contact with live parts; and against solid objects exceeding 12 mm in diameter	2	Drip-proof when tilted at angles of up to 15°	Water drips shall have no harmful effect
3	Tool-protected	Protected against contact with live parts by tools, wire or similar objects over 2.5 mm thick; and protection against penetration of solid objects exceeding 2.5 mm in diameter	3	Rain-/spray-proof	Water falling at an angle of up to 60° shall have no harmful effect
4	Wire-protected	Protected against contact with live parts by tools, wire or similar objects over 1 mm thick; protection against penetration of solid objects exceeding 1 mm in diameter	4	Splash-proof	Splashing water from any direction shall have no harmful effect
5	Dust-accumulation-protected	Complete protection against contact with live parts and against harmful accumulation of dust; some dust may penetrate but not to the extent that operation is impaired	5	Jet-proof	Water projected by a nozzle from any direction shall have no harmful effect. (Nozzle diameter 6.3 mm, pressure 30 kPa)
6	Dust-penetration-protected	Complete protection against contact with live parts and against penetration of dust	6	Jet-proof	Water projected by a nozzle from any direction shall have no harmful effect. (Nozzle diameter 12.5 mm, pressure 100 kPa)
			7	Watertight	Watertight; temporary immersion in water under specified conditions of pressure and time possible without ingress of water in harmful quantities
			8	Pressure watertight	Pressure watertight; continuous submersion in water under specified conditions of pressure and time without ingress of water in harmful quantities

Protection against mechanical shock
The impact resistance of a luminaire defines the protection of the luminaire against mechanical shock. The European standard EN 50102 defines the degrees of protection against external mechanical impact (IK code) and the method of testing. The luminaire housing should withstand the defined energy of the mechanical shock without losing its electrical and mechanical safety, or the basic luminaire function. Translated into a more practical implementation, this means that after withstanding the shock, deformation of the mirror and housing is allowed, although broken lamps, an unsafe electrical situation and failure to meet the specified IP classifications are not permitted.

The impact resistance is expressed as a group numeral, for instance IK06, which is related to the impact energy.

All types of Philips luminaires have a minimum impact resistance of 0.2 J. The table shows the ten IK classifications and the defined shock energy expressed in joules. Notice that fully vandal-proof luminaires are not available; vandal-protected (IK09) and vandal-resistant (IK10) are the best achievable classifications.

Protection against mechanical shock

IK code	Shock energy (joules)	Description	Example
IK00	-		
IK01	0.15		
IK02	0.2	Standard	Standard open luminaire, closed luminaire with acrylic cover
IK03	0.3		
IK04	0.5	Standard plus	Open luminaire with reinforced optical system
IK05	0.7		
IK06	1		
IK07	2	Reinforced	
IK08	5	Vandal-protected	Closed luminaire with polycarbonate or hardened glass cover
IK09	10		
IK10	20	Vandal-resistant	Closed luminaire

Ball impact resistance
For indoor sports halls ball-impact-resistant luminaires are essential.

As no European standards have been developed for this purpose, Philips has classified the relevant luminaires according to the German DIN 18032. After the impact test according to this standard (36 handballs targeted at a speed of 60 km/h) no damage of the luminaire should have occurred and no loose particles should drop down from the luminaire. The symbol for a ball-impact-resistant luminaire is the football. Luminaires protected by a wire guard with a grid width exceeding 60 mm are not to be used in tennis sports halls.



Safety distance
In the application of reflector lamps and luminaires with narrow beam distributions of a high intensity, a minimum distance between light source and illuminated surface has to be ensured. This is to prevent too high temperatures of the illuminated surface. Minimum values for safety distances are specified on the luminaire packing. The specified values must be considered as the shortest distances permitted between light source and illuminated object or surface to ensure long-lasting safe operation.

Flammability

From the point of view of flammability of mounting materials, luminaires can always be mounted on non-flammable building materials like concrete and stone. If luminaires are to be mounted on flammable materials special measures should be taken. Luminaires for discharge lamps with no warning sign to indicate that they are unsuitable for mounting on normally flammable surfaces, are suitable for mounting on building surfaces that do not ignite below 200°C.

Luminaire marking for flammability

Symbol	Application	Characteristics of ceiling material
	Suitable for direct mounting on non-combustible surfaces	Stone, concrete
	Suitable for direct mounting on normally flammable surfaces	Ignition temperature materials > 200°C; some combustion time lag
	Suitable for direct mounting in/on normally flammable surfaces where thermally insulating material may cover the luminaire	Ignition temperature materials > 200°C; some combustion time lag
	Suitable for direct mounting on easily flammable surfaces, where combustible dust is present	Ignition temperature materials < 200°C; no combustion time lag

Gear Types

Fluorescent and high-intensity discharge lamps require a device to limit the current due to the unfavorable current-voltage characteristics of the lamps. Traditionally this has been achieved using electromagnetic control gear in combination with either a glow-starter switch or electronic starter. Almost the complete range of Philips fluorescent and high-intensity discharge lamp/luminaires are available with the electromagnetic type of ballast system. From the point of view of energy consumption the electromagnetic control gear system is inefficient because the losses in the system are relatively high and significant improvements are possible by applying electronic control gear instead.

Electronic control gear offers a number of advantages in comparison with electromagnetic ballasts:

- The electronic ballast offers interesting cost savings, such as reduction in energy consumption of about 25%, extension of the lamp life up to 50% and, moreover, lower maintenance costs.
- Application of electronic ballasts adds to the comfort in numerous ways: no cathode flicker occurs; at the end of lamp life the lamp is automatically switched off; smooth and rapid starting is ensured without flickering; and no stroboscopic effects can arise due to the high frequency at which the lamps are operated.
- Extra safety is assured through over-voltage detection, protected control of the mains voltage input and a noticeably lower operating temperature.
- Flexibility is enhanced: installations with fluorescent lamps, for instance, are dimmable if a regulating ballast is selected, allowing for adjustment of lighting levels to personal preference and the opportunity for additional savings on energy, e.g. by daylight-linked lighting control.

Following the trend towards greater efficiency and comfort, some of the newer fluorescent lamps like all TL5 and high-wattage PL-L types will operate only on electronic control gear.

Electronic transformers

Philips offers high frequency electronic transformers for operation with 12 V halogen lamps up to and including 150 W. Electronic transformers are compact, lightweight and are also dimmable.

They fully comply with the applicable safety and radiofrequency interference standards. Over conventional gear they offer self-resetting short-circuit protection, thermal-switch interruption for overload protection, temperature protection by output voltage reduction and inaudible operation. Electronic transformers produce a constant output voltage, ensuring long lamp life and a constant light level.

CELMA classification

The Federation of National Manufacturers' Associations for Luminaires and Electrotechnical Components for Luminaires in the European Union, CELMA, has created a guide for the application of Directive 2000/55/EC on energy efficiency requirements for ballasts for fluorescent lighting. The Directive aims to reduce the energy consumption of ballasts for fluorescent lighting by moving gradually away from the less efficient ballasts towards more efficient ones.

The degree of energy efficiency of fluorescent lighting circuits depends upon the combination of ballast and lamp. CELMA has developed a ballast classification system based on the ballast lamp system.

This classification system defines ballast classes as listed in the following table. For further details refer to their website http://www.celma.org.

Ballast classification

Class	Typical ballast type
A1	Dimmable electronic ballasts (best energy performance)
A2-BAT	Electronic ballast with maximum efficiency (BAT=Best Available Technology)
A2	Electronic ballasts with reduced losses
A3	Electronic ballasts
B1	Magnetic ballasts with very low losses
B2	Magnetic ballasts with low losses
C	Magnetic ballasts with moderate losses
D	Magnetic ballasts with very high losses (lowest energy performance)

Fluorescent ballast types

Philips offers five options when it comes to selecting high-frequency ballasts for fluorescent lamps: HF-MATCHBOX designed for compact luminaires; HF-PERFORMER for areas where the demands are greater; HF-REGULATOR for areas where frequent dimming is required; HF-REGULATOR Touch and Dim for easy operation; and HF-DALI ballast working in accordance with the DALI Protocol. DALI stands for Digital Addressable Lighting Interface (IEC 929).

HF-DALI (HFD)

Electronic regulating ballast for TL5, PL-L and TL-D lamps. The high-frequency regulating ballasts permit light output regulation down to 3% via the DALI control input.

HF-MATCHBOX (HFM)

Compact electronic ballast for the smaller (compact) fluorescent lamps up to 25 W. These high-frequency ballasts offer more freedom of luminaire design.

HF-REGULATOR (HFR)

Electronic regulating ballast for TL5, PL-L and TL-D lamps. These high-frequency regulating ballasts permit light output regulation down to 3% of the maximum light output by the 1-10 V control input. Up to 60% reduction in energy consumption can be achieved by using automatic lighting control systems like Luxsense.

All Philips HF-Regulator ballasts are fitted with a dedicated integrated circuit (alpha-control) to ensure that lamp life is unaffected by the dimming level, that lamp operation is stable in every dimming setting and that energy savings are maximized when the lamp is dimmed.

HF-REGULATOR II TOUCH AND DALI (HFD-T)

The new-style electronic regulating ballast for TL5, PL-L and TL-D lamps. Standard push buttons can be used to dim the light output down to 3%. The lamp can also be switched on or off using the push-button control.

HF-PERFORMER (HFP)

Electronic ballast for TL5, PL-L and TL-D lamps These high-frequency ballasts offer low energy consumption. A warm-start circuit that preheats the lamp electrodes enables the lamp to be switched on and off without reducing its useful life.

HID ballast types

Philips supplies electronic control gear for metal halide and low- and high-pressure sodium lamps up to and including 150W. They offer improved start-up performance and color stability, and prevent lamp flicker. Compact, one-piece PrimaVision ballasts are available for (mini) CDM, CDO, SDW and SON lamps. For light regulation applications DynaVision ballasts are available for CDM, CDO and SON lamps and are equipped with 1-10V or DALI control input. Larger conventional ballasts for SON lamps of 250/400 W can be controlled by means of the DynaVision Controller with 1-10V and DALI control input.

DynaVision (EBR)
The compact DynaVision ballasts allow for light regulation down to 20% light output for SON lamps or 50% for CDO lamps.

Low-frequency electronic dimming and stable flicker-free operation will increase lamp life by between 20 and 30%. Full protection against fault conditions and a self-stopping facility prevent cycling of old lamps.

PrimaVision (EB)
The compact PrimaVision ballasts provide constant power regulation over a lamp life that is up to 30% longer. They eliminate lamp flicker, offer full protection against fault conditions, and a self-stopping facility, which prevents cycling of old lamps.

Further details, specifications and availability of ballast types for all kinds of lamp types can be found at htpp://www.lampsandgear.philips.com.

LED Technology

The principles of LED technology
The basis for light generation inside a Light Emitting Diode (LED), a solid-state semiconductor, is the conversion of electrical energy directly into light.

On its most basic level this can be seen as an electron that moves from one material into another while losing an amount of energy. Due to the law of conservation of energy, this loss of energy needs to be converted and, inside a LED, this energy is converted into radiation energy composed of light in the visible part of the spectrum, and a bit of infrared radiation dissipated as heat.

The LED is comprised of two semiconductor regions, a positive electrically charged or p-region and a negative electrically charged or n-region, see diagram 1. In the p-region there is a shortage of electrons and in the n-region a surplus of electrons. When voltage is applied across these two regions, current begins to flow and electrons move across the p-n junction, from the n-region into the p-region. The process of an electron moving through the p-n junction releases energy. The dispersion of this energy produces photons with visible wavelengths. The higher the energy released, the shorter the wavelength becomes. Low energy photons will emit in the infrared part of the spectrum, and as the energy increases, the color of the light will change from deep red, via yellow, green, cyan and blue to the ultra-violet part of the spectrum – in fact it follows the colors of the rainbow.

White light and RGB (red, green and blue)
A white LED consists of a blue LED chip and a yellow phosphor coating, see diagram 2. The blue photons generated in the semiconductor chip can either pass the phosphor layer unaffected, or be converted into yellow photons. These two colors – blue and yellow – combine to produce white light.

It is also possible to generate white light with the aid of a red, green and blue LED. Such LED array systems are called RGB systems. Normally the RGB systems are used to make different color effects. With a RGB system all colors of light within the color triangle can be produced.

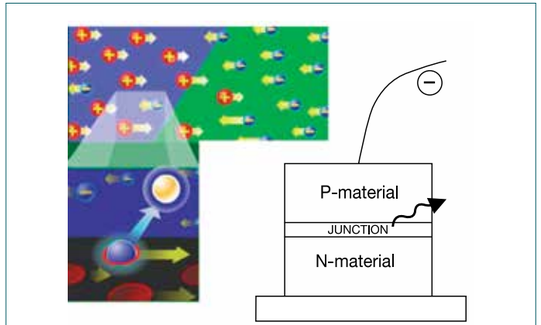


Diagram 1. LED composition with the electrically charged p- and n-regions and the p-n junction emitting light.

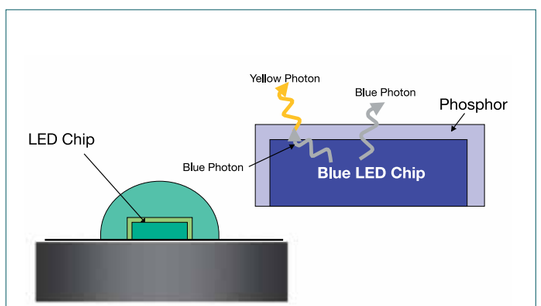


Diagram 2. White LED, the principle of white light generation.

Characteristics and benefits

On the next page you will find an overview of the characteristics and benefits of LEDs. In the various indoor and outdoor applications different advantages will be important. Architectural applications will use the vivid colors and dynamic color control, whereas the traffic signal market is focused on maximizing energy savings and reducing maintenance costs to practically zero.

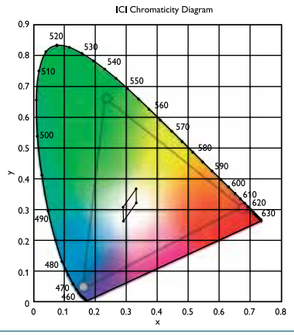
In general:
- More energy-efficient than incandescent and halogen lamps
- Much longer life, up to 50,000 hours at 70 per cent of lumen maintenance
- Reduced maintenance cost
- No unwanted IR or UV radiation in the beam of light, less risk of fading of color pigments and textile
- Highly efficient low-cost plastic optics can be used

Architecture/design:
- Design flexibility, hidden compact light sources
- Vivid saturated colors without the use of additional filters
- Directed light for increased system efficacy
- Robust, vibration-proof, solid-state lighting
- Less light pollution due to precise optical control

Unique LED advantages:
- Dynamic color control, white point adjustable
- Fully dimmable without color variation
- Instant switch-on at full color and full lighting level
- No transmission loss due to color filters
- Install and forget for a long time

Environment:
- No hazardous metals e.g. mercury in the light source

Safety and low temperature:
- Low voltage dc operation
- Highly efficient in cold environment
- Cold start capability down to -40°C
- Sealed for life waterproof luminaires



Graph. Color triangle for a RGB system; all colors within the triangle can be reproduced.

Value chain

The definition of levels of integration describes the road from LED chip to luminaire, with increasing complexity and value. Philips undertakes business activities at all levels of the value chain.

Level 0. LED chip

Semiconductor chips are the basis for every LED and these are grown in complex wafer production equipment. The wavelength of the LED is defined according to the manufacturing process, the parameters and the tolerance.

Level 1. LED component

Packaging is the next step. Here the thermal and optical properties are determined and the chip is connected to its package by means of bond wires for external connections.

Level 2. LED array

A miniature printed circuit board is used to connect one or more LEDs, possibly together with driver electronics, and acts as a thermal interface between LEDs and heat sink.

Level 3. LED module

A LED module combines heat sink, optics and separate driver in one module, ready to be installed in a luminaire.

A mono-color traffic light source is an example of level 3. Three of these modules will be combined in a level-4 traffic signal head.

Level 4. LED luminaire

A LED luminaire can be connected directly to the outside, mechanically and electrically. It houses, supplies power to and protects the LED array(s) from the environment while maintaining optimal operating conditions.

Philips LEDline is an example of a level-4 product.



Level 0	Level 1	Level 2	Level 3	Level 4
LED-Chip	LED or Lamp	LEDs on PCB	LED module with optics and driver	Luminaire

Table. Survey of levels of integration and LED products.

LED lighting system

A LED lighting system comprises several components like a power supply, controller, control interface and luminaire/LED arrays/optics.

In many cases one or more components are combined in one product for ease of installation. In other cases there might be a need for more flexibility in terms of system configuration and control. E.g. a power supply or control interface may be shared by a group of luminaires. Every single component is selected to fit the application demands.

Lighting controls

The revolution of LED technology for lighting creates new possibilities in the application of lighting. In many applications the dynamic character of LED enables a lighting solution to create a unique experience. By using RGB colors or variation in color temperature, all sorts of effects are made possible and can be specified for a particular lighting design or application, both indoor and outdoor. To enable these dynamic lighting solutions there is a need for lighting control systems that create the right experience for the customer. Philips provides a range of smart scene-setting lighting controllers that offers a reliable solution for any project, from simple color selection at the push of a button or the turn of a wheel to fully automated, pre-programmed light control and/or multimedia integration.

Specification data lamps

Color characteristics of lamps

Lamps do not all emit light of the same color. There is, for example, a striking difference between the pronounced amber light from standard sodium lamps and the white light from most other lamps. Even then, one white light is not the same as another. To select the right light source for the color characteristics required, two separate parameters have to be considered, i.e. the color temperature of the emitted light and its color rendering.

Color temperature

Given that the color of the light has an important influence on the color impression of the area, the color temperature of the light source plays an essential role. To enable an objective comparison of the color impressions from various sources, subjective terms such as the popular words ‘cool’ and ‘warm’ are inadequate. A precise scale is required and given by the term ‘correlated color temperature’; the color gradation of the light is compared with the light emitted by an intensely heated iron bar of which the temperature is known. In this way, the light color can be specified by a value in kelvin (K). A low color temperature represents warm, yellow, orange or red light and a high color temperature cool, blue or violet light.

Four categories, as a practical guideline, are:

2500 - 2800 K warm/cosy
The color from incandescent lamps, (compact) fluorescent lamps in the colors 827 and 927 and the SDW-T White SON lamp. Generally used for intimate and cosy environments where the emphasis is on a peaceful relaxing ambience.

2800 - 3000 K warm/neutral
The color from halogen lamps, color 830 and 930 (compact) fluorescent lamps and MASTERColour 830 lamps. Used in places where people are active, requiring a welcoming comfortable ambience.

3000 - 5000 K neutral/cool
The light color from 840 and 940 fluorescent lamps as well as MASTERColour 942 and MHN metal halide lamps. Usually applied in commercial areas and offices where a look of cool efficiency is desired.

5000 K and above daylight and cool daylight
The light color that best matches natural daylight, such as fluorescent colors 850, 865, 950 and 965 and the new ActiViva colors 451 and 452.

Color rendering

The perception of surface colors, the color rendering of the light, depends on the color content of the incident light. The light emitted by a light source is composed of a mixture of colors, all in different intensities. A change in the color mixture and intensity yields a different color rendering.

Cool daylight and incandescent lamps have fully natural color rendering properties. The same is true for halogen lamps. The reason for this is the continuous spectrum of the sources, which is typical for filament lamps.

Most gas discharge sources, however, have an interrupted or line spectrum. This has an influence on the quality of their color rendering properties, which vary from very poor, with SOX low-pressure sodium gas discharge lamps, to excellent, with the color 90 De Luxe series fluorescent and MASTERColour 942 lamps.

When selecting a particular lamp type, a clear understanding of the color rendering properties is essential. A fair indication is given by the color rendering index (CRI), which is a standardized scale with 100 as the maximum value. Colors are best shown under a light source with the highest color rendering index. Incidentally, it is only worthwhile to compare CRI values of lamps of similar color temperature.

In practice, three color rendering categories are normally found.
CRI between Ra 90 and 100
Excellent color rendering properties. Applications are mainly those where correct color appraisal is a critical task.

CRI between Ra 80 and 90
Good color rendering properties. Applications in areas where critical color appraisal is not the primary consideration but where good rendition of colors is essential.

CRI below Ra 80
Moderate to poor color rendering properties.
Applications in areas where the quality of color rendering is of minor importance.

The choice in favor of a particular color rendering class does, of course, depend on the demands that an application makes on a lamp. For example, a CRI of Ra 60 is inadequate for shop lighting, but is qualified as good for functional road lighting.

Areas of application

Correct light impressions and correct rendering of colors assists us in recognising our surroundings. The color climate of an artificially-lit space is determined by light color temperature and color rendering.

Room furnishings of wood and fabrics in warm colors require warm lighting in the colors 827 or 927. For pleasing light the colors 830 and 930 are most suitable for many applications. The more business-like the interiors are, the cooler the light can be. Furniture using chromium, glass and marble, or in black and white, is emphasised by the neutral light colors 840 and 940. Colors 865 and 965 are best used in environments where there is a high daylight content.

For (compact) fluorescent lamps it is most economical to choose the colors 830 and 840 as they produce the highest light output.
Colors 927, 930, 940 and 950, on the other hand, give the best color rendering.

Color impression

Light color	Color temperature in kelvin	Type of lamp or lamp color *
Cool daylight	17000	452
	8000	451
	6500	865, 965
Daylight	6000	
Cool white	5000	850, 950
	4500	HPI (-T) PLus
	4200	942, HPL-N, MHN
Neutral white	4000	840, 940
	3500	
	3400	HPL Comfort
“Crisp”	3000	Halogen 12V, 830, 930
Warm white	2900	Halogen Plusline
	2800	Halogen PAR
	2700	Incandescent, 827, 927
“Cosy” warm white	2500	SDW-T
	2150	SON Comfort
Very warm white	2000 K	SON PIA Plus

* For exact color temperature figures refer to the lamp family data.

Color rendering

Indoor applications	CRI	Type of lamp or lamp color *
Excellent	100	Incandescent, halogen 12V, 230V
	92	927, 930, 940, 950, 965
	90	CDM 942
Good	83	SDW-T
	82	451, 452, 827, 830, 840, 850, 865
	80	CDM 830, SDW-T, MHN, QL
Moderate	75	54
	70	25
	69	HPI (-T) Plus
	65	SON Comfort
	60	33
Insufficient	55	35, HPL Comfort
	50	29
Poor	45	HPL-N
	40	SON Plus
	25	SON

* For exact color rendering index figures refer to the lamp family data.

Proper use of fluorescent lamps

Optimal solution | Also suitable

Philips light colors	Special	Warm white				Neutral white		Cool daylight		
	79	827	927	830	930	840	940	950	865	965
Sales areas										
Groceries										
Meat										
Textiles, leather										
Furniture, carpets										
Sports, games, stationery										
Photo, clocks and jewellery										
Cosmetics, hairdressing										
Flowers										
Bookshops										
Industry										
Workshops										
Electro-, mechanical assembly										
Textile manufacture										
Printing, graphical tasks										
Color testing										
Paintshops										
Stores										
Plant nurseries										
Offices, schools										
Office areas										
Conference rooms										
Teaching areas										
Lobbies, corridors										
Others										
Dwellings										
Restaurants										
Museums										
Sport, multipurpose areas										
Hospital bedrooms										
Treatment rooms										

Damage factor/Fading of color

Radiation in the form of light or heat can cause damage to objects or merchandise being displayed. The extent of deterioration of objects upon exposure to light, such as fading colors, corrosion and disintegration of structure and material, depends on:

- sensitivity of the material to radiant energy
- illumination level
- time of exposure
- spectral composition of the radiation.

Without a standard classification available for the sensitivity of materials in relation to the amount of damage under a certain light source, the only indication which can be given is the ‘probable damage’ caused to an object.

This method ignores the spectral sensitivity of the object concerned, and only indicates the relative damage caused by one light source compared to another. Each light source can be characterised by the damage factor DF, which yields the relative damage caused by this source compared to other sources, provided that the illuminance and exposure times are constant.

The fading risk (FR) is the deterioration in color caused by one light source, calculated for a certain period of time, relative to a reference.

A fading risk of 160 is obtained in a ‘worst-case’ situation, e.g. an object in a shop window illuminated by bright sunshine (10,000 lux) for a period of 1 hour.

Example 1: the formula mentioned in the table for an illuminance of 500 lux, realised with fluorescent lamps color 830, results in a fading risk of 2. Thus the possible fading of pigments will occur 80 times slower than at the reference, FR of 160, so it is negligible.

Example 2: a projector produces 10,000 lux at a certain display. Applying e.g. a MASTERColour CDM lamp results in a fading risk of 40. Light sources with more ultraviolet radiation, such as metal-halide lamps without UV-filter or open halogen lamps, might, at high illuminances, result in damaging radiation.

Daylight conditions / light source	Damage factor
Overcast sky – average	1.52
Sunlight – average	0.79
Daylight through 4 mm window glass	0.43 - 0.68
Incandescent lamp	0.08
PAR38	0.11
PAR38 cool beam	0.07
Open halogen lamp	0.17
Closed halogen lamp	0.10
MASTERLine ES	0.10
MASTERColour CDM	0.22
White SON SDW-T	0.10
Open metal halide lamp	0.50
Closed metal halide lamp	0.25
Fluorescent lamps - color	
/827	0.19
/830	0.20
/840	0.21
/850	0.22
/865	0.24
/927	0.15
/930	0.15
/940	0.18
/950	0.22
/965	0.24
/29	0.17
/33	0.24
/79	0.22

FR = 0.02 x DF x E x T where
FR = fading risk / DF = damage factor / E = illuminance in lux / T = exposure time in hours



High Intensity Discharge Lamps

MASTERColour CDM-T

Product ID	Full Product Code	Order product name	Packaging Type	Pieces per Pack	Packing Configuration	Packs per Outerbox
MASTERColour CDM-T 20W/830 G12 1CT	928199405125	MASTERC CDM-T 20W/830 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12
MASTERColour CDM-T 35W/830 G12 1CT	928083105176	MASTERC CDM-T 35W/830 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12
MASTERColour CDM-T 35W/942 G12 1CT	871150021126215	MASTERC CDM-T 35W/942 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12
MASTERColour CDM-T 70W/830 G12 1CT	871150019699615	MASTERC CDM-T 70W/830 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12
MASTERColour CDM-T 70W/942 G12 1CT	871150019927015	MASTERC CDM-T 70W/942 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12
MASTERColour CDM-T 150W/830 G12 1CT	928083705176	MASTERC CDM-T 150W/830 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12
MASTERColour CDM-T 150W/942 G12 1CT	928084605175	MASTERC CDM-T 150W/942 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12
MASTERColour CDM-T 250W/830 G12 1CT	871150020801915	MASTERC CDM-T 250W/830 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12
MASTERColour CDM-T 250W/942 G12 1CT	928094205131	MASTERC CDM-T 250W/942 G12 1CT/12	1 Lamp in a Folding Carton	1	12	12

Product ID	Bar Code on Pack - EAN1	Bar Code on Pack - EAN3	Logistic code(s) 12NC	ILCOS code	Net Weight per Piece
MASTERColour CDM-T 20W/830 G12 1CT	8727900821994	8727900822007	928199405125	MT-20/30/1B-H-G12	0.028 kg
MASTERColour CDM-T 35W/830 G12 1CT	8711500202178	8711500202185	928083105176	MT-35/30/1B-H-G12	0.027 kg
MASTERColour CDM-T 35W/942 G12 1CT	8711500211262	8711500211279	928094305125	MT-35/42/1A-H-G12	0.028 kg
MASTERColour CDM-T 70W/830 G12 1CT	8711500196996	8711500197009	928082305125	MT-70/30/1B-H-G12	0.029 kg
MASTERColour CDM-T 70W/942 G12 1CT	8711500199270	8711500199287	928084505131	MT-70/42/1A-H-G12	0.029 kg
MASTERColour CDM-T 150W/830 G12 1CT	8711500202215	8711500202222	928083705176	MT-150/30/1B-H-G12	0.033 kg
MASTERColour CDM-T 150W/942 G12 1CT	8711500206619	8711500206626	928084605175	MT-150/42/1A-H-G12	0.033 kg
MASTERColour CDM-T 250W/830 G12 1CT	8711500208019	8711500208026	928089805131	MT-250/30/1B-H-G12	0.039 kg
MASTERColour CDM-T 250W/942 G12 1CT	8711500211125	8711500211132	928094205131	MT-250/42/1A-H-G12	0.039 kg

MASTERColour CDM-TC

Product ID	Order Code	Full Product Name	Product Order Name
MASTERColour CDM-TC 20W/830 G8.5 1CT	872790087158600	MASTERColour CDM-TC 20W/830 G8.5 1CT	MASTERC CDM-T 250W/830 G12 1CT
MASTERColour CDM-TC 35W/830 G8.5 1CT	871150020000615	MASTERColour CDM-TC 35W/830 G8.5 1CT	MASTERC CDM-TC 35W/830 G8.5 1CT/12
MASTERColour CDM-TC 35W/942 G8.5 1CT	871150020957315	MASTERColour CDM-TC 35W/942 G8.5 1CT	MASTERC CDM-TC 35W/942 G8.5 1CT/12
MASTERColour CDM-TC 70W/830 G8.5 1CT	871150020167615	MASTERColour CDM-TC 70W/830 G8.5 1CT	MASTERC CDM-TC 70W/830 G8.5 1CT/12
MASTERColour CDM-TC 70W/942 G8.5 1CT	871150021275715	MASTERColour CDM-TC 70W/942 G8.5 1CT	MASTERC CDM-TC 70W/942 G8.5 1CT/12

Product ID	Pieces per Pack	Packing Configuration	Packs per Outerbox	Bar Code on Pack - EAN1	Bar Code on Outer Box - EAN3	Logistic code(s) 12NC	ILCOS code	Net Weight per Piece
MASTERColour CDM-TC 20W/830 G8.5 1CT	1	12	12	8727900803600	8727900803617	928197305125	MT-20/30/1A-H-G8.5	0.009 kg
MASTERColour CDM-TC 35W/830 G8.5 1CT	1	12	12	8711500200006	8711500200013	928085205125	MT-35/30/1A-H-G8.5	0.010 kg
MASTERColour CDM-TC 35W/942 G8.5 1CT	1	12	12	8711500209573	8711500209580	928093805125	MT-35/42/1B-H-G8.5	0.010 kg
MASTERColour CDM-TC 70W/830 G8.5 1CT	1	12	12	8711500201676	8711500201683	928086505131	MT-70/30/1B-H-G8.5	0.010 kg
MASTERColour CDM-TC 70W/942 G8.5 1CT	1	12	12	8711500212757	8711500212764	928094605131	MT-70/42/1B-H-G8.5	0.010 kg

MASTERColour CDM-Tm Elite Mini

Product ID	ComCode AP	Full Product Name	Order Product Name	Packaging Type
CDM-Tm Elite mini 35W /930 GU6.5 1CT/12	872790089085300	MASTERColour CDM-TC 20W/830 G8.5 1CT	MASTERColour CDM-Tm Elite Mini 35W/930 GU6.5 1CT	1 Lamp in a Folding Carton

Product ID	Pieces per Pack	Packing Configuration	Packs per Outerbox	Bar Code on Pack - EAN1	Bar Code on Pack - EAN3	Logistic code(s) 12NC	ILCOS code	Net Weight per Piece
CDM-Tm Elite mini 35W /930 GU6.5 1CT/12	1	12	12	8.7279E+12	8.7279E+12	9281 836 05130	MC-35/30/1A-H-GU6.5	0.006 kg

MASTERColour CDM-Rm Mini Elite

Product ID	Order Code	Full Product Name	Order Product Name
MASTERColour CDM-Rm Mini Elite 35W/930 GX10 10D	928191305330	MASTERColour CDM-Rm Mini Elite 35W/930 GX10 10D	MC CDM-Rm Mini Elite 35W/930 GX10 10D
MASTERColour CDM-Rm Mini Elite 35W/930 GX10 25D	928191405330	MASTERColour CDM-Rm Mini Elite 35W/930 GX10 25D	MC CDM-Rm Mini Elite 35W/930 GX10 25D
MASTERColour CDM-Rm Mini Elite 35W/930 GX10 40D	928191505330	MASTERColour CDM-Rm Mini Elite 35W/930 GX10 40D	MC CDM-Rm Mini Elite 35W/930 GX10 40D

Product ID	Pieces per Pack	Packing Configuration	Packs per Outerbox	Bar Code on Pack - EAN1	Bar Code on Pack - EAN3	Logistic code(s) 12NC	ILCOS code	Net Weight per Piece
MASTERColour CDM-Rm Mini Elite 35W/930 GX10 10D	1	6	6	8727900912401	8727900912418	928191305330	MRS/UB-35/30/1A-H-GX10	0.047 kg
MASTERColour CDM-Rm Mini Elite 35W/930 GX10 25D	1	6	6	8727900912449	8727900912456	928191405330	MRS/UB-35/30/1A-H-GX10	0.047 kg
MASTERColour CDM-Rm Mini Elite 35W/930 GX10 40D	1	6	6	8727900912487	8727900912494	928191505330	MRS/UB-35/30/1A-H-GX10	0.047 kg

MASTERColour CDM-Tm Mini

Product ID	Order Code	Full Product Name	Order Product Name
MASTERColour CDM-Tm Mini GU6.5 20W/830 1CT	408500	MasterColor® CDM-Tm Mini GU6.5 20W/830 1CT	MASTERC CDM-Tm mini 20W/830 GU6.5 1CT/12
MASTERColour CDM-Tm Mini 20W/830 PGJ5 1CT	928087905130	MASTERColour CDM-Tm Mini 20W/ 830 PGJ5 1CT	MASTERC CDM-Tm Mini 20W/830 PGJ5 1CT/12
MASTERColour CDM-Tm Mini 35W/930 PGJ5 1CT	871150021149115	MASTERColour CDM-Tm Mini 35W/930 PGJ5 1CT	MASTERC CDM-Tm Mini 35W/930 PGJ5 1CT/12

Product ID	Pieces per Pack	Packing Configuration	Packs per Outerbox	Bar Code on Pack - EAN1	Bar Code on Pack - EAN3	Logistic code(s) 12NC	ILCOS code	Net Weight per Piece
MASTERColour CDM-Tm Mini GU6.5 20W/830 1CT	1	12	12	46677408503	50046677408508	928183505119	MC-20/30/1B-H-GU6.5	0.005 kg
MASTERColour CDM-Tm Mini 20W/830 PGJ5 1CT	1	12	12	8711500207517	8711500207524	928087905130	MC-20/30/1B-H-PGJ5	0.005 kg
MASTERColour CDM-Tm Mini 35W/930 PGJ5 1CT	1	12	12	8711500211491	8711500211507	928093905130	MC-35/30/1A-H-PGJ5	0.006 kg

MASTERColour CDM-TP

Product ID	Order Code	Full Product Name	Order Product Name
MASTERColour CDM-TP 70W/830 PG12-2 1CT	928086909230	MASTERColour CDM-TP 70W/830 PG12-2 1CT	MASTERC CDM-TP 70W/830 PG12-2 1CT/12
MASTERColour CDM-TP 70W/942 PG12-2 1CT	871150020113315	MASTERColour CDM-TP 70W/942 PG12-2 1CT	MASTERC CDM-TP 70W/942 PG12-2 1CT/12
MASTERColour CDM-TP 150W/830 PGX12-2 1CT	928087009230	MASTERColour CDM-TP 150W/830 PGX12-2 1CT	MASTERC CDM-TP 150W/830 PGX12-2 1CT/12
MASTERColour CDM-TP 150W/942 PGX12-2 1CT	871150020111915	MASTERColour CDM-TP 150W/942 PGX12-2 1CT	MASTERC CDM-TP 150W/942 PGX12-2 1CT/12

Product ID	Pieces per Pack	Packing Configuration	Packs per Outerbox	Bar Code on Pack - EAN1	Bar Code on Pack - EAN3	Logistic code(s) 12NC	ILCOS code	Net Weight per Piece
MASTERColour CDM-TP 70W/830 PG12-2 1CT	1	12	12	8711500201270	8711500201287	928086909230	MT-70/30/1B-H-PG12-2	0.073 kg
MASTERColour CDM-TP 70W/942 PG12-2 1CT	1	12	12	8711500201133	8711500201140	928085909230	MD-70/42/1A-H-PG12-2	0.073 kg
MASTERColour CDM-TP 150W/830 PGX12-2 1CT	1	12	12	8711500201256	8711500201263	928087009230	MT-150/30/1B-H-PG12-2	0.077 kg
MASTERColour CDM-TP 150W/942 PGX12-2 1CT	1	12	12	8711500201119	8711500201126	928086209230	MD-150/42/1A-H-PGX12-2	0.077 kg

MASTERColour CDM-TD

Product ID	Lamp Wattage	Color Code	Color Designation	Bulb	Bulb finish	Operating Position	Life to 5% failures [hrs]
MASTERColour CDM-TD 70W/830 RX7s 1CT	70	830	Warm White	T22	Clear	p45	9000 [nom]
MASTERColour CDM-TD 70W/942 RX7s 1CT	70	942	Cool White	T22	Clear	p45	9000 [nom]
MASTERColour CDM-TD 150W/830 RX7s 1CT	150	830	Warm White	T25	Clear	p45	9000 [nom]
MASTERColour CDM-TD 150W/942 RX7s 1CT	150	942	Cool White	T2	Clear	p45	9000 [nom]

Product ID	Life to 10% failures [hrs]	Life to 20% failures [hrs]	Life to 50% failures [hrs]	System Power EM [W]	System Power EL [W]	Lamp Wattage EM [W]	Mains Voltage Stable Operation [V]
MASTERColour CDM-TD 70W/830 RX7s 1CT	13000 [nom]	15000 [nom]	16000 [nom]	88 [nom]	83 [nom]	71.0 [nom]	198 [min]
MASTERColour CDM-TD 70W/942 RX7s 1CT	13000 [nom]	15000 [nom]	16000 [nom]	87 [nom]	83 [nom]	71.0 [nom]	198 [min]
MASTERColour CDM-TD 150W/830 RX7s 1CT	13000 [nom]	15000 [nom]	16000 [nom]	165 [nom]	170 [nom]	145.0 [nom]	198 [min]
MASTERColour CDM-TD 150W/942 RX7s 1CT	13000 [nom]	15000 [nom]	16000 [nom]	165 [nom]	170 [nom]	149.0 [nom]	198 [min]

Product ID	Lamp Voltage [V]	Lamp Current EM [A]	Lamp Current Run-Up [A]	Ignition Time [sec]	Run-up Time 90% [sec]	Ignition Supply Voltage [V]	Ignition Peak Voltage [V]
MASTERColour CDM-TD 70W/830 RX7s 1CT	84 [min] 92 [nom] 100 [max]	0.97 [nom]	1.4 [max]	30 [max]	3 [max]	198 [min]	5000 [max]
MASTERColour CDM-TD 70W/942 RX7s 1CT	- [min] 89 [nom] - [max]	0.99 [nom]	1.4 [max]	30 [max]	3 [max]	198 [min]	5000 [max]
MASTERColour CDM-TD 150W/830 RX7s 1CT	- [min] 96 [nom] - [max]	1.8 [nom]	2.5 [max]	30 [max]	3 [max]	198 [min]	5000 [max]
MASTERColour CDM-TD 150W/942 RX7s 1CT	- [min] 100 [nom] - [max]	1.82 [nom]	2.5 [max]	30 [max]	3 [max]	198 [min]	5000 [max]

Product ID	Re-ignition Time [min]	Dimmable	Mercury (Hg) Content [mg]	Color Rendering Index [Ra]	Color Temperature [K]	Color Temperature Technical [K]	Chromatic Coordinate X	Chromatic Coordinate Y
MASTERColour CDM-TD 70W/830 RX7s 1CT	15 [max]	No	3.7 [nom]	- [min] 82 [nom]	3000 [nom]	2990 [nom]	434 [nom]	397 [nom]
MASTERColour CDM-TD 70W/942 RX7s 1CT	15 [max]	No	4.8 [nom]	- [min] 92 [nom]	4200 [nom]	4060 [nom]	375 [nom]	364 [nom]
MASTERColour CDM-TD 150W/830 RX7s 1CT	15 [max]	No	10 [nom]	- [min] 88 [nom]	3000 [nom]	2985 [nom]	431 [nom]	390 [nom]
MASTERColour CDM-TD 150W/942 RX7s 1CT	15 [max]	No	8.4 [nom]	- [min] 96 [nom]	4200 [nom]	4240 [nom]	370 [nom]	368 [nom]

Product ID	Luminous Efficacy System EL [lm/W]	Luminous Flux Lamp [lm]	Luminous Efficacy Lamp [lm/W]	Lumen Maintenance 2000h [%]	Lumen Maintenance 5000h [%]	Lumen Maintenance 10000h [%]
MASTERColour CDM-TD 70W/830 RX7s 1CT	78 [nom]	- [min] 6500 [nom]	86 [nom]	- [min] 87 [nom]	- [min] 80 [nom]	- [min] 70 [nom]
MASTERColour CDM-TD 70W/942 RX7s 1CT	72 [nom]	- [min] 6000 [nom]	80 [nom]	- [min] 85 [nom]	- [min] 70 [nom]	- [min] 60 [nom]
MASTERColour CDM-TD 150W/830 RX7s 1CT	78 [nom]	- [min] 13250 [nom]	85 [nom]	- [min] 90 [nom]	- [min] 85 [nom]	- [min] 75 [nom]
MASTERColour CDM-TD 150W/942 RX7s 1CT	84 [nom]	- [min] 14200 [nom]	91 [nom]	- [min] 90 [nom]	- [min] 85 [nom]	- [min] 70 [nom]

MASTERColour CDM-TD 70W/830 RX7s 1CT	41 [nom]	0.23 [nom]	280 [max]	500 [max]
MASTERColour CDM-TD 70W/942 RX7s 1CT	38 [nom]	0.23 [nom]	280 [max]	500 [max]
MASTERColour CDM-TD 150W/830 RX7s 1CT	333 [nom]	0.14 [nom]	300 [max]	650 [max]
MASTERColour CDM-TD 150W/942 RX7s 1CT	150 [nom]	0.40 [nom]	300 [max]	650 [max]

MASTERColour CDM-R Elite

Product ID	Bulb	Bulb Finish	Cap Base	Burning Position	Beam Description	Colour Code	Color Designation	Lamp Wattage	Beam Angle
MASTERColour CDM-R Elite 35W/930 E27 PAR30L 10D	PAR30L	Clear	ES	Any	Spot	930	Warm white	35	10
MASTERColour CDM-R Elite 35W/930 E27 PAR30L 30D	PAR30L	Clear	ES	Any	Flood	930	Warm white	35	30
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 10D	PAR30L	Clear	ES	Any	Spot	930	Warm white	70	10
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 30D	PAR30L	Clear	ES	Any	Flood	930	Warm white	70	30
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 40D	PAR30L	Clear	ES	Any	Flood	930	Warm white	70	40

