

The background of the advertisement is a vibrant night cityscape, likely Dubai, featuring the Burj Khalifa and other illuminated skyscrapers. In the foreground, there are glowing, curved architectural elements that resemble modern light fixtures or walkways, adding a sense of depth and futuristic design to the scene.

**PHILIPS**

Professional  
lighting



Discover  
**the future of  
lighting innovation**

Real professionals count on Philips



## The right lighting

Through light, we make people feel safer, happier and more productive. We're inspired by you. We understand your needs and desires, and deliver innovations that make a big difference to homes, businesses, communities, cities and sports facilities.

Our ambition: enhancing life with light is highly efficient and helps reduce environmental footprint provides good visibility and eliminates dark shadows doesn't compromise on safety and is compliant with both national and international regulations is durable in all possible conditions is scalable and ready to be connected to remote management systems.

## Why choose Philips?

A lighting partner that suits your business needs



**Global presence and local experience**

delivering multi-tiered support



**World-class innovation**

capabilities and deep application and system expertise



**One-stop**

systems and service across the lighting value chain



**127 years proven record of quality and reliability**

- no unpleasant surprises

# Professional lighting

## Industry

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### Highbay

- Greenperform highbay elite BY718P
- Greenperform highbay gen 4 BY698P
- Greenperform rectangular BY570
- Greenup line gen 2 BY490
- Smartbright G4 BY239P

### Lowbay

- Mini 500 BBP/BCP/BGP500
- Endura wellglass BY201P
- Dura wellglass BY300P

### Waterproof and bulkhead

- Smartbright bulkhead WL008C
- Essential smartbright bulkhead WT045
- Coreline bulkhead WL13XV
- Pacific LED waterproof WT470C
- Coreline waterproof WT120C
- Smartbright waterproof WT068C
- Essential smartbright waterproof WT035

### Explosion proof

- Pacific led waterproof ATEX 2/22 version
- Gentlespace ATEX BY480P/X
- Solid guard well glass atex BY950P

### Battens and trunking

- Greenperform batten G3 BN398C
- Smartbright T8 batten BN0XX
- Essential smartbright T8 batten BN016
- Smartbright TLED batten BN011
- Essential smartbright TLED batten BN015
- Essential smartbright T5 batten BN058

## Office

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- Power balance/modular RC600B
- Occuswitch
- Coreview gen 4 panel RC420
- Greenperform panel RC099
- Smartbright slim panel RC091
- Smartbright backlit panel RC048B

## Retail and hospitality

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- Flex accent GEN 2 ST391T
- Essential smartbright led projector ST030T
- Luxspace DN591B
- Greenspace DN39XB
- Greenspace power DN28XB

## Road and street

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- Luma BGP6XX
- Roadflair G2 BRP49X
- Greenvision xceed BRP39X
- Streetstar BRP210
- Smartbright road BRP130

### Residential and street solar lighting

- Sunstay aio BRP710
- Smartbright AIO flood BVP080
- AIO street light BRP110
- Urban spark BGP1XX

## City beautification

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- Townguide BDP10X
- Posttop BGGP161
- Smart bollard ii BCP15X

## Sports, recreation & general lighting

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- Sportstar/area and sport version BVP621
- Tango G4 BVP43X
- Tango G3 XL BVP38X
- Smartbright led floodlight G2 BVP151
- Essential smartbright led floodlight BVP150

## UVC disinfection

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- UVC upper air system wall
- UVC upper air system ceiling
- Uvc air
- UVC batten TMS030
- UVC trolley (single & double)
- UVC sensor batten
- UVC chamber mini
- UVC chamber medium







# Industry lighting **Highbay**

Real professionals count on Philips

- [Greenperform highbay elite BY718P](#)
- [Greenperform highbay Gen 4 BY698P](#)
- [Greenperform rectangular BY570](#)
- [Greenup line gen 2 BY490](#)
- [Smartbright G4 BY239P](#)


# Greenperform highbay elite

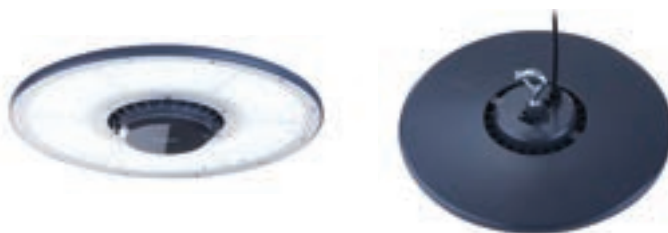
- System efficacy @ 145lm/W; 10000/15000/20000/25000/30000lm – High energy saving – up to 71% comparing to HPI-P system
- Multi-sites lighting management – Interact Industry provides additional saving and energy monitoring (coming in Q2'19)
- CRI >80; UGR 22 (NB) ~ UGR26 (WB) – Comfortable light with low UGR and accurate colour
- Lifetime 75Khrs L70B50 @Ta35°C; IP65, IK08; CCC/CB/EMC/CE/ASNZ approbations – Safe and Reliable
- Suitable for hook, pipe, bracket mounting; Slim design – Easy for installation and easy for maintenance

## Comfort light quality

- High colour rendering (CRI >80) highlights the real colour and restores the natural experience
- Integral Lens cover structure realizes the accurate distribution of light, dramatically improved UGR and beam angle
- High quality PC with matt texture inside improves visual look

## Technical specifications

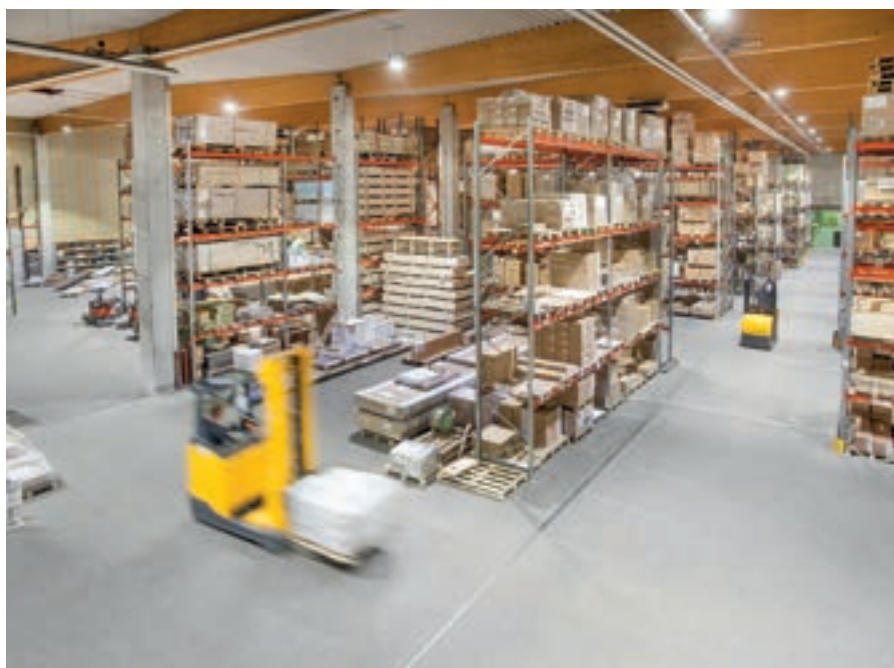
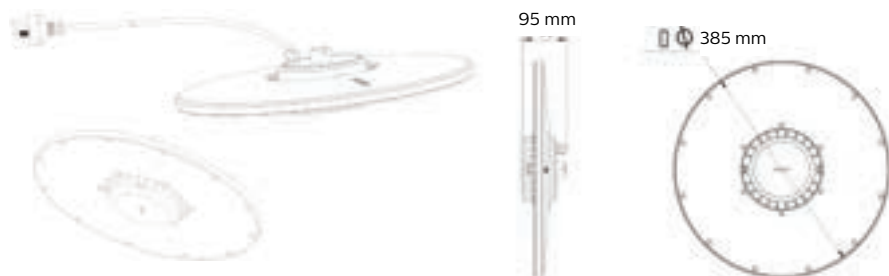
75K hrs 



Types (BY718P)	LED100	LED150	LED200	LED250	LED300
Lumen Output (typ.)	10000lm	15000lm	20000lm	25000lm	30000lm
System Power (typ.)	68W	102W	135W	169W	203W
System efficacy	Typ. 145lm/W				
CCT (typ.)	CW (6500K)/ NW (4000K)				
CRI	> 80				
Colour consistency	< 5 SDCM				
IP/IK rating	IP65/ IK08				
Classification	Class I				
Operation Temperature	-30°C to +50°C (Ta35°C)				
Lifetime (hrs)	75,000 hrs (Calculated L70B50) @35°C				
Optics	WB (86°) ; NB (54°)				
Input Voltage	220-240V, 50/60 Hz				
Power factor	0.95				
THD	<15%				
Mounting / Installation	Hook (included in the box); Pipe; Bracket				

Types (BY718P)	LED100	LED150	LED200	LED250	LED300
Housing	Aluminium die-casting				
Dimensions (mm)	Φ385/H95	Φ420/H95	Φ450/H95	Φ510/H90	
Weight	3.3KGS	4.3KGS	4.7KGS	5.8KGS	
Certificate	CCC/CB/EMC/CE/SAA/LM79				

## Product dimensions





# Greenperform highbay G4

## Competitive industry solution with well accepted look & feel

Following the success of GreenPerform Highbay families, GreenPerform Highbay G4 is continuously exploring a better price & performance balance. The product family offers wide product ranges, competitive enough SPEC with long term quality & reliability, covering most of the potential industrial applications.