MASTERColour CDM-R Elite 35W/930 E27 PAR30L 10D	39 W [nom]	2300	80 V [min] 88 V [nom] 96 V [max]	0.450 A [nom]	No	0.443	0.398
MASTERColour CDM-R Elite 35W/930 E27 PAR30L 30D	39 W [nom]	2300	80 V [min] 88 V [nom] 96 V [max]	0.450 A [nom]	No	0.443	0.398
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 10D	73 W [nom]	5000	80 V [min] 88 V [nom] 98 V [max]	0.840 A [nom]	No	0.441	0.400
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 30D	73 W [nom]	5000	80 V [min] 88 V [nom] 98 V [max]	0.840 A [nom]	No	0.441	0.400
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 40D	73 W [nom]	5000	80 V [min] 88 V [nom] 98 V [max]	0.840 A [nom]	No	0.441	0.400

MASTERColour CDM-R Elite (cont'd)

Product ID	Color Rendering Index	Life to 10% failures	Life to 20% failures	Life to 5% failures	Life to 50% failures	Cap-Base Temperature	Bulb Temperature	Luminous Intensity	Color Temperature
MASTERColour CDM-R Elite 35W/930 E27 PAR30L 10D	Ra8 [min] 90 Ra8 [nom]	7000	9000	6000	12000	200	300	7800	3000 K [nom]
MASTERColour CDM-R Elite 35W/930 E27 PAR30L 30D	Ra8 [min] 90 Ra8 [nom]	7000	9000	6000	12000	200	300	52000	3000 K [nom]
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 10D	Ra8 [min] 90 Ra8 [nom]	7000	8000	6000	11000	200	300	70000	3000 K [nom]
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 30D	Ra8 [min] 90 Ra8 [nom]	7000	8000	6000	11000	200	300	15000	3000 K [nom]
MASTERColour CDM-R Elite 70W/930 E27 PAR30L 40D	Ra8 [min] 90 Ra8 [nom]	7000	8000	6000	11000	200	300	10000	3000 K [nom]

MASTERColour CDM-T Elite

MASTERColour CDM-T Elite 35W/930 G12 1CT	872790091137400	MASTERColour CDM-T Elite 35W/930 G12 1CT	MASTERC CDM-T Elite 35W/930 G12 1CT/12
MASTERColour CDM-T Elite 50W/930 G12 1CT	872790093060300	MASTERColour CDM-T Elite 70W/930 G12 1CT	MASTERC CDM-T Elite 50W/930 G12 1CT/12
MASTERColour CDM-T Elite 70W/930 G12 1CT	872790091141100	MASTERColour CDM-T Elite 70W/930 G12 1CT	MASTERC CDM-T Elite 70W/930 G12 1CT/12
MASTERColour CDM-T Elite 100W/930 G12 1CT	872790087169200	MASTERColour CDM-T Elite 100W/930 G12 1CT	MASTERC CDM-T Elite 100W/930 G12 1CT/12
MASTERColour CDM-T Elite 150W/930 G12 1CT	871150021312915	MASTERColour CDM-T Elite 150W/930 G12 1CT	MASTERC CDM-T Elite 150W/930 G12 1CT/12

Product ID	Pieces per Pack	Packing Configuration	Packs per Outerbox	Bar Code on Pack - EAN1	Bar Code on Pack - EAN3	Logistic code(s) 12NC	ILCOS code	Net Weight per Piece
MASTERColour CDM-T Elite 35W/930 G12 1CT	1	12	12	8727900911374	8727900911381	928185205131		0.028 kg
MASTERColour CDM-T Elite 50W/930 G12 1CT	1	12	12	8727900930603	8727900930610	928191705131	MT-50/30/1A-H-G12	0.030 kg
MASTERColour CDM-T Elite 70W/930 G12 1CT	1	12	12	8727900911411	8727900911428	928185305131		0.029 kg
MASTERColour CDM-T Elite 100W/930 G12 1CT	1	12	12	8727900871692	8727900871708	928183205125	MT-100/30/1A-H-G12	0.030 kg
MASTERColour CDM-T Elite 150W/930 G12 1CT	1	12	12	8711500213129	8711500213136	928094705125	MT-150/30/1A-H-G12	0.031 kg

MASTERColour CDM-TC Elite

Product ID	Bulb	Bulb Material	Bulb Finish	Cap Base	Burning Position	Color code
MASTER Colour CDM-TC Elite35W/930 G8.5 1CT	T14	-	Clear	G8.5	Any	930
MASTER Colour CDM-TC Elite50W/930 G8.5 1CT	T14	UV-Block Quartz	Clear	G8.5	Any	930
MASTER Colour CDM-TC Elite70W/930 G8.5 1CT	T14	-	Clear	G8.5	Any	930

Product ID	Color Designation	Lamp Wattage	Lamp Wattage (EL)	Lamp Luminous Flux (EL)	Lamp Voltage	Lamp Current (EL)	Dimmable
MASTER Colour CDM-TC Elite35W/930 G8.5 1CT	Warm white	35	39	4000	84	0.47	No
MASTER Colour CDM-TC Elite50W/930 G8.5 1CT	Warm white	50	51	5400	90	0.59	No
MASTER Colour CDM-TC Elite70W/930 G8.5 1CT	Warm white	70	73	7800	84	0.89	No

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Color Rendering Index	Bulb Temperature	Lamp Luminous Efficacy (EL)	Color Temperature	Lumen Maintenance EL 10000h
MASTER Colour CDM-TC Elite35W/930 G8.5 1CT	0.435	0.396	87 (min), 90 (nom)	500	102	3000	83
MASTER Colour CDM-TC Elite50W/930 G8.5 1CT	0.435	0.396	87 (min), 90 (nom)	550	106	3000	83
MASTER Colour CDM-TC Elite70W/930 G8.5 1CT	0.435	0.396	88 (min), 91 (nom)	550	106	3000	83

Product ID	Life to 50% failures (EL)	Lumen Maintenance EL 5000h	Lumen Maintenance EL 2000h	Design Mean Lumens	Mercury Content (Hg)	Life to 5% failures (EL)	Life to 20% failures (EL)
MASTER Colour CDM-TC Elite35W/930 G8.5 1CT	-	88	94	3520	4.7	-	-
MASTER Colour CDM-TC Elite50W/930 G8.5 1CT	15000	88	94	4750	6.4	7500	11000
MASTER Colour CDM-TC Elite70W/930 G8.5 1CT	-	88	94	6860	6.5	-	-

Product ID	Life to 10% failures (EL)	Code 12NC
MASTER Colour CDM-TC Elite35W/930 G8.5 1CT	-	911497 00
MASTER Colour CDM-TC Elite50W/930 G8.5 1CT	9000	930627 00
MASTER Colour CDM-TC Elite70W/930 G8.5 1CT	-	911534 00

MASTERColour CDM-EP

Product ID	Cap Base	Bulb Finish	Burning Position	Lamp Wattage (W)	Lamp Current EM (A)	Lamp Voltage (V)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Color Rendering Index (Ra)	Color Code
CDM-EP 70W/940 E27CO 1SL	ES	Coated	vbu/vbd	70	0.98	90	378	368	90	940
CDM-EP 100W/940 E27CO 1SL	ES	Coated	vbu/vbd	100	1.2	104	378	368	90	940
CDM-EP 150W/940 E27CO 1SL	ES	Coated	vbu/vbd	150	1.8	95	373	369	90	940
CDM-EP 70W/940 E27CL 1SL	ES	Clear	vbu/vbd	70	0.98	90	380	375	94	940
CDM-EP 100W/940 E27CL 1SL	E27	Clear	vbu/vbd	100	1.2	104	380	368	90	940
CDM-EP 150W/940 E27CL 1SL	ES	Clear	vbu/vbd	150	1.8	95	373	369	90	940
CDM-EP 250W/840 E40CO 1CT	GES	Coated	vbu/vbd	250	3	103	380	373	-	840
CDM-EP 400W/840 E40CO 1CT	GES	Coated	vbu/vbd	400	4.8	90	372	376	-	840

Product ID	Color Temperature (K)	Cap Base Temperature	Bulb Temperature (C)	Life to 50% Failures (hrs)	Lumen Maintenance 2000h (%)	Lumen Maintenance 5000h (%)	Luminous Efficacy Lamp (Lm/W)	Code 12NC
CDM-EP 70W/940 E27CO 1SL	4000	190	400	10000	80	70	80	928410100092
CDM-EP 100W/940 E27CO 1SL	4000	190	400	10000	80	70	82	928410300092
CDM-EP 150W/940 E27CO 1SL	4150	190	400	10000	80	70	83.89	928410500092
CDM-EP 70W/940 E27CL 1SL	3800	190	400	10000	80	-	80	928410000092
CDM-EP 100W/940 E27CL 1SL	3950	190	400	10000	80	70	82	928410200092
CDM-EP 150W/940 E27CL 1SL	4150	190	400	10000	80	70	83.89	928410400092
CDM-EP 250W/840 E40CO 1CT	3900	210	350	20000	90	80	80	928489800092
CDM-EP 400W/840 E40CO 1CT	4200	210	350	15000	85	-	89	928489900091

MASTERColour CDM-R Mini

Product ID	Cap Base	Bulb	Burning Position	Color Code	Lamp Wattage (W)	Beam Angle (D)	Lamp Wattage EL	Lamp Luminous Flux EL (Lm)	Lamp Voltage	Lamp Current EL
MASTERColour CDM-R Mini 20W/830 GX10 MR16 10D 1CT	GX10	MR16	Any	830	20	10	22	1060	103	0.215
MASTERColour CDM-R Mini 20W/830 GX10 MR16 25D 1CT	GX10	MR16	Any	830	20	25	22	1600	103	0.215
MASTERColour CDM-R Mini 20W/830 GX10 MR16 40D 1CT	GX10	MR16	Any	830	20	40	22	1600	103	0.215

Product ID	Dimmable	Chromaticity Coordinate X	Chromaticity Coordinate Y	Color Rendering Index (Ra8)	Life to 10% failures	Life to 20% failures	Life to 5% failures	Life to 50% failures	Cap-Base Temperature
MASTERColour CDM-R Mini 20W/830 GX10 MR16 10D 1CT	No	0.434	0.395	80 (min), 87 (nom)	7000	8000	6000	12000	200
MASTERColour CDM-R Mini 20W/830 GX10 MR16 25D 1CT	No	0.434	0.395	80 (min), 87 (nom)	7000	8000	6000	12000	200
MASTERColour CDM-R Mini 20W/830 GX10 MR16 40D 1CT	No	0.434	0.395	80 (min), 87 (nom)	7000	8000	6000	12000	200

Product ID	Bulb Temperature	Luminous Intensity (cd)	Color Temperature	Mercury (Hg) Content	Code 12NC
MASTERColour CDM-R Mini 20W/830 GX10 MR16 10D 1CT	300	11000	3000	24	800012 00
MASTERColour CDM-R Mini 20W/830 GX10 MR16 25D 1CT	300	3500	3000	24	800036 00
MASTERColour CDM-R Mini 20W/830 GX10 MR16 40D 1CT	300	1700	3000	24	800050 00

MASTERColour CDM-TP MW Elite

Product ID	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap/ Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp (lm)
CDM-TP MW Elite 210W/930	210	2.1	100	PGZX18	3000	85 (min), 90 (nom)	0.433 -	0.399 -	Clear	23100
CDM-TP MW Elite 210W/942	210	2.0	105	PGZX18	4200	85 (min), 92 (nom)	0.373 -	0.371 -	Clear	22100
CDM-TP MW Elite 315W/930	315	3.15	100	PGZX18	3000	85 (min), 90 (nom)	0.433 -	0.399 -	Clear	36200
CDM-TP MW Elite 315W/942	315	3.15	100	PGZX18	4200	85 (min), 90 (nom)	0.373 -	0.371 -	Clear	34700

MASTERColour CDM-TP MW Elite (cont'd)

Product ID	Luminous Efficacy Lamp (lm/W)	Operating Position	Ignition Time max. (sec)	Re-ignition Time max. (min)	Run-up Time 90% max. (min)	Cap-Base Temperature max. (°C)	Bulb Temperature max. (°C)	Pinch Temperature max. (°C)	Net Weight Per Piece (g)	12NC
CDM-TP MW Elite 210W/930	110	Any	3	10	1.5	250	350	300	225	928601167030
CDM-TP MW Elite 210W/942	105	Any	3	10	1.5	250	350	300	225	928601167230
CDM-TP MW Elite 315W/930	115	Any	3	10	1.5	250	350	300	241	928601167130
CDM-TP MW Elite 315W/942	110	Any	3	10	3	250	350	300	241	928601167330

MASTERColour CDM-T Elite Med Wattage

Product ID	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap/Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish
CDM-T MW Elite 210W/930	210	2.1	100	PGZ18	3000	85 (min), 90 (nom)	0.433 -	0.399 -	Clear
CDM-T MW Elite 210W/942	210	2.1	98	PGZ18	4200	85 (min), 92 (nom)	0.373 -	0.371 -	Clear
CDM-T MW Elite 315W/930	315	3.15	100	PGZ18	3000	87 (min), 90 (nom)	0.433 -	0.399 -	Clear
CDM-T MW Elite 315W/942	315	3.15	100	PGZ18	4200	85 (min), 90 (nom)	0.373 -	0.371 -	Clear

Product ID	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm/W)	Operating Position	Ignition Time max. (sec)	Re-ignition Time max. (min)	Run-up Time 90% max. (min)	Cap-Base Temperature max. (°C)	Bulb Temperature max. (°C)	Pinch Temperature max. (°C)	12NC
CDM-T MW Elite 210W/930	-	115	Any	3	10	1.5	250	600	300	928601164701
CDM-T MW Elite 210W/942	-	-	Any	3	10	1.5	250	600	-	928601164901
CDM-T MW Elite 315W/930	-	115	Any	3	10	1.5	250	350	300	928601164801
CDM-T MW Elite 315W/942	-	110	Any	3	10	3	250	350	300	928601164601

MasterColour CDM-ET

Product ID	Lamp Wattage EM (W)	Lamp Current EM/CuFe (A)	Lamp Voltage (V)	Mains Voltage Stable Operation (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)
MASTERColourCity CDM-ET 70W/830 E27	72	0.98	90	198	E27	3000	81
MASTERColourCity CDM-ET 150W/830 E40	148	1.8	100	198	E40	3000	85

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Operating Position
MASTERColourCity CDM-ET 70W/830 E27	430	400	Coated	5900	82	ANY
MASTERColourCity CDM-ET 150W/830 E40	443	401	Coated	13500	91	ANY

Product ID	Ignition Peak Voltage (V)	Ignition Supply Voltage (V)	Cap Base Temperature	Bulb Temperature	Nett Weight Product In Grams (gr)	Comm Code
MASTERColourCity CDM-ET 70W/830 E27	2500	198	200	350	60	CDMET70W830
MASTERColourCity CDM-ET 150W/830 E40	5000	198	250	350	165	CDMET150W830

MASTERColour CDM-TT

Product ID	Bulb	Bulb Finish	Cap Base	Operating Position	Color Code	Color Designation (text)	Lamp Wattage (W)	Lamp Voltage (V)	Lamp Current EM (A)	Dimmable
MASTERColour CDM-TT 70W/830 E27 1SL	T31	Clear	E27	ANY	830	Warm White	70	90	1	No
MASTERColour CDM-TT 150W/830 E40 1SL	T46	Clear	E40	ANY	830	Warm White	150	104	1.8	No
MASTERColour CDM-TT 70W/942 E27 1SL	T31	Clear	E27	ANY	942	Cool White	70	91	0.970	No
MASTERColour CDM-TT 150W/942 E40 1SL	T46	Clear	E40	ANY	942	Cool White	150	93	1850	No
MASTERColour CDM-TT 250W/840 E40 1CT	T46	Clear	GES	ANY	840	Cool White	250	100	3	No
MASTERColour CDM-TT 400W/840 E40 1CT	T46	Clear	GES	ANY	840	Cool White	400	95	4.6	No

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Color Rendering Index (Ra)	Life to 10% Failures (hrs)	Life to 20% Failures (hrs)	Life to 5% Failures (hrs)	Life to 50% Failures (hrs)	Cap Base Temperature	Bulb Temperature
MASTERColour CDM-TT 70W/830 E27 1SL	430	400	83	10000	13000	8000	18000	200	350
MASTERColour CDM-TT 150W/830 E40 1SL	440	400	85	12000	15000	10000	20000	250	450
MASTERColour CDM-TT 70W/942 E27 1SL	369	370	90	10000	13000	8000	18000	200	350
MASTERColour CDM-TT 150W/942 E40 1SL	386	369	90	12000	15000	10000	20000	250	450
MASTERColour CDM-TT 250W/840 E40 1CT	381	362	85	-	10000	5000	16000	250	450
MASTERColour CDM-TT 400W/840 E40 1CT	378	367	85	-	-	3000	9000	250	530

Product ID	Color Temperature (K)	Mercury (Hg) Content	Lum Efficacy Rated EM 25°C	LLMF EM 20000h Rated	LLMF EM 16000h Rated	LLMF EM 12000h Rated	LLMF EM 8000h Rated	LLMF EM 6000h Rated	LLMF EM 4000h Rated
MASTERColour CDM-TT 70W/830 E27 1SL	3000	4.58	88	55	58	63	69	73	78
MASTERColour CDM-TT 150W/830 E40 1SL	3000	15.1	95	62	65	68	73	76	81
MASTERColour CDM-TT 70W/942 E27 1SL	4200	6.1	85	55	58	61	66	69	73
MASTERColour CDM-TT 150W/942 E40 1SL	4200	12	83	-	60	66	72	76	81
MASTERColour CDM-TT 250W/840 E40 1CT	4000	3.6	-	-	-	-	-	-	-
MASTERColour CDM-TT 400W/840 E40 1CT	4000	4.5	-	-	-	-	-	-	-

Master CosmoWhite CPO-TW

Product ID	Lamp Wattage (W)	Lamp Wattage EM (W)	Lamp Current Em (A)	Lamp Voltage (V)	Mains Voltage Stable Operation (V)	Cap Base
MASTER CosmoWhite CPO-TW 45W/628 PGZ12 1CT	45	45	-	90	-	PGZ12
MASTER CosmoWhite CPO-TW 60W/728 PGZ12 1CT	60	60	0.652	92	200	PGZ12
MASTER CosmoWhite CPO-TW 90W/728 PGZ12 1CT	90	90	0.970	92	-	PGZ12
MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	140	140	1.490	94	200	PGZ12
MASTER CosmoWhite CPO-TW 60W/840 PGZ12	60	60	0.64	94	-	PGZ12
MASTER CosmoWhite CPO-TW 90W/840 PGZ12	90	90	0.95	96	-	PGZ12
MASTER CosmoWhite CPO-TW 140W/840 PGZ12	140	140	1.48	96	-	PGZ12

Master CosmoWhite CPO-TW (cont'd)

Product ID	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp (lm)
MASTER CosmoWhite CPO-TW 45W/628 PGZ12 1CT	2720	60	458	409	Clear	-
MASTER CosmoWhite CPO-TW 60W/728 PGZ12 1CT	2750	72	453	406	Clear	6800
MASTER CosmoWhite CPO-TW 90W/728 PGZ12 1CT	2750	66	454	406	Clear	-
MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	2860	66	444	401	Clear	16500
MASTER CosmoWhite CPO-TW 60W/840 PGZ12	4000	80	-	-	Clear	6600
MASTER CosmoWhite CPO-TW 90W/840 PGZ12	4000	80	392	397	Clear	10350
MASTER CosmoWhite CPO-TW 140W/840 PGZ12	4000	80	-	-	Clear	16100

Product ID	Luminous Efficacy Lamp EM (lm/W)	Cap Base Temperature (°C)	Ignition Supply Voltage (V)	Ignition Peak Voltage (V)	Nett Weight Product In Grams (gr)	Comm Code
MASTER CosmoWhite CPO-TW 45W/628 PGZ12 1CT	-	250	-	5000	34	871150021119415
MASTER CosmoWhite CPO-TW 60W/728 PGZ12 1CT	114	300	160	5000	34	871150020851415
MASTER CosmoWhite CPO-TW 90W/728 PGZ12 1CT	-	250	-	5000	37	871150021121715
MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	118	300	160	5000	40	CPOTWHITE140W728
MASTER CosmoWhite CPO-TW 60W/840 PGZ12	110	250	-	5000	-	871829113793100
MASTER CosmoWhite CPO-TW 90W/840 PGZ12	110	250	-	5000	-	871829113789400
MASTER CosmoWhite CPO-TW 140W/840 PGZ12	115	250	-	5000	-	871829113791700

MASTER SDW-T White Son

Product ID	Lamp Wattage EM (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)
MASTER SDW-T 35W/825 PG12-1 SLV	33	0.48	96	PG12-1	2500	83
MASTER SDW-T 50W/825 PG12-1 SLV	53	0.76	92	PG12-1	2500	83
MASTER SDW-T 100W/825 PG12-1 SLV	97	1.31	98	PG12-1	2500	83

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp EM (lm/W)	Operating Position
MASTER SDW-T 35W/825 PG12-1 SLV	479	417	Clear	1300	40	ANY
MASTER SDW-T 50W/825 PG12-1 SLV	471	409	Clear	2300	44	ANY
MASTER SDW-T 100W/825 PG12-1 SLV	464	404	Clear	5000	52	ANY

Product ID	Ignition Peak Voltage (V)	Cap Base Temperature (°C)	Bulb Temperature (°C)	Nett Weight Product In Grams (gr)	Comm Code
MASTER SDW-T 35W/825 PG12-1 SLV	5000	120	350	53	SDWT35W825
MASTER SDW-T 50W/825 PG12-1 SLV	5000	120	350	53	SDWT50W825
MASTER SDW-T 100W/825 PG12-1 SLV	5000	120	450	53	SDWT100W825

SDW-TG Mini White Son

Product ID	Lamp Wattage EL (W)	Lamp Current EL (A)	System Power EL (W)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SDW-TG 50W/825 GX12-1 1CT	54	0.65	62	85	GX12-1	2550	81	468	408
MASTER SDW-TG 100W/825 GX12-1 1CT	99	1.10	112	91	GX12-1	2550	83	469	406

Product ID	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm/W)	Operating Position	Ignition Peak Voltage	Ignition Time max. (sec)	Run-up Time 90% max. (min)	Cap-Base Temperature max. (°C)
MASTER SDW-TG 50W/825 GX12-1 1CT	Clear	2400	44	ANY	4000	60	2	280
MASTER SDW-TG 100W/825 GX12-1 1CT	Clear	4900	50	ANY	4000	60	2	280

Product ID	Bulb Temperate max. (°C)	Pinch Temperature max. (°C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER SDW-TG 50W/825 GX12-1 1CT	500	350	28	SDWTG50W
MASTER SDW-TG 100W/825 GX12-1 1CT	650	350	35	SDWTG100W

MHN-TD Low Wattage

Product ID	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MHN-TD 70W/730	70	0.98	90	R x 7s	3000	70	434	400
MHN-TD 150W/730	150	1.8	96	R x 7s	3000	70	434	400
MHN-TD 70W/842	70	0.98	90	R x 7s	4200	80	370	370
MHN-TD 150W/842	150	1.8	98	R x 7s	4200	85	370	370
MHN-TD 70W/852	70	0.98	98	R x 7s	5200	80	330	340
MHN-TD 150W/852	150	1.8	98	R x 7s	5200	85	330	340
MHN-TD Pro250W/842	250	3	100	R x 7s	4200	80	370	370

Product ID	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy (lm)	Operating Position	Ignition Peak Voltage (V)	Cap-Base Temperature max. (°C)	Permitted Bulb Temperature (°C)	Nett Weight Product in Grams (gr)	Comm Code
MHN-TD 70W/730	Clear	6200	80	Horizontal +/- 45°	5000	280	500	20	MHNTD70W730
MHN-TD 150W/730	Clear	13800	87	Horizontal +/- 45°	5000	280	650	30	MHNTD150W730
MHN-TD 70W/842	Clear	5700	75	Horizontal +/- 45°	5000	280	500	20	MHNTD70W842
MHN-TD 150W/842	Clear	12900	81	Horizontal +/- 45°	5000	280	650	30	MHNTD150W842
MHN-TD 70W/852	Clear	5000	65	Horizontal +/- 45°	5000	280	500	20	MHNTD70W852
MHN-TD 150W/852	Clear	11000	73	Horizontal +/- 45°	5000	280	650	30	MHNTD150W852
MHN-TD Pro250W/842	Clear	20000	80	Horizontal +/- 45°	5000	280	650	54	MHNTD250W842

Product ID	12NC (Logistic Code)	ILCOS code	Nett Weight (Kg)	Cap Base	Cap-Base Information	Bulb Finish	Operating Position	Life to 5% Failures (hrs)	Life to 10% Failures (hrs)
MASTER MHN-FC 1000W/740 230V XW UNP	9280 757 05130	MD-1000/40/2B-H-XW	0.140	Double Ended	Cable	Clear	p5 [Parallel +/-5D or Horizontal(HOR)]	7000	8000
MASTER MHN-FC 1000W/750 230V XW UNP	9280 703 05130	MD-1000/50/2B-H-XW	0.140	Double Ended	Cable	Clear	p5 [Parallel +/-5D or Horizontal(HOR)]	3000	4000
MASTER MHN-FC 2000W/740 400V XW UNP	9280 704 05130	MD-2000/40/2B-H-XW	0.190	Double Ended	Cable	Clear	p5 [Parallel +/-5D or Horizontal(HOR)]	7000	8000

MASTER MHN-FC (cont'd)

Product ID	Life to 20% Failures (hrs)	Life to 50% Failures (hrs)	Lamp Wattage (W)	Lamp Wattage EM (W)	Voltage (V)	Mains Voltage Stable Operation (V)	Lamp Voltage (V)	Lamp Current EM (A)	Lamp Current Run-Up (A)	Ignition Supply Voltage (V)	Dimmable
MASTER MHN-FC 1000W/740 230V XW UNP	9500	12000	1000	1040	230	198	130	8.9	12.5	198	No
MASTER MHN-FC 1000W/750 230V XW UNP	6000	10000	1000	1035	230	198	125	9	15	198	No
MASTER MHN-FC 2000W/740 400V XW UNP	9500	14000	2000	2032	400	342	222	10.11	15	342	No

Product ID	Mercury (Hg) Content (mg)	Color Code	Color Rendering Index (Ra)	Color Designation (text)	Color Temperature (K)	Color Temperature Technical (K)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Luminous Flux Lamp EM (Lm)
MASTER MHN-FC 1000W/740 230V XW UNP	85	740 (CCT of 4000K)	65	White	4100	4100	374	366	93000
MASTER MHN-FC 1000W/750 230V XW UNP	85	750 (CCT of 5000K)	63	Cool White	5500	5500	333	347	81000
MASTER MHN-FC 2000W/740 400V XW UNP	105	740 (CCT of 4000K)	62	White	4200	4200	380	419	210000

Product ID	Luminous Efficacy Lamp EM (Lm/W)	Lumen Maintenance 5000h	Lumen Maintenance 10000h	Luminance Average EM	Lumen Maintenance 1000h	Lumen Maintenance 14000h	PET (NIOSH)	Damage Factor D/fc	UV A	UV B	UV C
MASTER MHN-FC 1000W/740 230V XW UNP	91	75%	70%	2100 cd/cm²	90%	- %	0.049 h.klx	3.4	807 mW/cm²	230 mW/cm²	122 mW/cm²
MASTER MHN-FC 1000W/750 230V XW UNP	80	65%	50%	2000 cd/cm²	- %	- %					
MASTER MHN-FC 2000W/740 400V XW UNP	102	75%	70%	1500 cd/cm²	90%	45%	0.030 h.klx	3.6	1823 mW/cm²	492 mW/cm²	532 mW/cm²

Product ID	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Main Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER MHN-SA 1800W/956 (P)SFC 230V	1800	17.3	120	230	(P)SFC	5600	90	330	339
MASTER MHN-SA 1800W/956 X830R 230V	1800	17.3	120	230	X830R	5600	90	330	339
MASTER MHN-SA 1800W/956 (P)SFC 400V	1800	10.5	205	400	(P)SFC	5600	90	330	339
MASTER MHN-SA 2000W/956 X830R 400V	2040	11.3	205	400	X830R	5600	90	330	362

Product ID	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm)	Luminous Average EM (cd/cm²)	Operating Position	Ignition Supply Voltage min. (V)	Bulb Temperature max. (°C)	Pinch Temperature max. (°C)	Nett Weight Per Piece (gr)	Comm Code
MASTER MHN-SA 1800W/956 (P)SFC 230V	Clear	155000	86	6500	P15	198	980	300	245	MHNSA1800W230V956P
MASTER MHN-SA 1800W/956 X830R 230V	Clear	155000	86	6500	P15	198	980	300	110	MHNSA1800W230V956
MASTER MHN-SA 1800W/956 (P)SFC 400V	Clear	160000	86	6700	P15	342	980	300	245	MHNSA1800W400V956P
MASTER MHN-SA 2000W/956 X830R 400V	Clear	200000	86	7500	P15	360	980	300	110	MHNSA2000W400V956

MHN-LA

Product ID	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Main Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER MHN-LA 1000W/842 230V	1040	9.3	125	230	Cable	4200	80	370	370
MASTER MHN-LA 1000W/956 230V	1040	9.3	125	230	Cable	5600	90	330	339
MASTER MHN-LA 2000W/842 400V	2040	9.6	235	400	Cable	4200	80	370	370
MASTER MHN-LA 2000W/956 400V	2040	10.3	235	400	Cable	5600	90	330	339

Product ID	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm)	Luminous Average EM (cd/cm²)	Operating Position	Ignition Supply Voltage min. (V)	Bulb Temperature max. (°C)	Pinch Temperature max. (°C)	Nett Weight Per Piece (gr)	Comm Code
MASTER MHN-LA 1000W/842 230V	Clear	100000	96.2	2200	P5	198	920	350	141	MHNLA1000W230V842
MASTER MHN-LA 1000W/956 230V	Clear	90000	86.5	1600	P5	198	920	350	137	MHNLA1000W230V956
MASTER MHN-LA 2000W/842 400V	Clear	220000	108.0	1500	P5	342	920	350	172	MHNLA2000W400V842
MASTER MHN-LA 2000W/956 400V	Clear	190000	93.0	1300	P5	342	920	350	168	MHNLA2000W400V956

Product ID	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Main Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MHN-SB Pro 2000W/956 Cable 400V	2040	11.5 A (nom)	205	400	Cable	5600	90	325 (nom)	355 (nom)

Product ID	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm)	Luminous Average EM (cd/cm²)	Operating Position	Ignition Supply Voltage min. (V)	Bulb Temperature max. (°C)	Pinch Temperature max. (°C)	Nett Weight Per Piece (gr)	Comm Code
MHN-SB Pro 2000W/956 Cable 400V	Clear	200000	100	7500	P15	360	950	420	80	871150020673200

HPI-T High Wattage

Product ID	Rated Lamp Wattage (W)	Lamp Wattage EM (W)	Lamp Current EL (A)	Lamp Voltage (V)	Voltage (V)	Mains Voltage Stable Operation (V)	Cap Base
HPI-T 1000W/643 E40 SLV	1000	985	8.25	130	220	198	E40
HPI-T 2000W/642 E40 380V CRP	2000	1955	9.1	232	380	330	E40
HPI-T 2000W/646 E40 220V CRP	2000	1960	16.5	130	220	200	E40

Product ID	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm/W)
HPI-T 1000W/643 E40 SLV	4300	65	370	380	Clear	50000	86
HPI-T 2000W/642 E40 380V CRP	3800	65	397	403	Clear	210000	107
HPI-T 2000W/646 E40 220V CRP	4200	65	375	385	Clear	189000	96

Product ID	Ignition Peak Voltage (V)	Ignition Supply Voltage (V)	Cap Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
HPI-T 1000W/643 E40 SLV	750	198	300	600	420	HPIT1000WGES
HPI-T 2000W/642 E40 380V CRP	5000	342	300	600	600	HPIT2000W642380V
HPI-T 2000W/646 E40 220V CRP	5000	198	300	600	580	HPIT2000W646220V

Product ID	Rated Lamp Wattage (W)	Lamp Current EL (A)	Lamp Voltage (V)	Mains Voltage Stable Operation (V)	Cap Base	Color Temperature HPL/SON (K)	Color Rendering Index (Ra)
MASTER HPI Plus 250W/745 BU E40 SLV	250	2.2	128	198	E40	4500/40000	69
MASTER HPI Plus 250W/745 BU-P E40 CRP	250	2.2	128	198	E40	4500/40000	69
MASTER HPI Plus 250W/767 BU E40 CRP	250	2.2	128	198	E40	6700/5400	69
MASTER HPI Plus 400W/745 BU E40 SLV	400	3.4	125	198	E40	6700/5400	69
MASTER HPI Plus 400W/745 BU-P E40 CRP	400	3.4	125	198	E40	4500/40000	69
MASTER HPI Plus 400W/745 BUS E40 SLV	400	3.4	125	198	E40	4500/40000	69
MASTER HPI Plus 400W/745 HOR E40 CRP	400	3.4	125	198	E40	4500/40000	69
MASTER HPI Plus 400W/767 BU E40 CRP	400	3.4	125	198	E40	4500/40000	69
MASTER HPI Plus 400W/745 BUS-P E40 CRP	400	3.4	125	198	E40	6700/5400	69

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp EM/Cu Fe HPL/SON (lm)	Luminous Efficacy Lamp EM (lm/W)	Lamp Current Run-Up (A)	Ignition Peak Voltage HPL/SON (V)
MASTER HPI Plus 250W/745 BU E40 SLV	359	354	Coated	18000/25500	72	3.9	750/5000
MASTER HPI Plus 250W/745 BU-P E40 CRP	380	354	Coated	18000/25500	72	3.9	750/5000
MASTER HPI Plus 250W/767 BU E40 CRP	308	318	Coated	18000/25500	72	3.9	750/5000
MASTER HPI Plus 400W/745 BU E40 SLV	380	374	Coated	35000/42500	82	6	750/5000
MASTER HPI Plus 400W/745 BU-P E40 CRP	360	362	Coated	35000/42500	82	6	750/5000
MASTER HPI Plus 400W/745 BUS E40 SLV	360	362	Coated	35000/42500	82	6	NA
MASTER HPI Plus 400W/745 HOR E40 CRP	361	367	Coated	30000/35000	77	6	750/5000
MASTER HPI Plus 400W/767 BU E40 CRP	308	318	Coated	30000/32500	82	6	750/5000
MASTER HPI Plus 400W/745 BUS-P E40 CRP	360	362	Coated	30000/32500	82	6	NA

Product ID	Ignition Supply Voltage (V)	Cap Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER HPI Plus 250W/745 BU E40 SLV	198	250	350	185	HPIPLUS250WBUGES
MASTER HPI Plus 250W/745 BU-P E40 CRP	198	250	260	190	HPIPLUS250WBUSPGES
MASTER HPI Plus 250W/767 BU E40 CRP	198	250	350	250	HPIPLUS250W767BU
MASTER HPI Plus 400W/745 BU E40 SLV	198	250	350	265	HPIPLUS400WBUGES
MASTER HPI Plus 400W/745 BU-P E40 CRP	198	250	260	240	HPIPLUS400WBUPGES
MASTER HPI Plus 400W/745 BUS E40 SLV	198	250	350	265	HPIPLUS400WBUSGES
MASTER HPI Plus 400W/745 HOR E40 CRP	198	250	350	245	HPIPLUS400WHORGES
MASTER HPI Plus 400W/767 BU E40 CRP	198	250	350	250	HPIPLUS400W767BU
MASTER HPI Plus 400W/745 BUS-P E40 CRP	198	250	260	240	HPIPLUS400WBUSPGES

MASTER HPI-T PLUS

Product ID	Rated Lamp Wattage (W)	Lamp Wattage EM (W)	Lamp Current EL (A)	Lamp Voltage (V)	Mains Voltage Stable Operation (V)	Cap Base	Color Temperature HPL system (K)
MASTER HPI-T Plus 250W/645 E40 SLV	250	245	2.1/2.5	128	198	E40	4500
MASTER HPI-T Plus 400W/645 E40 SLV	400	382	3.4/3.8	125	198	E40	4500

Product ID	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp EM/CuFe HPL/SON (lm)	Luminous Efficacy Lamp (lm/W)	Lamp Current Run-Up (A)
MASTER HPI-T Plus 250W/645 E40 SLV	65	362	373	Clear	18000/25000	84	3.9
MASTER HPI-T Plus 400W/645 E40 SLV	65	362	370	Clear	35000/42500	89	6

MASTER HPI-T PLUS (cont'd)

Product ID	Ignition Peak Voltage HPL/SON (V)	Ignition Supply Voltage min. (V)	Cap Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER HPI-T Plus 250W/645 E40 SLV	750	198	250	550	180	HPITPLUS250WGES
MASTER HPI-T Plus 400W/645 E40 SLV	5000	198	250	600	185	HPITPLUS400WGES

MH-T Artcolour

Product ID	Rated Lamp Wattage (W)	Lamp Voltage (W)	Cap Base	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish
Artcolour MH-T 400W Blue E40 SLV	400	120	E40	210	160	Clear
Artcolour MH-T 400W Green E40 SLV	400	120	E40	240	600	Clear
Artcolour MH-T 400W Red E40 SLV	400	120	E40	360	250	Clear
Artcolour MH-T 400W Violet E40 SLV	400	120	E40	300	190	Clear

Product ID	Luminous Flux Lamp EM/CuFe (lm)	Lamp Current Run-Up (A)	Ignition Supply Voltage (V)	Nett Weight Product in Grams (gr)	Comm Code
Artcolour MH-T 400W Blue E40 SLV	10000	3.4	198	217	MHTBU400WGES
Artcolour MH-T 400W Green E40 SLV	30000	3.4	198	217	MHTGR400WGES
Artcolour MH-T 400W Red E40 SLV	18000	6	198	217	MHTRE400WGES
Artcolour MH-T 400W Violet E40 SLV	10000	3.4	198	217	MHTVI400WGES

MH-NaSc

Product ID	Rated Lamp Wattage (W)	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Mains Voltage Stable Operation (V)	Cap Base	Color Temperature (K)
MH 70W/640 E27 CL SLV	70	70	0.98	85	198	E27	40000
MH 70W/640 E27 P CL SLV	70	70	0.98	85	198	E27	3700
MH 100W/640 E27 CL SLV	100	100	1.1	100	198	E27	4000
MH 100W/640 E27 P CL SLV	100	100	1.1	100	198	E27	4000
MH 150W/640 E27 CL SLV	150	150	1.8	95	198	E27	4000
MH 175W/637 E40 CO U SLV	175	175	1.5	132	198	E40	3700
MH 175W/640 E40 CL U SLV	175	175	1.5	132	198	E40	4300
MH 250W/637 E40 CO U SLV	250	250	2.1	133	198	E40	4000
MH 250W/640 E40 CL U SLV	250	250	2.1	133	198	E40	4000
MH 400W/637 E40 CO U SLV	400	400	3.25	135	198	E40	3700
MH 400W/640 E40 CL U SLV	400	400	3.25	135	198	E40	4000

Product ID	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp EM (lm/W)	Lamp Current Run-Up (A)
MH 70W/640 E27 CL SLV	60	390	380	Clear	5600	80	1.5
MH 70W/640 E27 P CL SLV	60	395	390	Clear	5600	80	1.5
MH 100W/640 E27 CL SLV	65	375	385	Clear	9000	90	1.5
MH 100W/640 E27 P CL SLV	65	380	380	Clear	9000	90	1.5
MH 150W/640 E27 CL SLV	65	385	390	Clear	13500	90	3
MH 175W/637 E40 CO U SLV	60	396	389	Coated	12350	70.6	2.5
MH 175W/640 E40 CL U SLV	60	375	390	Clear	14000	80	2.5
MH 250W/637 E40 CO U SLV	61	405	395	Coated	19000	76	3.5
MH 250W/640 E40 CL U SLV	60	390	390	Clear	20500	82	3.5

MH-NaSc (cont'd)

Product ID	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp EM (lm/W)	Lamp Current Run-Up (A)
MH 400W/637 E40 CO U SLV	61	405	395	Coated	33400	83.5	5
MH 400W/640 E40 CL U SLV	60	390	390	Clear	36000	90	5

Product ID	Ignition Peak Voltage (V)	Ignition Supply Voltage (V)	Cap Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MH 7 0W/640 E27 CL SLV	4000	198	250	450	70	MH70WES
MH 70W/640 E27 P CL SLV	4000	198	250	450	80	MH70WPES
MH 100W/640 E27 CL SLV	4000	198	250	450	70	MH100WES
MH 100W/640 E27 P CL SLV	4000	198	250	450	80	MH100WPES
MH 150W/640 E27 CL SLV	4000	198	250	450	70	MH150WES
MH 175W/637 E40 CO U SLV	NA	198	210	400	163	MH175WUGESCO
MH 175W/640 E40 CL U SLV	NA	198	210	400	163	MH175WUGES
MH 250W/637 E40 CO U SLV	NA	198	210	400	165	MH250WUGESCO
MH 250W/640 E40 CL U SLV	NA	198	210	400	165	MH250WUGES
MH 400W/637 E40 CO U SLV	NA	198	210	400	230	MH400WUGESCO
MH 400W/640 E40 CL U SLV	NA	198	210	400	230	MH400WUGES

MASTER SON PIA

Product ID	Lamp Wattage EM (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SON PIA 50W E E27 SLV	50	0.76	90	E27	2000	25	540	415
MASTER SON PIA 70W E E27 SLV	70	0.98	90	E27	2000	25	540	415

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER SON PIA 50W E E27 SLV	Coated	27003500	70	198	200	350	60	SONPIA50WES
MASTER SON PIA 70W E E27 SLV	Coated	45005600	80	198	200	350	60	SONPIA70WES

MASTER SON PIA Plus

Product ID	Lamp Wattage (W)	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SON PIA Plus 100W E E40 SLV	100	100	1.2	100	E40	2000	25	535	420
MASTER SON PIA Plus 150W E E40 SLV	150	154	1.8	100	E40	2000	25	535	420
MASTER SON PIA Plus 250W E E40 SLV	250	260	2.85	105	E40	2000	25	530	420
MASTER SON PIA Plus 400W E E40 SLV	400	400	4.5	105	E40	2000	25	525	425

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER SON PIA Plus 100W E E40 SLV	Coated	10200	107	198	200	350	110	SONPLUS100WGES
MASTER SON PIA Plus 150W E E40 SLV	Coated	17000	114	198	250	350	180	SONPLUS150WGES
MASTER SON PIA Plus 250W E E40 SLV	Coated	31100	120	198	250	350	180	SONPLUS250WGES
MASTER SON PIA Plus 400W E E40 SLV	Coated	55500	135	198	250	350	240	SONPLUS400WGES

SON-T PIA Plus

Product ID	Lamp Wattage (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Colour Temperature Technical (K)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SON-T PIA Plus 50W E E27 SLV	50	0.75	91	E27	2000	25	1900	540	420
MASTER SON-T PIA Plus 70W E E27 SLV	70	0.975	93	E27	2000	20	1900	540	420
MASTER SON-T PIA Plus 100W E E40 SLV	100	1.2	100	E40	2000	20	2000	525	420
MASTER SON-T PIA Plus 150W E E40 SLV	150	1.8	100	E40	2000	20	2000	535	420
MASTER SON-T PIA Plus 250W E E40 SLV	250	3	100	E40	2000	25	2000	530	420
MASTER SON-T PIA Plus 400W E E40 SLV	400	4.5	100	E40	2000	25	1950	525	425
MASTER SON-T PIA Plus 600W E E40 SLV	600	5.8	115	E40	2000	25	2000	524	426