### Benefits

- Strong energy saving story
- Better & easier on site calibration
- Robust & Reliable with a long service lifetime
- Various application requirements satisfied with complete product family

### Features

- System efficacy 135lm/W  $\pm 10\%$
- Round light exit window for better & easier on sit calibration
- Long service lifetime 50Khrs L70B50 @Ta 35°C
- Complete lumen package offering
- Multiple optics available: WB & NB
- Suitable for hook, pipe, bracket mounting

### Application

50K hrs 

- General manufacturing
- Warehouses and logistical centers
- Exhibition halls and high ceiling lounges

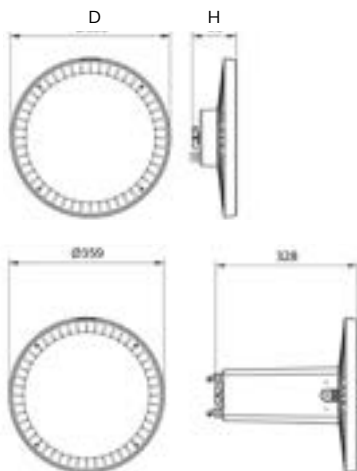
### Technical specifications



Types (BY698P G2)	LED68	LED105	LED155	LED205	LED265
Lumen Output (typ.)	6800lm	10500lm	15500lm	20500lm	26500lm
System Power – PSU(-typ.)	52W	78W	115W	149W	192W
System efficacy	Typ. 130lm/W – 6800lm version Typ. 135lm/W – other lumen versions				
CCT (typ.)	CW (6500K)/ NW (4000K)				
CRI	> 80				
Color consistency	5 SDCM				
IP/IK rating	IP65/ IK08				

Types (BY698P G2)	LED68	LED105	LED155	LED205	LED265
Classification	Class I				
Operation Temperature	-30°C to +50°C (Ta35°C)				
Lifetime (hrs)	50,000hrs (Calculated L70B50) @35°C				
Optics	WB; NB				
Input Voltage	220-240V, 50/60 Hz				
Power factor	0.95				
Surge projection	2KV/4KV				
THD	<20% - 6800lm version / <15% - other lumen version				
Mounting / Installation	Hook (included in the box for GM version, NOT included in the box for GC version);				
Optional: Pipe; Bracket					
Housing	Aluminum die-casting				
Diameter (mm)	Φ307	Φ307	Φ307	Φ360	Φ416
Height (mm)	99	99	99	99	99
Weight (KGS)	2.5	2.5	2.5	3.2	4.0
Certificate	CB/EMC/SAA/CE/TISI				
Optional accessory	BY698Z Bracket LED110	BY698Z Bracket LED160	BY698Z Bracket LED200	BY698Z Bracket LED300	

## Product dimensions



Type	D(mm)	H(mm)
BY698 LED68/105/155 PSU	307mm	99mm
BY698 LED205 PSU	360mm	99mm
BY698 LED265 PSU	416mm	99mm
BY698 LED105/155 PSD	307mm	328mm
BY698 LED205 PSD	360mm	328mm
BY698 LED265 PSD	416mm	328mm

# Greenperform highbay rectangular

## Rectangular LED highbay with elegant industrial design, optimized optical performance and long term reliability.

As the first IP65 rectangular LED highbay under GreenPerform family, GreenPerform Highbay Rectangular with dedicated optical design, leading system efficiency and compact dimension, is the optimized solution for warehousing and logistic related applications.

### Benefits

- Compact size with optimized thermal consideration & IP65 feature.
- Strong Energy saving story – up to 140lm/W
- Long term quality & reliability within 70Khrs long lifetime span
- Optimized optic design with individual lens, delivering good glare control (UGR 22) with NB and max. luminaire spacing with HRO.

### Features

- Optimized lighting solution delivering professional lighting environment
- Easy installation & on site alignment
- Reliable design & quality control ensures stable performance within lifetime

### Application

- Warehouses
- Manufacturing
- Distribution center
- Exhibition center

### Technical specifications

70K hrs L70B50@ta35°C

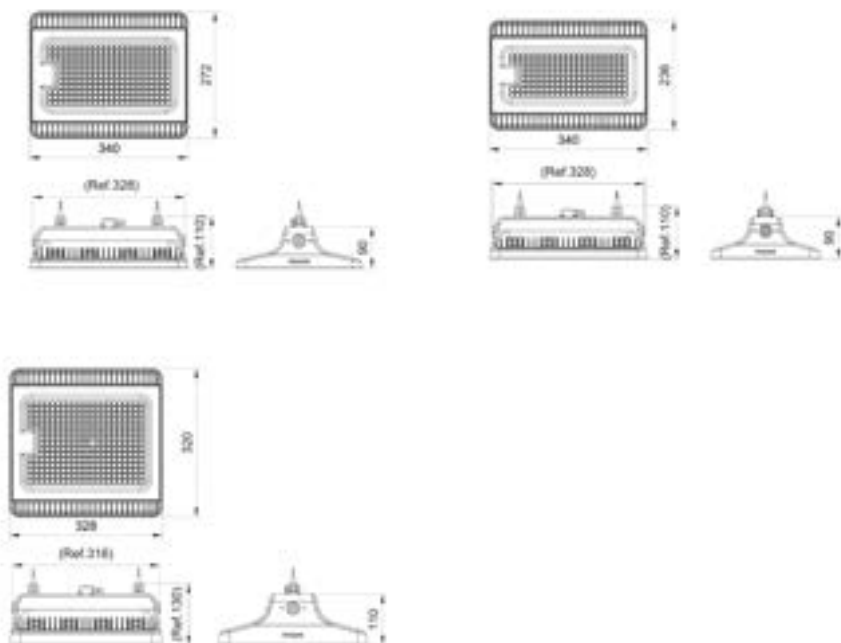


Types (BY570P)	LED100	LED150	LED200	LED250
Lumen Output (typ.) ±10%	10000lm	15000lm	20000lm	25000lm
System Power – PSU(typ.)	69W	111W	144W	182W
±10%	145lm/W	135lm/W	139lm/W	140lm/W
System efficacy – PSU (typ.)	75W	119W	152W	199W
±10%	133lm/W	126lm/W	132lm/W	128lm/W
CCT (typ.)	6500K / 4000K			
CRI	> 80			
Color consistency	5 SDCM			
IP/IK rating	IP65/ IK06			
Classification	Class I			
Operation Temperature	PSU: -30°C ~ +50°C / PSD: -30°C ~ +45°C			
Lifetime (hrs)	70,000 hrs L70B50 @35°C			



Types (BY570P)	LED100	LED150	LED200	LED250
Optics	WB / NB / HRO			
UGR	WB 27 / NB 22 / HRO 28			
Input Voltage	220-240V, 50/60 Hz			
Power factor	0.95			
Surge projection	2KV/4KV			
Mounting / Installation	<ul style="list-style-type: none"> <li>• Suspension kit included in the box for GM version, chain to be ordered separately</li> <li>Pipe kit included in the box for GC version</li> <li>Optional: Bracket</li> </ul>			
Housing	Aluminum die-casting			
Length x Width (cm)	34 x 23.6	34 x 23.6	34 x 27.2	32.8 x 32
Height (cm)	11	11	11	13
Weight (KGS)	PSU 3.2 PSD 4.1	PSU 3.2 PSD 4.1	PSU 3.6 PSD 4.4	PSU 4.8 PSD 6.7

## Product dimensions



# Greenup line highbay G2

## Better light, better result. A brighter solution for safer workspaces

The GreenUp Line Highbay is a simple LED solution which efficiently illuminates work areas, creating a brighter and better warehouse, retail or manufacture environment. With its three optical design and energy efficiency, this easy-to-install and low-maintenance lighting solution is suitable for a variety of applications

### Benefits

- High energy savings up to 56% comparing to TL-5 Highbay
- Fit for different applications with comfort lighting experience
- Direct replacement of T5 Highbay

### Application

- General Industry Application: Warehouse, Distribution center, Factory
- Indoor sport hall
- Other high ceiling indoor applications

### Features

- System efficacy 118 lumen per watt
- Three optical options with CRI80
- Linear design with flexible installation

### Technical specifications

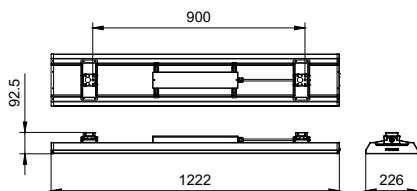
50 Khrs 



Types	BY490P LED160	BY490P LED200
System wattage	115W	143W
lumen output	16000lm	20000lm
Efficiency	140lm/W	
Beam angle	Lambertian	
SDCM	SDCM ≤5	
CCT	4000K, 6500k ETO:3000k/5000K/5700K	
Lifetime	50khrs (L70B50@25°C), to be updated to 35D by end of May	
Warranty	3 Years	
working temperature range	-20 °C~ +40°C	

Types	BY490P LED160	BY490P LED200
ambient temperature of operation	25°C, to be updated to 35D by end of May	
Power Factor (full load)	>0.9	
Input voltage	220V~240V ± 10%, 50/60Hz	
electrical class	Class I	
surge protection	1/2KV	
Ripple	<30%	
IP	IP40	
IK	IK03	
dimension(mm)L×W×H	1220*220*80 (±1mm )	
Light exit window dimension	1200*200~±1mm)	
Housing material & RAL color	Metal & Gray RAL9003 housing	
Field installation	Suspension & surface	
Entry cable	flying cable, length 0.3m	
Accessory	Mounting Accessory, included in luminaire package	
Packaging	industry carton box, 2pcs in 1 carton box	
Certificate	CCC, CB, EMC, CE	

## Product dimensions







# Smartbright highbay Gen 4

## Trusted performance. Everyday

SmartBright Highbay G4 is a high efficient and reliable LED luminaire. Designed as the point to point replacement for HPI 250W/400W luminaires, it offers customers all the benefits of LED lighting – reduced energy consumption, longer service time and less maintenance. In addition, with using high quality of the optical plate, it provides an excellent quality of light, which effectively improves the comfort of your environment.


### Features and Benefits

- System efficacy 120lm/W provides high energy savings up to 66% comparing to HID system
- 1 to 1 replacement for retrofit HID Highbay
- 30,000hrs lifetime @Ta35°C in compliance with CB and EMC norms
- Accurate light, good lighting experience, CRI>80

### Application

- Industry : Factories, warehouses, workshops, assembly lines, etc.
- High ceiling indoor : Shopping malls, airports, stadium, etc.

### Technical specifications

30K hrs 

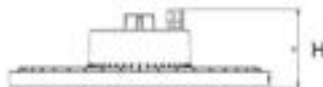


Types	BY239P LED72	BY239P LED120	BY239P LED180	BY239P LED240
Lumen Output (WB)	7200lm	12000lm	18000lm	24000lm
System Power	60W	100W	150W	200W
System efficacy	120lm/W	120lm/W	120m/W	120lm/W
Lumen Output (NB)	6480lm	10800lm	16740lm	21600lm
System Power	60W	100W	150W	200W
System efficacy	108lm/W	108lm/W	108lm/W	108lm/W
CCT	CW (6500K)/ NW (4000K)			
CRI	> 80			
Colour consistency	< 5 SDCM			
IP/IK rating	IP65/ IK06			
Classification	Class I			

<b>Types</b>	<b>BY239P LED72</b>	<b>BY239P LED120</b>	<b>BY239P LED180</b>	<b>BY239P LED240</b>
<b>Operation Temperature</b>	-20°C to +45°C (Ta35°C)			
<b>Lifetime (hrs)</b>	30,000 hrs (Calculated L70B50) @35°C			
<b>Optics</b>	WB (90°) ; MB with reflector (80°) *			
<b>Input Voltage</b>	220~240V, 50/60 Hz			
<b>Power factor</b>	> 0.95			
<b>THD</b>	<20%			
<b>Mounting / Installation</b>	Suspension (hook included in the box)			
<b>Housing</b>	Aluminum die-casting			
<b>Dimensions</b>	Φ273mm/H93mm		Φ319mm/H93mm	Φ355mm/H93mm
<b>Weight</b>	1.46kgs		1.85kgs	2.7kgs
<b>Reflector</b>	BY238Z R-AL-S-NB G2		BY238Z R-AL-M-NB G2	BY238Z R-AL-L-NB G2
<b>Certificate</b>	CB/EMC/CE			

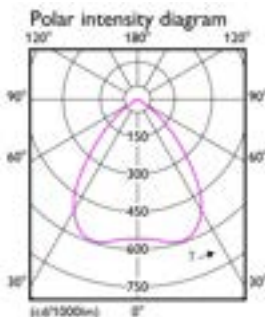
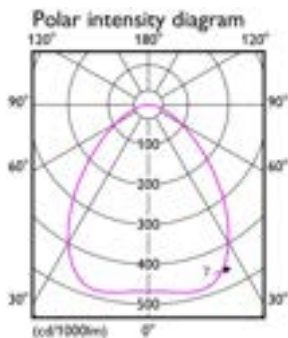
\* Reflector need to be ordered with separate 12nbs

## Product dimensions



Type	D(mm)	H(mm)
LED240	355	93
LED180	319	93
LED72 & LED120	273	93

## Protometry





# Industry lighting **Lowbay**

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- [Mini 500 BBP/BCP/BGP500](#)
- [Endura wellglass BY201P](#)
- [Dura wellglass BY300P](#)

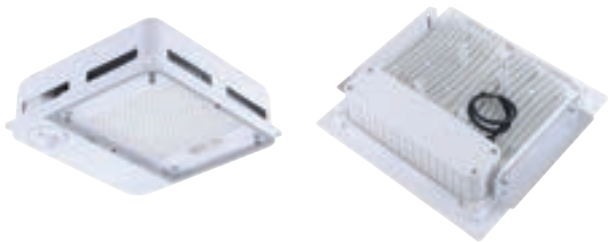
# Mini 500 gen 3

## Benefits and Features

- Precision-control optics with three choices: S-WB/S-MB/A-WB ; CRI 80 - Increases visibility and safety at night
- Four lumen choices 8400/12500/14000/18000lm – Meet different application requirements
- System efficacy @140lm/W; - High energy saving – up to 49% comparing to CDM system.
- Intelligent system with PIR/DDR sensor version - Achieve additional 45% energy saving through occupancy detection and daylight harvest based dimming (based on usage behaviour)
- Lifetime 50Khrs @L70B50; IP65; IK07; CB/EMC/CE/ASNZ/TISI approbations – Safe and Reliable performance
- Provides surface, recess and pole mounting - Suits for multiple applications

## Technical specifications

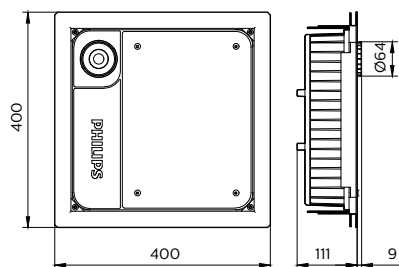
50K hrs 



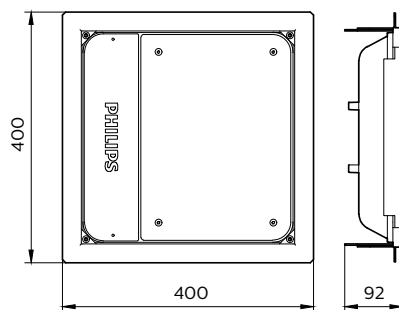
Types (BBP/BCP/BGP500)	LED84	LED125	LED140	LED180
Lumen Output	8400lm	12500lm	14000lm	18000lm
System Power	60W	90W	100W	140W
System efficacy	140lm/W	139lm/W	140lm/W	129lm/W
CCT	CW (6500K)/ NW (4000K)			
CRI	> 80			
Colour consistency	< 5 SDCM			
IP/IK rating	IP65/ IK07			
Classification	Class I			
Operation Temperature	Ta 35°C ; BBP500/BCP500 PSU (-40°C~45°C); PSD (ETO Option)(-40°C~45°C); BGP500 (-40°C~50°C)			
Lifetime (hrs)	50,000 hrs (Calculated L70B50) @35°C			
Optics	S-WB ; S-MB; A-WB			
Driver/control/sensor	Fixed; Dali dimmable (ETO Option)			
Input Voltage	220-240V, 50/60 Hz			
Power factor	>=0.95			
THD	<10%			
Mounting / Installation	BBP500 (Recessed); BCP500 (Surfaced); BGP500 (Pole)			

Types (BBP/BCP/BGP500)	LED84	LED125	LED140	LED180
Housing	Aluminium Diecasting			
Certificate	CCC/CB/EMC/ASNZ/CE			

## Product dimensions



BBP500 GU5.3



BBP500 LED140&84 PSU&PSD



# Endura wellglass

## Industries

- Save energy & reduce CO<sup>2</sup> footprint
- Operational budget savings
- Maintenance cost reduction
- Safe working environment with good lighting

## Reliability for installers:

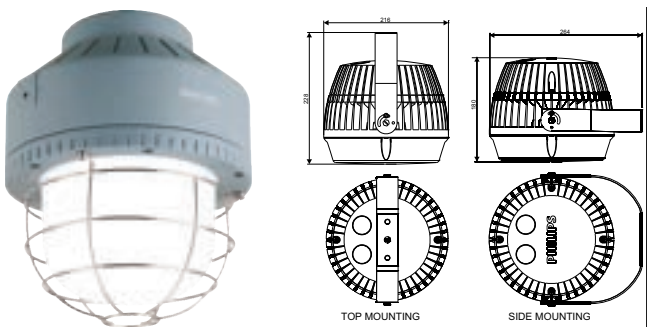
- EPC packages / SITC electrification packages
- Need to guarantee a minimum fault free working time during commissioning of the project.

## Benefits and Features

- Best energy-efficiency : System efficacy of 110 lm/W, replacement of 150W SON Well Glass
- Comfortable light: CRI of 70 to ensure better colour rendering
- Optimal lighting effects: new light platform & optical design reduce 20% glare .
- Robust & Reliable: IP66 & IK 08 protection and 50K hours system life time
- Versatile applications: multiple mounting options ( Wall , Ceiling , Eyebolt (optional)
- Wider Industry Application: Available with Polycarbonate Diffuser.

## Technical specifications and Product dimensions

50K hrs 



Type	BY 201P
System Lumen	7900
CCT	5700K
CRI	Greater than 70
SDCM	Less than 5
IP	66
IK	08
Mounting	Adjustable Bracket
Efficacy :	110 Lm/W

Surge	4KV
Life	L70B50@ 50K Hrs.
Driver	Fixed output
LED	LUXEON T
Housing	Pressure Die Cast Housing
THD	≤10%
Serviceability	Class B
Wattage LILO	71W
Additional SPD	10KV available on demand

# Dura wellglass

## Industries

- Save energy & reduce CO<sup>2</sup> footprint
- Operational budget savings
- Maintenance cost reduction
- Safe working environment with good lighting

## Reliability for installers:

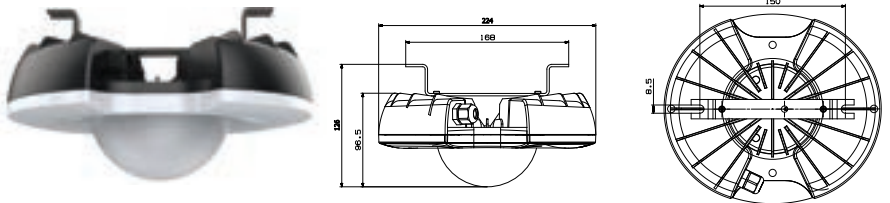
- EPC packages / SITC electrification packages
- Need to guarantee a minimum fault free working time during commissioning of the project

## Benefits and Features

- Energy-efficient : System efficacy of 110 lm/W, one on one replacement for 70W SON Well Glass
- Comfortable light: CRI of 80 to ensure better colour rendering
- Optimal lighting effects: new light platform & optical design reduce 20% glare .
- Robust & Reliable: IP65 & IK 08 protection and 50K hours system life time
- Versatile applications: Multiple mounting options ( Wall , Ceiling , Eyebolt )
- Wider Industry Application: Available with Dual Lumen Output

## Technical specifications and Product dimensions

50K hrs 



Type	BY 300P
System Lumen	3700 Lm , 2700 Lm
CCT	6500K , 4000K , 3000K
CRI	Greater than 80
SDCM	Less than 5
IP	65
IK	08
Mounting	Adjustable Bracket
Efficacy :	110 Lm/W
Surge	4KV

Life	L70B50@ 50K Hrs.
Driver	Fixed output
LED	LUMILEDS
Housing	Single Piece Pressure Die Cast
THD	≤10%
Serviceability	Class B
Wattage	34W , 23W
LILO	
Additional SPD	10KV available on demand







# Industry lighting **Waterproof and bulkhead**

Real professionals count on Philips

- [Smartbright bulkhead WL008C](#)
- [Essential smartbright bulkhead WT045](#)
- [Coreline bulkhead WL13XV](#)
- [Pacific LED waterproof WT470C](#)
- [Coreline waterproof WT120C](#)
- [Smartbright waterproof WT068C](#)
- [Essential smartbright waterproof WT035](#)

# Smartbright bulkhead


SmartBright Bulkhead product is an ideal solution for residential and industrial semi-outdoor applications. The whole luminaire and its components are designed for humid environments.