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER SON-T PIA Plus 50W E E27 SLV	Clear	4400	88	198	200	350	51	SONTPLUS50WES
MASTER SON-T PIA Plus 70W E E27 SLV	Clear	6600	91	198	200	350	83	SONTPLUS70WES
MASTER SON-T PIA Plus 100W E E40 SLV	Clear	10700	107	198	250	450	155	SONTPLUS100WES
MASTER SON-T PIA Plus 150W E E40 SLV	Clear	18000	117	198	250	450	155	SONTPLUS150WES
MASTER SON-T PIA Plus 250W E E40 SLV	Clear	33200	128	198	250	450	175	SONTPLUS250WGES
MASTER SON-T PIA Plus 400W E E40 SLV	Clear	56500	138	198	250	450	190	SONTPLUS400WGES
MASTER SON-T PIA Plus 600W E E40 SLV	Clear	90000	150	198	250	450	190	SONTPLUS600WGES

SON-T PIA Eco

Product ID	Lamp Wattage (W)	Lamp Wattage EM (W)	Lamp Current EM (A)	Lamp Voltage (V)	Cap/Base	Color Temperature (K)	Color Rendering Index (Ra)	Bulb	Bulb Finish
SON-T PIA Eco 130W E40 ISL	130	130	1.95	77	E40	2000	20	T46	Clear
SON-T PIA Eco 220W E40 ISL	220	220	3.25	78	E40	2000	20	T46	Clear
SON-T PIA Eco 360W E40 ISL	360	356	4.9	81	E40	2000	20	T46	Clear

Product ID	Luminous Flux Lamp (lm)	Luminous Efficacy Lamp (lm/W)	Ignition Peak Voltage max. (V)	Ignition Supply Voltage min. (V)	Ignition Time max. (sec)	Run-up Time 90% max. (min)	Cap-Base Temperature max. (C)	Bulb Temperature max. (C)	Net Weight Per Piece (kg)	12NC
SON-T PIA Eco 130W E40 ISL	15000	EM 115	2800	198	10	4	250	450	0.155	928485100192
SON-T PIA Eco 220W E40 ISL	28000	EM 127	2800	198	10	5	250	450	0.182	928485200192
SON-T PIA Eco 360W E40 ISL	48000	EM 135	2800	198	10	5	250	450	0.190	928485300192

SON PIA Hg-Free

Product ID	Lamp Wattage (W)	Lamp Voltage (V)	Color Temperature (K)	Color Rendering Index (Ra)	Lamp Current EM/CuFe (A)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SON PIA Hg Free 150W E E40 SLV	150	98	2150	25	1.8	525	436
MASTER SON PIA Hg Free 250W E E40 SLV	250	100	2150	25	3	516	436
MASTER SON PIA Hg Free 400W E E40 SLV	400	98	2150	25	4.6	519	436

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)
MASTER SON PIA Hg Free 150W E E40 SLV	Coated	14500	97	198	250	350
MASTER SON PIA Hg Free 250W E E40 SLV	Coated	27000	108	198	250	350
MASTER SON PIA Hg Free 400W E E40 SLV	Coated	48000	120	198	250	350

MASTER SON-T PIA Hg-Free

Product ID	Lamp Wattage (W)	Lamp Current EM/CuFe (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SON-T PIA Hg-Free 100W E E40 SLV	100	1.24	98	E40	2150	25	525	436
MASTER SON-T PIA Hg-Free 150W E E40 SLV	150	1.8	98	E40	2150	25	525	436
MASTER SON-T PIA Hg-Free 250W E E40	250	3	100	E40	2150	25	516	436
MASTER SON-T PIA Hg-Free 400W E E40	400	4.6	98	E40	2150	25	519	436

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER SON-T PIA Hg-Free 100W E E40 SLV	Clear	9000	88	198	250	450	160	SONTPIA100WGES
MASTER SON-T PIA Hg-Free 150W E E40 SLV	Clear	15000	100	198	250	350	155	SONTPIA150WGES
MASTER SON-T PIA Hg-Free 250W E E40	Clear	28000	110	198	250	450	175	SONTPIA250WGES
MASTER SON-T PIA Hg-Free 400W E E40	Clear	48000	120	198	250	450	190	SONTPIA400WGES

SON-T PIA Agro

Product ID	Lamp Wattage (W)	Lamp Current EM/CuFe (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SON-T PIA Agro 400W E E40 SLV	400	4.13	100	E40	2000	25	535	420

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER SON-T PIA Agro 400W E E40 SLV	Clear	48000	130	198	250	450	190	SONTAGRO400WGES

SON-T Pia Greenpower

Product ID	Lamp Wattage (W)	Lamp Voltage (V)	Lamp Current EL (A)	Cap Base	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SON-T PIA Green Power 400W E E40	400	100	4.5	E40	20	530	430
MASTER SON-T PIA Green Power 600W E E40	600	115	5.8	E40	26	533	432

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap Case Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
MASTER SON-T PIA Green Power 400W E E40	Clear	58500	140	198	250	450	190	SONTGP400WGES
MASTER SON-T PIA Green Power 600W E E40	Clear	88000	147	220	250	450	190	SONTGP600WGES

SON High Pressure Sodium

Product ID	Lamp Wattage (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
SON 50W E E27 CO CRP	50	0.76	90	E27	2000	25	540	415
SON 70W E E27 CO 1CT	70	0.98	90	E27	2000	20	540	415
ON 150W E E40 CO SLV	150	1.8	100	E40	2000	20	535	415
SON 250W E E40 CO SLV	250	3	100	E40	2000	25	530	410
SON 400W E E40 CO SLV	400	4.45	105	E40	2000	25	525	415
SON 50W I E27 CO CRP	50	0.76	90	E27	2000	25	540	415
SON 70W I E27 CO 1CT	70	0.98	90	E27	2000	20	540	415

SON Hight Pressure Sodium (cont'd)

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
SON 50W E E27 CO CRP	Coated	3500	70	198	200	350	60	SON50WES
SON 70W E E27 CO 1CT	Coated	5600	79	198	200	350	60	SON70WES
SON 150W E E40 CO SLV	Coated	14500	99	198	250	350	202	SON150WGES
SON 250W E E40 CO SLV	Coated	27000	106	198	250	350	185	SON250WGES
SON 400W E E40 CO SLV	Coated	48000	122	198	250	350	240	SON400WGES
SON 50W I E27 CO CRP	Coated	3400	68	198	200	350	61	SONI50WES
SON 70W I E27 CO 1CT	Coated	5600	79	198	200	350	64	SONI70WES

SON-T

Product ID	Lamp Wattage (W)	Lamp Current EM/CuFe (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
SON-T 70W E E27 SLV	70	0.98	90	E27	2000	25	540	413
SON-T 100W E E40 SLV	100	1.2	100	E40	2000	20	540	413
SON-T 150W E E40 SLV	150	1.8	100	E40	2000	25	535	415
SON-T 250W E E40 SLV	250	3	100	E40	2000	25	530	410
SON-T 400W E E40 SLV	400	4.6	100	E40	2000	25	525	415
SON-T Pro 1000W E E40 CRP	1000	10.6	105	E40	2000	25	515	420
SON-T 1000W E E40 SLV	1000	10.6	105	E40	2000	25	515	420

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
SON-T 70W E E27 SLV	Clear	6000	86	198	200	350	52	SONT70WES
SON-T 100W E E40 SLV	Clear	9000	90	198	250	450	155	SONT100WGES
SON-T 150W E E40 SLV	Clear	15000	100	198	250	450	155	SONT150WGES
SON-T 250W E E40 SLV	Clear	28000	112	198	250	450	175	SONT250WGES
SON-T 400W E E40 SLV	Clear	48000	120	198	250	450	190	SONT400WGES
SON-T Pro 1000W E E40 CRP	Clear	130000	130	198	250	450	404	SONT1000WES
SON-T 1000W E E40 SLV	Clear	130000	130	198	250	450	404	SONT1000WGES

SON H Pro

Product ID	Lamp Wattage (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
SON H Pro 110W E27 SLV	110	1.29	109	E27	2000	25	532	416
SON H Pro 350W E40 SLV	350	3.6	117	E40	2000	25	525	415

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
SON H Pro 110W E27 SLV	Coated	10400	92	198	200	350	60	SONH110WES
SON H Pro 350W E40 SLV	Coated	34000	97	190	250	350	250	SONH350WGES

SON Comfort

Product ID	Lamp Wattage (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
SON Comfort Pro 150W E E40 SLV	150	1.82	105	E40	2150	65	513	419
SON Comfort Pro 250W E E40 SLV	250	3	105	E40	2150	65	513	419
SON Comfort Pro 400W E E40 SLV	400	4.45	105	E40	2150	65	513	419

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
SON Comfort Pro 150W E E40 SLV	Coated	12500	83	198	250	350	174	SONCOMFORT150WGES
SON Comfort Pro 250W E E40 SLV	Coated	22000	88	198	250	350	185	SONCOMFORT250WGES
SON Comfort Pro 400W E E40 SLV	Coated	37000	93	198	250	350	240	SONCOMFORT400WGES

SON-T Comfort

Product ID	Lamp Wattage (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y
SON-T Comfort Pro 150W E E40 SLV	150	1.82	105	E40	2150	65	513	419
SON-T Comfort Pro 250W E E40 SLV	250	3.05	105	E40	2150	65	514	420
SON-T Comfort Pro 400W E E40 SLV	400	4.5	100	E40	2150	65	510	415

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Case Temperature (C)	Bulb Temperature (C)	Comm Code
SON-T Comfort Pro 150W E E40 SLV	Clear	13000	87	198	250	450	SONTCOMFORT150WGES
SON-T Comfort Pro 250W E E40 SLV	Clear	23000	92	198	250	450	SONTCOMFORT250WGES
SON-T Comfort Pro 400W E E40 SLV	Clear	38000	95	198	250	450	SONTCOMFORT400WGES

SOX Low Pressure Sodium

Product ID	Rated Lamp Wattage (W)	Lamp Current (A)	Lamp Voltage (V)	Cap Base	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)
SOX Pro 35W BY22d SLV	35	0.60	70	BY22d	4550	129
SOX Pro 55W BY22d SLV	55	0.59	109	BY22d	7800	140
SOX Pro 90W BY22d SLV	90	0.92	112	BY22d	13700	154
SOX Pro 135W BY22d SLV	135	0.95	164	BY22d	22600	167
SOX Pro 180W BY22d SLV	180	0.91	240	BY22d	32000	176

Product ID	Operating Position	Cap Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
SOX Pro 35W BY22d SLV	H110	150	150	222	SOX35WBY22D
SOX Pro 55W BY22d SLV	H110	150	150	303	SOX55WBY22D
SOX Pro 90W BY22d SLV	P20	150	150	493	SOX90WBY22D
SOX Pro 135W BY22d SLV	P20	150	150	717	SOX135WBY22D
SOX Pro 180W BY22d SLV	P20	150	150	1044	SOX180WBY22D

MASTER SOX-E

Product ID	Rated Lamp Wattage (W)	Lamp Current EM/CuFe (A)	Lamp Voltage (V)	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)
MASTER SOX-E 18W BY22d SLV	18	0.35	57	1800	100
MASTER SOX-E 26W BY22d SLV	26	0.45	69	3600	140
MASTER SOX-E 36W BY22d SLV	36	0.35	120	6200	160
MASTER SOX-E 66W BY22d SLV	66	0.62	123	10500	165
MASTER SOX-E 91W BY22d SLV	91	0.62	173	17500	189
MASTER SOX-E 131W BY22d SLV	131	0.62	250	26200	203

Product ID	Cap-Base Temperature (C)	Bulb Temperature (C)	Cap Base	Nett Weight Product in Grams (gr)	Comm Code
MASTER SOX-E 18W BY22d SLV	150	150	BY22d	150	SOXE18WBY22D
MASTER SOX-E 26W BY22d SLV	150	150	BY22d	222	SOXE26WBY22D
MASTER SOX-E 36W BY22d SLV	150	150	BY22d	303	SOXE36WBY22D
MASTER SOX-E 66W BY22d SLV	150	150	BY22d	493	SOXE66WBY22D
MASTER SOX-E 91W BY22d SLV	150	150	BY22d	717	SOXE91WBY22D
MASTER SOX-E 131W BY22d SLV	150	150	BY22d	1044	SOXE131WBY22D

HPL-N

Product ID	Rated Lamp Wattage (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Rendering Index (Ra)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Bulb Finish
HPL-N 50W/542 E27 SG SLV	50	0.61	95	E27	49	371	370	Coated
HPL-N 80W/542 E27 SG 1CT	80	0.8	115	E27	48	370	366	Coated
HPL-N 125W/542 E27 SG 1CT	125	1.15	125	E27	46	374	373	Coated
HPL-N 200W/542 E40 HG SLV	200	1.96	119	E40	36	381	383	Coated
HPL-N 250W/542 E40 HG SLV	250	2.1	135	E40	45	381	383	Coated
HPL-N 400W/542 E40 HG SLV	400	3.25	140	E40	45	384	384	Coated
HPL-N 1000W/542 E40 HG CRP	1000	7.5	145	E40	36	390	395	Coated

Product ID	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product in Grams (gr)	Comm Code
HPL-N 50W/542 E27 SG SLV	1800	36	180	200	350	46	HPLN50WES
HPL-N 80W/542 E27 SG 1CT	3700	44.50	180	200	350	57	HPLN80WES
HPL-N 125W/542 E27 SG 1CT	6200	50	180	200	350	76	HPLN125WES
HPL-N 200W/542 E40 HG SLV	10050	48	180	250	350	170	HPLN200WGES
HPL-N 250W/542 E40 HG SLV	12700	51	180	250	350	184	HPLN250WGES
HPL-N 400W/542 E40 HG SLV	22000	55	180	250	350	260	HPLN400WGES
HPL-N 1000W/542 E40 HG CRP	58500	59	180	250	350	520	HPLN1000WGES

High Intensity Discharge Control Gear

HID-Dynavision SON and CDO

Ballast	Packing type	Pieces per pack	Packing configuration	Packs per outerbox	Logistic code(s) 12NC	Net weight per piece
HID-DV 1-10V 70 /S CDO 220-240V 50/60Hz	Unpacked	1	10	10	9137 006 57366	0.725 KG
HID-DV 1-10V 70 /S SON 220-240V 50/60Hz	Unpacked	1	10	10	9137 006 57466	0.725 KG
HID-DV 1-10V 100 /S CDO 220-240V 50/60Hz	Unpacked	1	10	10	9137 006 56966	0.725 KG
HID-DV 1-10V 100 /S SON 220-240V 50/60Hz	Unpacked	1	10	10	9137 006 57066	0.725 KG
HID-DV 1-10V 150 /S CDO 220-240V 50/60Hz	Unpacked	1	10	10	9137 006 57166	0.725 KG
HID-DV 150 /S SON 220-240V 50/60Hz	Unpacked	1	10	10	9137 006 57266	0.725 KG

Ballast	Interface	Rated number of lamps	Rated ballast-lamp power	Rated lamp type	Line voltage	Line frequency
HID-DV 1-10V 70 /S CDO 220-240V 50/60Hz	1-10V	1	70	CDO	220-240V	50/60Hz
HID-DV 1-10V 70 /S SON 220-240V 50/60Hz	1-10V	1	70	SON	220-240V	50/60Hz
HID-DV 1-10V 100 /S CDO 220-240V 50/60Hz	1-10V	1	100	CDO	220-240V	50/60Hz
HID-DV 1-10V 100 /S SON 220-240V 50/60Hz	1-10V	1	100	SON	220-240V	50/60Hz
HID-DV 1-10V 150 /S CDO 220-240V 50/60Hz	1-10V	1	150	CDO	220-240V	50/60Hz
HID-DV 150 /S SON 220-240V 50/60Hz	1-10V	1	150	SON	220-240V	50/60Hz

HID-PrimaVision for CDM Elite

Ballast	Packing type	Pieces per pack	Packing configuration	Packs per outerbox	Net weight per piece	Rated number of lamps	Rated ballast-lamp power	Rated lamp type
HID-PV 315 /S CDM 220-240V 50/60Hz	Unpacked	1	4	4	2.5 KG	1	315	CDM
HID-PV 210 /S CDM 220-240V 50/60Hz	Unpacked	1	4	4	2.5 KG	1	210	CDM

Ballast	Line voltage	Line current	Line frequency	IP Classification Luminaires	Lifetime 90% surv.@Tcaselife	Suitable for outdoor use?	Automatic restart	Inrush current peak
HID-PV 315 /S CDM 220-240V 50/60Hz	220-240V	1.53 A [nom]	50/60Hz	34	50000 hr [nom]	Yes	Yes	12 A
HID-PV 210 /S CDM 220-240V 50/60Hz	220-240V	1.00 A [nom]	50/60Hz	34	50000 hr [nom]	Yes	Yes	12 A

Ballast	Inrush current width	Maximum ballast number on MCB	Lamp Power Tolerance	Earth leakage current	Mains voltage safety (AC)	Mains voltage performance (AC)	Min. Mains voltage operational
HID-PV 315 /S CDM 220-240V 50/60Hz	3 ms [nom]	4 x [max]	-3%/+3%	0.5 mA [max]	-10%/+10%	-8%/+6%	198 V
HID-PV 210 /S CDM 220-240V 50/60Hz	3 ms [nom]	4 x [max]	-3%/+3%	0.5 mA [max]	-10%/+10%	-8%/+6%	198 V

Ballast	Output peak voltage	Operating frequency	Overvoltage protection 320Vac	Overvoltage protection 350Vac	Overvoltage protection 400Vac	PowerFactor 100% output power
HID-PV 315 /S CDM 220-240V 50/60Hz	4000 V [max]	0.11 kHz	48 hr [nom]	2 hr [nom]	5 min [nom]	0.95 -
HID-PV 210 /S CDM 220-240V 50/60Hz	4000 V [max]	0.11 kHz	48 hr [nom]	2 hr [nom]	5 min [nom]	0.95 -

Ballast	Ignition switch-off time	Ignition Voltage	Hum and Noise level	Rated Lamp Power on CDM	System Power on CDM	Lamp Power on CDM	Power Loss on CDM
HID-PV 315 /S CDM 220-240V 50/60Hz	30 min [nom]	3.0 kV [min] 4.0 kV [max]	37 dB(A)	315	340.5	315	025.5
HID-PV 210 /S CDM 220-240V 50/60Hz	30 min [nom]	3.0 kV [min] 4.0 kV [max]	37 dB(A)	210	226.5	210	16.5

Ballast	Cable-Cap outputwires mutual	Connector type	Max. cable length Device/Lamp	Striplength	Wcs Ballast contacts	Active temperature protection	F-marking
HID-PV 315 /S CDM 220-240V 50/60Hz	1000 pF [nom]	Insert	3 m [nom]	10.0 mm	0.75-2.50 mm^2	Yes	No
HID-PV 210 /S CDM 220-240V 50/60Hz	1000 pF [nom]	Insert	3 m [nom]	10.0 mm	0.75-2.50 mm^2	Yes	No

Ballast	T-case life	T-case switch-off	T-ambient	T-storage	Safety Standard	Quality Standard	Environmental Standard
HID-PV 315 /S CDM 220-240V 50/60Hz	80 C [nom]	90 C [min]	-20 C [min] 55 C [max]	-25 C [min] 80 C [max]	EN 60928, 60926	ISO 9000:2000	ISO 14001
HID-PV 210 /S CDM 220-240V 50/60Hz	80 C [nom]	90 C [min]	-20 C [min] 65 C [max]	-25 C [min] 80 C [max]	EN 60928, 60926	ISO 9000:2000	ISO 14001

Ballast	Harmonic current emissions	Vibrations	Bumps	Humidity	CE Marking	ENEC certificate
HID-PV 315 /S CDM 220-240V 50/60Hz	IEC 61000-3-2	IEC 68-2-6 Fc (10-150Hz, 2G)	IEC 68-2-29 Eb (10G/16ms)	EN 61347-2-12 clause 11	Yes	Yes
HID-PV 210 /S CDM 220-240V 50/60Hz	IEC 61000-3-2	IEC 68-2-6 Fc (10-150Hz, 2G)	IEC 68-2-29 Eb (10G/16ms)	EN 61347-2-12 clause 11	Yes	Yes

Ballast	VDE certificate	VDE-EMV certificate	KEMA CB certificate
HID-PV 315 /S CDM 220-240V 50/60Hz	No	No	Yes
HID-PV 210 /S CDM 220-240V 50/60Hz	No	No	Yes

HID-PrimaVision (Xtreme) for CDM Elite MW

Ballast	Packing type	Pieces per pack	Packing configuration	Packs per outerbox	Logistic code(s) 12NC	Net weight per piece
HID-PV Xt 210 /S CDM 220-240V 50/60Hz	Unpacked	1	6	6	9137 006 46472	1.49 KG

Ballast	Name xtension	Rated number of lamps	Rated ballast-lamp power	Rated lamp type	Line voltage	Line frequency
HID-PV Xt 210 /S CDM 220-240V 50/60Hz	Xt	1	210	CDM	220-240V	50/60Hz

HID-PrimaVision Mini Built-in for CDM

Ballast	Packing type	Pieces per pack	Packing configuration	Packs per outerbox	Logistic code(s) - 12NC	Net weight per piece	Name Extension
HID-PV m 1x020/S mCDM LPF 220-240V	Unpacked	1	12	12	9137 006 01466	0.079 KG	20
HID-PV m 20 /S CDM HPF 220-240V 50/60Hz	Unpacked	1	12	12	9137 006 46166	0.163 KG	20 /S
HID-PV m 35 /S CDM HPF 220-240V 50/60Hz	Unpacked	1	12	12	9137 006 53666	0.168 KG	35 /S

Ballast	Rated number of lamps	Rated ballast-lamp power	Rated lamp type	Application Code	Line Voltage	Line frequency
HID-PV m 1x020/S mCDM LPF 220-240V	1	20	CDM	LPF	220-240V	50/60Hz
HID-PV m 20 /S CDM HPF 220-240V 50/60Hz	1	20	CDM	HPF	220-240V	50/60Hz
HID-PV m 35 /S CDM HPF 220-240V 50/60Hz	1	35	CDM	HPF	220-240V	50/60Hz

HID-PrimaVision SDW-TG

Ballast	Pieces per pack	Packing configuration	Packs per outerbox	Logistic code(s) 12NC	Net weight per piece	Application code
HID-PV 50 /F SDW-TG 220-240V 50/60Hz	1	10	10	913700659498	0.660 KG	
HID-PV 50 /S SDW-TG 220-240V 50/60Hz	1	10	10	913700656666	0.310 KG	
HID-PV 100 /F SDW-TG 220-240V 50/60Hz	1	6	6	913700659598	0.710 KG	
HID-PV 100 /S SDW-TG 220-240V 50/60Hz	1	10	10	9137 006 57066	0.725 KG	
HID-STRAIN RELIEF	1	-	10	913700157472	0.024 KG	RELIEF

Ballast	Rated number of lamps	Rated ballast-lamp power	Rated lamp type	Line voltage	Line frequency	Suitable for outdoor use?
HID-PV 50 /F SDW-TG 220-240V 50/60Hz	1	50	SDW-TG	220-240V	50/60Hz	No
HID-PV 100 /F SDW-TG 220-240V 50/60Hz	1	100	SDW-TG	220-240V	50/60Hz	No
HID-PV 100 /S SDW-TG 220-240V 50/60Hz	1	100	SDW-TG	220-240V	50/60Hz	No

HID-PrimaVision Mini Independent for CDM

Ballast	Packing type	Pieces per pack	Packing configuration	Packs per outerbox	Logistic code(s) 12NC	Net weight per piece
HID-PV m 1x020/I mCDM LPF 220-240V	Unpacked	1	12	12	9137 006 01666	1.4 KG
HID-PV m 1x035/I CDM 220-240V 50/60Hz	Unpacked	1	10	10	9137 006 30466	0.312 KG
HID-PV m 20 /I CDM HPF 220-240V 50/60Hz	Unpacked	1	10	10	9137 006 46266	0.312 KG

Ballast	Name extension	Rated number of lamps	Rated ballast-lamp power	Rated lamp type	Application code	Line voltage	Line frequency
HID-PV m 1x020/I mCDM LPF 220-240V	20	1	20	CDM	LPF	220-240V	50/60Hz
HID-PV m 1x035/I CDM 220-240V 50/60Hz	35	1	35	CDM	-	220-240V	50/60Hz
HID-PV m 20 /I CDM HPF 220-240V 50/60Hz	20 /I	1	20	CDM	HPF	220-240V	50/60Hz

AspiraVision

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Net weight per piece (kg)	12NC
HID-AV C 35 /I CDM 220-240V 50/60Hz	35	220-240	50/60	1	12	0.342	9137 006 47666
HID-AV C 70 /I CDM 220-240V 50/60Hz	70	220-240	50/60	1	12	0.342	9137 006 46666
HID-AV C 35 /C CDM 220-240V 50/60Hz	35	220-240	50/60	1	12	0.342	9137 006 47966
HID-AV C 70 /C CDM 220-240V 50/60Hz	70	220-240	50/60	1	12	0.342	9137 006 46966

HID step dim regulating ballasts for SON lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BSDR 4025L 306	400/250	220/230	50	1	6	65	1.190	913713200866
BSDR 1510L 306	150/100	220/230	50	1	6	50	0.800	913713200966

Step Dim Retrofit Solution - BSDR Box for SON Lighting System

Ballast	For lighting system	Mains Voltage/ Frequency	Lamp Wattage before dimming	Lamp Wattage after dimming	Ta °C	Wiring connector type	Wiring Wcs Ballast contacts
BSDR BOX 250 L 400	SON 250W	220/230/50	250W	160W	-25 ~ 40	Screw	2.50-6.00 mm²
BSDR BOX 400 L 400	SON 400W	220/230/50	400W	250W	-25 ~ 40	Screw	2.50-6.00 mm²

HID-Basic Semi-Parallel ballasts for MHN/CDM/MH lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BMH 35 L300 ITS	35	220	50	1	6	55	0.75	913713200566
BMH 35 L301 ITS	35	220	60	1	6	55	0.666	913710104050
BMH 35 L302 ITS	35	230	50	1	6	55	0.666	913710103150
BMH 35 L304 ITS	35	240	50	1	6	55	0.666	913710103450
BMH 70 L300 ITS	70	220	50	1	6	70	0.980	913713200666
BMH 70 L301 ITS	70	220	60	1	6	65	0.999	913710103950
BMH 70 L302 ITS	70	230	50	1	6	70	0.999	913710103250
BMH 70 L304 ITS	70	240	50	1	6	70	1.100	913710108550
BMH 70 L427 ITS	70	230/240	50	1	6	70	1.219	913710107859
BMHA 150 L300 ITS	150	220	50	1	6	70	2.050	913713016144

HID-Basic Semi-Parallel ballasts for SON/CDM/MH lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BSN 50 L300 ITS	50	220	50	1	6	50	1.059	913710107050
BSN 70 L300 I	70	220	50	1	6	75	0.999	913710104550
BSN 70 L301 I	70	220	60	1	6	70	1.000	913710104650
BSN 70 L302 I	70	230	50	1	6	70	1.100	913710104750
BSN 70 L304 I	70	240	50	1	6	75	0.999	913710104850
BSN 70 L427 ITS	70	230/240	50	1	6	65/70	1.200	913700255926
BSN 100 L300 I	100	220	50	1	6	70	1.200	913710103750
BSN 100 L300 ITS	100	220	50	1	6	70	1.169	913710106850
BSN 100 L301 I	100	220	60	1	6	70	1.200	913710104150
BSN 100 L302 I	100	230	50	1	6	70	1.200	913710103350
BSN 100 L304 I	100	240	50	1	6	75	1.200	913710103650
BSN 100 L427 ITS	100	230/240	50	1	6	70/75	1.220	913700256026
BSN 150 L300 I	150	220	50	1	6	70	1.849	913710100150
BSN 150 L300 ITS	150	220	50	1	6	70	1.950	913710109150
BSN 150 L301 I	150	220	60	1	6	70	1.849	913710102050
BSN 150 L301 ITS	150	220	60	1	6	70	1.849	913710102250
BSN 150 L302 ITS	150	230	50	1	6	70	1.849	913710100750
BSN 150 L304 I	150	240	50	1	6	70	1.850	913710100950
BSN 150 L304 ITS	150	240	50	1	6	70	1.849	913710101550
BSN 150 L427 ITS	150	230/240	50	1	6	70/75	1.989	913710108159
BSN 250 L300 I	250	220	50	1	6	70	2.700	913710100250
BSN 250 L300 ITS	250	220	50	1	6	70	2.950	913710109350
BSN 250 L301 I	250	220	60	1	6	70	2.700	913710102150
BSN 250 L304 I	250	240	50	1	6	70	2.830	913710101050
BSN 250 L427 ITS	250	230/240	50	1	6	70	2.949	913710100859
BSN 400 L300 I	400	220	50	1	4	65	4.499	913710100350
BSN 400 L300 ITS	400	220	50	1	4	65	4.500	913710109550
BSN 400 L301 I	400	220	60	1	4	65	4.450	913710102950
BSN 400 L302 I	400	230	50	1	4	70	4.500	913710103050
BSN 400 L304 I	400	240	50	1	4	75	4.500	913710101150
BSN 400 L407 ITS	400	230/240	50	1	2	75	4.300	913700249026
BSN 600 L300 ITS	600	220	50	1	3	75	5.330	913710105943

HID-Basic ballasts for MH UPS lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BPS 400 L200 TS	175	220	50	1	6	70	1.750	913713201150
BPS 250 L200 TS	250	220	50	1	6	70	2.200	913713201250
BPS 175 L200 TS	175	220	50	1	6	70	1.750	913713201350

HID-Basic ballasts for HPL and HPI(PLUS) lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BHL 125 L200	125	220	50	1	6	-	1.330	913710105050
BHL 125 L202	125	230	50	1	6	70	1.330	913710105150
BHL 125 L204	125	240	50	1	6	70	1.330	913710105250
BHL 250 L200	250	220	50	1	6	65	2.040	913710100443
BHL 250 L201	250	220	60	1	6	65	1.900	913710101850

HID-Basic ballasts for HPL and HPI(PLUS) lamps (cont'd)

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BHL 250 L204	250	240	50	1	6	75	1.829	913710101250
BHL 250 L327	250	230/240	50	1	6	75	1.949	913710101659
BHL 400 L200	400	220	50	1	6	70	2.900	913710100550
BHL 400 L201	400	220	60	1	6	70	2.750	913710101950
BHL 400 L202	400	230	50	1	6	70	2.833	913710102650
BHL 400 L204	400	240	50	1	6	50	0.800	913713200966
BHL 400 L327	400	230/240	50	1	6	75	2.949	913710108659
BHL 80 L200	80	220	50	1	6	65	0.910	913710108450
BHL E 250 L200 TS	250	220	50	1	6	70/75	2.020	913713017250
BHL E 250 L201	250	220	60	1	6	70/75	1.800	913713016950
BHL E 250 L202	250	230	50	1	6	70/75	2.100	913713017550
BHL E 400 L200 TS	400	220	50	1	6	70/75	2.900	913713017350
BHL E 400 L201	400	220	60	1	6	70/75	2.700	913713017050
BHL E 400 L202	400	230	50	1	6	70/75	3.140	913713017650
BHLP 175 L200 TS	175	220	50	1	6	70	1.850	913713201050
BHLP 250 L200 TS	250	220	50	1	6	65	2.030	913713016650
BHLP 400 L200 TS	400	220	50	1	6	75	2.850	913713016750

HID-High Power ballasts for SON/MH lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BSN 1000 L302 I	1000	230	50	1	1	80	6.000	913710106750

HID-High Power ballasts for MH lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BMH 1800 L202	1800	230	50	1	1	85	13.759	913710107150
BMH 2000 L2050	2000	400	50	1	1	75/80	13.500	913710107250
BMH 2000 L2114	2000	380	50	1	1	90	14.050	913713201766

HID-High Power ballasts for HPL and HPI lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Delta-T normal conditions (°C)	Net weight per piece (kg)	12NC
BHL 1000 L202 I	1000	230	50	1	1	75	6.000	913710104950

HID-Basic Gearbox system for MHN/CDM lamps

Ballast type	Rated Ballast-Lamp power (W)	Line Voltage (V)	Line Frequency (Hz)	Pieces per pack	Packs per outerbox	Net weight per piece (kg)	12NC
GBMHA 35 L300 ITS/I	35	220	50	1	8	1.600	913713016244
GBMHA 70 L300 ITS/I	70	220	50	1	8	1.900	913713016344
GBMHA 150 L300 ITS/I	150	220	50	1	8	2.700	913713016444
GBMHA 35 L300ITS/IT 15	35	220	50	1	8	1.600	913713017744
GBMHA 70 L300ITS/IT 15	70	220	50	1	8	1.900	913713017844
GBMHA 150 L300ITS/IT 15	150	220	50	1	8	2.700	913713017944
GBMH 35 L302 ITS	35	230	50	1	8	1.879	9137 10106350
GBMH 70 L302 ITS	70	230	50	1	8	2.125	913710106450
GBMH 150 L302 ITS	150	230	50	1	8	2.125	913710106550

Capacitors for HID lamp circuits

Full product name	Line Voltage (V)	Line Frequency (Hz)	Capacitor value [µF]	12NC
CP 20CU28	250	50/60	20	913710011590
CP 15BU28	250	50/60	15	913710011690
CP 10BO28	250	50/60	10	913710011790
CP 12BP28	250	50/60	12	913710011990
CP 08BO28	250	50/60	8.0	913710012090

Capacitors for HID lamp circuits (cont'd)

Full product name	Line Voltage (V)	Line Frequency (Hz)	Capacitor value [µF]	12NC
CP 18BU28	250	50/60	18	913710012190
CP 25CU28	250	50/60	25	913710012290
CP 32ET28	250	50/60	32	913710012390
CA 50FV28	250	50/60	50	913710012490
CP 06BN28	250	50/60	6.5	913710012590
CP 04AN28	250	50/60	4.0	913710011890
CP 05AN28	250	50/60	5.0	913710015090
CP 06BN28	250	50/60	6.5	913710012590
CP 30ET28	250	50/60	30	913710015190
CP 36FO28	250	50/60	36	913710016690

Electronic ignitor for HID lamp circuits

Full product name	Mains Voltage (V)	Line Frequency (Hz)	Max Cable Length (m)	Single Unit Net Weight (kg)	Qty	Wiring diagram	12NC
SN56	220-240	50/60	100	0.085	20	1	9137 100 10714
SN57	220-240	50/60	20	0.05	48	1	9137 100 10614
SN58	220-240	50/60	20	0.05	48	1	9137 100 10514
SN58T5	220-240	50/60	20	0.055	48	1	9137 100 10314
SN58T15	220-240	50/60	10	0.055	48	1	9137 100 10414
SI51 PLUS	220-240	50/60	0-350	0.05	48	3	9137 100 11114
SI52	220-240	50/60	0-350	0.05	48	3	9137 100 10814
SI53	220	50/60	1	0.053	48	3	9137 100 16914
SU50	220-240	50/60	1	0.45	10	2	9137 100 11214
SU52	380-420	50/60	1	0.335	10	2	9137 100 11314

Flourescent Lamps

MASTER TL5 High Efficiency Eco

Product ID	Rated Lamp Wattage [W]	Cap Base	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation	Life to 50% Failures Preheat EL [hrs]	Nett Product in Grams [gr]	12NC
MASTER TL5 HE Eco 25=28W/830	25	G5	3000	85	Warm white	25000	104.5	9279 909 83000
MASTER TL5 HE Eco 25=28W/840	25	G5	4000	85	Cool White	25000	104.5	9279 909 84000
MASTER TL5 HE Eco 32=35W/830	32	G5	3000	85	Warm white	25000	128.7	9279 911 83000
MASTER TL5 HE Eco 32=35W/840	32	G5	4000	85	Cool White	25000	128.7	9279 911 84000
MASTER TL5 HE Eco 13=14W/830	13	G5	3000	85	Warm white	25000	54.0	9279 898 83000
MASTER TL5 HE Eco 13=14W/835	13	G5	3500	85	White	25000	54.0	9279 898 83500
MASTER TL5 HE Eco 13=14W/840	13	G5	4000	85	Cool White	25000	54.0	9279 898 84000
MASTER TL5 HE Eco 25=28W/865	25	G5	6500	85	Cool Daylight	25000	104.5	9279 909 86500
MASTER TL5 HE Eco 13=14W/865	13	G5	6500	85	Cool Daylight	25000	54.0	9279 898 86500
MASTER TL5 HE Eco 32=35W/865	32	G5	6500	85	Cool Daylight	25000	128.7	9279 911 86500
MASTER TL5 HE Eco 19=21W/830	19	G5	3000	85	Warm White	25000	80.5	9279 924 83000
MASTER TL5 HE Eco 19=21W/840	19	G5	4000	85	Cool White	25000	80.5	9279 924 84000
MASTER TL5 HE Eco 19=21W/865	19	G5	6500	85	Cool Daylight	25000	80.5	9279 924 86500

MASTER TL5 High Output Eco

Product ID	Rated Lamp Wattage [W]	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation	Life to 50% Failures Preheat EL [hrs]	Nett Product in Grams [gr]	12NC
MASTER TL5 HO Eco 50=54W/830	50	G5	3000	85	Warm white	25000	104.5	9279 912 83000
MASTER TL5 HO Eco 50=54W/840	50	G5	4000	85	Cool White	25000	104.5	9279 912 84000
MASTER TL5 HO Eco 45=49W/830	45	G5	3000	85	Warm white	25000	128.7	9279 917 83000
MASTER TL5 HO Eco 45=49W/840	45	G5	4000	85	Cool White	25000	128.7	9279 917 84000
MASTER TL5 HO Eco 73=80W/830	73	G5	3000	85	Warm white	25000	128.7	9279 918 83000
MASTER TL5 HO Eco 73=80W/840	73	G5	4000	85	Cool White	25000	128.7	9279 918 84000
MASTER TL5 HO Eco 20=24W/830	20	G5	3000	85	Warm white	25000	54.0	9279 899 83000
MASTER TL5 HO Eco 20=24W/835	20	G5	3500	85	White	25000	53.0	9279 899 83500
MASTER TL5 HO Eco 20=24W/840	20	G5	4000	85	Cool White	25000	54.0	9279 899 84000

MASTER TL5 High Output Eco (cont'd)

Product ID	Rated Lamp Wattage [W]	Cap Base	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation	Life to 50% Failures Preheat EL [hrs]	Nett Product in Grams [gr]	12NC
MASTER TL5 HO Eco 20÷24W/865	20	G5	6500	85	Cool Daylight	25000	54.0	9279 899 86500
MASTER TL5 HO Eco 50÷54W/865	50	G5	6500	85	Cool Daylight	25000	104.5	9279 912 86500
MASTER TL5 HO Eco 45÷49W/865	45	G5	6500	85	Cool Daylight	25000	128.7	9279 917 86500
MASTER TL5 HO Eco 73÷80W/865	73	G5	4000	85	Cool Daylight	25000	128.7	9279 918 86500

MASTER TL5 High Efficiency

Product ID	Rated Lamp Wattage [W]	Cap Base	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation
MASTER TL5 HE 14W/827 SLV	14	G5	2700	85	Incandescent White
MASTER TL5 HE 14W/827 UNP	14	G5	2700	85	Incandescent White
MASTER TL5 HE 14W/830 SLV	14	G5	3000	85	Warm White
MASTER TL5 HE 14W/830 UNP	14	G5	3000	85	Warm White
MASTER TL5 HE 14W/835 SLV	14	G5	3500	85	White
MASTER TL5 HE 14W/835 UNP	14	G5	3500	85	White
MASTER TL5 HE 14W/840 SLV	14	G5	4000	85	Cool White
MASTER TL5 HE 14W/840 UNP	14	G5	4000	85	Cool White
MASTER TL5 HE 14W/865 SLV	14	G5	6500	85	Cool Daylight
MASTER TL5 HE 14W/865 UNP	14	G5	6500	85	Cool Daylight
MASTER TL5 HE 21W/827 SLV	21	G5	2700	85	Incandescent White
MASTER TL5 HE 21W/827 UNP	21	G5	2700	85	Incandescent White
MASTER TL5 HE 21W/830 SLV	21	G5	3000	85	Warm White
MASTER TL5 HE 21W/830 UNP	21	G5	3000	85	Warm White
MASTER TL5 HE 21W/835 UNP	21	G5	3500	85	White
MASTER TL5 HE 21W/840 SLV	21	G5	4000	85	Cool White
MASTER TL5 HE 21W/840 UNP	21	G5	4000	85	Cool White
MASTER TL5 HE 21W/865 SLV	21	G5	6500	85	Cool Daylight
MASTER TL5 HE 21W/865 UNP	21	G5	6500	85	Cool Daylight
MASTER TL5 HE 28W/827 SLV	28	G5	2700	85	Incandescent White
MASTER TL5 HE 28W/827 UNP	28	G5	2700	85	Incandescent White
MASTER TL5 HE 28W/830 SLV	28	G5		85	Warm White
MASTER TL5 HE 28W/830 SLV	28	G5	3000	85	Warm White
MASTER TL5 HE 28W/830 UNP	28	G5	3000	85	Warm White
MASTER TL5 HE 28W/835 SLV	28	G5	3500	85	White
MASTER TL5 HE 28W/835 UNP	28	G5	3500	85	White
MASTER TL5 HE 28W/840 SLV	28	G5	4000	85	Cool White
MASTER TL5 HE 28W/840 SLV	28	G5	4000	85	Cool White
MASTER TL5 HE 28W/840 UNP	28	G5	4000	85	Cool White
MASTER TL5 HE 28W/865 SLV	28	G5	6500	85	Cool Daylight
MASTER TL5 HE 28W/865 SLV	28	G5	6500	85	Cool Daylight
MASTER TL5 HE 28W/865 UNP	35	G5	6500	85	Cool Daylight
MASTER TL5 HE 35W/827 SLV	35	G5	2700	85	Incandescent White
MASTER TL5 HE 35W/827 UNP	35	G5	2700	85	Incandescent White
MASTER TL5 HE 35W/830 SLV	35	G5	3000	85	Warm White
MASTER TL5 HE 35W/830 UNP	35	G5	3000	85	Warm White
MASTER TL5 HE 35W/835 SLV	35	G5	3500	85	White
MASTER TL5 HE 35W/840 SLV	35	G5	4000	85	Cool White
MASTER TL5 HE 35W/840 UNP	35	G5	4000	85	Cool White
MASTER TL5 HE 35W/865 SLV	35	G5	6500	85	Cool Daylight
MASTER TL5 HE 35W/865 UNP	35	G5	6500	85	Cool Daylight

MASTER TL5 High Efficiency (cont'd)

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Life to 50% Failures Preheat EL [hrs]	Nett Product in Grams [gr]	Comm Code
MASTER TL5 HE 14W/827 SLV	469	419	24000	53.00	TL514W827HE
MASTER TL5 HE 14W/827 UNP	469	419	24000	53.00	TL514W827HE
MASTER TL5 HE 14W/830 SLV	438	403	24000	54.00	TL514W830HE
MASTER TL5 HE 14W/830 UNP	438	403	24000	53.00	TL514W830HE
MASTER TL5 HE 14W/835 SLV	409	397	24000	53.00	TL514W835HE
MASTER TL5 HE 14W/835 UNP	409	397	24000	54.00	TL514W835HEBP
MASTER TL5 HE 14W/840 SLV	381	379	24000	53.00	TL514W840HE
MASTER TL5 HE 14W/840 UNP	381	379	24000	53.00	TL514W840HE
MASTER TL5 HE 14W/865 SLV	316	336	24000	53.00	TL514W865HE
MASTER TL5 HE 14W/865 UNP	316	336	24000	53.00	TL514W865HEBP
MASTER TL5 HE 21W/827 SLV	469	419	24000	80.50	TL521W827HE
MASTER TL5 HE 21W/827 UNP	469	419	24000	80.50	TL521W827HE
MASTER TL5 HE 21W/830 SLV	438	403	24000	80.50	TL521W830HE
MASTER TL5 HE 21W/830 UNP	438	403	24000	80.50	TL521W830HE
MASTER TL5 HE 21W/835 UNP	409	397	24000	80.50	TL521W835HEBP
MASTER TL5 HE 21W/840 SLV	381	379	24000	80.50	TL521W840HE
MASTER TL5 HE 21W/840 UNP	381	379	24000	80.50	TL521W840HE
MASTER TL5 HE 21W/865 SLV	316	336	24000	80.50	TL521W865HE
MASTER TL5 HE 21W/865 UNP	316	336	24000	80.50	TL521W865HEBP
MASTER TL5 HE 28W/827 SLV	469	336	24000	104.50	TL528W827HE
MASTER TL5 HE 28W/827 UNP	469	419	24000	104.50	TL528W827HE
MASTER TL5 HE 28W/830 SLV	438	403	24000	105.00	TL528W830HE
MASTER TL5 HE 28W/830 SLV	438	403	24000	104.50	TL528W830HE
MASTER TL5 HE 28W/830 UNP	438	403	24000	104.50	TL528W830HEBP
MASTER TL5 HE 28W/835 SLV	409	397	24000	104.50	TL528W835HE
MASTER TL5 HE 28W/835 UNP	409	397	24000	104.50	TL528W835HEBP
MASTER TL5 HE 28W/840 SLV	381	379	24000	105.00	TL528W840HE
MASTER TL5 HE 28W/840 UNP	381	379	24000	104.50	TL528W840HEBP
MASTER TL5 HE 28W/865 SLV	316	336	24000	105.00	TL528W865HE
MASTER TL5 HE 28W/865 SLV	316	336	24000	104.50	TL528W865HE
MASTER TL5 HE 28W/865 UNP	316	336	24000	104.50	TL528W865HEBP
MASTER TL5 HE 35W/827 SLV	469	419	24000	128.70	TL535W827HE
MASTER TL5 HE 35W/827 UNP	469	419	24000	128.70	TL535W827HE
MASTER TL5 HE 35W/830 SLV	438	403	24000	128.70	TL535W830HE
MASTER TL5 HE 35W/830 UNP	438	403	24000	128.70	TL535W830HE
MASTER TL5 HE 35W/835 SLV	409	397	24000	128.70	TL535W835HE
MASTER TL5 HE 35W/840 SLV	381	379	24000	128.70	TL535W840HE
MASTER TL5 HE 35W/840 UNP	381	379	24000	128.70	TL535W840HEBP
MASTER TL5 HE 35W/865 SLV	316	336	24000	128.70	TL535W865HEBP
MASTER TL5 HE 35W/865 UNP	316	336	24000	128.70	TL535W865HEBP

MASTER TL5 High Output

Product ID	Rated Lamp Wattage [W]	Cap Base	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation	Chromaticity Coordinate X	Chromaticity Coordinate Y	Life to 50% Failures Preheat EL [hrs]	Nett Product in Grams [gr]	Comm Code
MASTER TL5 HO 24W/827 SLV	24	G5	2700	85	Incandescent White	469	419	24000	53.00	TL524W827HO
MASTER TL5 HO 24W/830 SLV	24	G5	3000	85	Warm White	438	403	24000	53.00	TL524W830HO
MASTER TL5 HO 24W/840 SLV	24	G5	4000	85	Cool White	381	379	24000	53.00	TL524W840HO
MASTER TL5 HO 24W/840 UNP	24	G5	4000	85	Cool White	381	379	24000	53.00	TL524W840HOBP
MASTER TL5 HO 24W/865 SLV	24	G5	6500	85	Cool Daylight	316	336	24000	53.00	TL524W865HO
MASTER TL5 HO 24W/865 UNP	24	G5	6500	85	Cool Daylight	316	336	24000	53.00	TL524W865HOBP
MASTER TL5 HO 39W/827 SLV	39	G5	2700	85	Incandescent White	469	419	24000	80.50	TL539W827HO
MASTER TL5 HO 39W/830 SLV	39	G5	3000	85	Warm White	438	403	24000	80.50	TL539W830HO
MASTER TL5 HO 39W/830 UNP	39	G5	3000	85	Warm White	438	403	24000	80.50	TL5 39W/830 HO
MASTER TL5 HO 39W/840 SLV	39	G5	4000	85	Cool White	381	379	24000	80.50	TL539W840HO

MASTER TL5 High Output (cont'd)

Product ID	Rated Lamp Wattage [W]	Cap Base	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation	Chromaticity Coordinate X	Chromaticity Coordinate Y	Life to 50% Failures Preheat EL [hrs]	Nett Product in Grams [gr]	Comm Code
MASTER TL5 HO 39W/865 SLV	39	G5	6500	85	Cool Daylight	316	336	24000	80.50	TL539W865HO
MASTER TL5 HO 49W/827 SLV	49	G5	2700	85	Incandescent White	469	419	24000	128.70	TL549W827HO
MASTER TL5 HO 49W/830 SLV	49	G5	3000	85	Warm White	438	403	24000	128.70	TL549W830HO
MASTER TL5 HO 49W/840 SLV	49	G5	4000	85	Cool White	381	379	24000	128.70	TL549W840HO
MASTER TL5 HO 49W/840 UNP	49	G5	4000	85	Cool White	381	379	24000	128.70	TL549W840HOBP
MASTER TL5 HO 49W/865 SLV	49	G5	6500	85	Cool Daylight	316	336	24000	128.70	TL549W865HO
MASTER TL5 HO 54W/830 SLV	54	G5	3000	85	Warm White	438	403	24000	104.50	TL554W830HO
MASTER TL5 HO 54W/830 UNP	54	G5	3000	85	Warm White	438	403	24000	104.50	TL549W830HOBP
MASTER TL5 HO 54W/840 SLV	54	G5	4000	85	Cool White	381	379	24000	104.50	TL554W840HO
MASTER TL5 HO 54W/840 UNP	54	G5	4000	85	Cool White	381	379	24000	104.50	TL554W840HOBP
MASTER TL5 HO 54W/865 SLV	54	G5	6500	85	Cool Daylight	316	336	24000	104.50	TL554W865HO
MASTER TL5 HO 54W/865 UNP	54	G5	6500	85	Cool Daylight	316	336	24000	104.50	TL554W865HOBP
MASTER TL5 HO 80W/830 SLV	80	G5	3000	85	Warm White	438	403	24000	132.00	TL580W830HO
MASTER TL5 HO 80W/840 SLV	80	G5	4000	85	Cool White	381	379	24000	132.00	TL580W840HO
MASTER TL5 HO 80W/840 UNP	80	G5	4000	85	Cool White	381	379	24000	132.00	TL580W840HOBP
MASTER TL5 HO 80W/865 SLV	80	G5	6500	85	Cool Daylight	316	336	24000	132.00	TL580W865HO

TL5 Essential

Product ID	Net Weight (Kg)	Package Configuration	12NC (Logistic code)	Cap-Base	Life to 50% Failures Preheat EL (hrs)	Life to 10% Failures Preheat EL (hrs)	Color Rendering Index (Ra)	Color Description	Color Temperature (K)
TL5ESS14W	0.056	40	927925982758 (827) 927925983058 (830) 927925984058 (840) 927925986558 (865)	G5	20000	10000	82	Incandescent Light (827) Warm White (830) Cool White (840) Cool Daylight (865)	2700 (827) 3000 (830) 4000 (840) 6500 (865)
TL5ESS21W	0.079	40	927926482758 (827) 927926483058 (830) 927926484058 (840) 927926486558 (865)	G5	20000	10000	82	Incandescent Light (827) Warm White (830) Cool White (840) Cool Daylight (865)	2700 (827) 3000 (830) 4000 (840) 6500 (865)
TL5ESS28W	0.105	40	927926782758 (827) 927926783058 (830) 927926784058 (840) 927926786558 (865)	G5	20000	10000	82	Incandescent Light (827) Warm White (830) Cool White (840) Cool Daylight (865)	2700 (827) 3000 (830) 4000 (840) 6500 (865)

Product ID	Luminous Flux Lamp EL 25C (lm/W)	Luminous Flux Lamp EL 35C (lm/W)	Luminous Efficacy EL 35C (lm/W)	Lumen Maintenance 2000h (%)	Lumen Maintenance 5000h (%)	Lumen Maintenance 10000h (%)	Lamp Wattage Rated (W)	Lamp Voltage E (V)	Lamp Current EL (A)	Dimmable	Energy Efficiency Label (EEL)	Mercury (Hg) Content (mg)
TL5ESS14W	1260 (827) 1260 (830) 1260 (840) 1200 (865)	1250 (827) 1350 (830) 1350 (840) 1260 (865)	94 (827) 96 (830) 96 (840) 90 (865)	94	91	89	14	82	0.17	Yes	A	3
TL5ESS21W	1950 (827) 1950 (830) 1950 (840) 1750 (865)	2100 (827) 2100 (830) 2100 (840) 1900 (865)	100 (827) 100 (830) 100 (840) 90 (865)	94	91	89	20.8	123	0.17	Yes	A	3
TL5ESS28W	2600 (827) 2600 (830) 2600 (840) 2600 (865)	2900 (827) 2900 (830) 2900 (840) 2700 (865)	103 (827) 103 (830) 103 (840) 96 (865)	94	91	89	28	167	0.17	Yes	A	3

TL5 Circular Essential

Product ID	Rated Lamp Wattage [W]	Cap Base	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation	Chromaticity Coordinate X	Chromaticity Coordinate Y	Life to 50% Failures Preheat EL [hrs]	Nett Product in Grams [gr]	Comm Code
TL5C ESSENTIAL 22W/840 1CT/10	18	G10q	4000	82	Cool White	380	380	8000	60	TL5C22W840
TL5C ESSENTIAL 22W/865 1CT/10	18	G10q	6500	80	Cool Daylight	313	337	8000	60	TL5C22W865
TL5C ESSENTIAL 22W/890 1CT/10	18	G10q	9000	80	Extra Cool Daylight	285	300	8000	60	TL5C22W890
TL5C ESSENTIAL 32W/840 1CT/10	28	G10q	4000	82	Cool White	380	380	8000	84	TL5C32W840
TL5C ESSENTIAL 32W/865 1CT/10	28	G10q	6500	80	Cool Daylight	313	337	8000	84	TL5C32W865
TL5C ESSENTIAL 32W/890 1CT/10	28	G10q	9000	80	Extra Cool Daylight	285	300	8000	84	TL5C32W890
TL5C ESSENTIAL 40W/840 1CT/10	32	G10q	4000	82	Cool White	380	380	8000	94	TL5C40W840

TL5 Circular Essential (cont'd)

Product ID	Rated Lamp Wattage [W]	Cap Base	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation	Chromaticity Coordinate X	Chromaticity Coordinate Y	Life to 50% Failures Preheat EL [hrs]	Nett Product in Grams [gr]	Comm Code
TL5C ESSENTIAL 40W/865 1CT/10	32	G10q	6500	80	Cool Daylight	313	337	8000	94	TL5C40W865
TL5C ESSENTIAL 55W/840 1CT/10	41	G10q	4000	82	Cool White	380	380	8000	115	TL5C55W840
TL5C ESSENTIAL 55W/865 1CT/10	41	G10q	6500	80	Cool Daylight	313	337	8000	115	TL5C55W865
TL5C ESSENTIAL 55W/890 1CT/10	41	G10q	9000	80	Extra Cool Daylight	285	300	8000	115	TL5C55W890
TL5C ESSENTIAL 60W/840 1CT/10	60	G10q	4000	82	Cool White	380	380	8000	130	TL5C60W840
TL5C ESSENTIAL 60W/865 1CT/10	60	G10q	6500	80	Cool Daylight	313	337	8000	130	TL5C60W865
TL5C ESSENTIAL 60W/890 1CT/10	60	G10q	9000	80	Extra Cool Daylight	285	300	8000	130	TL5C60W890

TL5 RetroSave

Product ID	Cap Base	Lamp Bulb	Lamp Life 50% Failures EL, 12h (hrs)	Lamp Life 50% Failures EL, 3h (hrs)	Lamp Wattage EL 25C (W)	Dimmable	Input Wattage (W)	Input Current (A)	Input Voltage (V)	Input Frequency (Hz)
TL5 RetroSave 14W	G13	T5	15000	10000	12	No	14.5	0.075	220-240	50-60
TL5 RetroSave 28W	G13	T5	15000	10000	23	No	28	0.130	220-240	50-60

Product ID	Color Temperature (K)	Color Description	Color Rendering Index (Ra)	Luminous Flux Lamp EL 25C (lm)	Power Factor	Batten L.O.R	Circuit Lumen Factor (EM)
TL5 RetroSave 14W	3000	Warm White	82	1260	0.85	0.88	0.89
	4000	Cool White	82	1260			
	6500	Cool Daylight	82	1200			
TL5 RetroSave 28W	3000	Warm White	82	2600	0.99	0.9	0.86
	4000	Cool White	82	2600			
	6500	Cool Daylight	82	2600			

Material Description	12nc Code
TL5 RetroSave-V 14W/830 1CT/30	927996283007
TL5 RetroSave-V 14W/840 1CT/30	927996284007
TL5 RetroSave-V 14W/865 1CT/30	927996286507
TL5 RetroSave-H 14W/830 1CT/30	927996383007
TL5 RetroSave-H 14W/840 1CT/30	927996384007
TL5 RetroSave-H 14W/865 1CT/30	927996386507
TL5 RetroSave-V 28W/830 1CT/30	927996083007
TL5 RetroSave-V 28W/840 1CT/30	927996084007
TL5 RetroSave-V 28W/865 1CT/30	927996086507
TL5 RetroSave-H 28W/830 1CT/30	927996183007
TL5 RetroSave-H 28W/840 1CT/30	927996184007
TL5 RetroSave-H 28W/865 1CT/30	927996186507

Lamps and Gear

TL-D Lifemax Super 80

Product ID	Rated Lamp Wattage [W]	Lamp Voltage [V]	Lamp Current EM/CuFe [A]	Cap Base	Color Temperature [K]	Color Designation	Color Rendering Index [Ra]
TL-D 18W/827 SLV	18	59	0.36	G13	2700	Incandescent White	82
TL-D 18W/827 UNP	18	59	0.36	G13	2700	Incandescent White	82
TL-D 18W/830 SLV	18	59	0.36	G13	3000	Warm White	83
TL-D 18W/830 UNP	18	59	0.36	G13	3000	Warm White	83
TL-D 18W/840 SLV	18	59	0.36	G13	4000	Cool White	82
TL-D 18W/840 UNP	18	59	0.36	G13	4000	Cool White	82
TL-D 18W/850 SLV	18	59	0.36	G13	5000	Daylight	80
TL-D 18W/865 3SL	18	59	0.36	G13	6500	Cool Daylight	80
TL-D 18W/865 SLV	18	59	0.36	G13	6500	Cool Daylight	80
TL-D 18W/865 UNP	18	59	0.36	G13	6500	Cool Daylight	80
TL-D 30W/827 SLV	30	98	0.36	G13	2700	Incandescent White	82
TL-D 30W/830 SLV	30	98	0.36	G13	3000	Warm White	83
TL-D 30W/840 SLV	30	98	0.36	G13	4000	Cool White	82
TL-D 30W/865 SLV	30	98	0.36	G13	6500	Cool Daylight	80
TL-D 36W/827 SLV	36	103	0.44	G13	2700	Incandescent White	82
TL-D 36W/827 UNP	36	103	0.44	G13	2700	Incandescent White	82
TL-D 36W/830 SLV	36	103	0.44	G13	3000	Warm White	83
TL-D 36W/830 UNP	36	103	0.44	G13	3000	Warm White	83
TL-D 36W/840 SLV	36	103	0.44	G13	4000	Cool White	82
TL-D 36W/840 UNP	36	103	0.44	G13	4000	Cool White	82
TL-D 36W/850 SLV	36	103	0.44	G13	5000	Daylight	80
TL-D 36W/865 3SL	36	103	0.44	G13	6500	Cool Daylight	80
TL-D 36W/865 SLV	36	103	0.44	G13	6500	Cool Daylight	80
TL-D 36W/865 SLV	36	103	0.44	G13	6500	Cool Daylight	80
TL-D 36W/865 UNP	36	103	0.44	G13	6500	Cool Daylight	80
TL-D 58W/830 SLV	58	111	0.67	G13	3000	Warm White	83
TL-D 58W/840 SLV	58	111	0.67	G13	4000	Cool White	82
TL-D 58W/865 SLV	58	111	0.67	G13	6500	Cool Daylight	80

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Life to 50% Failures EM [hrs]	Luminous Flux Lamp EM/CuFe [lm]	Nett Product in Grams [gr]	Comm Code
TL-D 18W/827 SLV	468	417	13000	1350	82.9	TLD18W827
TL-D 18W/827 UNP	468	417	13000	1350	82.9	TLD18W827BP
TL-D 18W/830 SLV	439	404	13000	1350	82.9	TLD18W830
TL-D 18W/830 UNP	439	404	13000	1350	82.9	TLD18W830BP
TL-D 18W/840 SLV	382	380	13000	1350	82.9	TLD18W840
TL-D 18W/840 UNP	382	380	13000	1350	82.9	TLD18W840BP
TL-D 18W/850 SLV	349	361	13000	1310	82.9	TLD18W850
TL-D 18W/865 3SL	318	337	13000	1275	82.9	TLD18W865PK3
TL-D 18W/865 SLV	318	337	13000	1275	82.9	TLD18W865
TL-D 18W/865 UNP	318	337	13000	1275	82.9	TLD18W865BP
TL-D 30W/827 SLV	463	420	13000	2400	132.7	TLD30W827
TL-D 30W/830 SLV	441	407	13000	2400	132.7	TLD30W830
TL-D 30W/840 SLV	384	383	13000	2400	132.7	TLD30W840
TL-D 30W/865 SLV	319	338	13000	2300	132.7	TLD30W865
TL-D 36W/827 SLV	466	417	15000	3250	127.7	TLD36W827
TL-D 36W/827 UNP	466	417	15000	3250	127.7	TLD36W827BP
TL-D 36W/830 SLV	438	403	15000	3250	127.7	TLD36W830
TL-D 36W/830 UNP	438	403	15000	3250	127.7	TLD36W830BP
TL-D 36W/840 SLV	381	379	15000	3250	127.7	TLD36W840
TL-D 36W/840 UNP	381	379	15000	3250	127.7	TLD36W840BP
TL-D 36W/850 SLV	346	359	15000	3170	127.7	TLD36W850
TL-D 36W/865 3SL	316	336	15000	3070	127.7	TLD36W865PK3
TL-D 36W/865 SLV	316	336	15000	3070	127.7	TLD36W865
TL-D 36W/865 SLV	316	336	15000	3070	127.7	TLD36W865
TL-D 36W/865 UNP	316	336	15000	3070	127.7	TLD36W865BP
TL-D 58W/830 SLV	435	404	15000	5150	232.1	TLD58W830

TL-D Lifemax Super 80 (cont'd)

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Life to 50% Failures EM [hrs]	Luminous Flux Lamp EM/CuFe [lm]	Nett Product in Grams [gr]	Comm Code
TL-D 58W/840 SLV	380	381	15000	5200	232.1	TLD58W840
TL-D 58W/865 SLV	317	339	15000	4800	232.1	TLD58W865

TL-D Lifemax Standard Colors

Product ID	Rated Lamp Wattage [W]	Cap Base	Lamp Voltage [V]	Lamp Current EM/CuFe [A]	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation
TL-D 10W/33-640 SLV	10	G13	44.5	0.230	4100	60	Cool White
TL-D 10W/33-640 SLV	10	G13	44.5	0.230	4100	60	Cool White
TL-D 10W/54-765 SLV	10	G13	44.5	0.230	6200	75	Cool Daylight
TL-D 14W/33-640 SLV	14	G13	45	0.380	4100	63	Cool White
TL-D 14W/54-765 SLV	14	G13	45	0.380	6200	72	Cool Daylight
TL-D 15W/33-640 SLV	15	G13	51	0.34	4100	63	Cool White
TL-D 15W/54-765 SLV	15	G13	51	0.34	6200		Cool Daylight
TL-D 15W/54-765 SLV	15	G13	51	0.34	6200	72	Cool Daylight
TL-D 18W/29-530 SLV	18	G13	59	0.360	2900	51	Warm White
TL-D 18W/35-535 SLV	18	G13	59	0.360	3500	55	White
TL-D 18W/54-765 9SL	18	G13	59	0.360	6200	72	Cool Daylight
TL-D 18W/54-765 SLV	18	G13	59	0.360	6200	72	Cool Daylight
TL-D 18W/54-765 SLV	18	G13	59	0.360	6200	72	Cool Daylight
TL-D 18W/54-765 SLV	18	G13	59	0.360	6200		Cool Daylight
TL-D 18W/54-765 SLV	18	G13	59	0.360	6200	72	Cool Daylight
TL-D 30W/29-530 SLV	30	G13	98	0.360	2900		Warm White
TL-D 30W/33-640 SLV	30	G13	98	0.360	4100	63	Cool White
TL-D 30W/35-535 SLV	30	G13	98	0.360	3500		White
TL-D 30W/54-765 SLV	30	G13	98	0.360	6200	72	Cool Daylight
TL-D 36W/29-530 SLV	36	G13	103	0.440	2900	51	Warm White
TL-D 36W/33-640 SLV	36	G13	103	0.440	4100	63	Cool White
TL-D 36W/33-640 UNP	36	G13	103	0.440	4100	63	Cool White
TL-D 36W/54-765 9SL	36	G13	103	0.440	6200	72	Cool Daylight
TL-D 36W/54-765 SLV	36	G13	103	0.440	6200	72	Cool Daylight
TL-D 36W/54-765 SLV	36	G13	103	0.440	6200	72	Cool Daylight
TL-D 36W/54-765 SLV	36	G13	103	0.440	6200	72	Cool Daylight
TL-D 36W/54-765 SLV	36	G13	103	0.440	6200	72	Cool Daylight
TL-D 36W/54-765 UNP	36	G13	103	0.440	6200	72	Cool Daylight
TL-D 58W/29-530 SLV	58	G13	111	0.670	2900	51	Warm White
TL-D 58W/33-640 SLV	58	G13	111	0.670	4100	63	Cool White
TL-D 58W/35-535 SLV	58	G13	111	0.670	3500	55	White
TL-D 58W/54-765 SLV	58	G13	111	0.670	6200	72	Cool Daylight
TL-D 58W/54-765 SLV	58	G13	111	0.670	6200	72	Cool Daylight

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Luminous Flux Lamp EM/CuFe [lm]	Life to 50% Failures EM [hrs]	Nett Product in Grams [gr]	Comm Code
TL-D 10W/33-640 SLV	377	381	500	5000	60	TLD10W33
TL-D 10W/33-640 SLV	377	381	500	5000	60	TLD10W33
TL-D 10W/54-765 SLV	313	337	430	5000	60	TLD10W54
TL-D 14W/33-640 SLV	377	381	750	13000	66	TLD14W33
TL-D 14W/54-765 SLV	317	342	660	13000	66	TLD14W54
TL-D 15W/33-640 SLV	377	381	960	13000	76	TLD15W33
TL-D 15W/54-765 SLV	313	337	830	13000	76	TLD15W54
TL-D 15W/54-765 SLV	313	337	830	13000	76	TLD15W54
TL-D 18W/29-530 SLV	440	403	1250	13000	82.9	TLD18W29
TL-D 18W/35-535 SLV	409	394	1150	13000	82.9	TLD18W35
TL-D 18W/54-765 9SL	313	337	1050	13000	82.9	TLD18W54PK9

TL-D Lifemax Standard Colors (cont'd)

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Luminous Flux Lamp EM/CuFe [lm]	Life to 50% Failures EM [hrs]	Nett Product in Grams [gr]	Comm Code
TL-D 18W/54-765 SLV	313	337	1050	13000	82.9	TLD18W54
TL-D 18W/54-765 SLV	313	337	1050	13000	82.9	TLD18W54OEM
TL-D 18W/54-765 SLV	313	337	1050	13000	82.9	TLD18W54
TL-D 18W/54-765 SLV	313	337	1050	13000	82.9	TLD18W54PK6
TL-D 30W/29-530 SLV	440	403	2175	13000	132.7	TLD30W29
TL-D 30W/33-640 SLV	377	381	2100	13000	132.7	TLD30W33
TL-D 30W/35-535 SLV	409	394	2300	13000	132.7	TLD30W35
TL-D 30W/54-765 SLV	313	337	1825	13000	132.7	TLD30W54
TL-D 36W/29-530 SLV	440	403	2975	13000	127.7	TLD36W29
TL-D 36W/33-640 SLV	377	381	2850	13000	127.7	TLD36W33
TL-D 36W/33-640 UNP	377	381	2850	13000	127.7	TLD36W33BP
TL-D 36W/54-765 9SL	313	337	2500	13000	127.7	TLD36W54PK9
TL-D 36W/54-765 SLV	313	337	2500	13000	127.7	TLD36W54
TL-D 36W/54-765 SLV	313	337	2500	13000	127.7	TLD36W54
TL-D 36W/54-765 SLV	313	337	2500	13000	127.7	TLD36W54OEM
TL-D 36W/54-765 SLV	313	337	2500	13000	127.7	TLD36W54PK6
TL-D 36W/54-765 UNP	313	337	2500	13000	127.7	TLD36W54BP
TL-D 58W/29-530 SLV	433	403	4700	13000	232.1	TLD58W29
TL-D 58W/33-640 SLV	372	381	4600	13000	232.1	TLD58W33
TL-D 58W/35-535 SLV	403	394	4600	13000	232.1	TLD58W35
TL-D 58W/54-765 SLV	315	341	4000	13000	232.1	TLD58W54
TL-D 58W/54-765 SLV	315	341	4000	13000	232.1	TLD58W54

TL-E Lifemax Super 80

Product ID	Rated Lamp Wattage [W]	Cap Base	Lamp Voltage [V]	Lamp Current EM/CuFe [A]	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation
TL-E 22W/840 1CT	22		62	0.400	4000	85	Cool White
TL-E 22W/840 UNP	22	G10q	62	0.400		85	Cool White
TL-E 22W/865 1CT	22		62	0.400	6500	85	Cool Daylight
TL-E 22W/865 UNP	22	G10q	62	0.400		85	Cool Daylight
TL-E 32W/830 1CT	32		81	0.450	3000	85	Warm White
TL-E 32W/840 UNP	32	G10q	81	0.450	4000	85	Cool White
TL-E 32W/850 1CT	32		81	0.450	5000	82	Daylight
TL-E 32W/865 1CT	32	G10q	81	0.450	6500	85	Cool Daylight
TL-E 32W/865 1CT	32		81	0.450	6500	85	Cool Daylight
TL-E 32W/865 UNP	32	G10q	81	0.450	6500	85	Cool Daylight
TL-E 40W/840 UNP	40		110	0.420	4000	85	Cool White
TL-E 40W/865 1CT	40	G10q	110	0.420	6500	85	Cool Daylight
TL-E 40W/865 UNP	40		110	0.420	6500	85	Cool Daylight

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Luminous Flux Lamp EM/CuFe [lm]	Luminous Efficacy Lamp EM [lm/W]	Life to 50% Failures EM [hrs]	Nett Product in Grams [gr]	Comm Code
TL-E 22W/840 1CT	381	379	1285	61.4	9000	150	TLE22W840
TL-E 22W/840 UNP	381	379	1285	61.4	9000	150	TLE22W840BP
TL-E 22W/865 1CT	316	336	1250	59.1	9000	150	TLE22W865
TL-E 22W/865 UNP	316	336	1250	59.1	9000	150	TLE22W865BP
TL-E 32W/830 1CT	438	403	2300	74	9000	262	TLE32W830
TL-E 32W/840 UNP	381	379	2300	74	9000	262	TLE32W840BP
TL-E 32W/850 1CT	346	359	2350	73	9000	262	TLE32W850
TL-E 32W/865 1CT	316	336	2310	72	9000	262	TLE32W865
TL-E 32W/865 1CT	316	336	2310	72	9000	262	TLE32W865
TL-E 32W/865 UNP	316	336	2310	72	9000	262	TLE32W865BP
TL-E 40W/840 UNP	381	379	3200	80	9000	400	TLE40W840BP

TL-D Lifemax Super 80 (cont'd)

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Luminous Flux Lamp EM/CuFe [lm]	Luminous Efficacy Lamp EM [lm/W]	Life to 50% Failures EM [hrs]	Nett Product in Grams [gr]	Comm Code
TL-E 40W/865 1CT	316	336	3070	77	9000	400	TLE40W865
TL-E 40W/865 UNP	316	336	3070	77	9000	400	TLE40W865BP

TL-E Lifemax Standard Colors

Product ID	Rated Lamp Wattage [W]	Cap Base	Lamp Voltage [V]	Lamp Current EM/CuFe [A]	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation
TL-E 22W/33-640 1CT	22	G10q	62	0.400	4100	63	Cool White
TL-E 22W/33-640 UNP	22	G10q	62	0.400	4100	63	Cool White
TL-E 22W/54-765 1CT	22	G10q	62	0.400	6200	72	Cool Daylight
TL-E 22W/54-765 UNP	22		62	0.400	6200	72	Cool Daylight
TL-E 32W/33-640 1CT	32	G10q	81	0.450	4100	63	Cool White
TL-E 32W/33-640 UNP	32	G10q	81	0.450	4100	63	Cool White
TL-E 32W/54-765 1CT	32	G10q	81	0.450	6200	72	Cool Daylight
TL-E 32W/54-765 2CT	32	G10q	81	0.450	6200	72	Cool Daylight
TL-E 32W/54-765 UNP	32	G10q	81	0.450	6200	72	Cool Daylight
TL-E 40W/33-640 1CT	40	G10q	110	0.420	4100	63	Cool White
TL-E 40W/33-640 UNP	40	G10q	110	0.420	4100	63	Cool White
TL-E 40W/54-765 1CT	40	G10q	110	0.420	6200	72	Cool Daylight
TL-E 40W/54-765 UNP	40	G10q	110	0.420	6200	72	Cool Daylight

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Luminous Flux Lamp EM/CuFe [lm]	Luminous Efficacy Lamp EM [lm/W]	Life to 50% Failures EM [hrs]	Nett Product in Grams [gr]	Comm Code
TL-E 22W/33-640 1CT	377	381	1250	57	9000	150	TLE22W33
TL-E 22W/33-640 UNP	377	381	1250	57	9000	150	TLE22W33BP
TL-E 22W/54-765 1CT	313	337	1050	48	9000	150	TLE22W54
TL-E 22W/54-765 UNP	313	337	1050	48	9000	150	TLE22W54BP
TL-E 32W/33-640 1CT	377	381	2050	64	9000	262	TLE32W33
TL-E 32W/33-640 UNP	377	381	2050	64	9000	262	TLE32W33BP
TL-E 32W/54-765 1CT	313	337	1750	57	9000	262	TLE32W54
TL-E 32W/54-765 2CT	313	337	1750	57	9000	262	TLE32W54PK2
TL-E 32W/54-765 UNP	313	337	1750	57	9000	262	TLE32W54BP
TL-E 40W/33-640 1CT	377	381	2900	73	9000	400	TLE40W33
TL-E 40W/33-640 UNP	377	381	2900	73	9000	400	TLE40W33BP
TL-E 40W/54-765 1CT	313	337	2500	62	9000	400	TLE40W54
TL-E 40W/54-765 UNP	313	337	2500	62	9000	400	TLE40W54BP

TL Mini Super 80

Product ID	Rated Lamp Wattage (W)	Cap Base	Lamp Voltage (V)	Lamp Current EM/CuFe (A)	Color Temperature (K)	CRI (Ra)	Color designation	Luminous Flux Lamp EM/CuFe [lm]	Life to 50% Failures Preheat EL [hrs]	Comm Code
TL Mini Super 80 4W/835 FAM	4	G5	29	0.170	3500	82	White	155	8000	TL4W835
TL Mini Super 80 6W/835 FAM	6	G5	42	0.160	3500	82	White	310	8000	TL6W835
TL Mini Super 80 6W/840 FAM	6	G5	42	0.160	4000	82	Cool White	310	8000	TL6W840
TL Mini Super 80 8W/830 FAM	8	G5	56	0.145	3000	82	Warm White	470	8000	TL8W830
TL Mini Super 80 8W/835 FAM	8	G5	56	0.145	3500	82	White	470	8000	TL8W835
TL Mini Super 80 8W/840 FAM	8	G5	56	0.145	4000	82	Cool White	470	8000	TL8W840
TL Mini Super 80 8W/865 FAM	8	G5	56	0.145	6500	82	Cool Daylight	420	8000	TL8W865
TL Mini Super 80 13W/835 FAM	13	G5	95	0.165	3500	82	White	960	8000	TL13W835

TL Mini Standard Colours

Product ID	Rated Lamp Wattage [W]	Cap Base	Lamp Voltage [V]	Lamp Current EM/CuFe [A]	Color Temperature [K]	Color Rendering Index [Ra]	Color Designation
TL Mini 4W/33-640 1PP	4	G5	29	0.170	4100	60	Cool White
TL Mini 6W/33-640 FAM	6	G5	42	0.160	4100	60	Cool White
TL Mini 6W/54-765 FAM	6	G5	42	0.160	6200	75	Cool Daylight
TL Mini 8W/33-640 IFM	8	G5	56	0.150	4100	60	Cool White
TL Mini 13W/33-640 FAM	13	G5	90	0.170	4100	60	Cool White

Product ID	Chromaticity Coordinate X	Chromaticity Coordinate Y	Luminous Flux Lamp EM/CuFe [lm]	Luminous Efficacy Lamp EM [lm/W]	Life to 50% Failures EM [hrs]	Nett Product in Grams [gr]	Comm Code
	377	381	140	32	5000	16	TL4W33PP
TL Mini 6W/33-640 FAM	377	381	260	43	10000	22	TL6W33
TL Mini 6W/54-765 FAM	313	337	230	38	10000	22	TL6W54
TL Mini 8W/33-640 IFM	377		410	48	5000	28	TL8W33
TL Mini 13W/33-640 FAM	377	381	930	71	8000	45	TL13W33

MASTER PL-C 2P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EM/CuFe (lm)	Life to 50% Failures EM (hrs)	Lumen Maintenance 2000h (%)	Comm Code
MASTER PL-C 10W/827/2P 1CT	10	G24d-1	2P	2700	82	600	10000	90	PLC10W8272P
MASTER PL-C 10W/830/2P 1CT	10	G24d-1	2P	3000	82	600	10000	90	PLC10W8302P
MASTER PL-C 10W/840/2P 1CT	10	G24d-1	2P	4000	82	600	10000	90	PLC10W8402P
MASTER PL-C 10W/865/2P 1CT	10	G24d-1	2P	6500	80	600	10000	85	PLC10W8652P
MASTER PL-C 13W/827/2P 1CT	13	G24d-1	2P	2700	82	900	10000	90	PLC13W8272P
MASTER PL-C 13W/830/2P 1CT	13	G24d-1	2P	3000	82	900	10000	90	PLC13W8302P
MASTER PL-C 13W/840/2P 1CT	13	G24d-1	2P	4000	82	900	10000	90	PLC13W8402P
MASTER PL-C 13W/865/2P 1CT	13	G24d-1	2P	6500	80	900	10000	85	PLC13W8652P
MASTER PL-C 18W/827/2P 1CT	18	G24d-2	2P	2700	82	1200	10000	92	PLC18W8272P
MASTER PL-C 18W/830/2P 1CT	18	G24d-2	2P	3000	82	1200	10000	92	PLC18W8302P
MASTER PL-C 18W/840/2P 1CT	18	G24d-2	2P	4000	82	1200	10000	92	PLC18W8402P
MASTER PL-C 18W/865/2P 1CT	18	G24d-2	2P	6500	80	1200	10000	87	PLC18W8652P
MASTER PL-C 26W/827/2P 1CT	26	G24d-3	2P	2700	82	1800	10000	92	PLC26W8272P
MASTER PL-C 26W/830/2P 1CT	26	G24d-3	2P	3000	82	1800	10000	92	PLC26W8302P
MASTER PL-C 26W/840/2P 1CT	26	G24d-3	2P	4000	82	1800	10000	92	PLC26W8402P
MASTER PL-C 26W/865/2P 1CT	26	G24d-3	2P	6500	80	1800	10000	87	PLC26W8652P

MASTER PL-C 4P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EM/CuFe (lm)	Life to 50% Failures EM (hrs)	Lumen Maintenance 2000h (%)	Comm Code
MASTER PL-C 10W/827/4P 1CT	10	G24q-1	4P	2700	82	600	10000	90	PLC10W8274P
MASTER PL-C 10W/830/4P 1CT	10	G24q-1	4P	3000	82	600	10000	90	PLC10W8304P
MASTER PL-C 10W/840/4P 1CT	10	G24q-1	4P	4000	82	600	10000	90	PLC10W8404P
MASTER PL-C 10W/865/4P 1CT	10	G24q-1	4P	6500	80	600	10000	85	PLC10W8654P
MASTER PL-C 13W/827/4P 1CT	13	G24q-1	4P	2700	82	900	10000	90	PLC13W8274P
MASTER PL-C 13W/830/4P 1CT	13	G24q-1	4P	3000	82	900	10000	90	PLC13W8304P
MASTER PL-C 13W/840/4P 1CT	13	G24q-1	4P	4000	82	900	10000	90	PLC13W8404P
MASTER PL-C 13W/865/4P 1CT	13	G24q-1	4P	6500	80	900	10000	85	PLC13W8654P

MASTER PL-C 4P (cont'd)

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EM/CuFe (lm)	Life to 50% Failures EM (hrs)	Lumen Maintenance 2000h (%)	Comm Code
MASTER PL-C 18W/827/4P 1CT	18	G24q-2	4P	2700	82	1200	10000	92	PLC18W8274P
MASTER PL-C 18W/830/4P 1CT	18	G24q-2	4P	3000	82	1200	10000	92	PLC18W8304P
MASTER PL-C 18W/840/4P 1CT	18	G24q-2	4P	4000	82	1200	10000	92	PLC18W8404P
MASTER PL-C 18W/860/4P 1CT	18	G24q-2	4P	6500	80	1200	10000	87	PLC18W8654P
MASTER PL-C 26W/827/4P 1CT	26	G24q-3	4P	2700	82	1800	10000	92	PLC26W8274P
MASTER PL-C 26W/830/4P 1CT	26	G24q-3	4P	3000	82	1800	10000	92	PLC26W8304P
MASTER PL-C 26W/840/4P 1CT	26	G24q-3	4P	4000	82	1800	10000	92	PLC26W8404P
MASTER PL-C 26W/865/4P 1CT	26	G24q-3	4P	6500	80	1800	10000	87	PLC26W8654P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EM/CuFe (lm)	Life to 50% Failures EM (hrs)	Comm Code
PL-S 5W/827/2P 1CT	5	G23	2P	2700	82	250	8000	PLS5W8272P
PL-S 5W/840/2P 1CT	5	G23	2P	4000	82	250	8000	PLS5W8402P
PL-S 7W/827/2P 1CT	7	G23	2P	2700	82	400	8000	PLS7W8272P
PL-S 7W/830/2P 1CT	7	G23	2P	3000	82	400	8000	PLS7W8302P
PL-S 7W/840/2P 1CT	7	G23	2P	4000	82	400	8000	PLS7W8402P
PL-S 7W/865/2P 1CT	7	G23	2P	6500	80	400	8000	PLS7W8652P
PL-S 9W/827/2P 1CT	9	G23	2P	2700	82	600	8000	PLS9W8272P
PL-S 9W/840/2P 1CT	9	G23	2P	4000	82	600	8000	PLS9W8402P
PL-S 9W/865/2P 1CT	9	G23	2P	6500	80	600	8000	PLS9W8652P
PL-S 11W/827/2P 1CT	11	G23	2P	2700	82	900	8000	PLS11W8272P
PL-S 11W/840/2P 1CT	11	G23	2P	4000	82	900	8000	PLS11W8402P
PL-S 11W/865/2P 1CT	11	G23	2P	6500	80	900	8000	PLS11W8652P
PL-S 13W/827/2P 1CT	13	GX23	2P	2700	82	900	8000	PLS13W8272P
PL-S 13W/840/2P 1CT	13	GX23	2P	4000	82	900	8000	PLS13W8402P
PL-S 13W/865/2P 1CT	13	GX23	2P	6500	80	900	8000	PLS13W8652P

PL-S 4P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EM/CuFe (lm)	Lumen Maintenance 2000h (%)	Life to 50% Failures (hrs)	Comm Code
PL-S 7W/827/4P 1CT	7	2G7	4P	2700	82	400	90	8000	PLS7W8274P
PL-S 7W/840/4P 1CT	7	2G7	4P	4000	82	400	90	8000	PLS7W8404P
PL-S 7W/865/4P 1CT	7	2G7	4P	6500	80	400	85	8000	PLS7W8654P
PL-S 9W/827/4P 1CT	9	2G7	4P	2700	82	600	90	8000	PLS9W8274P
PL-S 9W/840/4P 1CT	9	2G7	4P	4000	82	600	90	8000	PLS9W8404P
PL-S 11W/840/4P 1CT	11	2G7	4P	4000	82	900	95	8000	PLS11W8404P
PL-S 11W/865/4P 1CT	11	2G7	4P	6500	80	900	90	8000	PLS11W8654P