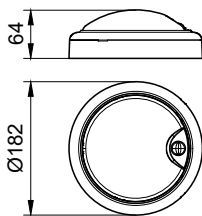
It is safe, easy to install, and can provide quality of light with substantial energy.

## Benefits and Features

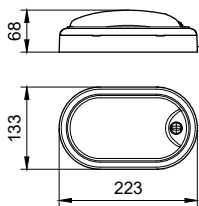
- Clean design
- Reliable solution
- Good user experience

## Technical specifications and Product dimensions

> 30K hrs 



Round sensor




Oval sensor

System performance	Type (WL008C)	Bulkhead Round	Bulkhead Oval
	Dimension (mm)	Φ 182 x 64	133 x 223 x 68
	Lumen Output	Fix version 1400lm, Sensor version 1300lm	
	IP	Fix version IP65, Sensor version IP54	
	IK	IK06	
	Class	Class II	
Optics	CCT	NW 4000K	
	SDCM	<6	
	CRI	>70	
Electrical	Input Voltage	220~240/50~60hz	
	Power	15W	
	Power factor	> 0.9	
Lifetime		>30K hrs (L70B50) @25°C	
Operaional temperature		-20°C ~ +40°C	
Installation		Surface Mounted	
Accessory		2pcs x (screws + expansion bolt)	
Wiring		Stand alone - Loop in loop out	
Package		Colour package, 1 in 1	
Certificate		CCC, CB, CE, SAA	
Control		Fixed Motion Sensor	

# Essential smartbright bulkhead

The new essential smartbright bulkhead is great value for money. It has an IP65 waterproof design and comes in two sizes to suit your specific lighting needs.

## Technical specifications and Product dimensions

20K hrs 



Types	WT045C LED20	WT045C LED12
Lumen Output	1600 Lm (+ 5%)	960 Lm (+ 5%)
System Power	20W	12W
System efficacy	80 lm/W	
CCT	NW (4000K)	
CRI	≥70	
Color consistency	<6 SDCM	
IP/IK rating	IP65/ IK06	
Beam Angle	100 ~ 120D	
Classification	Class II	
Operation Temperature	-30°C to 35°C , ta 25°C	
Lifetime (hrs)	20k hrs @ L70 B50 @Ta 25C, 1 YEAR Warranty	
Surge protection	0.5kv/1kv ( L-N/L , N- GND )	
Input Voltage	220-240V, 50/60 Hz	
Power factor	≥0.5	
Body Color	RAL 7031	
Power Connection	terminal block PA10	
Housing material	Polypropylene, LG: PC, Diffuser: PC	
Packaging	Individual Color Box, 20 Pcs in one Carton Box	Individual Color Box, 24 Pcs in one Carton Box
Mounting / Installation	Wall Mounting	
Dimensions (LxWxH)	Φ220 X 88mm	Φ 170 X 76mm
Weight	0.280 KG	0.178 KG
Mounting Accessories	2PCS Screw +2PCS Expansion tube	
Certificate	CCC/CB/EMC/CE	


# Coreline bulkhead (wall-mounted)

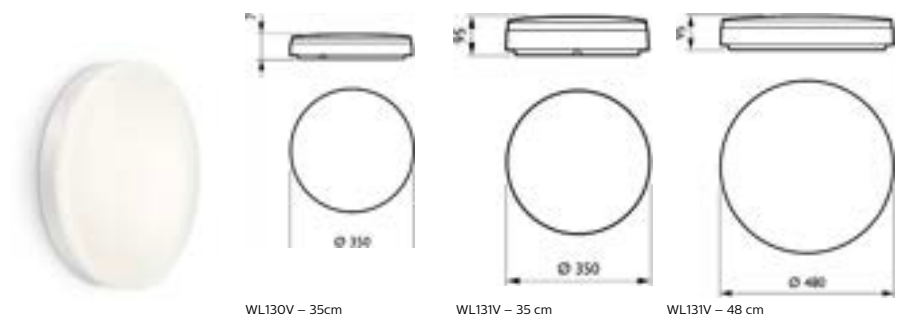
CoreLine Wall-mounted is part of the CoreLine family with a value that customers understand.

## Benefits and Features

- Robust luminaire that can even withstand outdoor conditions
- Comfortable and smooth light effect
- Ease of installation with looping wire possible

## Technical specifications and Product dimensions

50K hrs 



Total Luminaire Flux	1200 / 2000 / 3400 lm
System power consumption	12 / 22 / 36 W
System Efficacy*	90-100 lm/W
CCT	3000 / 4000 K
CRI (Ra) / Color consistency	>80
Electrical Class / IP / IK	Class II / IP65 / IK08
Lifetime (L70B50@25 )	50k hours
Warranty	5 years
Gear	PSU / PSR+MDU / PSD
Cover	WH
Housing types	350 / 350 / 480 mm
Mounting type	Surface or ceiling mounted
Certificates	CE + ENEC
Connection type	PI6 + Through wiring
Available options	MDU / ELB3

# Pacific LED waterproof

A top-class lighting system is essential for a host of indoor application areas such as parking garages, food & beverage plants, automotive manufacturing plants, biotech and pharmaceutical centers, and general industry applications.


## Benefits and Features

- Excellent optics delivering high quality of light
- High efficiency and attractive TCO
- Extensive application coverage
- Designed with a sustainable and circular approach

## Applications

- Food & beverage
- Automotive
- Biotech & pharmaceutical
- General industry
- Car parking
- Open space industrial hall
- Storage rack aisles in logistics center

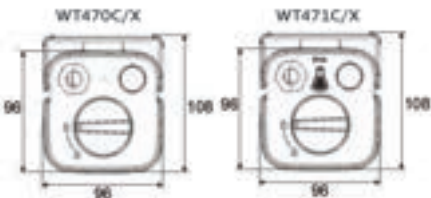
## Technical specifications

70K hrs 



Type (WT470C)	Pacific LED G4
Lumen output	23/42/35/64/80
CRI	>80
Lifetime (L70B50)	70k hrs L70B50
Efficiency	140+ lm/W
Optics	NB-WB-VWB-O
Ta range	-30°C to +45°C*
Dimmable	PSU & PSD
Striping effect	Strongly reduced
Mounting Clamp	Improved – Single Piece Design

## Product dimensions



Dimensions					
Luminaire type	A (mm)	B (mm)	C (MM)	D (MM)	KG max
L700	450	700	725		1.8
L1300	900	1300	1325		2.7
L1600	1200	1600	1625		3.2
TW1/TW3 L1300	900	1300	1325	1342	2.9
TW1/TW3 L1600	1200	1600	1625	1642	3.4






# Coreline Waterproof

CoreLine waterproof delivers on the CoreLine promise of innovative, easy-to-use and high-quality luminaires. CoreLine waterproof products can directly replace traditional waterproof luminaires with fluorescent lamps ranging from 18W up to 58W. With its slim and stylish design, it continues to keep its well-known and appreciated architecture. Installation is quick and easy, all thanks to its efficient design.

CoreLine waterproof provides better wide-beam light distribution for straightforward and effective lighting. Interact Ready luminaires with integrated wireless communications are also available in this range, ready to be used with Interact gateways, sensors and software. Available with 3hrs emergency backup and HF motion sensor

## Technical specifications

70K hrs 

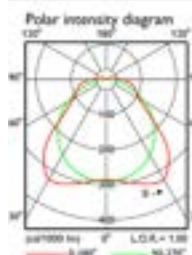
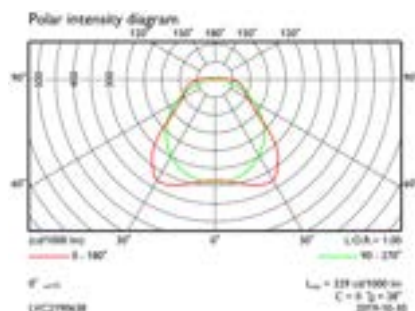


Type (WT120C)	Coreline Waterproof
Class, supply voltage, line frequency	Class I, 220-240V, 50-60Hz
Electrical connection	Push-in with pull-relief (PIP)
Lengths	L600mm, L1200mm, L1500mm
Ingress & impact rating	IP65, IK08
Nominal system lumen output & system power (WT120C)	LED18S/840 PSU L600 LED22S/840 PSU L1200 LED40S/840 PSU L1200 LED34S/840 PSU L1500 LED60S/840 PSU L1500 LED80s/840PSU L1500
Colour temperature	4000 K (colour deviation <5 SDCM)
CRI	>80
Options	LED80s/840PSU L1500
Beam shape, glare	Wide beam, UGR 23, < 8 kcd/m2 at 65 degrees
Material	Injection molded high grade polycarbonate for housing and diffuser, stainless spring steel closing clips
Ambient temperature range	-20 to +35 degrees celsius
Lifetime L70B50	50,000 hrs
Dimming	optional
Colour housing	Light grey (RAL7035)
Accessories (included)	Mounting bracket (2pcs), suspension hook (2pcs), anti-vandal screws (2pcs) grommet (2pcs), cable gland (2pcs)

## Product dimensions



## Photometric Data



Light output ratio: 1.00

Surface general: 0.60

Surface directional: 0.30

CE flux code: 47 76 83 93 100

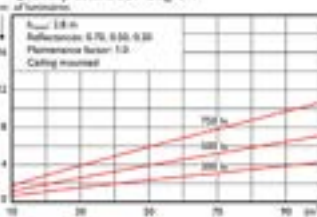
LED rate: max. 1.8

Length: max. 1.7

UGRmax (90x60): 0.250

UTM1-C1: 0.902 + 0.007

Quantity estimation diagram

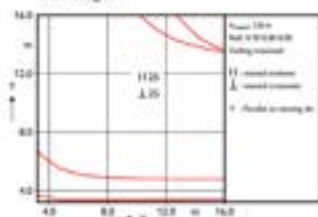


Utilisation factor table

Room index	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.70	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.80	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.90	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.10	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.20	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.30	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.70	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.80	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.90	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
2.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50

Ceiling mounted

UGR diagram



Luminance Table

Room index	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00
0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.70	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.80	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
0.90	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.10	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.20	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.30	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.60	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.70	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.80	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
1.90	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
2.00	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50

(cd/m<sup>2</sup>)






# Smartbright waterproof G3

Philips Smartbright Waterproof G3 batten offers exceptional value. It is perfect for everyday lighting installations. Available in three standard sizes, it has the option of standard and through-wiring versions.