MASTER PL-L 4P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EL (lm)	Life to 50% Failures EM (hrs)	Life to 50% Failures Preheat EL (hrs)	Comm Code
MASTER PL-L 18W/827/4P 1CT	18	2G11	4P	2700	82	1200	15000	20000	PLL18W8274P
MASTER PL-L 18W/830/4P 1CT	18	2G11	4P	3000	82	1200	15000	20000	PLL18W8304P
MASTER PL-L 18W/840/4P 1CT	18	2G11	4P	4000	82	1200	15000	20000	PLL18W8404P
MASTER PL-L 18W/865/4P 1CT	18	2G11	4P	6500	80	1200	15000	20000	PLL18W8654P
MASTER PL-L 24W/827/4P 1CT	24	2G11	4P	2700	82	1800	15000	20000	PLL24W8274P
MASTER PL-L 24W/830/4P 1CT	24	2G11	4P	3000	82	1800	15000	20000	PLL24W8304P
MASTER PL-L 24W/840/4P 1CT	24	2G11	4P	4000	82	1800	15000	20000	PLL24W8404P
MASTER PL-L 24W/865/4P 1CT	24	2G11	4P	6500	80	1800	15000	20000	PLL24W8654P
MASTER PL-L 36W/827/4P 1CT	36	2G11	4P	2700	82	2900	15000	20000	PLL36W8274P
MASTER PL-L 36W/830/4P 1CT	36	2G11	4P	3000	82	2900	15000	20000	PLL36W8354P
MASTER PL-L 36W/835/4P 1CT	36	2G11	4P	3500	82	2900	15000	20000	PLL36W8304P
MASTER PL-L 36W/840/4P 1CT	36	2G11	4P	4000	82	2900	15000	20000	PLL36W8404P
MASTER PL-L 36W/865/4P 1CT	36	2G11	4P	6500	80	2900	15000	20000	PLL36W8654P
MASTER PL-L 40W/830/4P 1CT	40	2G11	4P	3000	82	3500	15000	20000	PLL40W8304P
MASTER PL-L 40W/840/4P 1CT	40	2G11	4P	4000	82	3500	15000	20000	PLL40W8404P
MASTER PL-L 55W/830/4P 1CT	55	2G11	4P	3000	82	4800	15000	20000	PLL55W8304P
MASTER PL-L 55W/835/4P 1CT	55	2G11	4P	3500	82	4800	15000	20000	PLL55W8354P
MASTER PL-L 55W/840/4P 1CT	55	2G11	4P	4000	82	4800	15000	20000	PLL55W8404P
MASTER PL-L 55W/865/4P 1CT	55	2G11	4P	6500	80	4500	15000	20000	PLL55W8654P
MASTER PL-L 80W/840/4P 1CT	80	2G11	4P	4000	82	6000	15000	20000	PLL80W8404P
PL-L 90 De Luxe Pro 36W/930/4P 1CT	36	2G11	4P	3000	90	2350	15000	20000	PLL36W9304P
PL-L 90 De LuxePro 36W/950/4P 1CT	36	2G11	4P	5300	90	2350	15000	20000	PLL36W9504P
PL-L 90 De Luxe Pro 55W/930/4P 1CT	55	2G11	4P	3000	90	3650	15000	20000	PLL55W9304P
PL-L 90 De Luxe Pro 55W/950/4P 1CT	55	2G11	4P	5300	90	3650	15000	20000	PLL55W9504P

PL-Q 2P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EM/CuFe (lm)	Lumen Maintenance 2000h (%)	Life to 50% Failures EM (hrs)	Comm Code
PL-Q 16W/827/2P	16	GR8	2P	2700	82	1050	90	10000	PLQ16W8272P
PL-Q 16W/830/2P	16	GR8	2P	3000	82	1050	90	10000	PLQ16W8302P
PL-Q 16W/835/2P	16	GR8	2P	3500	82	1050	90	10000	PLQ16W8352P
PL-Q 28W/827/2P	28	GR8	2P	2700	82	2050	90	10000	PLQ28W8272P
PL-Q 28W/830/2P	28	GR8	2P	3000	82	2050	90	10000	PLQ28W8302P

PL-Q 4P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)
PL-Q 16W/827/4P	16	GR10q	4P	2700	82
PL-Q 16W/830/4P	16	GR10q	4P	3000	82
PL-Q 16W/835/4P	16	GR10q	4P	3500	82
PL-Q 28W/827/4P	28	GR10q	4P	2700	82
PL-Q 28W/830/4P	28	GR10q	4P	3000	82
PL-Q 28W/835/4P	28	GR10q	4P	3500	82
PL-Q 28W/840/4P	28	GR10q	4P	4000	82
PL-Q 38W/827/4P	38	GR10q	4P	2700	82
PL-Q 38W/830/4P	38	GR10q	4P	3000	82

PL-Q 4P (cont'd)

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)
PL-Q 38W/835/4P	38	GR10q	4P	3500	82
PL-Q 38W/840/4P	38	GR10q	4P	4000	82

Product ID	Luminous Flux Lamp EM/CuFe (lm)	Lumen Maintenance 2000h (%)	Life to 50% Failures EM (hrs)	Life to 50% Failures Preheat EL (hrs)	Life to 50% Failures Non-Preheat EL (hrs)	Comm Code
PL-Q 16W/827/4P	1050	90	10000	12000	6000	PLQ16W8274P
PL-Q 16W/830/4P	1050	90	10000	12000	6000	PLQ16W8304P
PL-Q 16W/835/4P	1050	90	10000	12000	6000	PLQ16W8354P
PL-Q 28W/827/4P	2050	90	10000	12000	6000	PLQ28W8274P
PL-Q 28W/830/4P	2050	90	10000	12000	6000	PLQ28W8304P
PL-Q 28W/835/4P	2050	90	10000	12000	6000	PLQ28W8354P
PL-Q 28W/840/4P	2050	90	10000	12000	6000	PLQ28W8404P
PL-Q 38W/827/4P	2850	90	10000	12000	6000	PLQ38W8274P
PL-Q 38W/830/4P	2850	90	10000	12000	6000	PLQ38W8304P
PL-Q 38W/835/4P	2850	90	10000	12000	6000	PLQ38W8354P
PL-Q 38W/840/4P	2850	90	10000	12000	6000	PLQ38W8404P

MASTER PL-T 2P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EM/CuFe (lm)	Lumen Maintenance 2000h (%)	Life to 50% Failures EM (hrs)	Nett Weight Product in Grams (gr)	Comm Code
MASTER PL-T 13W/827/2P 1CT	13	GX24d-1	2P	2700	82	900	92	10000	58	PLT13W8272PM
MASTER PL-T 13W/830/2P 1CT	13	GX24d-1	2P	3000	82	900	92	10000	58	PLT13W8302PM
MASTER PL-T 13W/840/2P 1CT	13	GX24d-1	2P	4000	82	900	92	10000	58	PLT13W8402PM
MASTER PL-T 18W/827/2P 1CT	18	GX24d-2	2P	2700	82	1200	92	10000	59	PLT18W8272PM
MASTER PL-T 18W/830/2P 1CT	18	GX24d-2	2P	3000	82	1200	92	10000	59	PLT18W8302PM
MASTER PL-T 18W/840/2P 1CT	18	GX24d-2	2P	4000	82	1200	92	10000	59	PLT18W8402PM
MASTER PL-T 26W/827/2P 1CT	26	GX24d-3	2P	2700	82	1800	92	10000	66	PLT26W8272PM
MASTER PL-T 26W/830/2P 1CT	26	GX24d-3	2P	3000	82	1800	92	10000	66	PLT26W8302PM
MASTER PL-T 26W/840/2P 1CT	26	GX24d-3	2P	4000	82	1800	92	10000	66	PLT26W8402PM

MASTER PL-T 4P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EL (lm)	Life to 50% Failures Preheat EL (hrs)	Life to 50% Failures Non-preheat EL (hrs)	Nett Weight Product in Grams (gr)	Comm Code
PL-T 13W/827/4P 1CT	13	GX24q-1	4P	2700	82	900	13000	7000	56	PLT13W8274PM
PL-T 13W/830/4P 1CT	13	GX24q-1	4P	3000	82	900	13000	7000	56	PLT13W8304PM
PL-T 13W/840/4P 1CT	13	GX24q-1	4P	4000	82	900	13000	7000	56	PLT13W8404PM
PL-T 18W/827/4P 1CT	18	GX24q-2	4P	2700	82	1200	13000	7000	58	PLT18W8274PM
PL-T 18W/830/4P 1CT	18	GX24q-2	4P	3000	82	1200	13000	7000	58	PLT18W8304PM
PL-T 18W/840/4P 1CT	18	GX24q-2	4P	4000	82	1200	13000	7000	58	PLT18W8404PM
PL-T 26W/827/4P 1CT	26	GX24q-3	4P	2700	82	1800	13000	7000	58	PLT26W8274PM
PL-T 26W/830/4P 1CT	26	GX24q-3	4P	3000	82	1800	13000	7000	64	PLT26W8304PM
PL-T 26W/840/4P 1CT	26	GX24q-3	4P	4000	82	1800	13000	7000	64	PLT26W8404PM
PL-T 32W/827/4P 1CT	32	GX24q-3	4P	2700	82	2400	13000	7000	64	PLT32W8274PM
PL-T 32W/830/4P 1CT	32	GX24q-3	4P	3000	82	2400	13000	7000	70	PLT32W8304PM
PL-T 32W/835/4P 1CT	32	GX24q-3	4P	3500	82	2400	13000	7000	70	PLT32W8354P

MASTER PL-T 4P (cont'd)

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EL (lm)	Life to 50% Failures Preheat EL (hrs)	Life to 50% Failures Non-preheat EL (hrs)	Nett Weight Product in Grams (gr)	Comm Code
PL-T 32W/840/4P 1CT	32	GX24q-3	4P	4000	82	2400	13000	7000	70	PLT32W8404P
PL-T 32W/850/4P 1CT	32	GX24q-3	4P	4000	82	2400	13000	7000	83	PLT32W8504P
PL-T 42W/827/4P 1CT	42	GX24q-4	4P	2700	82	3200	13000	7000	83	PLT42W8274PM
PL-T 42W/830/4P 1CT	42	GX24q-4	4P	3000	82	3200	13000	7000	83	PLT42W8304P
PL-T 42W/835/4P 1CT	42	GX24q-4	4P	3500	82	3200	13000	7000	83	PLT42W8354P
PL-T 42W/840/4P 1CT	42	GX24q-4	4P	4000	82	3200	13000	7000	83	PLT42W8404PM
PL-T 42W/850/4P 1CT	42	GX24q-4	4P	4000	82	3200	13000	7000	83	PLT42W8504P
PL-T 57W/827/4P 1CT	57	GX24q-5	4P	2700	82	4300	13000	7000	101	PLT57W8274PM
PL-T 57W/830/4P 1CT	57	GX24q-5	4P	3000	82	4300	13000	7000	101	PLT57W8304P
PL-T 57W/835/4P 1CT	57	GX24q-5	4P	3500	82	4300	13000	7000	101	PLT57W8354P
PL-T 57W/840/4P 1CT	57	GX24q-5	4P	4000	82	4300	13000	7000	101	PLT57W8404P
PL-T 57W/850/4P 1CT	57	GX24q-5	4P	4000	82	4300	13000	7000	101	PLT57W8504P

MASTER PL-T TOP 4P

Product ID	Rated Lamp Wattage (W)	Cap Base	Cap Base Information	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flux Lamp EL (lm)	Lumen Maintenance 2000h (%)	Life to 50% Failures Preheat EL (hrs)	Life to 50% Failures Non-Preheat EL (hrs)	Comm Code
MASTER PL-T TOP 18W/830/4P 1CT	18	GX14q-2	4P	3000	82	1200	92	13000	7000	PLTT18W8304PA
MASTER PL-T TOP 18W/840/4P 1CT	18	GX14q-2	4P	4000	82	1200	92	13000	7000	PLTT18W8404PA
MASTER PL-T TOP 26W/830/4P 1CT	26	GX14q-3	4P	3000	82	1800	92	13000	7000	PLTT26W8304PA
MASTER PL-T TOP 26W/840/4P 1CT	26	GX14q-3	4P	4000	82	1800	92	13000	7000	PLTT26W8404PA
MASTER PL-T TOP 32W/827/4P 1CT	32	GX14q-3	4P	2700	82	2400	92	13000	7000	PLTT32W8274PA
MASTER PL-T TOP 32W/830/4P 1CT	32	GX14q-3	4P	3000	82	2400	92	13000	7000	PLTT32W8304PA
MASTER PL-T TOP 32W/840/4P 1CT	32	GX14q-3	4P	4000	82	2400	92	13000	7000	PLTT32W8404PA
MASTER PL-T TOP 42W/827/4P 1CT	42	GX14q-4	4P	2700	82	3200	92	13000	7000	PLTT42W8274PA
MASTER PL-T TOP 42W/830/4P 1CT	42	GX14q-4	4P	3000	82	3200	92	13000	7000	PLTT42W8304PA
MASTER PL-T TOP 42W/840/4P 1CT	42	GX14q-4	4P	4000	82	3200	92	13000	7000	PLTT42W8404PA
MASTER PL-T TOP 57W/827/4P 1CT	57	GX14q-5	4P	2700	82	4300	92	13000	7000	PLTT57W8274PA
MASTER PL-T TOP 57W/830/4P 1CT	57	GX14q-5	4P	3000	82	4300	92	13000	7000	PLTT57W8304PA
MASTER PL-T TOP 57W/840/4P 1CT	57	GX14q-5	4P	4000	82	4300	92	13000	7000	PLTT57W8404PA

Fluorescent and Compact Fluorescent Lamp Drivers

LPS100 POTSW 1-10V DIM

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LPS100/00 POTSW 1-10V DIM	913499589901	913499589901	LPS100/00 POTSW 1-10V DIM	1	60	60	913499589901	0.088
LPS100/01 POTSW 1-10V DIM	558060 99	871150055806099	LPS100/01 POTSW 1-10V DIM	1	60	60	913499639901	0.142

LRI1653/00 ActiLume Sensor 100cm cord

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LRI1653/00 ActiLume Sensor 100cm cord	913700613872	913700613872	LRI1653/00 ActiLume Sensor100cm cord	1	48	48	913700613872	0.031

The given 12NCs are for English labeled products. For Chinese labeled products, please contact your local sales representative.

LCC1653/01 ActiLume Controller

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LRI1653/01 ActiLume Controller	913700613772	913700613772	LCC1653/01 ActiLume Controller	1	48	48	913700613772	0.031

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LRL1220 TLD	67012600	-	-	100	-	-	-	ca. 4.5
LRL1220 TL5	67010200	-	-	100	-	-	-	ca. 4.5

MicroLuxSense LRL1222/00

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R 124 TL5/PL-L EII 220-240V 50/60Hz	913700632866	913700632866	HF-R 124 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700632866	0.270
HF-R 140 PL-L EII 220-240V 50/60Hz	913700633066	913700633066	HF-R 140 PL-L EII 220-240V 50/60Hz	1	12	12	913700633066	0.260
HF-R 224 TL5/PL-L EII 220-240V 50/60Hz	913700633166	913700633166	HF-R 224 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700633166	0.325
HF-R 240 PL-L EII 220-240V 50/60Hz	913700633366	913700633366	HF-R 240 PL-L EII 220-240V 50/60Hz	1	12	12	913700633366	0.325
HF-R 424 TL5/PL-L EII 220-240V 50-60Hz	913700614866	913700614866	HF-R 424 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700614866	0.385

OccuSwitch movement detector

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LRM1070 Unit box	9137 003 27803	-	-	1	-	-	9137 003 27803	0.12
LRM1070 Outer box	9137 003 27803	-	-	42	-	-	9137 003 27903	5
LRM1080 Unit box	9137 003 27903	-	-	1	-	-	9137 003 27903	0.12
LRM1080 Outer box	9137 003 27903	-	-	42	-	-	9137 003 27903	5
LRM1081 Unit box	9137 003 34803	-	-	1	-	-	9137 003 34803	0.12
LRM1081 Outer Box	9137 003 34803	-	-	42	-	-	9137 003 34803	5
LRH1070 Unit box	9137 003 28003	-	-	1	-	-	9137 003 28003	0.044
LRH1070 Outer box	9137 003 28003	-	-	42	-	-	9137 003 28003	1.8
LCC1070 Unit box	9137 003 30303	-	-	1	-	-	9137 003 30303	0.13
LCC1070 Outer box	9137 003 30303	-	-	18	-	-	9137 003 30303	2.4

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OccuPlus sensor/controller

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LRM2070/10	9137 003 32904	-	-	1	-	-	9137 003 32904	0.12
LRM2071/10	9137 003 33304	-	-	1	-	-	9137 003 33304	0.18
LRM2080/10	9137 003 33004	-	-	1	-	-	9137 003 33004	0.12
LRM2081/10	9137 003 33404	-	-	1	-	-	9137 003 33404	0.18
LRM2090/10	9137 003 32904	-	-	1	-	-	9137 003 32904	0.12
LRM2091/00	9137 003 33503	-	-	1	-	-	9137 003 33503	0.18
LRM2095/10	9137 003 39403	-	-	1	-	-	9137 003 39403	0.12
LCC2070	9137 003 33703	-	-	1	-	-	9137 003 33703	0.13
LCC2080	9137 003 33803	-	-	1	-	-	9137 003 33803	0.13
LRH2070	9137 003 33903	-	-	1	-	-	9137 003 33903	0.05
LCU2070	9137 003 39303	-	-	1	-	-	9137 003 39303	0.16
IRT8097	9137 003 34103	-	-	1	-	-	9137 003 34103	0.16
IRT8099/10	9137 003 34203	-	-	1	-	-	9137 003 34203	0.08

ToBeTouched User interface UID8510 IR

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
UID8510 TBT IR	9137 003 35203	-	-	1	-	-	9137 003 35203	0.073

ToBeTouched User interface UID8520 DIM DALI

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
UID8520 ToBeTouched DIM DALI	9137 003 35303	-	-	1	-	-	9137 003 35203	0.11

ToBeTouched User interface UID8530 Color Temperature DMX

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
UID8530 Color Temperature DMX	9137 003 35403	-	-	1	-	-	9137 003 35403	0.108
UIA8550 ToBeTouched PSU	9137 003 38603	-	-	1	-	-	9137 003 38603	-

ToBeTouched User interface UID8540 Color DMX

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
UID8540 COLOR DMX	9137 003 35503	-	-	1	-	-	9137 003 35503	0.108
UIA8550 ToBeTouched PSU	9137 003 38603	-	-	1	-	-	9137 003 38603	-

TRIOS LRC 1010, LRC 1015

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LRC1010/20	9137 003 31703	-	-	1	-	-	9137 003 31703	0.46
LRC1015/20	913 7003 31803	-	-	1	-	-	913 7003 31803	0.33

TRIOS LRC 1020, LRC 1025

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LRC1020/20	9137 003 31503	-	-	1	-	-	9137 003 31503	0.46
LRC1025/20	9137 003 31603	-	-	1	-	-	9137 003 31603	0.33

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TRIOS LRC 1030, LRC 1035

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
LRC1030/10	9137 003 31303	-	-	1	-	-	9137 003 31303	0.46
LRC1035/10	9137 003 31403	-	-	1	-	-	9137 003 31403	0.33

HF-Regulator II for TL5 lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R 149 TL5 EII 220-240V50/60Hz	909985 30	871150090998530	HF-R 149 TL5 EII 220-240V 50/60Hz	1	12	12	913700608666	0.260
HF-R 249 TL5 EII 220-240V50/60Hz	913700608766	913700608766	HF-R 249 TL5 EII 220-240V 50/60Hz	1	12	12	913700608766	0.310
HF-R 154 TL5 EII 220-240V50/60Hz	910059 30	871150091005930	HF-R 154 TL5 EII 220-240V 50/60Hz	1	12	12	913700608866	0.270
HF-R 254 TL5 EII 220-240V50/60Hz	913700608966	913700608966	HF-R 254 TL5 EII 220-240V 50/60Hz	1	12	12	913700608966	0.325
HF-R 180 TL5/PL-L EII 220-240V50/60Hz	910110 30	871150091011030	HF-R 180 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700609066	0.285
HF-R 280 TL5/PL-L EII 220-240V50/60Hz	913700609166	913700609166	HF-R 280 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700609166	0.417
HF-R 414 TL5 EII 220-240V50-60Hz	913700614466	913700614466	HF-R 414 TL5 EII 220-240V 50/60Hz	1	10	10	913700614466	0.340
HF-R 424 TL5/PL-L EII 220-240V50-60Hz	913746 30	871150091374630	HF-R 424 TL5/PL-L EII 220-240V50/60Hz	1	10	10	913700614866	0.385
HF-R 2 14-35 TL5 EII 220-240V50/60Hz	911780 30	871150091178030	HF-R 2 14-35 TL5 EII 220-240V50/60Hz	1	12	12	913700619566	0.290
HF-R 1 14-35 TL5 EII 220-240V50/60Hz	911803 30	871150091180330	HF-R 1 14-35 TL5 EII 220-240V50/60Hz	1	12	12	913700619866	0.255
HF-R 2 95-120 TL5 EII 220-240V50/60Hz	913700623166	913700623166	HF-R 2 95-120 TL5 EII 220-240V50/60Hz	1	10	10	913700623166	0.579
HF-R 314 TL5 EII 220-240V50-60Hz	913700629466	913700629466	HF-R 314 TL5 EII 220-240V 50/60Hz	1	10	10	913700629466	0.340
HF-R 324 TL5/PL-L EII 220-240V50-60Hz	913700629666	913700629666	HF-R 324 TL5/PL-L EII 220-240V50/60Hz	1	10	10	913700629666	0.385
HF-R 124 TL5/PL-L EII 220-240V50/60Hz	914668 30	871150091466830	HF-R 124 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700632866	0.270
HF-R 139 TL5 EII 220-240V50/60Hz	914682 30	871150091468230	HF-R 139 TL5 EII 220-240V 50/60Hz	1	12	12	913700632966	0.260
HF-R 224 TL5/PL-L EII 220-240V50/60Hz	913700633166	913700633166	HF-R 224 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700633166	0.325
HF-R 239 TL5 EII 220-240V50/60Hz	914743 30	871150091474330	HF-R 239 TL5 EII 220-240V 50/60Hz	1	12	12	913700633266	0.325

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HF-Regulator II for TL-D lamps

Product	Interface (V)	Rated Number of Lamps	Rated Ballast Lamp Power	Rated Lamp Type	Application Code	Line Voltage (V)	Line Frequency (Hz)	Ignition Method	Lifetime 90% surv.@Tcaselife (hr)	Energy Efficiency Index
HF-R 136 TL-D EII 220-240V50/60Hz	1-10	1 piece	36	TL-D	EII	220-240V	50/60	Programmed Start	50000	A1
HF-R 236 TL-D EII 220-240V50/60Hz	1-10	2 piece	36	TL-D	EII	220-240V	50/60	Programmed Start	50000	A1
HF-R 258 TL-D EII 220-240V50/60Hz	1-10	2 piece	58	TL-D	EII	220-240V	50/60	Programmed Start	50000	A1
HF-R 318 TL-D EII 220-240V50-60Hz	1-10	3 piece	18	TL-D	EII	220-240V	50/60	Programmed Start	50000	A1
HF-R 418 TL-D EII 220-240V50-60Hz	1-10	4 piece	18	TL-D	EII	220-240V	50/60	Programmed Start	50000	A1

HF-Regulator II for PL-L lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R 124 TL5/PL-L EII 220-240V 50/60Hz	913700632866	913700632866	HF-R 124 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700632866	0.270
HF-R 140 PL-L EII 220-240V 50/60Hz	913700633066	913700633066	HF-R 140 PL-L EII 220-240V 50/60Hz	1	12	12	913700633066	0.260
HF-R 224 TL5/PL-L EII 220-240V 50/60Hz	913700633166	913700633166	HF-R 224 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700633166	0.325
HF-R 240 PL-L EII 220-240V 50/60Hz	913700633366	913700633366	HF-R 240 PL-L EII 220-240V 50/60Hz	1	12	12	913700633366	0.325
HF-R 424 TL5/PL-L EII 220-240V 50-60Hz	913700614866	913700614866	HF-R 424 TL5/PL-L EII 220-240V50/60Hz	1	12	12	913700614866	0.385

HF-Regulator II for PL-L lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-Regulator 1 26-42 PL-T/C EII	913700632866	913700626666	HF-R 1 26-42 PL-T/C EII 220-240V50/60Hz	1	12	12	913700626666	0.230
HF-Regulator 2 26-42 PL-T/C EII	913700626566	913700626566	HF-R 2 26-42 PL-T/C EII 220-240V50/60Hz	1	12	12	913700626566	0.200
HF-Regulator 118 PL-T/C	913700604966	913700604966	HF-R 118 PL-T/C 220-240V 50/60Hz	1	12	12	913700604966	0.195

HF-Regulator II for PL-T/C

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-Regulator 1 26-42 PL-T/C EII	913700632866	913700626666	HF-R 1 26-42 PL-T/C EII 220-240V50/60Hz	1	12	12	913700626666	0.230
HF-Regulator 2 26-42 PL-T/C EII	913700626566	913700626566	HF-R 2 26-42 PL-T/C EII 220-240V50/60Hz	1	12	12	913700626566	0.200
HF-Regulator 118 PL-T/C	913700604966	913700604966	HF-R 118 PL-T/C 220-240V 50/60Hz	1	12	12	913700604966	0.195

HF-Regulator TL5 Circular

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R 122 TL5C 220-240V 50/60Hz	913700601891	913700601891	HF-R 122 TL5C 220-240V 50/60Hz	1	12	12	913700601891	0.145
HF-R 140 TL5C 220-240V 50/60Hz	913700601991	913700601991	HF-R 140 TL5C 220-240V 50/60Hz	1	12	12	913700601991	0.145

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HF-Regulator TL5 Circular (cont'd)

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R 155 TL5C 220-240V 50/60Hz	913700662891	913700662891	HF-R 155 TL5C 220-240V 50/60Hz	1	12	12	913700662891	0.150
HF-R 160 TL5C 220-240V 50/60Hz	913700662991	913700662991	HF-R 160 TL5C 220-240V 50/60Hz	1	12	12	913700662991	0.150

HF-Regulator Intelligent Touch and Dali for TL5 lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-Ri TD 1 28/35/49/54 TL5 E+	890570 00	872790089057000	HF-Ri TD 1 28/35/49/54 TL5 E+	1	12	12	913700656066	0.261
HF-Ri TD 1 35/49/80 TL5 E+	913700655966	913700655966	HF-Ri TD 1 35/49/80 TL5 E+	1	12	12	913700655966	0.261
HF-Ri TD 2 28/35/49/54 TL5 E+	913700656166	913700656166	HF-Ri TD 2 28/35/49/54 TL5 E+	1	12	12	913700656166	0.316

HF-Regulator II Touch and Dali for TL5 lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R TD 280 TL5/PL-L EII220-240V	913700609666	913700609666	HF-R TD 280 TL5/PL-L EII 220-240V	1	12	12	913700609666	0.417
HF-R TD 414 TL5 EII 220-240V50-60Hz	913700614566	913700614566	HF-R TD 414 TL5 EII 220-240V50/60Hz	1	10	10	913700614566	0.340
HF-R TD 424 TL5/PL-L EII220-240V	913700614966	913700614966	HF-R TD 424 TL5/PL-L EII 220-240V	1	10	10	913700614966	0.385
HF-R TD 2 14-35 TL5 EII 220-240V50/60Hz	913700618866	913700618866	HF-R TD 2 14-35 TL5 EII 220-240V50/60Hz	1	12	12	913700618866	0.285
HF-R TD 314 TL5 EII 220-240V50-60Hz	913700629166	913700629166	HF-R TD 314 TL5 EII 220-240V50/60Hz	1	10	10	913700629166	0.340
HF-R TD 324 TL5/PL-L EII220-240V	913700629366	913700629366	HF-R TD 324 TL5/PL-L EII 220-240V	1	10	10	913700629366	0.370
HF-R TD 139 TL5 EII 220-240V50/60Hz	913700632366	913700632366	HF-R TD 139 TL5 EII 220-240V50/60Hz	1	12	12	913700632366	0.260
HF-R TD 224 TL5/PL-L EII220-240V	913700632566	913700632566	HF-R TD 224 TL5/PL-L EII 220-240V	1	12	12	913700632566	0.295
HF-R TD 239 TL5 EII 220-240V50/60Hz	913700632666	913700632666	HF-R TD 239 TL5 EII 220-240V50/60Hz	1	12	12	913700632666	0.295

HF-Regulator II Touch and Dali for TL-D lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R TD 136 TL-D EII 220-240V 50/60Hz	913700606766	913700606766	HF-R TD 136 TL-D EII 220-240V 50/60Hz	1	12	12	913700606766	0.260
HF-R TD 236TL-D EII 220-240V 50/60Hz	913700606866	913700606866	HF-R TD 236 TL-D EII 220-240V 50/60Hz	1	12	12	913700606866	0.295
HF-R TD 158 TL-D EII 220-240V 50/60Hz	913700606966	913700606966	HF-R TD 158 TL-D EII 220-240V 50/60Hz	1	12	12	913700606966	0.270
HF-R TD 258 TL-D EII 220-240V 50/60Hz	913700607066	913700607066	HF-R TD 258 TL-D EII 220-240V 50/60Hz	1	12	12	913700607066	0.325
HF-R TD 418 TL-D EII 220-240V 50/60Hz	913700614766	913700614766	HF-R TD 418 TL-D EII 220-240V 50/60Hz	1	10	10	913700614766	0.370
HF-R TD 218 TL-D EII 220-240V 50/60Hz	913700619466	913700619466	HF-R TD 218 TL-D EII 220-240V 50/60Hz	1	12	12	913700619466	0.250
HF-R TD 318 TL-D EII 220-240V 50/60Hz	913700629266	913700629266	HF-R TD 318 TL-D EII 220-240V 50/60Hz	1	10	10	913700629266	0.365

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HF-Regulator II Touch and Dali for PL-L lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R TD 180 TL5/PL-L EII 220-240V	913700606666	913700606666	HF-R TD 180 TL5/PL-L EII 220-240V	1	12	12	913700606666	0.285
HF-R TD 280 TL5/PL-L EII 220-240V	913700609666	913700609666	HF-R TD 280 TL5/PL-L EII 220-240V	1	12	12	913700609666	0.417
HF-R TD 424 TL5/PL-L EII 220-240V	913700614966	913700614966	HF-R TD 424 TL5/PL-L EII 220-240V	1	10	10	913700614966	0.385
HF-R TD 136 PL-L EII 220-240V50/60Hz	913700618966	913700618966	HF-R TD 136 PL-L EII 220-240V50/60Hz	1	12	12	913700618966	0.260
HF-R TD 236 PL-L EII 220-240V50/60Hz	913700619066	913700619066	HF-R TD 236 PL-L EII 220-240V50/60Hz	1	12	12	913700619066	0.305
HF-R TD 155 PL-L EII 220-240V50/60Hz	913700619166	913700619166	HF-R TD 155 PL-L EII 220-240V50/60Hz	1	12	12	913700619166	0.265
HF-R TD 255 PL-L EII 220-240V50/60Hz	913700619266	913700619266	HF-R TD 255 PL-L EII 220-240V50/60Hz	1	12	12	913700619266	0.320
HF-R TD 324 TL5/PL-L EII 220-240V	913700629366	913700629366	HF-R TD 324 TL5/PL-L EII 220-240V	1	12	12	913700629366	0.370
HF-R TD 124 TL5/PL-L EII 220-240V	913700632266	913700632266	HF-R TD 124 TL5/PL-L EII 220-240V	1	12	12	913700632266	0.260
HF-R TD 140 PL-L EII 220-240V50/60Hz	913700632466	913700632466	HF-R TD 140 PL-L EII 220-240V50/60Hz	1	12	12	913700632466	0.260
HF-R TD 224 TL5/PL-L EII 220-240V	913700632566	913700632566	HF-R TD 224 TL5/PL-L EII 220-240V	1	12	12	913700632566	0.295
HF-R TD 240 PL-L EII 220-240V50/60Hz	913700632766	913700632766	HF-R TD 240 PL-L EII 220-240V50/60Hz	1	12	12	913700632766	0.295

HF-Regulator II Touch and Dali for PL-T, PL-C and PL-R lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R TD 2 26-42 PL-T/C EII	913700625782	913700625782	HF-R TD 2 26-42 PL-T/C EII 220-240V	1	12	12	913700625782	0.230
HF-R TD 1 26-42 PL-T/C EII	913700625882	913700625882	HF-R TD 1 26-42 PL-T/C EII 220-240V	1	12	12	913700625882	0.196
HF-R TD 218 PL-T/C EII	913700625982	913700625982	HF-R TD 218 PL-T/C EII 220-240V 50/60Hz	1	-	12	913700625982	0.205
HF-R TD 118 PL-T/C EII	913700626082	913700626082	HF-R TD 118 PL-T/C EII 220-240V 50/60Hz	1	-	12	913700626082	0.195
HF-R TD 2 14-17 PL-R EII	913700626182	913700626182	HF-R TD 2 14-17 PL-R EII 220-240V	1	-	12	913700626182	0.201
HF-R TD 1 14-17 PL-R EII	913700626282	913700626282	HF-R TD 1 14-17 PL-R EII 220-240V	1	-	12	913700626282	0.195

HF-Regulator Touch and Dim/Dali TL5 Circular

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Packs per Outer Box	Logistic Code(s) 12NC	Net Weight per Piece (kg)
HF-R DALI 122 TL5C 220-240V	934536 30	871150093453630	HF-R DALI 122 TL5C 220-240V	1		12	913700600466	0.200
HF-R DALI 140 TL5C 220-240V	934512 30	871150093451230	HF-R DALI 140 TL5C 220-240V	1		12	913700600366	0.200
HF-R DALI 155 TL5C 220-240V	934499 30	871150093449930	HF-R DALI 155 TL5C 220-240V	1		12	913700600266	0.200
HF-R DALI 160 TL5C 220-240V	934475 30	871150093447530	HF-R DALI 160 TL5C 220-240V	1		12	913700600166	0.205

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HF-Regulator EssentiaLine TL5 lamps

Product	Order Code	Full Product Code	Full Product Name	Pieces per Pack	Packaging Configuration	Logistic Code(s) 12NC	Nett Weight per Piece (kg)
HF-R Es 114-35 TL5 220-240V 50/60Hz	92912600	HF-R Es 114-35 TL5 220-240V 50/60Hz	HF-R Es 114-35 TL5 220-240V 50/60Hz	1	12	913700661666	0.27
HF-R Es 149 TL5 220-240V 50/60Hz	92920100	HF-R Es 149 TL5 220-240V 50/60Hz	HF-R Es 149 TL5 220-240V 50/60Hz	1	12	913700662066	0.27
HF-R Es 154 TL5 220-240V 50/60Hz	92916400	HF-R Es 154 TL5 220-240V 50/60Hz	HF-R Es 154 TL5 220-240V 50/60Hz	1	12	913700661866	0.27
HF-R Es 214-35 TL5 220-240V 50/60Hz	92914000	HF-R Es 214-35 TL5 220-240V 50/60Hz	HF-R Es 214-35 TL5 220-240V 50/60Hz	1	12	913700661766	0.27
HF-R Es 249 TL5 220-240V 50/60Hz	92922500	HF-R Es 249 TL5 220-240V 50/60Hz	HF-R Es 249 TL5 220-240V 50/60Hz	1	12	913700662166	0.27
HF-R Es 254 TL5 220-240V 50/60Hz	92918800	HF-R Es 254 TL5 220-240V 50/60Hz	HF-R Es 254 TL5 220-240V 50/60Hz	1	12	913700661966	0.27

EB-Standard EasiDim for TL5 lamps

Lamp	QTY. of lamps	Ballast	System power (w)	Lamp power (w)	Ballast losses (w)	NOMINAL Lamp Lumen (lm)	Wiring diagram
TL5 14 W	1	EB-S ED 114 TL5	18	14	4	1200	1
TL5 14 W	2	EB-S ED 214 TL5	35	14	7	1200	2
TL5 28 W	1	EB-S ED 128 TL5	32	28	4	2600	1
TL5 28 W	2	EB-S ED 228 TL5	66	28	10	2600	2

EB-Standard EasiDim for TLD lamps

Lamp	QTY. of lamps	Ballast	System power (w)	Lamp power (w)	Ballast losses (w)	NOMINAL Lamp Lumen (lm)	Wiring diagram
TLD 18 W	1	EB-S ED 118 TLD	20	15.8	4.2	1350	1
TLD 18 W	2	EB-S ED 218 TLD	39	15.8	7.4	1350	2
TLD 36 W	1	EB-S ED 136 TLD	38	32.4	5.6	3350	1
TLD 36 W	2	EB-S ED 236 TLD	74	31.8	10.4	3350	2
TLD 58 W	1	EB-S ED 158 TLD	54	48.0	6.0	5200	1
TLD 58 W	2	EB-S ED 258 TLD	108	48.0	12.0	5200	2

HF-PERFORMER III TL5 / TL5 Eco

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Nominal Lamp** (Lm)
TL5 HE ECO 13W	1	HF-P 1 14-35 TL5 III 220-240V	14.4	1x12.5	1.9	1150
TL5 HE ECO 13W	2	HF-P 2 14-35 TL5 III 220-240V	27.7	2x12.5	2.7	1150
TL5 HE 14W	1	HF-P 1 14-35 TL5 III 220-240V	16.0	1x14.0	2.0	1200
TL5 HE 14W	2	HF-P 2 14-35 TL5 III 220-240V	30.8	2x14.0	2.8	1200
TL5 HE ECO 19W	1	HF-P 1 14-35 TL5 III 220-240V	19.9	1x18.1	1.8	1800
TL5 HE ECO 19W	2	HF-P 2 14-35 TL5 III 220-240V	39.0	2x18.0	3.0	1800
TL5 HE 21W	1	HF-P 1 14-35 TL5 III 220-240V	23.2	1x21.0	2.2	1900
TL5 HE 21W	2	HF-P 2 14-35 TL5 III 220-240V	45.2	2x21.0	3.2	1900
TL5 HE ECO 25W	1	HF-P 1 14-35 TL5 III 220-240V	27.7	1x25.4	2.3	2450
TL5 HE ECO 25W	2	HF-P 2 14-35 TL5 III 220-240V	54.4	2x25.4	3.6	2450
TL5 HE 28W	1	HF-P 1 14-35 TL5 III 220-240V	30.5	1x28.0	2.5	2600
TL5 HE 28W	2	HF-P 2 14-35 TL5 III 220-240V	60.5	2x28.0	4.5	2600
TL5 HE ECO 32W	1	HF-P 1 14-35 TL5 III 220-240V	34.9	1x32.3	2.6	3100
TL5 HE ECO 32W	2	HF-P 2 14-35 TL5 III 220-240V	69.3	2x32.3	4.7	3100

** Lumen measured at 25°C for 840 lamp color (maximum TL5 lumen output at 35°C)

HF-PERFORMER III TL5 / TL5 Eco (cont'd)

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Nominal Lamp** (Lm)
TL5 HE 35W	1	HF-P 1 14-35 TL5 III 220-240V	38.0	1x35.0	3.0	3300
TL5 HE 35W	2	HF-P 2 14-35 TL5 III 220-240V	75.6	2x35.0	5.6	3300
TL5 HO ECO 20W	1	HF-P 1 24-39 TL5 III 220-240V	24.0	1x20.5	3.5	1650
TL5 HO ECO 20W	2	HF-P 2 24-39 TL5 III 220-240V	46.8	2x21.5	3.8	1650
TL5 HO 24W	1	HF-P 1 24-39 TL5 III 220-240V	28.0	1x24.0	4.0	1750
TL5 HO 24W	2	HF-P 2 24-39 TL5 III 220-240V	53.0	2x24.5	4.0	1750
TL5 HO ECO 34W	1	HF-P 1 24-39 TL5 III 220-240V	37.5	1x34.0	3.5	3250
TL5 HO ECO 34W	2	HF-P 2 24-39 TL5 III 220-240V	76.0	2x34.5	7.0	3250
TL5 HO 39W	1	HF-P 1 24-39 TL5 III 220-240V	43.0	1x39.0	4.0	3100
TL5 HO 39W	2	HF-P 2 24-39 TL5 III 220-240V	86.0	2x39.0	8.0	3100
TL5 HO ECO 45W	1	HF-P 149 TL5 III 220-240V	49.6	1x46.7	2.9	4100
TL5 HO ECO 45W	2	HF-P 249 TL5 III 220-240V	98.3	1x46.9	4.5	4100
TL5 HO 49W	1	HF-P 149 TL5 III 220-240V	54.5	1x51.0	3.5	4375
TL5 HO 49W	2	HF-P 249 TL5 III 220-240V	110.0	2x52.0	6.0	4375
TL5 HO ECO 50W	1	HF-P 154/155 TL5/PL-L III 220-240V	54.2	1x50.3	3.9	4400
TL5 HO ECO 50W	2	HF-P 254/255 TL5/PL-L III 220-240V	106.2	1x50.3	5.6	4400
TL5 HO 54W	1	HF-P 154/155 TL5/PL-L III 220-240V	60.5	1x56.0	4.5	4450
TL5 HO 54W	2	HF-P 254/255 TL5/PL-L III 220-240V	118.0	2x56.0	6.0	4450
TL5 HO ECO 73W	1	HF-P 180 TL5/PL-L III 220-240V	80.0	1x73.0	7.0	6550
TL5 HO ECO 73W	2	HF-P 280 TL5/PL-L III 220-240V	155.0	2x73.0	10.0	6550
TL5 HO 80W	1	HF-P 180 TL5/PL-L III 220-240V	88.0	1x80.0	8.0	6550
TL5 HO 80W	2	HF-P 280 TL5/PL-L III 220-240V	170.0	2x80.0	11.0	6550

** Lumen measured at 25°C for 840 lamp color (maximum TL5 lumen output at 35°C)

HF-PERFORMER III TL-D

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Nominal Lamp** (Lm)
TL-D 18W	1	HF-P 118 TL-D III 220-240V	18.5	1 x 16.0	2.5	1350
TL-D 18W	2	HF-P 218 TL-D III 220-240V	35.5	2 x 16.0	3.5	1350
TL-D 18W	3	HF-P 3/418 TL-D III 220-240V	52.5	3 x 16.0	4.5	1350
TL-D 18W	4	HF-P 3/418 TL-D III 220-240V	69.5	4 x 16.0	5.5	1350
TL-D 36W	1	HF-P 136 TL-D III 220-240V	35.0	1 x 32.0	3.0	3350
TL-D 36W	2	HF-P 236 TL-D III 220-240V	70.0	2 x 32.0	6.0	3350
TL-D 36W	3	HF-P 336 TL-D III 220-240V	104.0	3 x 32.0	8.0	3350
TL-D 58W	1	HF-P 158 TL-D III 220-240V	54.5	1 x 50.0	4.5	5200
TL-D 58W	2	HF-P 258 TL-D III 220-240V	106.0	2 x 50.0	6.0	5200