## Technical specifications and Product dimensions

30K hrs 




Type (WT068C)	Smartbright Waterproof G3	
	Lumen output (2ft/4ft/5ft)	1800 / 3600 / 5600 lm
1. Lighting	CRI	CRI> 80
	CCT	4000k/6500k
	SDCM	<5
	Driver	DOB
2. Electronics	Safety Class	Class II
	Power Factor	0.9
	System Efficacy	110 lm/w
	Ripple (filcker)	NA
	Housing / cover material	PC (no bending) / PC
3. Mechanics	IP/ IK	IP66 / IK06
	Glow wire rating	650°C
	Fire- rated	V2
	Power connection	Toolless quick connector
	Loop in capacity	As per design
	Packaging	Brown box/Color Box for GM
	Operating temp	-20C to +45C
4. Thermal	Lifetime	30K hrs , L 70850@25°C
	Warranty	3 Years
5. Reliability	Approbation	CB,CE,CCC
	Ta	Ta25°C
7. Approbation	RoHS/REACH	y
8. Others		



# Essential smartbright waterproof

## Technical specifications and Product dimensions

20-50K hrs 



Type		LED15/CW PSU GM CFW L600	LED30/CW PSU GM CFW L1200	LED37/NW PSU GM CFW L1500
Type (WT035C)	Length	598 mm	1198 mm	1498 mm
	Lumen	1500 lm	3000 lm	3700 lm
	Power	15 W	30 W	35 W
Electrical	Input Voltage	220~240/50~60hz		
	Power factor	0.9		
	System Efficiency	90 lm/w		
Optics	Colour	White		
	SDCM	<5		
	CRI	>70		
	Photometric	symmetrical		
Mechanical	IP Rating	IP65		
	IK Rating	IK06 [1 J]		
	Dimension	W x H: 35.5 mm x 44.5 mm		
Operating temperature		L600 and L1200: - 30°C ~ +45°C L1500 mm: - 30°C ~ +40°C (GreenParking: -30°C ~ +40°C)		
Safety Class		CLASS II	CLASS II	CLASS II
Lifetime		50 K hrs (L70B50) @25°C	50 K hrs (L70B50) @25°C	20 K hrs (L70B50) @25°C
Connect interface		Terminal block push -inside Middle Wiring Through Wiring max. 25pcs (L1200mm) -		
Installation		Surface & Suspension		
System & Control		Fixed & Dali, CW Wireless (motion detective)		
Approbation		CB/ EMC/ CE/ SAA		

# Industry lighting **Explosion proof**

Real professionals count on Philips


- [Pacific LED Waterproof ATEX 2/22 Version](#)
- [Gentlespace ATEX BY480P/X](#)
- [Solid Guard Well Glass ATEX BY950P](#)

# Pacific LED aTEX 2/22 version

PacificLED gen4 is a highly efficient and reliable LED waterproof luminaire that offers an excellent quality of light, with a uniform light distribution without visible striping or color artefacts. The range offers modular construction to enable ease of upgrade and maintenance.;The new optical system provides distortion-free lighting with improved visual guidance, which makes it ideally suited to general industry,

warehouses and parking areas. The range also offers the option of multiple optics to ensure an optimized lighting scheme for a wide range of applications.;For industrial applications, PacificLED gen4 offers an open product architecture with toolless access to the gear tray and an innovative end-cap design with built-in connector for fast and easy installation. The single-piece mounting clamp ensures no small, loose components which could affect the primary production process.

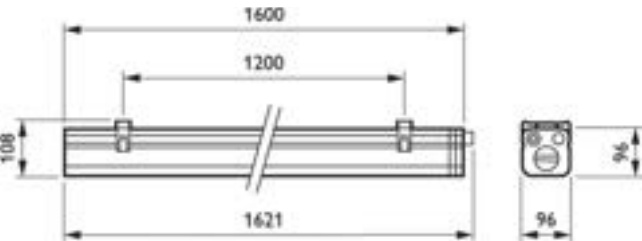
## Technical specifications

100K hrs 



Type (WT470C)	Pacific LED gen4 - Circular Economy ready version
Lumen output	6400/8000
CRI	>80
Lifetime (L70B50)	100k hrs L70B50
Efficiency	140+ lm/W
Optics	NB-WB-VWB-O
Ta range	-300C to +450C
Dimmable	PSD
Mounting clamp	Single piece design

## Product dimensions



# Gentlespace gen3

## Adaptable high-bay lighting offering high efficiency and connectivity options to lighting systems and software applications.

With the third generation of the GentleSpace high-bay luminaire, we continue to bring innovations to the market by offering adaptable high bay lighting solutions for high ceiling and industrial applications. GentleSpace gen3 offers a wide variety of options in terms of optics and beam angles (from very narrow to wide), a choice of mounting possibilities and cover materials and a variety of lumen packages.

This means that GentleSpace gen3 can easily help you create a tailor-made and ideal lighting solution for almost any high ceiling and/or industrial application. It can also support changes in application requirements (such as layout changes) thanks to its flexible optical system, which can be easily adjusted even after installation. In addition, GentleSpace gen3 also provides the option of advanced connectivity and is ready to be connected to IoT-based systems and software applications such as the Interact Industry. Overall, whether you are looking for a reliable 'fit and forget' solution, or one that can be adapted and controlled after installation, GentleSpace gen3 is the ideal solution for your application.

### Benefits

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- High-quality visibility combined with great uniformity and reduced glare
- A robust and reliable solution for a long service life
- A highly efficient solution, offering an attractive total cost of ownership
- Flexibility enabled by a high degree of adaptability to changing application needs
- Ready to be connected to existing and upcoming system and cloud based IoT software applications
- Extensive application coverage including food production, manufacturing with different ceiling height, hallways
- Integrated 3 hour emergency lighting options available
- Certified option available for safe lighting in ATEX 2/22 explosive zones
- Ideal for indoor sports centres with both a swimming pool and ball proof certified version available

### Application

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- Food production and manufacturing
- Warehouses and logistics centres
- Indoor sports halls, swimming pools and exhibition halls

### Features

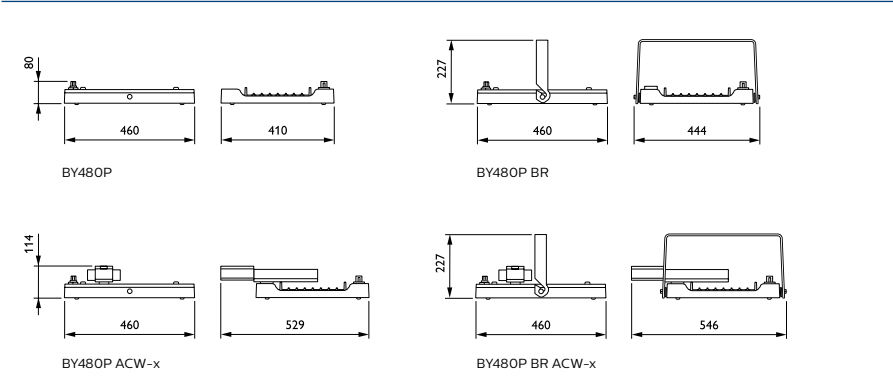
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- High efficiency (HE) of up to 174 lm/W
- Extreme temperature version (XT) up to 70 Degrees Celsius
- Long service life of the L80 at 100 K hrs
- Detachable mounting system for ease of installation
- Fully compliant with EN-12464-1; low-glare rating and colour rendering of  $\geq 80$
- Optional dust cover to meet the hygienic requirements of the food & beverage industry
- Suitable for new builds or point-for-point replacement of HPI 250 W, HPL 400 W or HPI 400 W, reducing energy consumption by up to 65%
- Wide variety of optics to meet application requirements, also with the option of adjustable optics variant with the flexibility to shift from NB to MB to WB with an easy adjustment mechanism
- Safety Class I or II versions available
- Interact Industry ready and Philips GreenWarehouse ready options
- Optional 3 hour emergency versions available

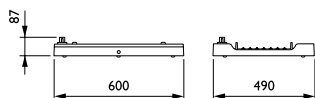


Type	BY480P	BY480X	BY481P	BY481X
Size	Standard (Small)	GWH/ Interact Industry (Small)	Standard (Large)	GWH/ Interact Industry (Large)
Luminous flux	BY470 13000 lm/ 17000lm BY471 25000 lm/ 35000 lm			
Efficiency	Up to 155 lm/W			
Correlated color temperature	4000K / 6500K			
Color rendering index	80			
Lifetime	L80 100K hrs			
Optics	NB/MB/WB/HRO/XNB			
Cover optics	Glass cover (GC) / Polycarbonate (PC)			
UGR	<22/ 25 depending version			
Ingress protection	IP65			
Impact resistance	IK08			
Ambient temperature	-30°C to +45°C			
Mounting Default:	SMT (suspension wire), Option: BR (bracket)			
Dimmable	YES (DALI)			
System ready	GreenWarehouse, Interact Industry			
Option of emergency lighting	YES			

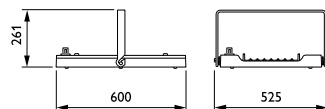
Product dimensions



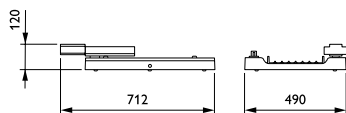




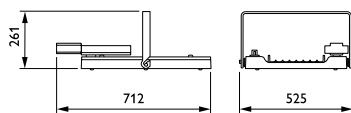
BY481P



BY481P BR



BY481P ACW-x



BY481P BR ACW-x



# Solid guard wellglass

## Nice lighting experience in harsh environment

Solid Guard Wellglass is an explosion proof product providing excellent and stable performance for harsh application like power plant, metal, chemical and petrochemical industry.