HF-PERFORMER III PLL

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Nominal Lamp** (Lm)
PL-L 36W	1	HF-P 136 PL-L III 220-240V 50/60Hz IDC	35.0	1x31.5	3.5	2900
PL-L 36W	2	HF-P 236 PL-L III 220-240V 50/60Hz IDC	67.0	2x31.5	4.0	2900
PL-L 40W	1	HF-P 140 PL-L III 220-240V 50/60Hz IDC	45.0	1x41.0	4.0	3500
PL-L 40W	2	HF-P 240 PL-L III 220-240V 50/60Hz IDC	82.0	1x38.5	5.0	3500
PL-L 55W	1	HF-P 155 PL-L III 220-240V 50/60Hz IDC	60.0	1x55.0	5.0	4800
PL-L 55W	2	HF-P 255 PL-L III 220-240V 50/60Hz IDC	110.0	1x52.0	6.0	4800
PL-L 55W	1	HF-P 154/155 TL5/PL-L III 220-240V	57.5	1x53.0	4.5	4800
PL-L 55W	2	HF-P 254/255 TL5/PL-L III 220-240V	107.0	2x50.5	6.0	4800
PL-L 80W	1	HF-P 180 TL5/PL-L III 220-240V 50/60Hz	88.0	1x80.0	8.0	6000
PL-L 80W	2	HF-P 280 TL5/PL-L III 220-240V 50/60Hz	170.0	2x80.0	11.0	6000

** Lumen measured at 25°C for 840 lamp color (maximum TL5 lumen output at 35°C)

HF-P EII TL5C

Type	Number of Lamps (x)	Rated Gear-Lamp Power	Power losses gear (W)	Energy Efficiency Index	Line Frequency (Hz)	Line Voltage (V)	T-case life (°C)	T-case maximum (°C)
HF-Performer 1 22-42 PL-T/C/L/TL5C/L EII	1	22-42	2.3-3.0	A2	50/60	220-240	75	75
HF-Performer 155 TL5C	1	55	5	A2	50/60	220-240	65	75
HF-Performer 160 TL5C	1	60	5	A2	50/60	220-240	65	75
HF-Performer 2 22-42 PL-T/C/TL5C/L EII	2	22-42	4	A2	50/60	220-240	75	75

Type	T-ambient (x)	Cable-Cap outputwires to earth (pF)	Cable-Cap outputwires mutual (pF)
HF-Performer 1 22-42 PL-T/C/L/TL5C/L EII	50	200	200
HF-Performer 155 TL5C	50	120	60
HF-Performer 160 TL5C	50	120	60
HF-Performer 2 22-42 PL-T/C/TL5C/L EII	50	200	200

HF-PERFORMER III PL-T/C

Lamp	Qty of lamps	Ballast	Watt Loss (W)	Input power (W)	Mains current during operation (MA)	Power factor	Capacitor µF/V	Wiring diagram Fig.	tw °C	Δt °C
PL-S 7W/9W/11W	1	BPL-9W 220V B2 SC/DI	4.7	11.7/13.7/15.7	160/170/150	>0.85	2.0±10%, 250V	1	130	55
PL-S 7W	2	BPL-9W 220V B2 SC/DI	4.7	18.7	140	>0.85	2.0±10%, 250V	2	130	55
PL-C 13W	1	BPL-13W 220V B2 SC/DI	4	17	165	>0.85	1.6±10%, 250V	1	130	50
PL-S 7W/9W	2	BPL-13W 220V B2 SC/DI	4	18/22	140/170	>0.85	1.6±10%, 250V	2	130	50
PL-C 13W	1	BPL-13W 220V B1 SC	4	17	165	>0.85	1.6±10%, 250V	1	130	50
PL-S 7W/9W	2	BPL-13W 220V B1 SC	4	18/22	140/170	>0.85	1.6±10%, 250V	2	130	50
PL-C 18W	1	BPL-18W 220V B2 SC/DI	4	23.3	212	>0.85	2.0±10%, 250V	1	130	60
PL-C 18W	1	BPL-18W 220V B1 SC	5.3	23.3	212	>0.85	2.0±10%, 250V	1	130	60
PL-C 26W	1	BPL-26W 220V B2 SC/DI	5.3	32.4	310	>0.85	3.0±10%, 250V	1	130	55
PL-S 7W/9W/11W	1	BPL-9W 220V/60Hz B2 SC	6.4	11.5/13.5/15.5	160/170/150	>0.85	2.0±10%, 250V	1	130	55
PL-S 7W	2	BPL-9W 220V/60Hz B2 SC	4.5	18.5	140	>0.85	2.0±10%, 250V	2	130	55
PL-C 13W	1	BPL-13W 220V/60Hz B2 SC	4.5	16.8	165	>0.85	1.4±10%, 250V	1	130	50
PL-S 7W/9W	2	BPL-13W 220V/60Hz B2 SC	3.8	17.8/21.8	140/170	>0.85	1.4±10%, 250V	2	130	50
PL-C 13W	1	BPL-13W 220V/60Hz B1 SC	3.8	16.8	165	>0.85	1.4±10%, 250V	1	130	50
PL-S 7W/9W	2	BPL-13W 220V/60Hz B1 SC	3.8	17.8/21.8	140/170	>0.85	1.4±10%, 250V	2	130	50
PL-C 18W	1	BPL-18W 220V/60Hz B2 SC	5.3	23	212	>0.85	2.0±10%, 250V	1	130	60
PL-C 18W	1	BPL-18W 220V/60Hz B1 SC	5.3	23	212	>0.85	2.0±10%, 250V	1	130	60
PL-S 7W/9W/11W	1	BPL-9W 230V B2 SC/DI	5.1	12.1/14.1/16.1	160/170/150	>0.85	2.0±10%, 250V	1	130	60
PL-S 7W	2	BPL-9W 230V B2 SC/DI	5.1	19.1	140	>0.85	2.0±10%, 250V	2	130	60
PL-C 13W	1	BPL-13W 230V B2 SC	4.1	17.1	165	>0.85	1.6±10%, 250V	1	130	55
PL-S 7W/9W	2	BPL-13W 230V B2 SC	4.1	18.1/22.1	140/170	>0.85	1.6±10%, 250V	1	130	55
PL-C 13W	1	BPL-13W 230V B1 SC	4.1	17.1	165	>0.85	1.6±10%, 250V	2	130	55
PL-S 7W/9W	2	BPL-13W 230V B1 SC	4.1	18.1/22.1	140/170	>0.85	1.6±10%, 250V	1	130	55
PL-C 18W	1	BPL-18W 230V B2 SC/DI	5.4	23.4	212	>0.85	2.0±10%, 250V	2	130	60
PL-C 18W	1	BPL-18W 230V B1 SC/DI	5.4	23.4	212	>0.85	2.0±10%, 250V	1	130	60
PL-C 126W	1	BPL-26W 230V B2 SC/DI	6.9	32.9	140/170	>0.85	1.6±10%, 250V	1	130	55
PL-S 7W/9W/11W	1	BPL-9W 240V B2 SC	5.2	12.2/14.2/16.2	165	>0.85	1.6±10%, 250V	1	130	60
PL-S 7W	2	BPL-9W 240V B2 SC	5.2	19.2	140/170	>0.85	1.6±10%, 250V	2	130	60
PL-C 13W	1	BPL-13W 240V B2 SC	4.4	17.4	212	>0.85	2.0±10%, 250V	1	130	55
PL-S 7W/9W	2	BPL-13W 240V B2 SC	4.4	18.4/22.4	212	>0.85	2.0±10%, 250V	2	130	55
PL-C 13W	1	BPL-13W 240V B1 SC	4.4	17.4	165	>0.85	1.6±10%, 250V	1	130	55
PL-S 7W/9W	2	BPL-13W 240V B1 SC	4.4	18.4/22.4	140/170	>0.85	1.6±10%, 250V	2	130	55
PL-C 18W	1	BPL-18W 240V B2 SC	5.8	23.8	212	>0.85	2.0±10%, 250V	1	130	60
PL-C 18W	1	BPL-18W 240V B1 SC	5.8	23.8	212	>0.85	2.0±10%, 250V	1	130	60
PL-C 26W	1	BPL-26W 240V B2 SC/DI	7.3	33.3	310	>0.85	3.0±10%, 250V	1	130	55

HF-Selectalume II TL5

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Nominal Lamp* (Lm)
TL5 HE 14W	1	HF-S 114-21 TL5 II 220-240V	17.0	1x14.0	3.0	1200
TL5 HE 14W	2	HF-S 214 TL5 II 220-240V	31.0	2x13.5	4.0	1200
TL5 HE 14W	3	HF-S 3/414 TL5 II 220-240V	48.0	3x14.0	6.0	1200
TL5 HE 14W	4	HF-S 3/414 TL5 II 220-240V	64.0	4x14.0	8.0	1200
TL5 HE 21W	1	HF-S 114-21 TL5 II 220-240V	23.5	1x21.0	2.5	1900
TL5 HE 21W	2	HF-S 221-28 TL5 II 220-240V	47.0	2x21.0	5.0	1900
TL5 HE 28W	1	HF-S 128-35 TL5 II 220-240V	31.5	1x28.0	3.5	2600
TL5 HE 28W	2	HF-S 221-28 TL5 II 220-240V	62.0	2x28.0	6.0	2600
TL5 HE 35W	1	HF-S 128-35 TL5 II 220-240V	39.5	1x36.0	3.5	3300
TL5 HE 35W	2	HF-S 235 TL5 II 220-240V	77.0	2x35.0	7.0	3300
TL5 HO 49W	1	HF-S 149 TL5 II 220-240V	55.2	1x49.0	4.0	4300
TL5 HO 49W	2	HF-S 249 TL5 II 220-240V	112.0	2x49.0	10.6	4300
TL5 HO 54W	1	HF-S 154 TL5 II 220-240V	59.0	1x54.0	5.0	4450
TL5 HO 54W	2	HF-S 254 TL5 II 220-240V	114.0	2x54.0	13.4	4450

HF-Selectalume II TL-D

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Nominal Lamp** (Lm)
TL-D 18W	1	HF-S 118 TL-D II 220-240V	19.5	1x16.0	3.5	1350
TL-D 18W	2	HF-S 218 TL-D II 220-240V	39.0	2x16.5	6.0	1350
TL-D 18W	3	HF-S 3/418 TL-D II 220-240V	56.5	3x16.0	8.5	1350
TL-D 18W	4	HF-S 3/418 TL-D II 220-240V	69.0	4x15.0	9.0	1350
TL-D 36W	1	HF-S 136 TL-D II 220-240V	38.0	1x32.0	6.0	3350
TL-D 36W	2	HF-S 236 TL-D II 220-240V	69.0	2x30.5	8.0	3350
TL-D 36W	3	HF-S 336 TL-D II 220-240V	107.0	3x32.8	8.6	3350
TL-D 58W	1	HF-S 158 TL-D II 220-240V	57.0	1x50.0	7.0	5200
TL-D 58W	2	HF-S 258 TL-D II 220-240V	110.0	2x50.0	10.0	5200

(all typical values at Vmains = 230V)

EB-Certalume TL5

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Power Factor	Ballast Lumen Factor	EEI
TL5 14W	1	EB-C 114 TL5 220-240V 50/60Hz	17	14	3	0.95	0.95	A3
TL5 21W	1	EB-C 121 TL5 220-240V 50/60Hz	24	20	4	0.95	0.95	A3
TL5 28W	1	EB-C 128 TL5 220-240V 50/60Hz	33	28	5	0.95	0.95	A3
TL5 14W	2	EB-C 214 TL5 220-240V 50/60Hz	33	14	5	0.95	0.95	A3
TL5 28W	2	EB-C 228 TL5 220-240V 50/60Hz	63	27	9	0.95	0.95	A3
TL5 14W	3	EB-C 314 TL5 220-240V 50/60Hz	46	13	7	0.95	0.95	A3

EB-Certalume TL-D

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Power Factor	Ballast Lumen Factor	EEI
TL-D 18W	1	EB-C 118 TLD 220-240V 50/60Hz	18	16	2	> 0.95	0.95	A3
TL-D 18W	2	EB-C 218 TLD 220-240V 50/60Hz	36	16	4	> 0.95	0.95	A3
TL-D 18W	3	EB-C 318 TLD 220-240V 50/60Hz	54	16	6	> 0.95	0.95	A3
TL-D 18W	4	EB-C 418 TLD 220-240V 50/60Hz	72	16	8	> 0.95	0.95	A3
TL-D 36W	1	EB-C 136 TLD 220-240V 50/60Hz	36	32	4	> 0.95	0.95	A3
TL-D 36W	2	EB-C 236 TLD 220-240V 50/60Hz	72	32	8	> 0.95	0.95	A3

EB-Certalume TL5C

Lamps	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Power Factor	Ballast Lumen Factor	EEI
TL5C 22W	1	EB-C 122 TL5C 220-240V 50/60Hz	21	18	3	0.95	0.95	A3
TL5C 32W	1	EB-C 132 TL5C 220-240V 50/60Hz	32	28	4	0.95	0.95	A3
TL5C 40W	1	EB-C 140 TL5C 220-240V 50/60Hz	36	32	4	0.95	0.95	A3
TL5C 22W	1	EB-C 122 TL5C 220-240V 50/60Hz LP	20	18	2	0.60	0.95	A3
TL5C 55W	1	EB-C 155-60 TL5C 220-240V 50/60Hz	52	44	8	0.95	0.95	A3
TL5C 60W	1	EB-C 155-60 TL5C 220-240V 50/60Hz	58	49	9	0.95	0.85	A3

EB-Certalume PL-T/PL-C

Lamp	Qty of lamps	Ballast	System Power (W)	Lamp Power (W)	Ballast Losses (W)	Power factor
PL-T/PL-C 13W	1	EB-C 113 PLT/C 220-240V 50/60Hz	15.0	13.0	2.0	0.95
PL-T/PL-C 13W	2	EB-C 213 PLT/C 220-240V 50/60Hz	30.0	13.0	4.0	0.95
PL-T/PL-C 18W	1	EB-C 118 PLT/C 220-240V 50/60Hz	18.0	16.0	2.0	0.95
PL-T/PL-C 18W	2	EB-C 218 PLT/C 220-240V 50/60Hz	38.0	16.5	5.0	0.95
PL-T/PL-C 26W	1	EB-C 126 PLT/C 220-240V 50/60Hz	27.0	24.5	3.0	0.95
PL-T/PL-C 26W	2	EB-C 226 PLT/C 220-240V 50/60Hz	54.0	24.5	5.0	0.95

Ballast	Rated input power (W)	Rated Lamptype	Line Voltage	Line Frequency	Battery voltage lamp ignition	Mains voltage safety (AC)
HF-M Blue 114 SH TL/PL-S/PL-C 220-240V	11-14	TL mini 13W; TL5 HE 14W; PL-S 11W; PL-C 10/13W; PL-Q 16W	220-240V	50/60Hz	194-254V	198-264V
HF-M Blue 121 LH TL5 220-240V	21	TL5 HE 21W	220-240V	50/60Hz	194-254V	198-264V
HF-M Blue 124 LH TL/TL5/PL-L 220-240V	17-23	TLD 15/18W; TL5 HO 24W; TL5C 22W; PL-L 18/24W	220-240V	50/60Hz	194-254V	198-264V
HF-M Blue 126 LH PLQ 220-240V	24	PL-Q 28W	220-240V	50/60Hz	194-254V	198-264V
HF-M Blue 124 SH TL/TL5/PL-L 220-240V	17-23	TLD 15/18W; TL5 HO 24W; TL5C 22W; PL-L 18/24W	220-240V	50/60Hz	194-254V	198-264V
HF-M Blue 118 SH TL/PL-S/PL-C 220-240V	18	PL-C 18W; PL-T 18W	220-240V	50/60Hz	194-254V	198-264V

(1) Depending on lamp combination

Ballast	PowerFactor 100% output power	Power losses gear	Maximum ignition time	Colour input terminals	Colour output terminals	Conn.type input terminals	Conn.type output terminals
HF-M Blue114 SH TL/PL-S/PL-C 220-240V	0.60 - [nom]	1.9-2.4W	0.5 s [max]	Grey	Grey	Insert	Insert
HF-M Blue 121 LH TL5 220-240V	0.60 - [nom]	2.5W	0.5 s [max]	Grey	Grey	Insert	Insert
HF-M Blue 124 LH TL/TL5/PL-L 220-240V	0.60 - [nom]	1.7-2.6W	0.5 s [max]	Orange	Grey	Insert	Insert
HF-M Blue 126 LH PLQ 220-240V	0.60 - [nom]	2.5W	0.5 s [max]	Blue	Grey	Insert	Insert
HF-M Blue 124 SH TL/TL5/PL-L 220-240V	0.60 - [nom]	1.7-2.6W	0.5 s [max]	Orange	Grey	Insert	Insert
HF-M Blue 118 SH TL/PL-S/PL-C 220-240V	0.60 - [nom]	2.2W	0.5 s [max]	Orange	Grey	Insert	Insert

(1) Depending on lamp combination

BPL EM Ballast

Ballast	Rated Ballast-Lamp power (W)	Application Code	Line Voltage (V)	Line Frequency	Design	Extra Info	Energy Efficiency Index	12NC
BPL 9W 220V B2 SC	9	9W	220	50	B2	SC	B2	913710110650
BPL 9W 220V 60Hz B2 SC	9	9W	220	60	B2	SC	B2	913710114143
BPL 9W 220V B2 DI	9	9W	220	50	B2	DI [Double Insert]	B2	913710122350
BPL 9W 230V B2 SC	9	9W	230	50	B2	SC	B2	913710114750
BPL 9W 240V B2 SC	9	9W	240	50	B2	SC	B2	913710115350
BPL 13W 220V B2 SC	13	13W	220	50	B2	SC	B2	913710121550
BPL 13W 220V 60Hz B2 SC	13	13W	220	60	B2	SC	B2	913710121750
BPL 13W 230V B2 SC	13	13W	230	50	B2	SC	B2	913710121950
BPL 13W 230V B2 DI	13	13W	230	50	B2	DI [Double Insert]	B2	913710123450

BPL EM Ballast (cont'd)

Ballast	Rated Ballast-Lamp Power (W)	Application code	Line Voltage (V)	Line Frequency (Hz)	Design	Extra Info	Energy Efficiency Index	12NC
BPL 18W 220V 60Hz B2 SC	18	18W	220	60	B2	SC	B2	913710121850
BPL 18W 220V B2 DI	18	18W	220	50	B2	DI [Double Insert]	B2	913710122550
BPL 18W 230V B2 DI	18	18W	230	50	B2	DI [Double Insert]	B2	913710121450
BPL 18W 230V B2 SC	18	18W	230	50	B2	SC	B2	913710122050
BPL 18W 240V B1 SC	18	18W	240	50	B1	SC	B1	913710115550
BPL 18W 240V B2 SC	18	18W	240	50	B2	SC	B2	913710122250
BPL 26W 220V B2 SC	26	26W	220	50	B2	SC	B2	913710120143
BPL 26W 230V B2 SC	26	26W	230	50	B2	SC	B2	913710120350
BPL 26W 230V B2 DI	26	26W	230	50	B2	DI [Double Insert]	B2	913710120450
BPL 26W 240V B2 SC	26	26W	240	50	B2	SC	B2	913710120550

BT-ALU EM Ballast

Ballast	Rated Ballast-Lamp Power (W)	Application code	Line Voltage (V)	Line Frequency (Hz)	Design	Extra Info	Energy Efficiency Index	12NC
BT-ALU 18W 220V C SC	18	18W	220	50	C	SC [use in APR]	C	913710124850
BT-ALU 36W 220V C SC	36	36W	220	50	C	SC [use in APR]	C	913710124950

BTA EM Ballast

Ballast	Rated Ballast-Lamp Power (W)	Application code	Line Voltage (V)	Line Frequency (Hz)	Design	Extra Info	Energy Efficiency Index	12NC
BTA 18W 220V B2 DI	18	18W	220	50	B2	DI [Double Insert]	B2	913710121250
BTA 18W 220V C DI	18	18W	220	50	C	DI [Double Insert]	C	913710119850
BTA 18W 220V C SC	18	18W	220	60	C	SC	C	913710118343
BTA 18W 220V C SC	18	18W	220	50	C	SC	C	913710119750
BTA 18W 230V B2 DI	18	18W	230	50	B2	DI [Double Insert]	B2	913710124250
BTA 18W 230V B2 SC	18	18W	230	50	B2	SC	B2	913710123650
BTA 18W 240V B2 DI	18	18W	240	50	B2	DI [Double Insert]	B2	913710124366
BTA 18W 240V B2 SC	18	18W	240	50	B2	SC	B2	913710123750
BTA 18W 230V C DI	18	18W	230	50	C	DI [Double Insert]	C	913710112150
BTA 18W 230V C SC	18	18W	230	50	C	SC	C	913710111750
BTA 18W 240V C DI	18	18W	240	50	C	DI [Double Insert]	C	913710112350
BTA 18W 240V C SC	18	18W	240	50	C	SC	C	913710111950
BTA 22W 220V C SC	22	22W	220	50	C	SC	C	913710112550
BTA 30W 220V C DI	30	30W	220	50	C	DI [Double Insert]	C	913710117650
BTA 30W 220V C SC	30	30W	220	50	C	SC	C	913710117550
BTA 32W 220V C SC	32	32W	220	50	C	SC	C	913710112650
BTA 36W 220V B2 DI	36	36W	220	50	B2	DI [Double Insert]	B2	913710121350
BTA 36W 220V C DI	36	36W	220	50	C	DI [Double Insert]	C	913710119650
BTA 36W 220V C SC	36	36W	220	50	C	SC	C	913710119550
BTA 36W 220V 60Hz C SC	36	36W	220	60	C	SC	C	913710118443
BTA 36W 230V B2 DI	36	36W	230	50	B2	DI [Double Insert]	B2	913710124450
BTA 36W 230V B2 SC	36	36W	230	50	B2	SC	B2	913710123850
BTA 36W 230V C DI	36	36W	230	50	C	DI [Double Insert]	C	913710112250
BTA 36W 230V C SC	36	36W	230	50	C	SC	C	913710111850
BTA 36W 240V B2 SC	36	36W	240	50	B2	SC	B2	913710123950
BTA 36W 240V B2 DI	36	36W	240	50	B2	DI [Double Insert]	B2	913710124550
BTA 36W 240V C DI	36	36W	240	50	C	DI [Double Insert]	C	913710112450
BTA 36W 240V C SC	36	36W	240	50	C	SC	C	913710112050
BTA 58W 220V B2 SC	58	58W	220	50	B2	SC	B2	913710110350
BTA 58W 220V C SC	58	58W	220	50	C	SC	C	913710118750
BTA 58W 220V C DI	58	58W	220	50	C	DI [Double Insert]	C	913710118850
BTA 58W 220V 60Hz C SC	58	58W	220	60	C	SC	C	913710118943

The given 12NCs are for English labeled products. For Chinese labeled products, please contact your local sales representative.

BTA EM Ballast (cont'd)

Ballast	Rated Ballast-Lamp Power (W)	Application code	Line Voltage (V)	Line Frequency (Hz)	Design	Extra Info	Energy Efficiency Index	12NC
BTA 58W 230V B2 DI	58	58W	230	50	B2	DI [Double Insert]	B2	913710124650
BTA 58W 230V B2 SC	58	58W	230	50	B2	SC	B2	913710124050
BTA 58W 230V C DI	58	58W	230	50	C	DI [Double Insert]	C	913710119250
BTA 58W 230V C SC	58	58W	230	50	C	SC	C	913710119150
BTA 58W 240V B2 DI	58	58W	240	50	B2	DI [Double Insert]	B2	913710124750
BTA 58W 240V B2 SC	58	58W	240	50	B2	SC	B2	913710124150
BTA 58W 240V C DI	58	58W	240	50	C	DI [Double Insert]	C	913710119450
BTA 58W 240V C SC	58	58W	240	50	C	SC	C	913710119350

The given 12NCs are for English labeled products. For Chinese labeled products, please contact your local sales representative.

Halogen Lamps

MASTER Line ES

Product ID	Voltage (V)	Wattage (W)	Base	Beam angle	Light output (Cd)	Lifetime (hrs)	Pack	12NC
MASTER Line ES 20W GU5.3 12V 8D	12	20	GU5.3	8D	6500	5000	1CT	924894917101
MASTER Line ES 20W GU5.3 12V 36D	12	20	GU5.3	36D	1000	5000	1CT	924895017101
MASTER Line ES 30W GU5.3 12V 8D	12	30	GU5.3	8D	11000	5000	1CT	924895117101
MASTER Line ES 30W GU5.3 12V 24D	12	30	GU5.3	24D	3350	5000	1CT	924895217101
MASTER Line ES 30W GU5.3 12V 36D	12	30	GU5.3	36D	1600	5000	1CT	924895317101
MASTER Line ES 35W GU5.3 12V 8D	12	35	GU5.3	8D	13500	5000	1CT	924895517101
MASTER Line ES 35W GU5.3 12V 24D	12	35	GU5.3	24D	4400	5000	1CT	924895617101
MASTER Line ES 35W GU5.3 12V 36D	12	35	GU5.3	36D	2200	5000	1CT	924895717101
MASTER Line ES 45W GU5.3 12V 8D	12	45	GU5.3	8D	15000	5000	1CT	924895917101
MASTER Line ES 45W GU5.3 12V 24D	12	45	GU5.3	24D	5450	5000	1CT	924896017101
MASTER Line ES 45W GU5.3 12V 36D	12	45	GU5.3	36D	2850	5000	1CT	924896117101

Accentline

Product ID	Voltage (V)	Wattage (W)	Base	Beam angle	Version	Light output (Cd)	Lifetime (hrs)	Pack	12NC
Accentline 20W GU5.3 12V 10D 1CT	12	20	GU5.3	10D		2200	3000	1CT	924888517180
Accentline 20W GU5.3 12V 36D 1CT	12	20	GU5.3	36D		500	3000	1CT	924888217180
Accentline 35W GU5.3 12V 10D 1CT	12	35	GU5.3	10D		3750	3000	1CT	924888617180
Accentline 35W GU5.3 12V 36D 1CT	12	35	GU5.3	36D		1000	3000	1CT	924888317180
Accentline 50W GU5.3 12V 10D 1CT	12	50	GU5.3	10D		6200	3000	1CT	924888717181
Accentline 50W GU5.3 12V 36D 1CT	12	50	GU5.3	36D		1500	3000	1CT	924888417180
Accentline 50W GU5.3 12V 60D 1CT	12	50	GU5.3	60D		675	3000	1CT	924888917180
Accentline 50W GU5.3 12V 10D 1CT	12	50	GU5.3	10D	Cool White	5100	3000	1CT	924893017180
Accentline 50W GU5.3 12V 36D 1CT	12	50	GU5.3	36D	Cool White	1000	3000	1CT	924892717180

Essential LV MR11/16

Product ID	Voltage (V)	Wattage (W)	Base	Beam angle	Version	Light output (Cd)	Lifetime (hrs)	Pack	12NC
Essential LV MR11 20W GU4 12V 30D 1CT	12	20	GU4	30D	Closed	540	2000	1CT	924884117184
Essential LV MR11 35W GU4 12V 30D 1CT	12	35	GU4	30D	Closed	1000	2000	1CT	924884017184
Essential LV MR16 20W GU5.3 12V 36D Open 1CT	12	20	GU5.3	36D	Open	510	2000	1CT	924045317186
Essential LV MR16 50W GU5.3 12V 36D Open 1CT	12	50	GU5.3	36D	Open	1500	2000	1CT	924045517186
Essential LV MR16 20W GU5.3 12V 36D Closed 1CT	12	20	GU5.3	36D	Closed	480	2000	1CT	924049517186
Essential LV MR16 35W GU5.3 12V 36D Closed 1CT	12	35	GU5.3	36D	Closed	1000	2000	1CT	924049617186
Essential LV MR16 50W GU5.3 12V 36D Closed 1CT	12	50	GU5.3	36D	Closed	1450	2000	1CT	926000850012
Essential LV MR16 20W GU5.3 12V 36D Closed 1BL	12	20	GU5.3	36D	Closed	480	2000	1BL	926000850003
Essential LV MR16 35W GU5.3 12V 36D Closed 1BL	12	35	GU5.3	36D	Closed	1000	2000	1BL	924049617187
Essential LV MR16 50W GU5.3 12V 36D Closed 1BL	12	50	GU5.3	36D	Closed	1450	2000	1BL	926000850010

MASTER Line 111

Product ID	Voltage (V)	Wattage (W)	Base	Beam Angle	Light output (Cd)	Lifetime (hrs)	Pack	12NC
MASTERLine 111 30W G53 12V 8D 1CT	12	30	G53	8D	23000	4000	1CT	924058417107
MASTERLine 111 30W G53 12V 24D 1CT	12	30	G53	24D	3600	4000	1CT	924058517107
MASTERLine 111 45W G53 12V 8D 1CT	12	45	G53	8D	30000	4000	1CT	924058617107
MASTERLine 111 45W G53 12V 24D 1CT	12	45	G53	24D	5300	4000	1CT	924058717107
MASTERLine 111 45W G53 12V 45D 1CT	12	45	G53	45D	1800	4000	1CT	924058817107
MASTERLine 111 60W G53 12V 8D 1CT	12	60	G53	8D	40000	4000	1CT	924058917107
MASTERLine 111 60W G53 12V 24D 1CT	12	60	G53	24D	7700	4000	1CT	924059017107
MASTERLine 111 60W G53 12V 45D 1CT	12	60	G53	45D	2400	4000	1CT	924059117107

Aluline 111

Product ID	Voltage (V)	Wattage (W)	Base	Beam Angle	Light output (lm)	Lifetime (hrs)	Pack	12NC
ALULine Pro 111mm 50W G53 12V 8D 1CT	12	50	G53	8D	23000	3000	1CT	924065017101
ALULine Pro 111mm 50W G53 12V 24D 1CT	12	50	G53	24D	4100	3000	1CT	924065117101
ALULine Pro 111mm 75W G53 12V 8D 1CT	12	75	G53	8D	35000	3000	1CT	924065317101
ALULine Pro 111mm 75W G53 12V 24D 1CT	12	75	G53	24D	6000	3000	1CT	924065417101
ALULine Pro 111mm 75W G53 12V 45D 1CT	12	75	G53	45D	2200	3000	1CT	924065517101
ALULine Pro 111mm 100W G53 12V 8D 1CT	12	100	G53	8D	42000	3000	1CT	924065617101
ALULine Pro 111mm 100W G53 12V 24D 1CT	12	100	G53	24D	8500	3000	1CT	924065717101
ALULine Pro 111mm 100W G53 12V 45D 1CT	12	100	G53	45D	3100	3000	1CT	924065817101

Capsuleline

Product ID	Voltage (V)	Wattage (W)	Base	Version	Light output (lm)	Lifetime (hrs)	Pack	12NC
Capsuleline 10W G4 12V CL 1CT	12	10	G4	Clear	140	4000	1CT	924036317110
Capsuleline 20W G4 12V CL 1CT	12	20	G4	Clear	310	4000	1CT	924036417106
Capsuleline 20W GY6.35 12V CL 1CT	12	20	GY6.35	Clear	300	4000	1CT	924040417124
Capsuleline 35W GY6.35 12V CL 1CT	12	35	GY6.35	Clear	600	4000	1CT	924040317101
Capsuleline 50W GY6.35 12V CL 1CT	12	50	GY6.35	Clear	880	4000	1CT	924040217106
Capsuleline 75W GY6.35 12V CL 1CT	12	75	GY6.35	Clear	1575	4000	1CT	924040117106
Capsuleline 100W GY6.35 12V CL 1CT	12	100	GY6.35	Clear	2200	4000	1CT	924040017110

Essential LV Capsule

Product ID	Voltage (V)	Wattage (W)	Base	Version	Light output (lm)	Lifetime (hrs)	Pack	12NC
Essential LV Capsule 10W G4 12V CL 1CT	12	10	G4	Clear	100	2000	1CT	924058017182
Essential LV Capsule 20W G4 12V CL 1CT	12	20	G4	Clear	250	2000	1CT	924062217182
Essential LV Capsule 10W G4 12V CL 2BL	12	10	G4	Clear	100	2000	2BL	924058017105
Essential LV Capsule 20W G4 12V CL 2BL	12	20	G4	Clear	250	2000	2BL	924062217120
Essential LV Capsule 35W GY6.53 12V CL 1CT	12	35	GY6.35	Clear	465	2000	1CT	924889117180
Essential LV Capsule 50W GY6.53 12V CL 1CT	12	50	GY6.35	Clear	700	2000	1CT	924062017182
Essential LV Capsule 35W GY6.53 12V CL 2BL	12	35	GY6.35	Clear	465	2000	2BL	924889117189
Essential LV Capsule 50W GY6.53 12V CL 2BL	12	50	GY6.35	Clear	700	2000	2BL	924062017181

Essential MV MR16

Product ID	Voltage (V)	Wattage (W)	Base	Beam angle	Light output (Cd)	Lifetime (hrs)	12NC
Essential MV MR16 35W GU10 120V 36D 1CT	120	35	GU10	36D	400	2000	924712936380
Essential MV MR16 50W GU10 120V 36D 1CT	120	50	GU10	36D	650	2000	924712536380
Essential MV MR16 35W GU10 230V 36D 1CT	230	35	GU10	36D	400	2000	924713444284
Essential MV MR16 50W GU10 230V 36D 1CT	230	50	GU10	36D	650	2000	924782744284
Essential MV MR16 35W GU10 240V 36D 1CT	240	35	GU10	36D	400	2000	924713445584
Essential MV MR16 50W GU10 240V 36D 1CT	240	50	GU10	36D	650	2000	924782745584

Lamps and Gear

PAR30S HalogenA

Product ID	Base	Voltage [V]	Wattage [W]	Lifetime [hrs]	Degree	Luminous Intensity [cd]	12NC
PAR30S HalogenA 75W E26 120V 25D 1CT	E26	120V	75W	3000	25D	1800	924710536381
PAR30S HalogenA 75W E27 230V 10D 1CT	E27	230V	75W	2000	10D	5525	924710944281
PAR30S HalogenA 75W E27 230V 25D 1CT	E27	230V	75W	2000	25D	1700	924710844281
PAR30S HalogenA 100W E27 230V 25D 1CT	E27	230V	100W	2000	10D	5525	925644544201
PAR30S HalogenA 75W E27 240V 10D 1CT	E27	240V	75W	2000	25D	5525	924710945581
PAR30S HalogenA 75W E27 240V 25D 1CT	E27	240V	75W	2000	10D	1700	924710845581
PAR30S HalogenA 100W E27 240V 25D 1CT	E27	240V	100W	2000	25D	3000	925644545501

PAR20 HalogenA

Product ID	Base	Voltage [V]	Wattage [W]	Lifetime [hrs]	Degree	Luminous Intensity [cd]	12NC
PAR20 HalogenA 50W E26 120V 25D 1CT	E26	120V	50W	3000	25D	900	924710336381
PAR20 HalogenA 50W E27 230V 10D 1CT	E27	230V	50W	2000	10D	2550	924890944281
PAR20 HalogenA 50W E27 230V 25D 1CT	E27	230V	50W	2000	25D	850	924713244281
PAR20 HalogenA 50W E27 240V 10D 1CT	E27	240V	50W	2000	10D	2550	924713245581
PAR20 HalogenA 50W E27 240V 25D 1CT	E27	240V	50W	2000	25D	850	924713345581

Essential MV Capsule

Product ID	Voltage [V]	Wattage [W]	Base	Version	Light output [lm]	Lifetime [hrs]	Pack	12NC
Essential MV Capsule 25W G9 120V CL 1CT	120V	25W	G9	Clear	150	2000	1CT	924889536380
Essential MV Capsule 25W G9 120V FR 1CT	120V	25W	G9	Frosted	150	2000	1CT	924889636380
Essential MV Capsule 40W G9 120V CL 1CT	120V	40W	G9	Clear	300	2000	1CT	924889736380
Essential MV Capsule 40W G9 120V FR 1C	120V	40W	G9	Frosted	300	2000	1CT	924889836380
Essential MV Capsule 25W G9 230V CL 1CT	230V	25W	G9	Clear	210	2000	1CT	924781244280
Essential MV Capsule 25W G9 230V FR 1CT	230V	25W	G9	Frosted	210	2000	1CT	924781844280
Essential MV Capsule 40W G9 230V CL 1CT	230V	40W	G9	Clear	400	2000	1CT	925635844281
Essential MV Capsule 40W G9 230V FR 1CT	230V	40W	G9	Frosted	370	2000	1CT	925635944281
Essential MV Capsule 60W G9 230V CL 1CT	230V	60W	G9	Clear	570	2000	1CT	925643844208
Essential MV Capsule 60W G9 230V FR 1CT	230V	60W	G9	Frosted	570	2000	1CT	925643944208
Essential MV Capsule 25W G9 240V CL 1CT	240V	25W	G9	Clear	210	2000	1CT	924781245581
Essential MV Capsule 25W G9 240V FR 1CT	240V	25W	G9	Frosted	210	2000	1CT	924781845581
Essential MV Capsule 40W G9 240V CL 1CT	240V	40W	G9	Clear	400	2000	1CT	925635845580
Essential MV Capsule 40W G9 240V FR 1CT	240V	40W	G9	Frosted	370	2000	1CT	925635945580
Essential MV Capsule 60W G9 240V CL 1CT	240V	60W	G9	Clear	570	2000	1CT	925643845508
Essential MV Capsule 60W G9 240V FR 1CT	240V	60W	G9	Frosted	570	2000	1CT	925643945508
Essential MV Capsule 25W G9 120V FR 1BL	120V	25W	G9	Frosted	150	2000	1BL	924889636382
Essential MV Capsule 40W G9 120V FR 1BL	120V	40W	G9	Frosted	300	2000	1BL	924889836383
Essential MV Capsule 25W G9 230V FR 1BL	230V	25W	G9	Frosted	210	2000	1BL	924781844281
Essential MV Capsule 40W G9 230V FR 1BL	230V	40W	G9	Frosted	370	2000	1BL	925635944282
Essential MV Capsule 60W G9 230V FR 1BL	230V	60W	G9	Frosted	570	2000	1BL	925643944209
Essential MV Capsule 25W G9 240V FR 1BL	240V	25W	G9	Frosted	210	2000	1BL	924781845582
Essential MV Capsule 40W G9 240V FR 1BL	240V	40W	G9	Frosted	370	2000	1BL	925635945582
Essential MV Capsule 60W G9 240V FR 1BL	240V	60W	G9	Frosted	570	2000	1BL	925643945509
Essential MV Capsule 25W G9 120V FR 2BL	120V	25W	G9	Frosted	150	2000	2BL	924889636383
Essential MV Capsule 40W G9 120V FR 2BL	120V	40W	G9	Frosted	300	2000	2BL	924889836384
Essential MV Capsule 25W G9 230V FR 2BL	230V	25W	G9	Frosted	210	2000	2BL	924781844201
Essential MV Capsule 40W G9 230V FR 2BL	230V	40W	G9	Frosted	370	2000	2BL	925635944283
Essential MV Capsule 60W G9 230V FR 2BL	230V	60W	G9	Frosted	570	2000	2BL	925643944210
Essential MV Capsule 25W G9 240V FR 2BL	240V	25W	G9	Frosted	210	2000	2BL	924781845583
Essential MV Capsule 40W G9 240V FR 2BL	240V	40W	G9	Frosted	370	2000	2BL	925635945583
Essential MV Capsule 60W G9 240V FR 2BL	240V	60W	G9	Frosted	570	2000	2BL	925643945510

Plusline Small / Compact / Large

Product ID	Voltage [V]	Wattage [W]	Base	Version	Light output [lm]	Lifetime [hrs]	Pack	12NC
Plusline Compact 100W R7s 120V	120V	100W	R7s	Compact, 78mm	1600	2000	1CT	924502234579
Plusline Compact 150W R7s 120V	120V	150W	R7s	Compact, 78mm	2400	2000	1CT	924736636301
Plusline Compact 100W R7s 230V	230V	100W	R7s	Compact, 78mm	1550	2000	1CT	923920043242
Plusline Compact 150W R7s 230V	230V	150W	R7s	Compact, 78mm	2400	2000	1CT	923919943202
Plusline Compact 100W R7s 240V	240V	100W	R7s	Compact, 78mm	1550	2000	1CT	9239200457800
	240V	150W	R7s	Compact, 78mm	2400	2000	1CT	923919945708
Plusline Small 200W R7s 120V 1CT	120V	200W	R7s	Small, 117mm	3000	2000	1CT	924735734579
Plusline Small 300W R7s 120V 1CT	120V	300W	R7s	Small, 117mm	5200	2000	1CT	924735234571
Plusline Small 500W R7s 120V 1CT	120V	500W	R7s	Small, 117mm	9500	2000	1CT	924735334501
Plusline Small 200W R7s 230V 1CT	230V	200W	R7s	Small, 117mm	3000	2000	1CT	924735744201
Plusline Small 300W R7s 230V 1CT	230V	300W	R7s	Small, 117mm	5100	2000	1CT	9247354442010
Plusline Small 500W R7s 230V 1CT	230V	500W	R7s	Small, 117mm	9660	2000	1CT	924735544201
Plusline Small 200W R7s 240V 1CT	240V	200W	R7s	Small, 117mm	3000	2000	1CT	924735745579
Plusline Small 300W R7s 240V 1CT	240V	300W	R7s	Small, 117mm	5100	2000	1CT	924735445522
Plusline Small 500W R7s 240V 1CT	240V	500W	R7s	Small, 117mm	9600	2000	1CT	924735545579
Plusline Large 1000W R7s 120V 1CT	120V	1000W	R7s	Large, 189mm	21500	2000	1CT	924736736301
Plusline Large 1000W R7s 230V 1CT	230V	1000W	R7s	Large, 189mm	21500	2000	1CT	9239321432410
Plusline Large 1500W R7s 230V 1CT	230V	1500W	R7s	Large, 189mm	33000	2000	1CT	923932243241
Plusline Large 1000W R7s 240V 1CT	240V	1000W	R7s	Large, 189mm	21500	2000	1CT	923932145741
Plusline Large 1500W R7s 240V 1CT	240V	1500W	R7s	Large, 189mm	33000	2000	1CT	923932245741

MASTER Capsule

Product ID	Voltage (V)	Wattage (W)	Base	Version	Light output (Cd)	Lifetime (hrs)	Pack	12NC
MASTERCapsule 20W GY6.35 12V IR 1CT	12	20	GY6.35	Clear	420	4000	1CT	924898217102
MASTERCapsule 30W GY6.35 12V IR 1CT	12	30	GY6.35	Clear	750	4000	1CT	924898317102
MASTERCapsule 45W GY6.35 12V IR 1CT	12	45	GY6.35	Clear	1250	4000	1CT	924898417102
MASTERCapsule 60W GY6.35 12V IR 1CT	12	60	GY6.35	Clear	1700	4000	1CT	924898517102

ET-Standard Transformer

Transformer	Voltage (V)	Wattage (W)	Frequency (Hz)	Power loss (Watt)	Dimming from (Watt)	Output (Volt)
ET-E 60	220-240	20-60	50/60	<3	35	11.3
ET-E 105	220-240	35-105	50/60	<7	50	11.3
ET-E 150	220-240	50-150	50/60	<7	70	11.3

ET-Economy Transformer

Transformer	Voltage (Volt)	Power (Watt)	Frequency (Hz)	Power loss (Watt)	Dimming from (Watt)	Output (Volt)
ET-E 60	220-240	20-60	50/60	<4	35	11.3
ET-E 105	220-240	35-105	50/60	<7	50	11.3
ET-E 150	220-240	50-150	50/60	<7	70	11.3

Halogen Lamps

Ecotone High Lumen Twister

Product ID	Rated Lamp Wattage (W)	Cap Base	Voltage (V)	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flex Lamp (Lm)	Lumen Maintenance 2000h (%)	Life to 50% Failures (hrs)
Ecotone High Lumen Twister 45W 840 B22 220-240V 1CT/6	45	B22	220-240	4000	80	3000	85%	10000
Ecotone High Lumen Twister 45W 865 B22 220-240V 1CT/6	45	B22	220-240	6500	80	2850	85%	10000
Ecotone High Lumen Twister 45W 840 E27 220-240V 1CT/6	45	E27	220-240	4000	80	3000	85%	10000
Ecotone High Lumen Twister 45W 865 E27 220-240V 1CT/6	45	E27	220-240	6500	80	2850	85%	10000
Ecotone High Lumen Twister 65W 840 B22 220-240V 1CT/6	65	B22	220-240	4000	80	4200	85%	10000
Ecotone High Lumen Twister 65W 865 B22 220-240V 1CT/6	65	B22	220-240	6500	80	4000	85%	10000
Ecotone High Lumen Twister 65W 840 E27 220-240V 1CT/6	65	E27	220-240	4000	80	4200	85%	10000
Ecotone High Lumen Twister 65W 865 E27 220-240V 1CT/6	65	E27	220-240	6500	80	4000	85%	10000
Ecotone High Lumen Twister 80W 840 E40 220-240V 1CT/6	80	E40	220-240	4000	80	5600	85%	10000
Ecotone High Lumen Twister 80W 865 E40 220-240V 1CT/6	80	E40	220-240	6500	80	5300	85%	10000



Tornado

Product ID	Voltage (V)	Wattage (W)	Base	CCT(k)	Color Rendering Index (Ra)	Light Output (Lm)	Lumen Maintenance 2000h (%)	Lifetime (hrs)
Tornado 5W WW E14 220-240V 1PF/6	220-240	5	E14	2700	81	300	85%	8000
Tornado 5W CDL E14 220-240V 1PF/6	220-240	5	E14	6500	80	285	85%	8000
Tornado 8W WW E14 220-240V 1PF/6	220-240	8	E14	2700	81	500	85%	8000
Tornado 8W CDL E14 220-240V 1PF/6	220-240	8	E14	6500	80	475	85%	8000
Tornado 12W WW E14 220-240V 1PF/6	220-240	12	E14	2700	81	725	85%	8000
Tornado 12W CDL E14 220-240V 1PF/6	220-240	12	E14	6500	80	685	85%	8000
Tornado 8W WW B15 220-240V 1PF/6	220-240	8	B15	2700	81	500	85%	8000
Tornado 8W CDL B15 220-240V 1PF/6	220-240	8	B15	6500	80	475	85%	8000
Tornado 12W WW B15 220-240V 1PF/6	220-240	12	B15	2700	81	725	85%	8000
Tornado 12W CDL B15 220-240V 1PF/6	220-240	12	B15	6500	80	685	85%	8000
Tornado 5W WW E27 220-240V 1CT/12	220-240	5	E27	2700	81	300	85%	8000
Tornado 5W CDL E27 220-240V 1CT/12	220-240	5	E27	6500	80	285	85%	8000
Tornado 5W WW B22 220-240V 1PF/6	220-240	5	B22	2700	81	300	85%	8000
Tornado 5W CDL B22 220-240V 1PF/6	220-240	5	B22	6500	80	285	85%	8000
Tornado 8W WW E27 220-240V 1CT/12	220-240	8	E27	2700	81	500	85%	8000
Tornado 8W CDL E27 220-240V 1CT/12	220-240	8	E27	6500	80	475	85%	8000
Tornado 8W WW B22 220-240V 1PF/6	220-240	8	B22	2700	81	500	85%	8000
Tornado 8W CDL B22 220-240V 1PF/6	220-240	8	B22	6500	80	475	85%	8000
Tornado 12W WW E27 220-240V 1CT/12	220-240	12	E27	2700	81	725	85%	8000
Tornado 12W CDL E27 220-240V 1CT/12	220-240	12	E27	6500	80	685	85%	8000
Tornado 12W WW B22 220-240V 1PF/6	220-240	12	B22	2700	81	725	85%	8000
Tornado 12W CDL B22 220-240V 1PF/6	220-240	12	B22	6500	80	685	85%	8000
Tornado 15W WW E27 220-240V 1CT/12	220-240	15	E27	2700	81	950	85%	8000
Tornado 15W CDL E27 220-240V 1CT/12	220-240	15	E27	6500	80	900	85%	8000
Tornado 15W WW B22 220-240V 1CT/12	220-240	15	B22	2700	81	950	85%	8000
Tornado 15W CDL B22 220-240V 1CT/12	220-240	15	B22	6500	80	900	85%	8000
Tornado 20W WW E27 220-240V 1CT/12	220-240	20	E27	2700	81	1250	85%	8000
Tornado 20W CDL E27 220-240V 1CT/12	220-240	20	E27	6500	80	1200	85%	8000
Tornado 20W WW B22 220-240V 1CT/12	220-240	20	B22	2700	81	1250	85%	8000
Tornado 20W CDL B22 220-240V 1CT/12	220-240	20	B22	6500	80	1200	85%	8000
Tornado 24W WW E27 220-240V 1CT/12	220-240	24	E27	2700	81	1550	85%	8000
Tornado 24W CDL E27 220-240V 1CT/12	220-240	24	E27	6500	80	1450	85%	8000
Tornado 24W WW B22 220-240V 1CT/12	220-240	24	B22	2700	81	1550	85%	8000
Tornado 24W CDL B22 220-240V 1CT/12	220-240	24	B22	6500	80	1450	85%	8000
Helix 32W CDL E27 220-240V 1CT/12	220-240	32	E27	6500	80	2150	85%	8000
Helix 42W CDL E27 220-24V 1CT/6	220-240	42	E27	6500	80	2650	85%	8000

Essential

Product ID	Voltage (V)	Wattage (W)	Base	CCT(k)	Color Rendering Index (Ra)	Light Output (Lm)	Lumen Maintenance 2000h (%)	Lifetime (hrs)
Essential 3W WW E27 220-240V	220-240	3	E27	2700	81	130	85%	8000
Essential 3W CDL E27 220-240V	220-240	3	E27	6500	80	120	85%	8000
Essential 5W WW E27 220-240V	220-240	5	E27	2700	81	250	85%	8000
Essential 5W CDL E27 220-240V	220-240	5	E27	6500	80	235	85%	8000
Essential 5W CDL B22 220-240V	220-240	5	B22	6500	80	235	85%	8000
Essential 8W CDL B22 220-240V	220-240	8	B22	6500	80	430	85%	8000
Essential 8W WW E27 220-240V	220-240	8	E27	2700	81	460	85%	8000
Essential 8W CDL E27 220-240V	220-240	8	E27	6500	80	430	85%	8000
Essential 11W CDL B22 220-240V	220-240	11	B22	6500	80	620	85%	8000
Essential 11W WW E27 220-240V	220-240	11	E27	2700	81	650	85%	8000
Essential 11W CDL E27 220-240V	220-240	11	E27	6500	80	620	85%	8000
Essential 14W CDL B22 220-240V	220-240	14	B22	6500	80	810	85%	8000
Essential 14W WW E27 220-240V	220-240	14	E27	2700	81	850	85%	8000
Essential 14W CDL E27 220-240V	220-240	14	E27	6500	80	810	85%	8000
Essential 18W WW B22 220-240V	220-240	18	B22	2700	81	1100	85%	8000
Essential 18W CDL B22 220-240V	220-240	18	B22	6500	80	1100	85%	8000
Essential 18W WW E27 220-240V	220-240	18	E27	2700	81	1100	85%	8000
Essential 18W CDL E27 220-240V	220-240	18	E27	6500	80	1100	85%	8000
Essential 23W CDL B22 220-240V	220-240	23	B22	6500	80	1370	85%	8000
Essential 23W WW E27 220-240V	220-240	23	E27	2700	81	1430	85%	8000
Essential 23W CDL E27 220-240V	220-240	23	E27	6500	80	1370	85%	8000
Essential 35W WW E27 220-240V	220-240	35	E27	2700	81	2345	85%	8000
Essential 35W CDL E27 220-240V	220-240	35	E27	6500	80	2200	85%	8000
Essential 50W WW E27 220-240V	220-240	50	E27	2700	81	3290	85%	8000
Essential 50W CDL E27 220-240V	220-240	50	E27	6500	80	3100	85%	8000
Essential 70W WW E27 220-240V	220-240	70	E27	2700	81	4550	85%	8000
Essential 70W CDL E27 220-240V	220-240	70	E27	6500	80	4400	85%	8000

Product ID	Rated Lamp Wattage (W)	Line Frequency (Hz)	Cap Base	Voltage (V)	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flex Lamp (Lm)	Lumen Maintenance 2000h (%)	Life to 50% Failures (hrs)	Nett Weight Product In Grams (Gr)
PAR38 18W WW B22 220-240V	18	50-60	B22	220-240	2700	81	850	80%	6000	380
PAR38 18W CDL B22 220-240V	18	50-60	B22	220-240	6500	80	800	80%	6000	380
PAR38 18W WW E27 220-240V	18	50-60	E27	220-240	2700	81	850	80%	6000	380
PAR38 18W CDL E27 220-240V	18	50-60	E27	220-240	6500	80	800	80%	6000	380
PAR38 23W WW B22 220-240V	23	50-60	B22	220-240	2700	81	1250	80%	6000	380
PAR38 23W CDL B22 220-240V	23	50-60	B22	220-240	6500	80	1200	80%	6000	380
PAR38 23W WW E27 220-240V	23	50-60	E27	220-240	2700	81	1250	80%	6000	380
PAR38 23W CDL E27 220-240V	23	50-60	E27	220-240	6500	80	1200	80%	6000	380

Tornado Dimmable

Product ID	Rated Lamp Wattage (W)	Line Frequency (Hz)	Cap Base	Voltage (V)	Color Temperature (K)	Color Rendering Index (Ra)	Luminous Flex Lamp (Lm)	Lumen Maintenance 2000h (%)	Life to 50% Failures (hrs)	Nett Weight Product in Grams (gr)
TORNADO DIMMABLE 20W WW B22 220-240V	20	50-60	B22	220-240	2700	80	1200	85%	8000	105
TORNADO DIMMABLE 20W CDL B22 220-240V	20	50-60	B22	220-240	6500	80	1100	85%	8000	105
TORNADO DIMMABLE 20W WW E27 220-240V	20	50-60	E27	220-240	2700	80	1200	85%	8000	105
TORNADO DIMMABLE 20W CDL E27 220-240V	20	50-60	E27	220-240	6500	80	1100	85%	8000	105

General Purpose Lamps

Classictone Superlux

Product ID	Bulb	Voltage (V)	Wattage (W)	Cap Base	Light Output (lm)	Life Time (hrs)
SUPERLUX 25W B22 220-240V E50 W-W	E50	220-240V	25W	B22	210	1000
CLAS 25W B22 240V E50 W-W	E50	240V	25W	B22	205	1000
SUPERLUX 40W B22 220-240V E50 W-W	E50	220-240V	40W	B22	400	1000
CLAS 40W B22 240V E50 W-W	E50	240V	40W	B22	395	1000
CLAS 60W B22 220-240V E50 WW	E50	220-240V	60W	B22	680	1000
SUPERLUX 60W B22 220-240V E50 W-W	E50	220-240V	60W	B22	680	1000
CLAS 60W B22 240V E50 W-W	E50	240V	60W	B22	670	1000
SUPERLUX 100W B22 220-240V E60 W-W	E60	220-240V	100W	B22	1280	1000
CLAS 100W B22 240V E60 W-W	E60	240V	100W	B22	1270	1000
CLAS 25W E26 220V E50 W-W	E50	220V	25W	E26	210	1000
CLAS 40W E26 220V E50 W-W	E50	220V	40W	E26	400	1000
CLAS 60W E26 220V E50 W-W	E50	220V	60W	E26	685	1000
CLAS 100W E26 220V E60 W-W	E60	220V	100W	E26	1290	1000
CLAS 15W E27 220-240V E50 W-W	E50	220-240V	15W	E27 Small	115	1000
SUPERLUX 25W E27 120V E50 W-W	E50	120V	25W	E27 Small	255	1000
CLAS 25W E27 220-240V E50 W-W	E50	220-240V	25W	E27 Small	210	1000
SUPERLUX 25W E27 230V E50 W-W	E50	230V	25W	E27 Small	210	1000
CLAS 25W E27 240V E50 W-W	E50	240V	25W	E27 Small	205	1000
SUPERLUX 40W E27 120V E50 W-W	E50	120V	40W	E27 Small	475	1000
CLAS 40W E27 220-240V E50 W-W	E50	220-240V	40W	E27 Small	400	1000
SUPERLUX 40W E27 230V E50 W-W	E50	230V	40W	E27 Small	400	1000

Classictone Lustre

Product ID	Bulb	Voltage [V]	Wattage [W]	Cap Base	Finishing Type	Light Output [lm]	Life Time [hrs]
LUS STD 25W B15 240V P45 CL	P45	240V	25W	B15	CL	205	1000
Stan 25W B15 240V P45 FR	P45	240V	25W	B15	FR	205	1000
LUS STD 40W B15 240V P45 CL	P45	240V	40W	B15	CL	400	1000
LUS STD 40W B15 240V P45 FR	P45	240V	40W	B15	FR	400	1000
LUS STD 25W B22 240V P45 CL	P45	240V	25W	B22	CL	195	1000
Stan 25W B22 240V P45 FR	P45	240V	25W	B22	FR	195	1000
LUS STD 40W B22 240V P45 CL	P45	240V	40W	B22	CL	380	1000
LUS STD 40W B22 240V P45 FR	P45	240V	40W	B22	FR	380	1000
Stan 25W E14 220-240V P45 FR	P45	220-240V	25W	E14	FR	210	1000
Stan 25W E14 220-240V P45 CL	P45	220-240V	25W	E14	CL	210	1000
LUS STD 25W E14 230V P45 CL	P45	230V	25W	E14	CL	210	1000
LUS STD 25W E14 230V P45 FR	P45	230V	25W	E14	FR	210	1000
LUS STD 25W E14 230V P45 SW	P45	230V	25W	E14	SW	190	1000
LUS STD 25W E14 240V P45 CL	P45	240V	25W	E14	CL	205	1000
Stan 25W E14 240V P45 FR	P45	240V	25W	E14	FR	205	1000
Stan 40W E14 220-240V P45 CL	P45	220-240V	40W	E14	CL	405	1000
Stan 40W E14 220-240V P45 FR	P45	220-240V	40W		FR	405	1000
LUS STD 40W E14 230V P45 CL	P45	230V	40W	E14	CL	405	1000
LUS STD 40W E14 230V P45 FR	P45	230V	40W	E14	FR	405	1000
LUS STD 40W E14 230V P45 SW	P45	230V	40W	E14	SW	365	1000
LUS STD 40W E14 240V P45 CL	P45	240V	40W	E14	CL	400	1000
LUS STD 40W E14 240V P45 FR	P45	240V	40W	E14	FR	400	1000
LUS STD 60W E14 220-240V P45 CL	P45	220-240V	60W	E14	CL	695	1000
LUS STD 60W E14 220-240V P45 FR	P45	220-240V	60W	E14	FR	685	1000
Stan 25W E27 220-240V P45 CL	P45	220-240V	25W	E27 Small	CL	200	1000
Stan 25W E27 220-240V P45 FR	P45	220-240V	25W	E27 Small	FR	200	1000
LUS STD 25W E27 230V P45 CL	P45	230V	25W	E27 Small	CL	200	1000
LUS STD 25W E27 230V P45 FR	P45	230V	25W	E27 Small	FR	200	1000
LUS STD 25W E27 240V P45 CL	P45	240V	25W	E27 Small	CL	195	1000
Stan 25W E27 240V P45 FR	P45	240V	25W	E27 Small	FR	195	1000
Stan 40W E27 220-240V P45 CL	P45	220-240V	40W	E27 Small	CL	385	1000
Stan 40W E27 220-240V P45 FR	P45	220-240V	40W	E27 Small	FR	385	1000
LUS STD 40W E27 230V P45 FR	P45	230V	40W	E27 Small	FR	385	1000
LUS STD 40W E27 240V P45 CL	P45	240V	40W	E27 Small	CL	380	1000
Stan 40W E27 240V P45 FR	P45	240V	40W	E27 Small	FR	380	1000
LUS STD 60W E27 220-240V P45 CL	P45	220-240V	60W	E27 Small	CL	660	1000
LUS STD 60W E27 220-240V P45 FR	P45	220-240V	60W	E27 Small	FR	655	1000
LUS STD 60W E27 230V P45 CL	P45	230V	60W	E27 Small	CL	660	1000

PAR38

Product ID	Voltage (V)	Wattage (W)	Base	Version	Life Time	Beam Angle (D)	Life Output (lm)	Luminous Intensity (cd)
PAR38 80W E27 115V FL	115	80	E27	FL	2000	30	750	2100
PAR38 80W E27 220-240V FL	220-240	80	E27	FL	2000	30	-	1800
PAR38 80W E27 220-240V SP	220-240	80	E27	SP	2000	12	-	4700
PAR38 80W E27 240V FL	240	80	E27	FL	2000	30	-	1800
PAR38 80W E27 240V SP	240	80	E27	SP	2000	12	-	4700
PAR38 120W E27 115V FL	115	120	E27	FL	2000	30	1340	3400
PAR38 120W E27 115V SP	115	120	E27	SP	2000	12	10500	-
PAR38 120W E27 220-240V FL	220-240	120	E27	FL	2000	30	1150	3100
PAR38 120W E27 220-240V SP	220-240	120	E27	SP	2000	12	1150	8200
PAR38 120W E27 240V FL	240	120	E27	FL	2000	30	1150	3100
PAR38 120W E27 240V SP	240	120	E27	SP	2000	12	-	8200
PAR38 80W E27 220-240V RED	220-240	80	E27	RED	2000	-	-	-
PAR38 80W E27 220-240V YELLOW	220-240	80	E27	YELLOW	2000	-	-	-

PAR38 (cont'd)

Product ID	Voltage (V)	Wattage (W)	Base	Version	Life Time	Beam Angle (D)	Life Output (lm)	Luminous Intensity (cd)
PAR38 80W E27 220-240V BLUE	220-240	80	E27	BLUE	2000	-	-	-
PAR38 80W E27 220-240V GREEN	220-240	80	E27	GREEN	2000	-	-	-
PAR38 80W E27 240V RED	240	80	E27	RED	2000	-	-	-
PAR38 80W E27 240V YELLOW	240	80	E27	YELLOW	2000	-	-	-
PAR38 80W E27 240V BLUE	240	80	E27	BLUE	2000	-	-	-
PAR38 80W E27 240V GREEN	240	80	E27	GREEN	2000	-	-	-
PAR38 80W E27 240V ANTI-MOSQUITO	240	80	E27	ANIT-MOSQUITO	2000		560	-

Deco Tubular

Product ID	Type	Voltage (V)	Wattage (W)	Base	Life Time (hrs)	Light Output (lm)
Deco 15W E14 220-240V T22 CL	T22	220-240	15	E14	1000	80
Deco 15W B15 220-240V T22 CL	T22	220-240	15	B15	1000	90
Deco 25W E27 240V T29 OV	T29	240	25	E27	1000	162
Deco 15WE14 220-240V T25 CL	T25	220-240	15	E14	1000	115
Deco 25W E14 220-240V T25 CL	T25	220-240	25	E14	1000	-
Deco 15W B22 220-240V T25 CL	T25	220-240	15	B22	1000	90
Deco 40W E14 240V T25L CL CH	T25L	240	40	T25L	1000	424

Lamps and Gear



False ceilings

Ceiling types – introduction

Today, architects and building contractors can choose from an enormous variety of ceiling systems, especially ones designed for offices and other general applications. Use of climate ceilings (cooled) is growing.

The five main standard ceiling types are:
1. Visible profile ceilings
2. Concealed profile ceilings
3. Strip ceilings
4. Panel ceilings
5. Plaster ceilings

Obviously, there are small differences between ceiling types, but the application of luminaires and the accessories you will need for their mounting are basically the same for all these systems.

The first four standard ceiling types discussed here represent the vast majority of ceiling systems currently available. Also real “project-made” plaster ceilings are used more and more and considered to be aesthetically pleasing solutions. If you decide to use another type of system, contact your Philips organization and they will inform you about the options in your specific situation. If no standard solution is available, a special solution in the luminaire housing or fitting can be discussed.

Ceiling tile materials

Different ceiling types use panels or tiles of different materials.

The most popular materials are:

Mineral (hard and soft)
These are produced in thicknesses between 14 and 20 mm.

Mineral tiles are usually painted and always mechanically vulnerable. Acoustic qualities of these types of ceilings are reasonable.

Plaster
Plaster ceilings are usually 10 to 15 mm thick and are non-removable ceilings. When recessed luminaires are to be used in this kind of ceiling an opening has to be cut out before mounting the luminaire.

Metal
Metal is available in the shape of tiles, strips and panels. In some cases they are perforated and have a sound-insulating layer on top. This layer helps to create good acoustic quality. Recessed luminaires are usually designed so that they can replace a complete ceiling tile.

1. Visible profile ceilings

In this very common system, profiles are always visible. Ceiling tiles rest on the profiles and are in most cases made from a mineral material. The two standard module sizes are 300 mm and 312.5mm. The most popular tiles in this type of ceiling are for ceiling grids of 600 mm x 600 mm and 600 mm x 1200 mm, or 625 mm x 625 mm and 625 mm x 1250 mm. In this type of modular ceiling the luminaires are mounted as an inlay.

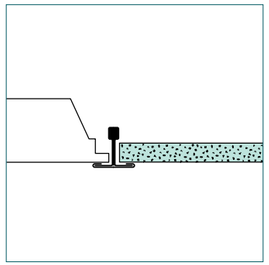
Applications
These ceiling types are usually applied when electrical wiring, LANs and other technical installations are hidden behind the ceiling. Also in this application the ceiling should contribute to the acoustic environment. All Philips recessed luminaires are suitable for this kind of ceiling.

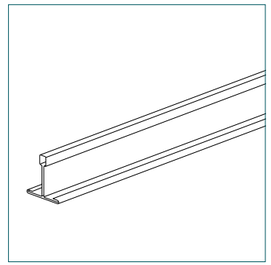
2. Concealed profile ceilings

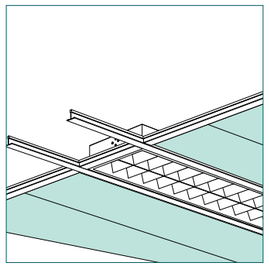
In this type of ceiling the profiles are covered by the tiles and therefore invisible. Tiles are made from a mineral type of material or metal. In these types of systems suspension brackets are always needed for luminaire mounting.

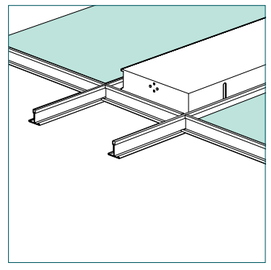
3. Strip ceilings

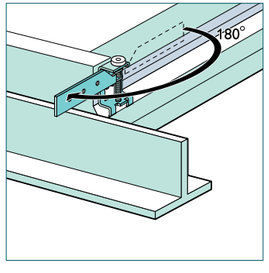
This ceiling system consists of main carriers on which metal strips are clicked. They can have various widths. Luminaires are usually mounted in line with the strips and perpendicular to the main carriers. In this case, a length profile mounted to the side of the luminaire is required, or suspension brackets at the head of the luminaire are required if the luminaire fits exactly in between two main carriers (see figures).

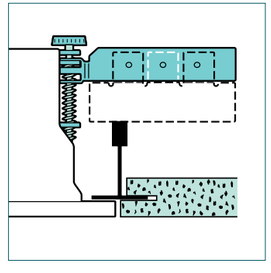


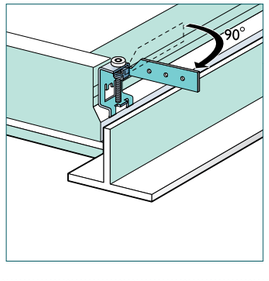












False ceilings

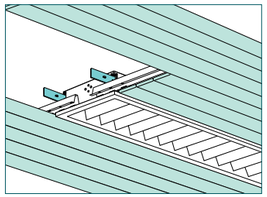
4. Panel ceilings
The main carriers of these systems are usually placed at main building module distances, often 1200 or 1800 mm. Ceiling panels are mounted between the main carriers. In this type of ceiling metal and mineral panels are used. If the distance between the main carriers does not match the luminaire length, the luminaires can be made to measure so that they can be mounted between the main carriers like the panels.

For profile A the luminaire can be mounted as an inlay. On request safety brackets can be delivered with the luminaire. If profile B is used, brackets are required and should be ordered separately. Alternatively, the luminaires could be factory pre-mounted in the original ceiling tiles.

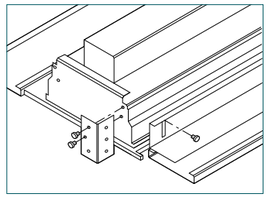
Applications
Areas where removable partition walls are used and where acoustic performance of high quality is required. In corridors each panel can span the total width, typically 1.8 m.

5. Plaster ceilings
For plaster ceilings the luminaires are usually made lower and lighter in weight. Brackets are reduced to clips, and they can be inserted in two positions by means of the slots provided in the luminaire housing sides. As the plaster can vary in thickness, it may be necessary to use additional spacer strips to bridge the distance between ceiling and supporting clips. Mounted in this way, the luminaire front can be mounted directly against the ceiling and will effectively hide its opening.

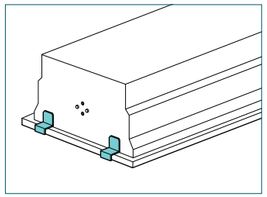
For higher and heavier luminaires suspension brackets are provided which can be adjusted in height.

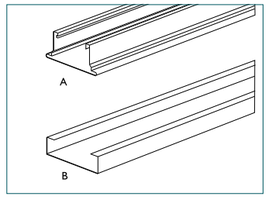


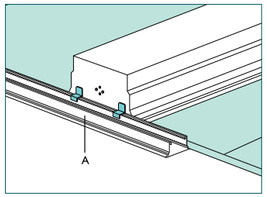
Fixation with ZBS300 SMB

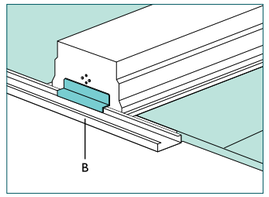


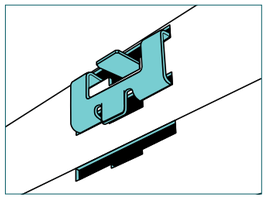
Fixation with ZBS319 LP

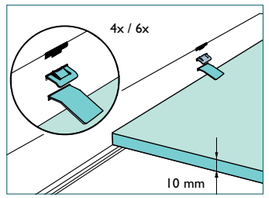


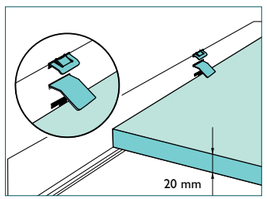




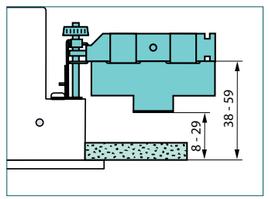








Fixation with ZBS460 SMB-PLC



Fixation with ZBS471 SMB-PLC

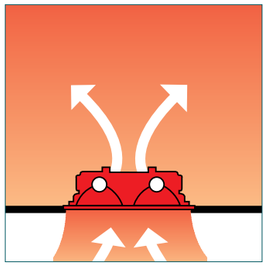
Air handling devices

Air–handling devices
Recessed luminaires are often installed in modular ceiling systems.

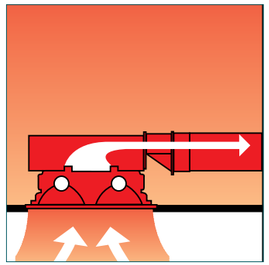
For Philips it is important that the luminaire is well integrated. It should fit aesthetically and mechanically, and the lighting performance should be optimized. The luminaire can also become an integral part of the air-handling system. Nearly all Philips recessed luminaires have integrated air slots and can be used effectively to handle return air.

The principle of using a luminaire as a ventilation point is simple: holes are made in the upper luminaire housing through which air is drawn from the room. HVAC engineers need specific data on the technical advantages and cooling characteristics of such systems. That is why, for most Philips lighting solutions, Philips provides technical data to enable the thermal effects and related cost savings to be calculated. Additional pressure-loss diagrams, noise curves and data on the effects on the lumen output when air is ventilated at a given yield of air flow, all aid the HVAC specialist to fine-tune his system design. All this data, and more, is available on request. Simply contact your local Philips sales office for the necessary information.

Additional light performance
For TL-D lamps, using the luminaire as a ventilation point has the additional advantage of keeping the lamp burning at the optimal operating temperature. This means that the light output of the lamp will increase. With TL5 lamps this advantage is not so pronounced, although extensive tests have shown that with standard air volumes there is some effect on the light output (Fw = 1). Hence, light/ventilation integration with TL5 lamps is justified in terms of both cost saving and lighting performance.



Most Philips luminaires for ceiling systems are fitted with air vents on the top to provide natural ventilation for the luminaire.



With a plenum box, exhaust air can be channeled directly to an air-handling system.

Optic guide – Specifications

Innovative OLC optics
OLC stands for Omni directional Light Control, all-around light control. The OLC optics are designed to obtain optimal lighting on the working plane and to limit undesired brightness spots, avoiding direct and reflected glare all around the luminaire. The new open aluminum OLC optics C8, D8, C8-C, D8-C, C8-VH and D8-VH complement the C6, D6, M6, C7 and D7 range, and the new decorative OLC optics AC-MLO and PC-MLO are closed. They all combine optimal luminous efficacy and light distribution with excellent all-round glare control.

New generation optics for TL5 lamps
The computer-aided designed shape of the side reflectors in combination with the advanced miniaturised 3-dimensional cross lamellae with the broken arch contour are made of high-grade aluminum. They have given rise to new optical qualities:

- All-round glare control OLC 1000 cd/m² of C8, D8, C8-VH and D8-VH, or OLC 200 cd/m² of C8-C and D8-C, is in accordance with the European standard on lighting of workplaces EN 12464-1. Depending on the application, the exceedingly efficient optics C8-VH and D8-VH, the performer optics C8 and D8, or the comfort optics C8-C and D8-C can be selected for the application.
- Although the width of the optic is very small, the direct glare from the luminaire is well controlled and the UGRR limit of 19 is always met.
- The light output ratio (LOR) is up to 94%, depending on the type of mirror material, number of lamps per luminaire and lamp type.
- The wide-beam delta-shaped light distribution yields a high uniformity of light at the working plane and a pleasant balance between the horizontal and vertical illuminances.
- No disturbing luminance spots can be noticed for all optic versions – a very smooth uniform appearance is produced by the comfort version C8-C and D8-C.
- Slim-line optics have an optical opening only 55 mm in width to ensure they are inconspicuous in the ceiling; slim-line luminaires offer the best aesthetical appearance.

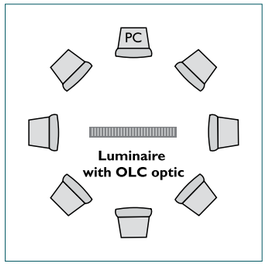
Previous generations of optics with a larger optical width like the mini optics C7 and D7 (optical opening of 80 mm) with 3-D lamellae with curved upper side and concave underside result in slightly lower efficiencies. However, their direct and reflected glare figures remain within the limits set in the standards. This also applies for the mini, the midi and maxi optics C6, D6 and M6 (optical opening of 80, 100 and 125 mm respectively) with their Fresnel structure on top of the cross louvers.



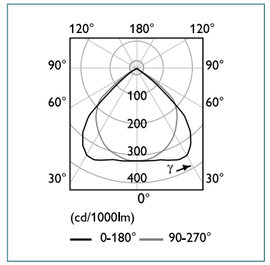
Cross louver of OLC optics C8 and D8. Notice the broken arch and the seam at the underside for improved efficiency and the fully enclosed convex top for optimal lighting control and higher efficiency.

These optical features create comfortable and highly efficient office lighting:

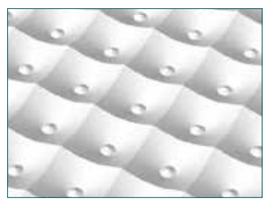
- Flexible office design thanks to all-round glare control: computer displays can be positioned anywhere in the room without the risk of reflected glare.
- Thanks to the high light output ratio the lighting is very cost-effective and less installation power is required to achieve the illuminance specified.
- The delta-shaped light distribution ensures uniform lighting, even in the case of wider or random luminaire spacing.
- No disturbing luminance spots means a high level of visual comfort.



All-round glare control



Delta-shaped light distribution



Enlarged detail of Micro Lens Optics MLO

The wide choice of finishes for the high-grade aluminum used for the optics, which are available in semi-high gloss D8, D7 and D6, high gloss C8, C7 and C6 and matt M6, always offers an ideal optic for every application, depending on personal preferences.

Matt mirror material (M) gives the luminaire a particular visual presence in the ceiling, resulting in a certain extent of visual guidance. High gloss specular material (C) reduces all disturbing luminances and produces a higher light output, however, this material is more susceptible to dust pollution and fingerprints.

Semi-high-gloss mirror material (D) offers the best overall practical value: the satin material has a low visual presence without becoming a “dark spot” and is not sensitive to small amounts of pollution.

Every trend – in this case low-brightness luminaires – creates a counter-trend: visual guidance and clear presence of the lighting elements in the ceiling architecture can be achieved using the new MLO optics.

Micro Lens Optics (MLO)
Alternatives for the open aluminum OLC optics are the Micro Lens Optics AC-MLO (acrylate) and PC-MLO (polycarbonate). Their optical technique is quite different, although they are based on more or less identical lighting specifications their appearance is completely different.

- The decorative but uniform optical covers are made of patented Micro Lens Optics.
- All-round glare control OLC 1000 cd/m², with average luminance < 1000 cd/m² for g ≥ 65° in all directions, is in accordance with the European standard on workplaces EN 12464-1. This is realised by the typical conical element with 108 degrees top angle and small inverse top moulded in a regular square pattern. In all directions, the same luminance cut-off in combination with a very low luminance between 65 and 90 degrees from the vertical is realised. The limits are achieved by applying dedicated MLO material per lamp type, which differs for TL5 HE and TL5 HO lamps.
- MLO provides the option to mix the light of different lamp colors, e.g. warm-white and cool-white or daylight, at will or continuously, in order to realise individual color temperature control or Dynamic Lighting. The overall light color appearance of the luminaire, when fitted with different lamp colors remains uniform whichever ratio of warm-white to cool-white light is chosen by the end user. The different color tones from the different lamps are perfectly mixed.
- 'Visible' light, the MLO optics realise a strong architectural appearance at the ceiling of the application area and contribute to the room design.
- The wide-beam delta-shaped light distribution is created in all directions to ensure a high uniformity of light at the working plane and a pleasant balance between the horizontal and vertical illuminances.

These optical features of the Micro Lens Optics create comfortable and efficient general lighting that is not only dedicated to office lighting, but also very suitable for general lighting applications in e.g. hospitals, lobbies and commercial areas:

- Flexible interior design thanks to all-round glare control: computer displays can be positioned anywhere in the room without the risk of reflected glare.
- The direct glare expressed in UGR_R is limited, which results in a comfortable decorative lighting installation.
- The high light output ratios of these closed luminaires make the lighting cost effective.
- The all-around delta-shaped light distribution ensures uniform lighting, even in the case of wider luminaire spacing. By applying square luminaires mounted in square patterns, the ceiling will appear uniform in all directions.
- No disturbing luminance spots will guarantee a high level of visual comfort.

Luminaires with MLO optics are available in such dimensions that they can replace a square or rectangular ceiling tile, and also in slim-line version. By their distinct brightness OLC optics may create clear visual guidance and direction for the users of the illuminated spaces.

Optics to suit all requirements
The optic in a luminaire is made up of the reflector and louvers, diffuser or refractor system that controls the light direction and beam pattern of the luminaire. It is an essential control device. It is therefore not surp rising that Philips offers a wide variety of optics, each designed to perform a specific function.

Which optic is best for the practical situation in question?

The function of the area to be illuminated and the task to be performed usually determine the type of luminaire and optic you need, while the ceiling system often determines the dimensions and the way the luminaire is to be mounted. The luminaire-optic combination must fulfil the lighting requirements defined for each specific area and task. In addition, other requirements, such as image, efficiency and aesthetics, will influence the decision. Light distribution, direct and reflected glare control and efficiency are parameters that influence the performance of the lighting installation. These elements are described in the European standard EN 12464-1 (Light and lighting - Lighting of workplaces).

The following optic guide is comprised of optics for fluorescent luminaires with TL5 and TL-D lamps, grouped in the different optic dimensions (Micro, Mini, Midi and Maxi), for downlights with compact fluorescent lamps and for projectors with compact HID lamps.

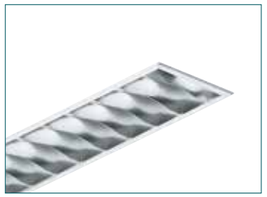
The overview offers an indication of the optic description and performance. As the optical performance may vary with lamp type and number of lamps, please consult the photometric database via www.lightingsoftware.philips.com in conjunction with calculation programmes like DIALUX and RELUX.

Micro optics – New generation optics for TL5

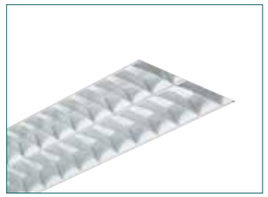
Micro optics are the latest state-of-the-art in optical design and available for TL5 lamps only. The very slim-line optics, with an opening of only 55 mm, are integrated in high-end luminaires. The aluminum optics with their curved underside enhance the aesthetical appearance and have an improved efficiency.

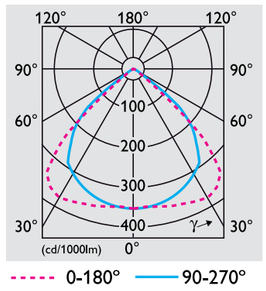
Micro optics are applied in innovative luminaire families like Arano, Celino, Savio, SmartForm, ThinMark and TBS490, slim-line and square luminaires. In SmartForm TBS460 the space between the slim-line aluminum optics is filled in with decorative panels. Micro optics conform to the European standard EN 12464-1.

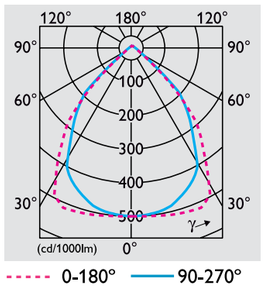


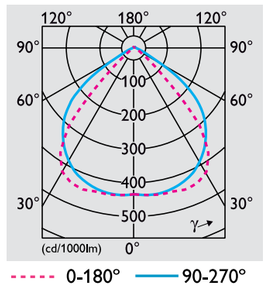


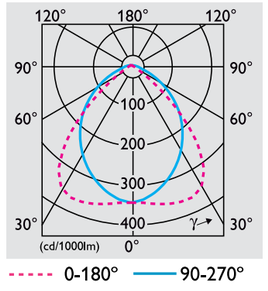












C8/D8

Performer micro optic made of high-quality standard aluminum, reflection ≥ 83%, available in high gloss (C) and semi-high gloss (D).

Delta-shaped light distribution and all-round glare control.

LOR	up to 82%
UGR_R	≤ 19
L	< 1000 cd/m²

C8-C/D8-C

Excellent comfort micro optic made of high-quality, very highly reflective performance aluminum, reflection ≥ 94%, available in high gloss (C) and semi-high gloss (D).

Delta-shaped light distribution and all-round glare control. Optic is optimized for high comfort and good appearance.

LOR	up to 86%
UGR_R	≤ 19
L	< 200 cd/m²

C8-VH/D8-VH

Very high efficiency micro optic made of high-quality, very highly reflective optimum silver-coated aluminum, reflection ≥97 %, available in high gloss (C) and semi-high gloss (D).

Delta-shaped light distribution and all-round glare control. Optic is optimized for maximum efficiency.

LOR	up to 94%
UGR_R	≤ 19
L	< 1000 cd/m² (SmartForm) < 200 cd/m² (Arano, Celino, Thinmark and TBS490)

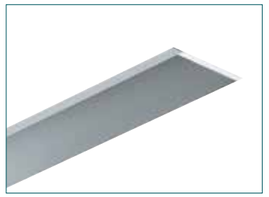
M2

Micro optic made of matt high-quality standard aluminum side reflectors, reflection ≥ 83%, and flat profiled aluminum lamellae.

Delta-shaped light distribution.

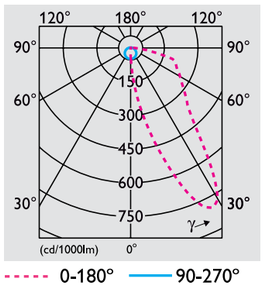
The distinct appearance creates clear visual guidance in the lengthwise direction.

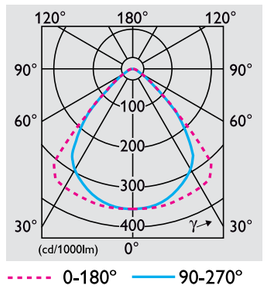
LOR	up to 75%
UGR_R	≤ 19 for square versions ≤ 22 for rectangular versions

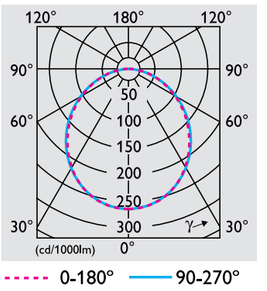












A

Asymmetrical micro optic made of high-quality, very highly reflective performance aluminum, reflection ≥ 94%.

The optic comprises a single-shell bevelled reflector without lamellae, suitable for 1 or 2 lamps.

Lamp is asymmetrically placed in a wider and higher housing, invisible from the main viewing direction.

Suitable for wall washing applications in offices, schools and shops.

LOR	up to 80%

AC-MLO/PC-MLO

Micro lens optic made of acrylate (AC) or polycarbonate (PC). Droplet-shaped light distribution and all-round glare control. The patented micro lens optic is optimized for the best balance between efficiency and low brightness at viewing angles above 65 degrees.

Standard with diffuser for uniform brightness.

ND version is without diffuser for 10% higher efficiency.

LOR	up to 69% (AC-MLO ND) ≤ 66% (PC-MLO ND)
UGR_R	≤ 16
L	< 1000 cd/m²

O

Opal micro optic with top reflector made of high-quality, very highly reflective performance aluminum, reflection ≥ 94%, ensures a high efficiency of the opal optic.

The optic creates a diffuse light distribution and has a distinct appearance that creates clear visual guidance in the lengthwise direction.