### Benefits

- Long life time ,Safe and reliable
- Excellent lighting experience in harsh environment
- Easy installation


### Application

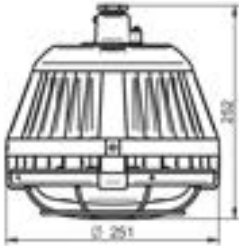
- Harsh Industry Application

### Features

- Design for Zone 1, zone 2, IIC/T6 ; IP66/WF2, outdoor application
- Replace 70~150W halogen, energy saving up to 70%, 50K hrs lifetime
- Optimized photometric curve, CRI>80, soft and uniform lighting surface
- Bracket & pole installation method for selection, keep customized solution for M type thread

### Technical specifications and dimensions

15/30K hrs 



Types (BY950P )	LED 50	LED30
Lumen Output (WB)	4550lm	2650lm
System Power	50W	30W
System efficacy	91lm/W	88lm/W
CCT	CW (6500K)/ NW (4000K)	
CRI	> 80	
IP/IK rating	IP66/ IK07	
Operation Temperature	-30°C to +45°C (Ta35°C)	
Lifetime (hrs)	15 000h/30 000h	
Optics	Symmetrical	
Housing	Aluminum die-casting	
Dimensions	Φ251mm/H252mm	
Certificate	CB/EMC/CE	

# Industry lighting **Battens and trunking**

Real professionals count on Philips

- [Greenperform batten G3 BN398C](#)
- [Smartbright T8 batten BN0XX](#)
- [Essential smartbright T8 batten BN016](#)
- [Smartbright TLED batten BN011](#)
- [Essential smartbright TLED batten BN015](#)
- [Essential smartbright T5 batten BN058](#)

# Greenperform batten Gen 3

GreenPerform batten G3 is a new offering with superior performance, great diversity and multiple connected options suitable for retail and industry applications.

It offers surface mounted, suspended and track version to cater to different mounting options, also flexible optics to accommodate different applications. The lifetime is 50,000 hours (L70 @ 25°C)

## Benefits

- Energy saving counting on high system efficacy
- Superior optics with flexibility
- Connected for future proof
- Easy installation with multiple options

## Features

- System efficiency up to 140lm/W
- Wide beam, batwing & Lambertian
- DALI, Coded lighting, POE,
- Surface mounted & suspended, track version

## Applications

- Food & large retail
- Warehouse
- Factory
- Indoor pubic area

## Technical specifications



Type (BN398C)	
Lumen package	2000lm/4000lm/6900(~7200lm)/8700(~9000lm)
Length	L600 -573/626mm; L1200 - 1135/1188mm; L1500 - 1416mm
Optics	Opal / WB - Wide beam / DA - Batwing
Voltage	AC 220-240V 50/60Hz
Power consumption (PSU version)	L600 – 15.5W( WB&DA), 14.2W(Opal); L1200 – 29W (For 4000lm); L1200 – 55W( WB&DA), 49W(Opal); L1500 – 68W( WB&DA), 61W(Opal)
Power factor	0.9
LED driver	Fixed / DALI / DALI-VLC ( coded lighting) /POE ( DC )
Electrical class	Class I
CCT	4000K,6500K
SDCM	5
CRI	>80
Materials of housing	SPCC thickness 0.6mm

## Type (BN398C)

<b>Lifetime</b>	50,000 hours (70% lumen maintenance @ Ta = 25°C)
<b>Working Temperature Range</b>	- 20°C < Ta < 40°C
<b>Dimension of SM &amp; Suspended (LxWxH)</b>	L600 – 573 x 58 x 58mm; (POE version is 626 x 58 x 62mm) L1200 – 1135x58x58mm; (POE version is 1188 x 58 x 62mm) L1500 – 1416 x 58 x 58mm ( No POE version for this length)
<b>Dimension of track version (LxWxH)</b>	L600 – 573 x 58 x 94mm (Fixed); 573 x 58 x 110mm (DALI) L1200 – 1135 x 58 x 94mm (Fixed); 1135 x 58 x 110mm (DALI)
<b>Weight</b>	L600 – 1.0 KG; (Track version is 1.1 KG) L1200 – 1.7 KG; (Track version is 1.75KG) L1500 – 2.0 KG;
<b>IP rating</b>	IP20
<b>Certifications</b>	CCC, CB, CE, EMC, ASNZ, CE

## Product dimensions



# Smartbright T8 batten Gen 2

Safe & reliable. An easier way to more savings


## Benefits and features

- One piece PC extrusion housing
- Central and side cable entry
- Interconnectable version Turnkable version  
BN013 (10 Pcs trunkable)

## Applications

- Indoor car park
- Retail,
- Home,
- Classrooms,
- Industry

## Technical specifications

30K hrs 

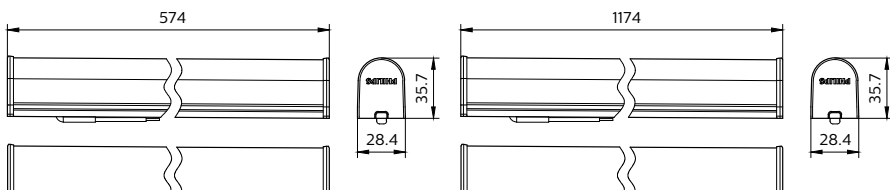


Type	BN012C	BN013C
Lumen output (typ.Avg)	1000lm/2000lm@4000K, 6500K 950lm/1900lm@3000K	
lumen output tolerance (+/-)	-10%~+20%	
CRI	≥80	
CCT	3000K/4000K/6500K	
SDCM	≤6	≤5
Input Voltage and Frenquency	220-240V, 50/60Hz	
Safety Class (driver+system)	Class II	
Power Factor (system)	≥0.9 @L1500,L1200,L1000,L900,L600;≥0.8@L300	
Power consumption (system)	-10%~+5%	-10%~+5%
System Efficacy	105 lm/W ( -10%~+20%)@4000K,6500K	
Ripple (flicker free, MD/FI in IEEE1789 or SVM in CIE TN	95lm/W ( -10%~+20%)@3000K	
006:2016 or NEMA 77-2017)	Ripple current<30%	
Housing material	PC	
Cover material (Diffuser)	PC	
IPxx	IP20	
IKxx	IK02	



Type	BN012C	BN013C
Glow wire rating	Follow IEC60598	
Mounting	Surface (Mounting bracket included in the box)	
Cable	Fly wire (120 cm). From Middle	BN013C : Trunkable (Max. amount of linking : 10pcs)
Size (LxWxH) + considerations	1174×28.4×35.7 574×28.4×35.7 tolerance : ±2 mm	1186×28.4×35.7 586×28.4×35.7 Tolerance : ±2 mm
Packaging concept	1 in 1 with Multi color Color Printing /40 in 1 brown box BN013 AU: Power cable included the Inner box Power cable (911401591201)	
Operating temperature range	-20°Cto +40°C	
Lifetime props	30K hrs @ L70 B50 @Ta 25°C	
Warranty	3 Years	
Luminaire Service class	C	
Approbation	CCC/CB/EMC/CE/NZ CB/SAA	
RoHS/REACH	Yes	

## Product dimensions



# Essential smartbright T8 batten Gen 2

Safe & reliable. An easier way to more savings


## Benefits and features

- One piece PC extrusion housing
- Side cable entry
- Energy efficient: 100 lm/watt
- Standalone Batten: both Surface and suspended mounting

## Applications

- Industry
- Shop
- Office
- School

## Technical specifications

15K hrs 



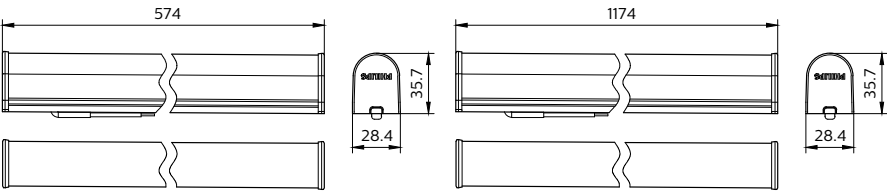
### Type (BN016C)

SKU Available	L600, L1200
Lumen Output	800 Lm / 1600 Lm @ 4000K
CRI	70
CCT	3000K/4000K/6500K
SDCM	<7
Input Voltage and Frenquency	220-240V, 50/60Hz
Safety Class (driver+system)	Class II
Power Factor (system)	0.5
Power consumption (system)	L600-8W, L1200-16W (±10%)
System Efficacy	100 lm/W (…10%)@4000K
Ripple	Ripple current<30%
Housing material	PC
Cover material (Diffuser) IPxx	PC
IKxx	IP20 IK02
Glow wire rating	Follow IEC60598
Mounting	Surface (Mounting bracket included in the box)
Cable	Fly wire (20 CM). From Back side ... Corner L1200 : 1174x28.4x-35.7mm
Size (LxWxH) + considerations	L600 : 574x28.4x35.7mm (tolerance : ±2 mm)
Brand logo	PHILIPS logo in end cap

Type (BN016C)

Packaging concept	1 in 1 with Single color printing ( Mounting bracket and MI included in the box, /40 in 1 brown box
Operating temperature range	-20 to +40
Lifetime	15K hrs @ L70 B50 @Ta 25C
Warranty	1 Year
Approbation	CCC, CB/EMC/ANZS60598/SAA
Ta	251±
RoHS/REACH	Yes
Accessories	Surface Mounting bracket included in the box

Product dimensions





# Smartbright TLED Batten

## Benefits and Features

- Available in Both Single and Double ended versions
- Two end power supply for Single ended TLED battens as well
- Different form Factors with Reflectors
- Strong and sturdy