LOR	up to 73%
UGR_R	≤ 22

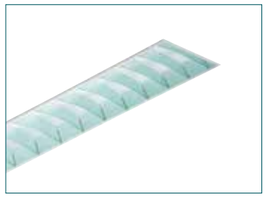
Mini optics – dedicated TL5 performers

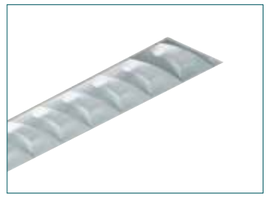
Mini optics are specially designed for TL5 lamps and combine an aesthetical high-performance design and optimized photometric characteristics. The slim-line mini optics with an opening of 80 mm are well integrated in high-quality and functional luminaires.

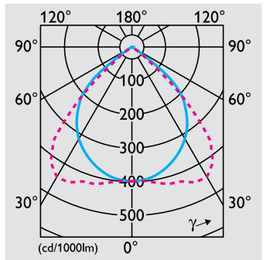
The mini optics are applied in luminaire families like TBS600/625 and the recently introduced EFix 260 recessed, surface and suspended mounted luminaires.









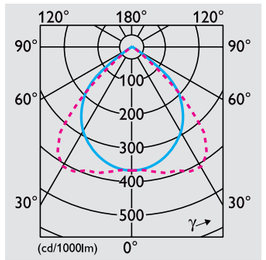


C7/D7

Comfort mini optic made of high-quality very highly reflective performance aluminum, reflection ≥ 94%, available in high gloss (C) and semi-high gloss (D). Delta-shaped light distribution and all-round glare control.

Optic is optimized for excellent comfort, pleasing appearance and very high efficiency.

LOR	up to 85%
UGR_R	≤ 19
L	< 200 cd/m²



C6/D6/M6

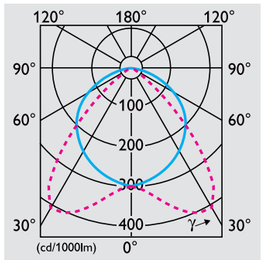
Functional mini optic made of high-quality standard aluminum, reflection ≥ 83% (TBS600/625), or economy aluminum, reflection ≥ 83% (EFix). Available in high gloss (C), semi-high gloss (D) and matt (M).

Delta-shaped light distribution with all-round glare control.

Options:

- M6-A, asymmetrical beam
- M6-WB, wide beam
- M6-BD, bidirectional beam

LOR	up to 78%
UGR_R	≤ 19
L	< 200 cd/m² (TBS600) < 1000 cd/m² (EFix)

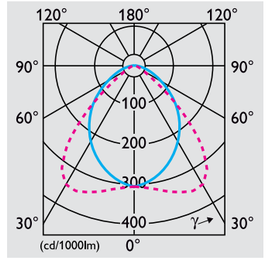


M-DGN

Aesthetic mini optic with matt anodised side reflectors made of high-quality standard aluminum, reflection ≥ 83%, and greenish translucent plastic lamellae.

This decorative optic creates clear visual guidance due to its distinctive and sophisticated look.

LOR	up to 79%
UGR_R	≤ 22



M2

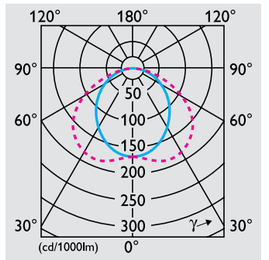
Mini optic with matt high-quality standard aluminum side reflectors, reflection ≥ 83% (TBS600/625), or economy aluminum, reflection ≥ 83 % (EFix), and profiled aluminum lamellae. Delta-shaped light distribution. The distinct appearance creates clear visual guidance.

Options:

- M2-A, asymmetrical beam
- M2-WB, wide beam
- M2-BD, bidirectional beam

LOR	up to 72%
UGR_R	≤ 19 for square versions ≤ 22 for rectangular version





OD

Decorative closed mini optic with matt side reflectors made of high-quality aluminum and concave shaped polycarbonate opal-prismatic cover.

The closed optic has a high efficiency and creates clearly visible lines of light.

LOR	up to 60%
UGR_R	≤ 25



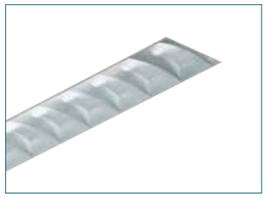
Midi optics – flexible TL5/TL-D performer solutions

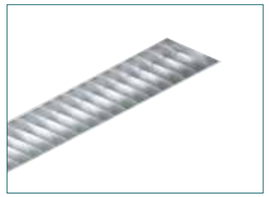
Midi optics are specially designed for luminaire families with TL5 and TL-D lamps and combine a neutral aesthetical design and performance.

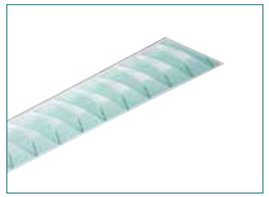
The midi optics with an opening of 110 mm are well integrated in functional luminaires.

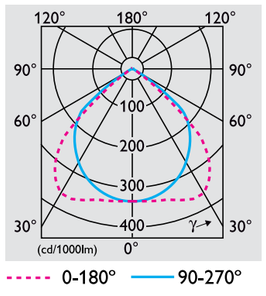
The midi optics are applied in luminaire families like X-tendolight TCS398/TPS498, Indolight TBS330 and TBS105.

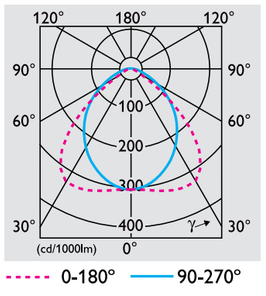


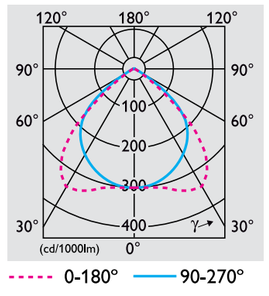


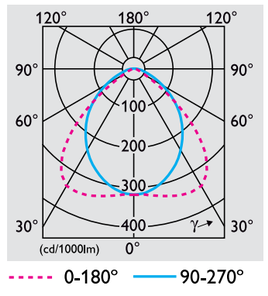












C6/D6

Comfort midi optic made of high-quality standard aluminum, reflection ≥ 83%, available in high gloss (C) and semi-high gloss (D). Cross louver is equipped with Fresnel structure for improved efficiency.

Delta-shaped light distribution and all-round glare control.

Options:
- C6-H, D6-H, high-quality, very highly reflective aluminum for raised LOR
- T-top reflector for raised LOR

LOR	up to 71% (C6) up to 81% (C6-H)
UGR_R	≤ 19
L	< 200 cd/m²

M2

Functional midi optic made of matt high-quality standard aluminum, reflection ≥ 82%, and profiled lamellae with curved underside.

Delta-shaped light distribution for clear visual guidance.

Options:
- M2-A, asymmetrical beam
- M2-WB, wide beam
- M2-BD30, bidirectional beam under 30 degrees
- M2-BD45, bidirectional beam under 45 degrees

LOR	up to 72%
UGR_R	≤

M6

Comfort midi optic, made of matt high-quality standard aluminum, reflection ≥ 82%, and matt cross louvers equipped with Fresnel structure for improved efficiency. Delta-shaped light distribution and all-round glare control.

Options:
- M6-A, asymmetrical beam
- M6-BD45 bidirectional beam under 45 degrees.

LOR	up to 67%
UGR_R	≤ 19
L	< 1000 cd/m²

M-DGN

Aesthetic midi optic made of matt anodised high-quality standard aluminum side reflectors, reflection ≥ 82%, and greenish translucent plastic lamellae.

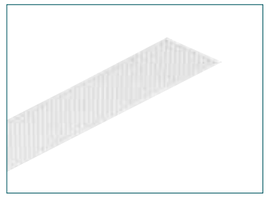
This decorative optic creates clear visual guidance due to its distinct and sophisticated look.

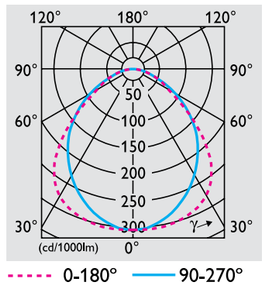
LOR	up to 75%
UGR_R	≤ 22

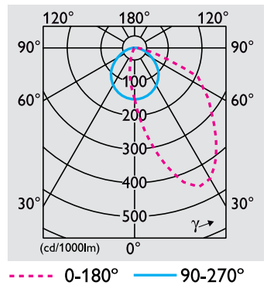


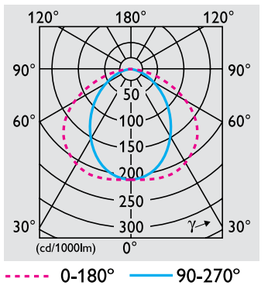


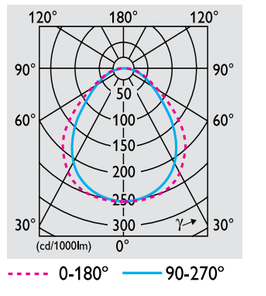












L1

Functional midi optic composed of white painted side reflectors and flat white cross louvers.

For functional areas without glare limitations and clear visual guidance.

LOR	up to 72%
UGR_R	≤ 22

A

Midi optic with asymmetrical light distribution made of standard aluminum with reflection of 82%.

The optic comprises a single-shell bevelled reflector without lamellae.

Lamp is invisible from the main viewing direction.

LOR	up to 85%

OD

Decorative closed midi optic made of high-quality matt aluminum side reflectors and a concave shaped polycarbonate opal-prismatic cover.

The optic has a high efficiency and creates clearly visible lines of light.

LOR	up to 60%
UGR_R	≤ 25

P

Midi polycarbonate cover with prismatic structure at the underside, mounted in an aluminum frame.

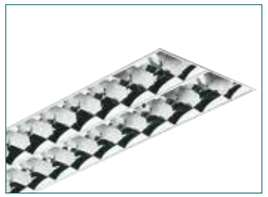
Lamps are noticeable as the prismatic cover is made of clear plastic.

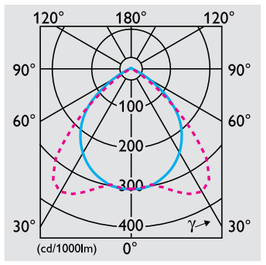
LOR	up to 71%
UGR_R	≤ 22

Maxi optics – optics for TL-D lamps

Maxi optics are specially designed for luminaire families with TL-D lamps and combine a neutral aesthetical design and performance. The maxi optics with an opening of 125 mm are well integrated in functional cost-effective luminaires.

The maxi optics are applied in luminaire families like Centura 2 TCS160, Finess TCS198 and Impala TBS160.





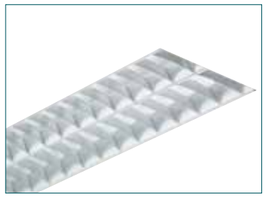
C6/M6

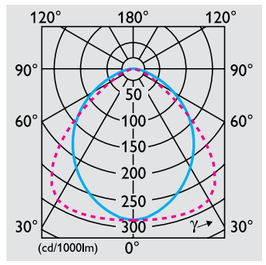
Maxi optic made of economy, anodised aluminum, reflection ≥ 83%, available in high gloss (C) and matt (M).

Cross louver is equipped with Fresnel structure for improved efficiency.

Delta-shaped light distribution and all-round glare control.

LOR	up to 68% (C6-1000) up to 62% (M6)
UGR_R	≤ 19 (C6-1000)
L	< 1000 cd/m²



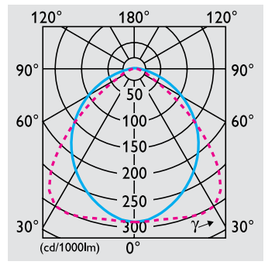


M2

Functional maxi optic made of matt economy aluminum side reflectors, reflection ≥ 82%, and profiled aluminum lamellae with curved underside.

LOR	up to 66%
UGR_R	≤ 19

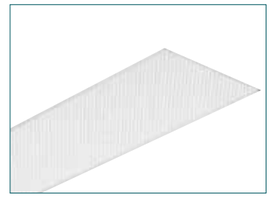


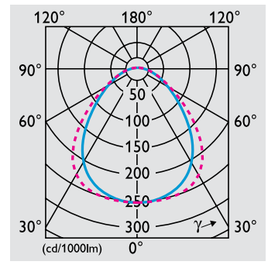


C3

Functional maxi optic made of high gloss economy aluminum side reflectors, reflection ≥ 82%, and matt flat cross louvers.

LOR	up to 60%
UGR_R	≤ 19



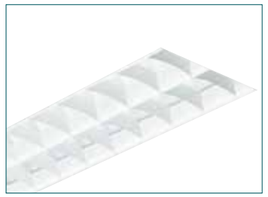


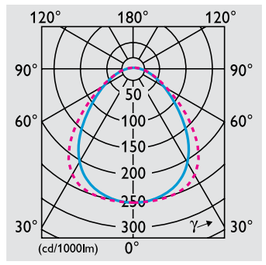
P

Maxi polycarbonate cover with prismatic structure at underside, mounted in an aluminum frame.

Lamps are noticeable as the prismatic panel is made of clear plastic.

LOR	up to 63%
UGR_R	≤ 19





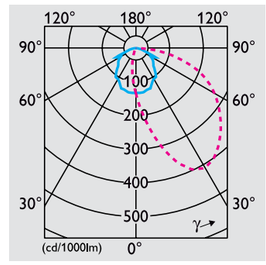
L1

Functional maxi optic composed of white painted side reflectors and flat white cross lamellae.

For functional areas without glare limitations and clear visual guidance.

LOR	up to 67%
UGR_R	≤ 19





A

Maxi optic with asymmetrical light distribution made of standard aluminum, reflection 82%, suitable for 1 lamp. The optic comprises a single-shell bevelled reflector without lamellae.

Lamp is not visible from the main viewing direction.

LOR	up to 69%
UGR_R	≤ 19

Optics for compact fluorescent downlights

Optics for compact fluorescent downlights are mainly applied in round recessed mounted luminaires. The optic opening dimension varies with the luminaire/lamp combination. The optical design is optimized for high light output and to create the desired light distribution.

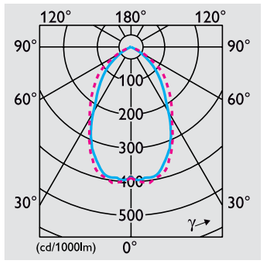
The optics for downlights are fitted in downlight families like Europa 2 and Fugato.

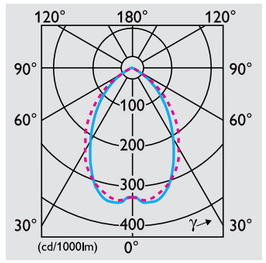


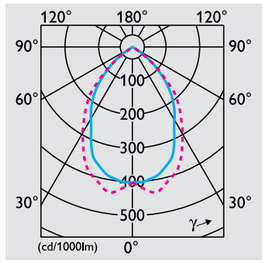












C

Circular optic; lower and top reflector made of high-gloss specular material, reflection 80%. Reflections from the lamp(s) are not visible in the lower part from all around the luminaire.

Complete integration of the downlight in the architecture is achieved thanks to the low brightness optic.

For functional areas with or without glare limitations and without visual guidance.

Option:
- RL ring louver for reduced glare

LOR	up to 67%
UGR_R	≤ 22 ≤ 19 with ring louver RL
L	< 1000 cd/m²

M

Circular optic; lower part made of satinised material, top reflector made of high-gloss material, reflection 80%.

At the ceiling a pattern of visible downlights with soft even brightness enhances its architecture.

For functional areas with a demand for higher luminaire brightness and some visual guidance.

Option:
- RL ring louver for reduced glare

LOR	up to 65%
UGR_R	≤ 22 ≤ 19 with ring louver RL
L	< 1000 cd/m²

WR

Circular optic; lower part made of white-coated material, top reflector made of high-gloss material, reflection 80%.

At the ceiling a clear pattern of visible downlights attracts visual attention.

For functional areas with demand for a high luminaire brightness at the ceiling and clear visual guidance.

LOR	up to 62%
UGR_R	≤ 25

FR

Circular optic with facetted reflector made of high-gloss mirror material, reflection ≥ 80%.

Highly efficient downlight that meets stringent reflected glare limitations, also suitable for high-wattage lamps.

For sparkling lighting elements at the ceiling.

LOR	up to 71%
UGR_R	≤ 19 or 22 depending on type
L	< 200-1000 cd/m²

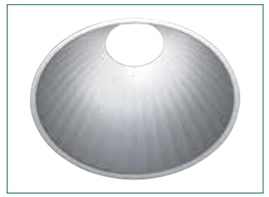
Optics for projectors with compact high-intensity discharge lamps

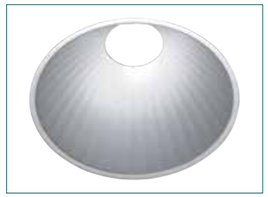
Optics for compact high-intensity discharge lamps like MasterColour and White SON are usually circular in shape. The optic opening dimension varies with the luminaire/lamp combination. The optical design is optimized for high light output and creation of the desired light distribution and effect (accent factor).

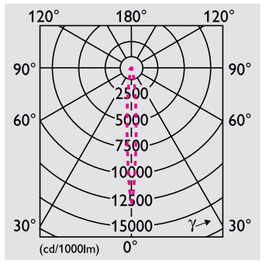
The optics for compact high-intensity discharge lamps are applied in projector families like EFix, Fugato, Magneos and UnicOne.

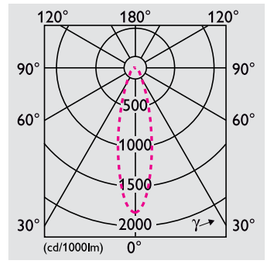


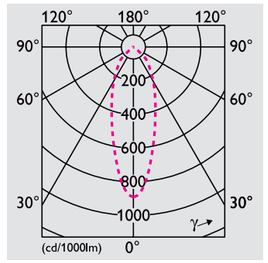


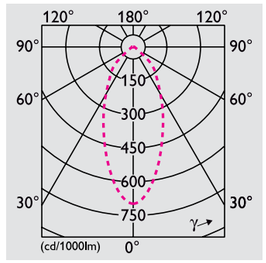












12

Narrow beam rotational symmetric optic for down lighting and high-impact accent lighting. Made of anodised aluminum with 99% reflection.

Intensity varies greatly with lamp type and power.

For accent lighting with dramatic effects.

LOR	up to 67%
I_{max}	approx. 15 kcd/klm

24

Medium beam rotationally symmetric optic for down lighting and strong accent lighting. Made of anodised aluminum with 99% reflection.

Intensity varies greatly with lamp type and power.

For accent lighting with theatrical effects and general lighting from higher ceilings.

LOR	up to 65%
I_{max}	approx. 2 kcd/klm

36

Medium beam rotationally symmetric optic for down lighting and accent lighting. Made of anodised aluminum with 99% reflection.

Intensity varies greatly with lamp type and power.

For accent and general lighting in areas where high-quality light sources are required.

LOR	up to 60%
I_{max}	approx. 1 kcd/klm

60

Wide-beam rotationally symmetric optic for down lighting.

Made of anodised aluminum with 99% reflection. Intensity varies greatly with lamp type and power.

For general lighting in retail areas, museums, hotels and lobby areas in offices and public buildings.

LOR	up to 60%
I_{max}	approx. 0.75 kcd/klm

Lighting technique

Technical data

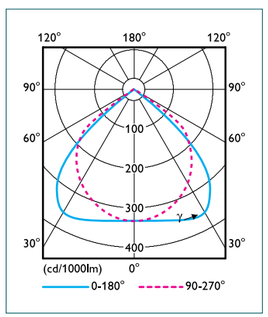
The technical data in this catalogue is limited to the main diagrams and data that indicate the beam characteristics. For functional lighting design the polar intensity diagram is given and for accent lighting design both the polar intensity and beam diagram are provided.

For lighting calculations all necessary data is given in the photometric database, which is accessible via www.lightingsoftware.philips.com, and used in conjunction with calculation programs like DIALUX and RELUX.

Several types of photometric templates are available, which contain all relevant photometric data, diagrams, key figures and tables, depending on the type of luminaire and its application.

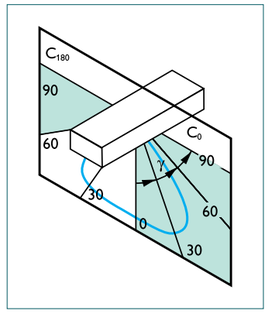
Polar intensity diagram

The polar intensity diagram provides a rough idea of the shape of the light distribution of a luminaire. In the polar intensity diagram, the luminous intensity is presented in the form of curves and given in candela per 1000 lumen (cd/1000 lm) of the nominal lamp flux of the lamp(s) applied.



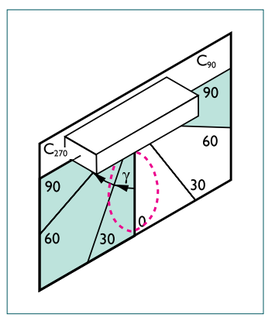
For accent lighting the polar intensity diagram curves may be expressed in candelas for the lamp type indicated.

The diagrams below shows the light distribution in two planes:
The continuous (blue) line:
In the vertical plane through the width axis of the luminaire, the C0-C180 plane is indicated as:



The dotted (red) line:

In the vertical plane through the length axis of the luminaire, the C90-C270 plane is indicated as:



In cases where the light distribution of a luminaire is rotation-symmetrical, as for downlights, projectors and industrial high-bay luminaires, it is expressed in one C-plane only (solid, blue line).

Notice that for asymmetrical light distributions two planes are insufficient for calculation purposes. Despite this, in the polar intensity diagram, only two planes will be given, as this is internationally accepted.

Light Output Ratio (LOR)

The light output ratio is the measure of a luminaire that indicates the total lighting efficiency of its optical parts. The value is measured and composed of the upward and downward light contribution in relation to the total amount of light emitted by the lamp(s) of a luminaire under standard operating conditions.

Luminaire luminance (L)

The luminance of the luminous parts, optics and cover of the luminaire is measured an/or calculated at intervals of 15 degrees and at elevation angles of 65, 75 and 85 degrees to obtain the average luminaire luminance. The average luminaire luminance shall not exceed the limits specified in EN 12464-1 for the particular tasks and activities in question for the maximum lamp and luminaire output.

Unified Glare Rating Reference (UGR_R)

The UGR reference rating of a luminaire is the Unified Glare Rating value obtained from the UGR table at room reflection factors 0.70, 0.50 and 0.20 and for room dimensions 4H x 8H, crosswise and endwise. The highest of both values should be lower than or equal to the value of the particular UGR class, i.e. 16, 19, 22, 25 or 28, which defines the overall UGR reference rating of a luminaire.

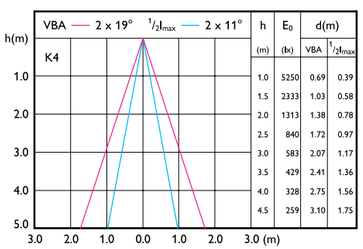
Beam diagram

The beam diagram shows the characteristics of the light beam produced by the luminaire/lamp combination for projectors, downlights, reflector lamps and fibre-optic terminations. The diagram gives the Visual Beam Angle (VBA), the beam spread angle (½Imax) and the sharpness of the contour as indicated by the K value, a measure for the contrast of the light beam.

Additionally, the diagram gives the user information on the diameter of the visual light patch, the diameter of the area of which the boundary has a luminous intensity equal to 50% of the maximum illuminance, and the diameter of the area of which the boundary has an illuminance equal to 50% of the illuminance measured in the centre of the beam (½E0). These diameters are presented for a range of vertical distances below the luminaire.

The illuminance in the centre of the beam (E0) is available for the same range of vertical distances below the luminaire.

Beam diagram



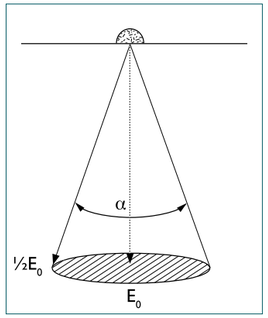
h (m)	E0 (lx)	d(m) VBA	d(m) ½Imax
1.0	5250	0.69	0.39
1.5	2333	1.03	0.58
2.0	1313	1.38	0.78
2.5	840	1.72	0.97
3.0	583	2.07	1.17
3.5	429	2.41	1.36
4.0	328	2.75	1.56
4.5	259	3.10	1.75

Visual beam angle

The VBA specifies the angle at which the contour of the beam is clearly visible. In contrast to the beam spread angle, the VBA reflects what is perceived when a person looks at the visual light patch.

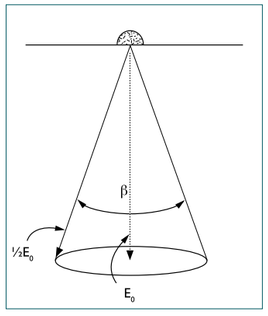
Beam width

The angle α at ½E_0 reflects the angle at which the illuminance has dropped down to 50% of the maximum value measured in the beam centre.



Beam spread

The beam-spread angle β at ½I_{max} reflects the angle over which the luminous intensity drops down to 50% of its peak value. The beam-spread angle does not reflect the visual appearance of the visual light patch.



Lighting of workstations with Display Screen Equipment (DSE)

Glare and glare-reduction techniques are important aspects in interior and especially in office and industrial lighting. Since the 1970s the lighting industry and standardization institutes have developed various methods to evaluate glare. Additional to this, the lighting industry has developed advanced optical techniques to reduce the glare to the required levels.

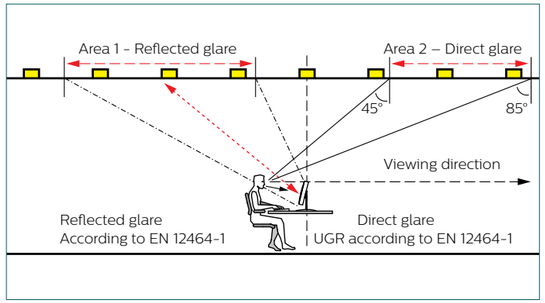
A clear distinction should be made between:

- direct glare caused by luminaires and other sources of light, and
- reflected glare caused by a combination of a bright light source and its reflection in a glossy surface (see drawing).

Standards in lighting have been developed to restrict both types of glare.

With the introduction of computer screens, especially the early models, there were highly reflective dark screens with bright characters that gave rise to problems in office environments. Subsequently, methods to analyze reflected glare in computer screens have been developed for direct lighting.

Direct lighting uses luminaires designed to emit most of their light output directly onto the working plane. Luminaires for direct lighting can be surface-mounted, recessed into the ceiling or suspended. They are generally visible as individual bright elements in the space, and can appear as a distinct and distracting object when reflected on a display screen. In cases where the screen displays bright characters (words and numbers, etc.) on a dark background, as was originally the case with the first-generation VDUs, the reflected image is seen against this dark background. However, if the information is displayed in dark characters on a light background, as in most modern screens and software programs, the reflections will be less conspicuous. To avoid glare problems CEN has established luminance limits for luminaires and for typical screen qualities. These are shown in Table 1.



Screen classes in accordance with ISO 9241-7	I	II	III
Screen quality	Good	Medium	Poor
Average luminaire luminances reflected in the screen	≤ 1000 cd/m²		≤ 200 cd/m²

Table 1. Screen classes in accordance with ISO 9241-7 z

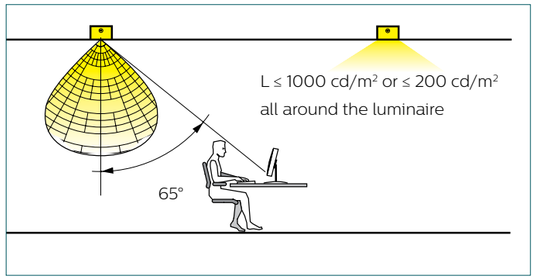
Note:

a) The appropriate luminance limit for luminaires (according to European standard EN 12464-1) can be selected when the nature of the screens and software to be used is known. If this information is not known or is not definite, the lower limit of 200 cd/m² should be selected.

b) The DSE and, in some circumstances the keyboard, may suffer from reflections that cause disability and/or discomfort glare. It is therefore necessary to select, locate and arrange the luminaires to avoid high-brightness reflections. The lighting designer should determine the mounting zone that is causing disturbance, then choose equipment and plan mounting positions which will not cause any disturbing reflections.

Luminaire luminance limits with downward flux

Table 1 gives the limits of the average luminance of a luminaire at elevation angles of 65° and above from the perpendicular, radially around the luminaires, for workplaces with display screens. The displays are usually positioned vertically or inclined up to a 15° tilt angle.



Note:

For certain special places, for example where sensitive screens or variable inclination are used, these illuminance limits should be applied for lower luminaire elevation angles (e.g. 55°).

Accent factor

The visual effect achieved when an object is highlighted to reveal its three-dimensional shape is determined by two items, i.e. the luminance between the object and its surrounding background, called contrast, and the light and shadow effects in the object itself caused by the shape and texture and the position of the spotlight, called modeling. The main lighting characteristics of a light source that determine the contrast are the diameter or size and the sharpness of the contour of the visual beam.

When planning accent lighting, it is important to determine the required effect or accent factor, which may vary from ‘noticeable’ to ‘very dramatic’. What is important here is the relationship between the amount of general lighting in the direct vicinity of the object and the brightness of the spot on the object. The accent factor is calculated by dividing the lighting level in the spot by the general lighting level in the horizontal plane, approximately 1 meter above the floor in the direct vicinity of the object.

$$\text{Accent factor} = \frac{\text{Lighting level in the spot (on illuminated object)}}{\text{General lighting level (in horizontal plane)}}$$

To obtain satisfactory effects in situations where the level of general lighting is high or there is incident daylight, powerful accent lighting should be used.

Figure	Accent factor	Effect
1	2:1	Noticeable
2	5:1	Low theatrical
3	15:1	Theatrical
4	30:1	Dramatic
5	50:1	Very dramatic



1.Noticeable visual effect (factor 2:1)



2.Low theatrical effect (factor 5:1)



3.Theatrical effect (factor 15:1)



4.Dramatic effect (factor 30:1)
Can only be achieved with relatively low general lighting levels.



5.Very dramatic effect (factor 50:1)
Can only be achieved with relatively low general lighting levels.

Beam characteristics – K-beam categories

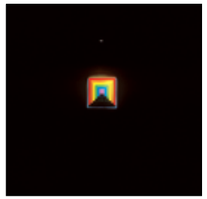
Accent lighting requires a controlled beam of light, which is achieved using a lamp and reflector, or a reflector lamp. The ultimate effect is largely determined by the characteristics of the beam. The important factors are the intensity, the shape and the dimensions of the spot of light created by the beam and the amount of spill light. Spill light is the amount of light allowed to spread outside the actual beam.

A ‘hard-edged’ beam is a light beam with little or no spill light that gives a sharply defined contrast. It lends itself to very dramatic lighting effects.

A ‘soft-edged’ beam has a higher degree of spill light and will result in a lower contrast with the surrounding area. The effects are much softer than those obtained with a hard-edged beam. To help you make the right selection, Philips has a beam classification for its reflector lamps and lamp/reflector combinations, which identify five K-beam categories. The ultimate effect is influenced by the contrast between the ambient lighting and the lighting intensity of the beam.

Identifying the five K-beam categories

The illustrations here give a good impression of the effects of the various types of light beams identified by the Philips K-beam classification. The light beams create these effects without any supplementary lighting.



K1 is a profile spot without spill light; this effect is achieved by equipping the luminaire with a mechanical diaphragm or optical device that cuts off the spill light; in this way, beams of different shapes can be produced.
This class can have high- or low-intensity beams, depending on the lamp power and efficiency of the system.



K2 is a spot which stands out due to its sharp transition to a minimal amount of spill light; this type of beam is excellent for creating theatrical and dramatic effects.
This class is usually associated with very high-intensity beams.



K3 shows a hard transition from a high-intensity spot to spill light; the spill light is seen as a narrow ring of light around the spot.
This class is usually associated with high-intensity beams and is very suitable for creating theatrical effects.



K4 creates a soft shift from a relatively strong spot to a great amount of spill light; the spill light assists considerably in lighting the general surroundings.



K5 is a uniformly wide beam without a visible spot and is suitable for general or supplementary lighting.

Glossary

Average illuminance
Illuminance averaged over a specified surface.
Unit: lux (lx) = lm/m²
Symbol: E_{ave}

Ballast
Electrical device used with discharge lamps for stabilising the current in the discharge.

Beam spread
Angle in the plane through the beam axis over which the luminous intensity drops to a stated percentage (e.g. 50%) of its peak intensity.

Brightness
Attribute of visual sensation according to which an area appears to emit more or less light. Brightness according to the definition is also an attribute of color. In British recommendations the term “brightness” is now reserved for descriptions of color. Luminosity should be used in other instances.

Candela
The standard unit of light intensity, abbreviated to “cd”, which is one lumen per steradian.

CDM
See MASTERColour CDM.

Color change
The facility to change the color temperature of a lighting installation makes it possible to create a more comfortable working environment or to introduce dynamic lighting effects.

Color rendering
Ability of a light source to render colors naturally, without distorting the hues seen under a full spectrum radiator (like daylight or incandescent lamps).
The color rendering index (CRI) ranges from 0 to 100. For further details see ‘Specification data lamps’.
Color rendering index CRI
See Color rendering.

Color temperature
Temperature in kelvin of a full spectrum radiator most closely approximate to the color appearance of a light source at the same brightness. For further details of Philips lamps see under ‘Specification data lamps’.
Unit: kelvin, K
Symbol: Tc

Contrast C (between two parts of a visual field)
The relevant luminance difference between two parts in accordance with the formula:

$$\frac{C = L1 - L2}{L2}$$

Where the size of the two parts differs greatly and where:
L1 = luminance of the smallest part (object)
L2 = luminance of the largest part (background).

DALI
Digital Addressable Lighting Interface, a standardized communication interface to regulate lighting levels and to switch electronic HFD ballasts on and off.

Daylight linking
Using natural light saves energy and is beneficial to individual users. Daylight linking is a technique that regulates the light output of luminaires in accordance with daylight conditions, thus maintaining a constant level of indoor lighting and ensuring comfort at all times.

Diffuser
Optical element used to mix light rays to improve uniformity or reduce glare. An opal cover is an example of a diffuser.

Direct lighting
Lighting by means of luminaires with a light distribution such that 90 – 100% of the emitted luminous flux reaches the working plane directly, assuming that this plane is unbounded.

Disability glare
Glare that impairs vision.

Discomfort glare
Glare that causes discomfort without necessarily impairing vision.

Dust-proof luminaire
Luminaire constructed so that dust of a specified nature and fineness cannot enter when it is used in a dust-laden atmosphere.

Fresnel lens or reflector
A Fresnel lens or reflector is an optical element of reduced height. By means of discrete steps, the basic shape is flattened yet the optical characteristics are retained.

Glare
See disability glare and discomfort glare, and the chapter entitled ‘Information - Lighting technique’.

Halogen lamp
Incandescent lamp in which the inclusion of halogens in the gas filling and a high-temperature quartz envelope promote the tungsten halogen cycle, permitting a higher filament temperature. The result is a higher color temperature and a significantly extended life.

Halogen HV
“High voltage” 230 V halogen lamp, which does not require a ballast or a transformer.

Halogen LV
“Low voltage” 6 V, 12 V or 24 V halogen lamp. An electronic or electromagnetic transformer is required to operate low-voltage halogen lamps and is often integrated into the luminaire.

HFD
Electronic regulating ballast which enables the light to be dimmed. Ballast functions according to the DALI protocol.

HFD-T
Electronic regulating DALI ballast for various fluorescent lamps. With this new-style electronic ballast standard push-buttons can be used to dim the light output down to 3%. The lamp can also be switched on or off using the push-button control.
Ballast functions according to the DALI protocol.

HFM
Compactly built electronic ballast for various compact fluorescent lamp types. See also ‘Specification data luminaires’.

HFP
Electronic ballast for various fluorescent lamp types with warm-start principle. See also ‘Specification data luminaires’.

HFR
Electronic regulating ballast for various fluorescent lamp types by which light dimming is possible. The main ranges of HFR ballasts allow step-less dimming down to 3%. See also ‘Specification data luminaires’.

Horizontal illuminance (E_{hor})
Illuminance incident on the horizontal surface.
Unit: lux (lx) = lm/m²
Symbol: E_{hor}

HPI Plus lamp
Metal-halide high-intensity discharge lamp combining high luminous efficacy with white light of moderate color rendering. Main indoor applications are big industrial halls and lighting of discount stores, hyper-/supermarkets and DIY shops. HPI Plus lamps are usually applied in high-bay luminaires and floodlights.

Illuminance
The luminous flux density at the surface being lit. The illuminance in the full summer sun is approx. 100,000 lux. Recommended illuminances for work places range from 200 lux for rough work to 2,000 lux for detailed or critical work.
Unit: lux (lx) = lm/m²
Symbol: E

Infrared remote control
In offices and meeting rooms where the lighting requirement changes frequently, wireless infrared control offers the flexibility to set the lighting and change it at any time.

Indirect lighting
Lighting by means of luminaires with a light distribution such that not more than 10 per cent of the emitted luminous flux reaches the working plane directly, assuming that this plane is unbounded.

Induction lighting QL
Electrode-less induction lighting system characterized by good light quality, high luminous efficacy and a phenomenal life (60,000 hours).

Jet-proof luminaire
Luminaire constructed to withstand a direct jet of water from any direction.

LED
Light Emitting Diode used as a light source. Solid-state semiconductor device that converts electrical energy directly into light of a specific color or white light.

Light output ratio (LOR)
Ratio of the total light emitted by a luminaire to the total light output of the lamp(s) it contains measured at standard operating conditions.

Lumen depreciation
The decline in the light output of a light source during its lifetime.

Luminaire
Appliance that distributes, filters or transforms the light given by a light source (LED or lamp), and which contains all the necessary elements for fixing and protecting the light source(s) and facilitates their power supply and operating conditions.

Luminance
The light intensity per square meter of apparent area of the light source, luminaire or illuminated surface. Where surfaces are lit, the luminance depends upon both lighting level and reflection characteristics of the luminous surface.
Unit: cd/m²
Symbol: L

Luminous efficacy
The quantity of light that a light source emits per unit of electrical energy consumed. Notice that the luminous efficacy can be specified for a light source or for a lighting system (lamp and ballast).
The luminous efficacy of a system is lower than that of the light source.
Unit: lm/W

Luminous flux
The total light output emitted by a light source. Also the total light falling on a surface. The light output of a light source is measured in lumen.
Unit: lumen
Symbol: f

Luminous intensity
The luminous flux in a given direction, e.g. from a floodlight or projector.
Unit: candela (cd) = one lumen per steradian
Symbol: I

Lux
The standard unit of illuminance of a surface being lit. One lux equals one lumen per square meter.

Maintained emergency lighting
Emergency lighting where the lamps are operated from the normal supply during standard conditions. In an emergency situation the emergency lamp (usually one lamp in luminaires of two or more lamps) remains in operation.

Maintained illuminance
Value below which the average illuminance on the specified surface is not allowed to fall. The maintained illuminance is specified at the end of the maintenance cycle, taking into consideration the maintenance factor.
It is one of the main specification elements for the lighting designer. In the various standards the maintained illuminance is specified for various activities.
Unit: lux
Symbol: E_m

Maintenance factor
Correction factor used in lighting design to compensate for the rate of lumen depreciation, caused by lamp ageing (lumen depreciation and lamp failure) and dirt accumulation (luminaire and environment).
It determines the maintenance cycle needed to ensure that illuminance does not fall below the maintained value.

MASTERColour CDM lamp
Series of metal-halide discharge lamps with excellent color rendering and a warm or neutral color impression. MASTERColour lamps, also available as reflector lamps, are applied in projectors and downlights for shop and office applications.

Mercury lamp
High-intensity discharge lamp for use in industry and large public spaces. Higher quality light characteristics are obtained by applying metal-halide lamps.

Metal-halide lamp
Single- or double-ended discharge lamp for use in industry, public spaces and shops. Metal-halide lamps combine a natural white color with a pleasant light and a high luminous intensity.

Movement detection
Sensing of occupancy by movement detection ensures lights are activated only when needed and enables the lighting in a specific area to be controlled.

Non-maintained emergency lighting
Emergency lighting where the emergency lighting lamps come into operation only when the power supply to normal lighting fails.

OLC
Omnidirectional Lighting Control, a Philips-patented series of optics for TL5 and TL-D lamps offering optimal lighting efficiency in combination with excellent glare and luminance control all around the luminaire.

Optic
A device that changes the direction of a beam of light, usually by reflection, diffusion or refraction by a lens. The optic may include louvers for reduction of glare.

PL lamp
Single-ended compact fluorescent lamp in which the discharge tube is folded into two, four or six limbs. PL lamps are characterized by unusually high light output for their length. They are applied in compact luminaires for professional and domestic use. Also available with integrated ballast.

Power factor
Ratio of the circuit power in watts over the product of the root-mean-square values of voltage and current. For sinusoidal waveforms, it is equal to the cosine of the angle of phase difference between voltage and current. For electronic ballasts the power factor is 0.95 so that no additional phase compensation is required.

QL lamp
See Induction lighting.

Refractor
Optical element used to concentrate light rays to focus or improve the direction of light. A prismatic cover is an example of a refractor.

RGB
Red, green and blue, used to specify the colors of a light source.

SDW-T
White SON or SDW-T lamps offer a high luminous efficacy in combination with warm-white light. The color rendering is excellent. SDW-T lamps are applied in shops and public spaces where the atmosphere should be warm and cosy.

Sodium lamp, SON lamp
High-pressure discharge lamp with a yellowish color appearance and an extremely high efficiency. SON and SON Comfort lamps, with improved color characteristics, are mainly applied in high-bay industrial applications.

Solid-state lighting
Description of a lighting device that does not contain moving parts or parts that can break, rupture, shatter, leak or contaminate the environment (such as a lamp).

Starter
Device for starting a discharge lamp, in particular a fluorescent lamp, that preheats the electrodes and/or causes a voltage surge in combination with the series ballast.

Switching and dimming control
As more and more light sources can be dimmed economically, lighting controls need to provide both switching and light regulating capabilities.

TL5
Linear double-ended fluorescent lamp with a diameter of 16 mm. In combination with OLC optics and high-frequency ballasts the TL5 system offers a superb performance, both in terms of lighting technology and energy consumption.

TL-D
Linear double-ended fluorescent lamp with a diameter of 26 mm. Available in a range of colors and color rendering characteristics.

Uniformity ratio
Ratio of the minimum over the average illuminance for a specified area (E_{min}/E_{ave}). When defined as such, the uniformity ratio is also the ratio of the minimum over the maximum illuminance for a specified surface area (E_{min}/E_{max}).

Utilisation factor
Utilisation factor (UF) of a lighting installation represents the percentage of the luminous flux of the lamp(s) that reaches the defined working plane. UF can be seen as the efficiency of the lighting installation. UF is used to calculate the number of luminaires required.

Vertical illuminance
Illuminance incident on the vertical surface.
Unit: lux (lx) = lm/m²
Symbol: E_{vert}

Visual guidance
The sum of the measures taken to give the user of a space an unambiguous and immediately recognisable picture of the course of the path ahead.
Visual guidance is important in shops and other public buildings. The lighting designer takes the demands for visual guidance into consideration.

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