## Applications

- Retail, Home, Factory, Warehouse

## Technical specifications



### Type (BN011C)

Length (m)	L600,LI 200
no. of tubes	single and double
Voltage	220-240V---- 50/60Hz
IP rating	IP20
Wiring Insulation	Single and Double ended. Refer wiring diagrams
Working temp	Class I
Connection	-20 - 40°C . (For Housing)
Installation	Inside wiring ; Middle entry;
Housing material	Surface mounted, suspension
Housing coating	SPCC
Housing thickness	Powder painting, RAL9003
Fuse	0.3mm±0.02
Accessory	1 000 mA, with VDE
Packaging	Two screws: ST4x20mm ; two expansion bolts: 25xq>S.5mm *2 PE Bag for each Batten, 40 Pcs in one Outercarton. One MI in each outercarton
Approbation	Compliant with IEC 60598

## Product dimensions

BN011C 1×TLED						L1	L2	W	H
						590	620	47	63
BN011C 2×TLED						590	629	72	59
						1200	1230	72	59

# Essential TLED batten

## Benefits and Features

- Available in Both Single and Double ended versions
- Value for Money
- Strong and sturdy

## Applications

- Retail,
- Home,
- Factory,
- Warehouse

## Technical specifications



### Type (BN015C)

Length (m)	L600	L1200
Size (LxWxH)	630x34x44	230x34x44
Voltage	220-240V~ 50/60Hz	
IP rating	IP20	
Wiring	Single and Double ended. Refer wiring diagrams	
Insulation	Class I	
Working temp	-20 ~ 40°C. (For Housing)	
Connection	Flying wire >150mm	
Installation	Surface mounted, suspension	
Housing material	SPCC	
Housing coating	Powder painting, RAL9003	
Housing thickness	0.25mm±0.02	
Fuse	1000mA, with VDE	
Accessory	Mounting bracket*2 / Screws: ST4x20mm*2 / Expansion bolts: 25xø5.5mm *2	
Packaging	Shrink Wrap and white sleeve box / 40 in 1 with brown box	
Approbation	Compliant with IEC 60598	

## Product dimensions





# Essential smartbright T5 batten

Whether for a new building or renovation of an existing space, customers want lighting solutions that provide quality of light and substantial energy and maintenance savings. This new batten range of LED products can be used to replace traditional battens with fluorescent lamps. The process of selecting, installing and maintaining is so easy – it's a simple switch


## Benefits and Features

- Slim and Trunkable., integrated design
- One piece PC extrusion housing: Single piece integral design
- Slim profile: Ideal for task lighting / cove lighting applications
- Slim and narrow end cap: Fits the cove or shelf more easily
- Semi-transparent endcap eliminates the black spot entirely in trunking
- Different type can mix and match, flexible in a long length

## Applications

- Indirect lighting: cove, cabinet & shop counter;
- Direct lighting: general lighting (office/industry/public area)

## Technical specifications

15K hrs 



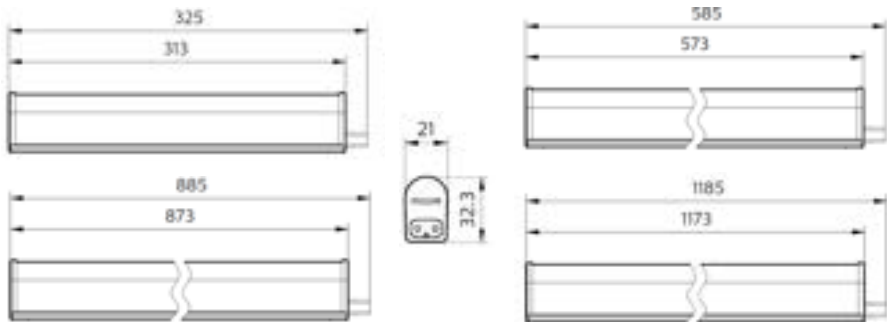
### Type (BN058C)

SKU Available	L300, L600, L900, L1200
Lumen Output	300lm/600lm/900lm/1200lm@4000K
CRI	<70
CCT	3000K/4000K/6500K
SDCM	57
Input Voltage and Frequency	220-240V, 50/60Hz
Safety Class (driver+system)	Class II 0.5
Power Factor (system)	13W@L1200, 9.6W@L900, 6.5W@L600, 3.4W@L300 {±10%}
Power consumption (system)	
System Efficacy	85lm/W{+20%, -10%}
Ripple	Ripple current<30%
Housing material	PC

Type (BN058C)

Cover material (Diffuser) IPxx	PC
IKxx	I IK02
Glow wire rating	Follow IEC60598
Mounting	Surface (Mounting bracket included in the box)
Size (LxWxH) + considerations	325x21x32.3(mm)/585x21x32.3(mm)/885x21x32.3(mm)/1185x21x32.3(mm) tolerance: ±2 mm
Packaging concept	1 in 1 with Single color printing (Mounting bracket and MI included in the box) /24 in 1 brown box
Operating temperature range	-20 to +40
Lifetime	15K hrs @ L70 B50 @Ta 25C
Warranty	1 Year
Approbation	CCC/CB/EMC
RoHS/REACH	Yes
Accessories	Surface Mounting bracket included in the box

Product dimensions



# Luminaires Office lighting

Real professionals count on Philips

- [Power balance/modular RC600B](#)
- [Occuswitch](#)
- [Coreview gen 4 panel RC420](#)
- [Greenperform panel RC099](#)
- [Smartbright slim panel RC091](#)
- [Smartbright backlit panel RC048B](#)

# Power balance/modular

Keeps the design elegance of PowerBalance family with similar form factor and significant performance improvement on the basis of 2.0 version. It offers two lumen options with system efficacy up to 130lm/W.

Integrating ActiLume Wireless 4.1, PowerBalance 3.0 offers additional energy saving through daylight harvesting and motion sensing with easy installation .

## Benefits

- >=75% energy efficient compared to conventional TL solution
- Additional energy saving and lighting flexibility in combination with motion sensing and daylight harvesting
- Modular flexibility offering more sizes to cater to different needs


## Features

- System efficiency up to 130lm/W
- CRI 80, SDCM <=4
- Excellent glare control, UGR 15~16
- High reliability, 50k hours (L70@25deg)

## Applications

- Open plan office
- Cell office
- Public indoor area
- Meeting/Training room

## Technical specifications

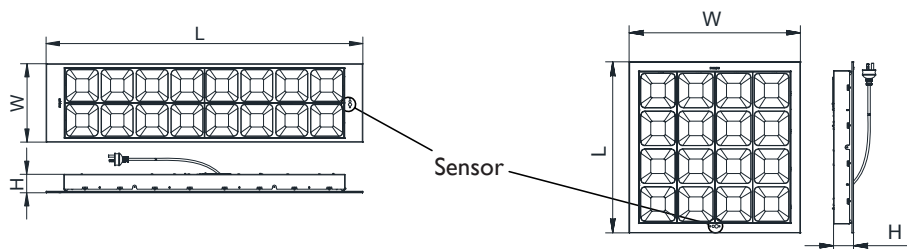
50K hrs 



Type (RC600B)	30S / 40S
System lumen output	3100lm, 4000lm
Voltage	220~240V 50/60Hz
Power consumption	24~25W/ 32W
Efficacy	124~130lm/W
Power factor	0.95

Type (RC600B)	30S / 40S
LED driver	Fixed output / DALI
SDCM	≤4
CRI	80
Colour temperature	4000K / 6500K
Controller	ActiLume Wireless 4.1
ActiLume Instructions	Functionality: daylight harvesting; motion sensing Detection area: 4.0m x 5.0m for minor movements (at a desk) ; 6.0m x 8.0m for major movements (walking) Recommended sensing height: 2.7m
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 25°C)
Working Temperature Range	- 20°C < Ta < 40°C for PSU & PSD ; 0°C < Ta < 40°C for ACW
Dimensions	RC600B ... W60L60: 597 x 597 x 70mm RC600B ... W30L120: 297 x 1197 x 70mm
Weight	RC600B ... W60L60: 5.5KG RC600B ... W30L120: 5.5KG
Mounting Type	Recessed (S&S as ETO options)
Programming Tool (not included into the luminaire, need separate ordering)	IRT9090
IP rating	IP20
Certifications	CB / EMC / CE / ASNZ

## Product dimensions



Type	Dimension LxWxH (cm)
RC600B LED30S PSD W60L60	59.7x59.7x7
RC600B LED30S PSD W30L120	119.7x29.7x7
RC600B LED40S PSD W60L60	59.7x59.7x7
RC600B LED40S PSD W30L120	119.7x29.7x7
RC600B LED30S PSD ACW W60L60	59.7x59.7x7
RC600B LED30S PSD ACW W30L120	119.7x29.7x7
RC600B LED40S PSD ACW W60L60	59.7x59.7x7
RC600B LED40S PSD ACW W30L120	119.7x29.7x7

# OccuSwitch

Movement detector with a built-in switch - up to 6 A - controls max 25 m<sup>2</sup> area - Basic.

The Philips OccuSwitch Wireless Occupancy Sensor is an advanced wireless system that automatically turns lights off when a workspace is unoccupied, saving energy and helping to create a more sustainable work environment. The system consists of a wireless battery-powered ceiling mounted sensor that communicates to a wall switch.

Multiple sensors and switches can be used for additional coverage. Using a combination of passive infrared (PIR) technology and advanced logic for detecting major and minor motion, the sensor recognizes when the room is occupied (or unoccupied), helping to eliminate the possibility of false triggers. The system adapts to accommodate varying user patterns with built-in intelligence to automatically adjust the shut off time delay.

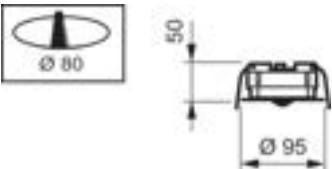
## Technical specifications



Type (LRM1070/00 SENSR MOV DET ST)

EAN/UPC - Product	8711559731384
Order code	913700327803
Numerator - Quantity Per Pack	1
Numerator - Packs per outer box	42
Material Nr. (12NC)	913700327803
Net Weight (Piece)	0.200 kg

## Product dimensions







# Coreview Gen 4 panel

RC420 G4 inherits the elegant and classic indirect light design from previous generation but with slimer outlook. It offers 4 types, 300x300,600x600,300x1200, and 600x1200mm with max: 110lm/w. Air slot option is included as an ETO offer to give fast and easy support to the projects where air outlet is required from the office lighting fittings. Full indirect light design provides visual comfort in the office area as well


## Benefits and Benefits

- Full range offer from 300x300, 600x600, 300x1200 to 600x1200mm tocover key applications
- High system efficacy from indirect light design to provide additionalenergy saving
- Dali / Tunable white / IAO / IAP options are available for total system offer
- Slim design for critical office space installation.

## Applications

- Office meeting and working areas

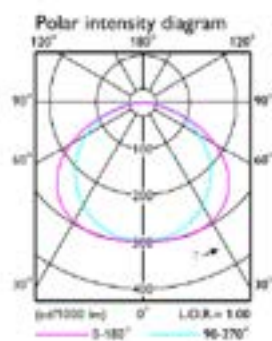
## Technical specifications

50K hrs 



### Type (RC420V G4)

System lumen output	Max: 1800lm for 300x300mm Max 3800lm for 600x600/300x1200mm
Voltage	220-240V 50/60Hz
Efficacy	Max: 110lm/w
Power factor	0.9
LED driver	PSU fix output; PSD Dali; IAO; IAP; Tunable White
SDCM	4
CRI	80/90
Colour temperature	4000K , 5000K
Materials and finishing	Aluminum housing
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 25°C)
Working Temperature Range	0°C< Ta < 40°C
Dimensions	295x295; 595x595; 295x1195; 595x1195mm;
Mounting Type	Recessed; Suspended
IP rating	IP20
Certifications	CB, CCC, EMC, CE;




# GreenPerform Panel

GreenPerform RC099V G2 direct Panel is an affordable LED panel delivering comfortable light with excellent uniformity. It offers 3 types, 600x600,300x1200, and 600x1200mm with max: 110lm/w system efficacy. Its UGR19 version brings more visual comfort in the office. By means of its compact design, the housing height (without driver) reaches only 35mm which gives more flexibility for recessed installation.

## Applications

- Open plan office
- Retail
- Hospital
- Meeting/Training room

## Technical specifications

50K hrs 

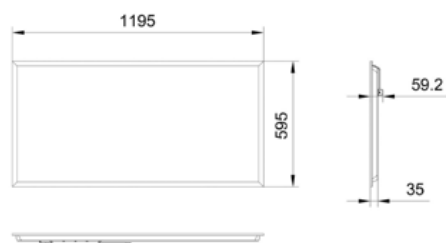


### Type (RC099V G2)

System lumen output	3800lm (UGR22); 3600lm(UGR19) for 600x600/300x1200mm 5400lm (UGR22); 5000lm (UGR19) for 600x1200mm
Voltage	220-240V
Power consumption	50/60Hz
Efficacy	Max: 110lm/w (UGR22); 100lm/w (UGR 19) ; 95lm/w (ANZ norm)
Power factor	0.9
LED driver	PSU fix output; PSD Dali; Wireless G2
SDCM	4
CRI	80
Colour temperature	4000/5000/6500K
Materials and finishing	Metal sheet back cover housing
Lifetime	50,000 hours (70% lumen maintenance @ Ta = 25°C)
Working Temperature Range	0°C < Ta < 40°C
Dimensions	595x595; 295x1195; 595x1195mm
Weight	Max: 600*600mm: 2.6kg / 300*1200mm: 2.8kg / 600*1200mm: 4.2kg
Mounting Type	Recessed T-bar; Suspended (through suspension accessory. No frame); Plaster ceiling(through accessory)
IP rating	IP20
Certifications	CB, CCC, SAA(AU only)

## Product dimensions

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# SmartBright Slim Panel

SmartBright Slim Panel G3 is the most economic LED solution which delivers qualified & reliable illumination on the working areas within long lifetime, creating a brighter and healthier office environment. The complete product family offers a variety of dimensions and installations, covering wide potential applications.


## Benefits and Features

- Slim & elegant design – The height of luminaire 8mm
- PMMA as LG material – Strong anti-yellowish performance within lifetime
- System efficacy 95lm/W, Energy saving 50% compared with TL troffer
- Full window illumination – deliver comfortable light with excellent uniformity
- Recessed, suspended, plaster ceiling (PCV) - Multiple mounting to cater various applications
- 1 on 1 replacement over TL troffer – The most affordable LED solution

## Applications

- Open office | Meeting room
- Circulation area | Hospital | Library

## Technical specifications

30K hrs 

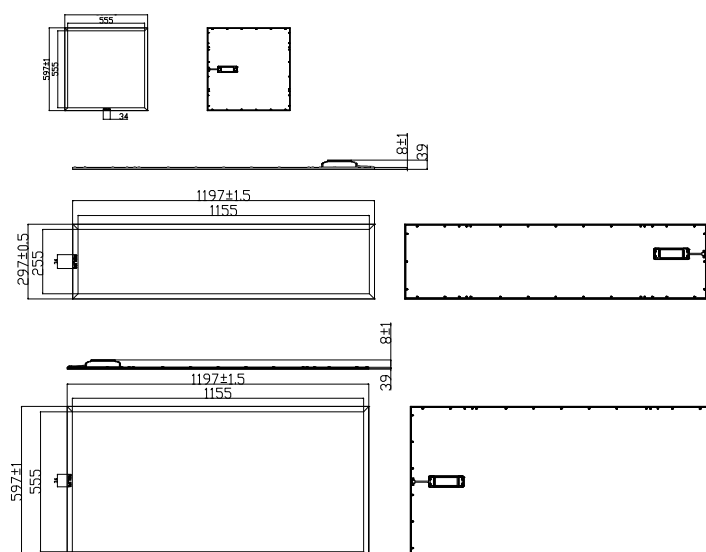


Types	RC091 LED27S	RC091 LED38S	RC091 LED48S
Lumen Output	2700lm	3800lm	5000lm
System Power	28W	40W	50W
System efficacy	96lm/W	95lm/W	100lm/W
CCT	CW (6500K)/ NW (4000K)		
CRI	≥80		
Color consistency	≤ 5 SDCM		
IP rating	IP20 (IP40 @lighting surface side)		
Classification	Class II		
Operation Temperature	-10°C to +35°C (Ta25°C)		
Lifetime (hrs)	30,000hrs L70B50 @25°C		
Optics	Symmetric		
Input Voltage	220-240V, 50/60 Hz		
Power factor	≥0.9		
Mounting / Installation	Recessed. Surfaced/Suspended (to be ordered as separate accessory)		
Housing	Metal housing with white painting, PMMA Light Guide, PS diffuser		

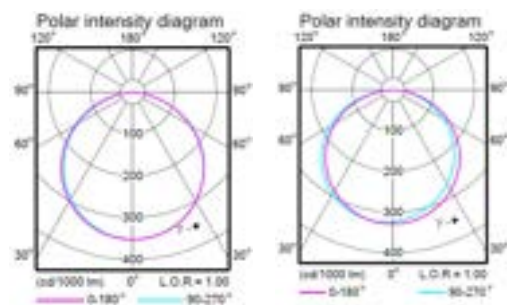


Types	RC091 LED27S	RC091 LED38S	RC091 LED48S
Dimensions	597x597mm, 297x1197mm, 597x1197mm		
Packaging	TR version, 6pcs in one master box, no individual inner packaging MR version, 6pcs in one master box, individual inner color box		
Certificate	CB/EMC/CE		

## Product dimensions



## Photometry



# SmartBright Backlit panel

SmartBright Backlit Panel is the most economic LED solution which delivers qualified & reliable illumination on the working areas within long lifetime, creating a brighter and healthier office environment. The complete product family offers a variety of dimensions and installations, covering wide potential applications.


## Benefits and Features

- No Yellowing risk
- Flicker Free – Ripple  $\leq 5\%$
- Good color rendering with control on red saturation – CRI 80
- Reduced luminaire height covering wider potential applications – Overall height is 34mm, including driver
- Applicable for different mounting types
- Long lifetime – 30Khrs @L70B50

## Applications

- Open office | Meeting room
- Circulation area | Hospital | Library

## Technical specifications

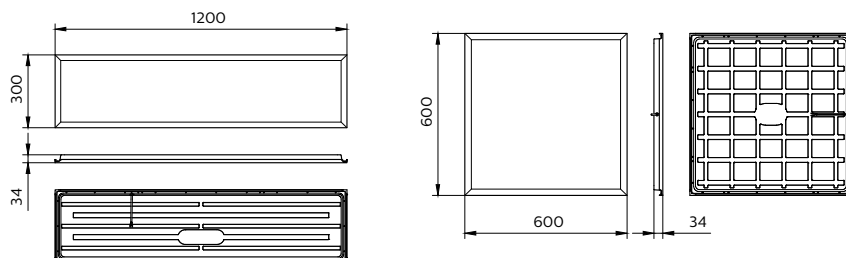
30K hrs 



Type (RC048)			
Model	W60L60	W30L120	W60L120
Dimensions	597x597mm	297x1197mm	597x1197mm
Power	42W		50W
System lumens	3800lm		5100lm
System efficacy	90 lm/W		102 lm/W
CCT	4000K/6500K		
CRI	$\geq 80$		
SDCM	$\leq 5$		
Beam angle	120°		
IP / IK rating	IP20/IK02		
Operating temperature	-10°C to +35°C		
Lifetime	30000 hrs (L70), 3 Years Warranty		
Input voltage	220-240V, 50/60Hz		

<b>Type (RC048)</b>			
<b>Model</b>	<b>W60L60</b>	<b>W30L120</b>	<b>W60L120</b>
<b>Power factor</b>	>0.9		
<b>Electrical class</b>	Class II		
<b>Surge Protection</b>	Follow IEC60598		
<b>Driver</b>	Fixed Output		
<b>Mounting type</b>	Recessed / PCV /Suspension		
<b>Housing colour</b>	RAL9003 ( $\Delta E < 2$ )		
<b>Material</b>	Frame: Aluminum; Diffuser: PS Plate Back plate: Metal sheet with painting		
<b>Packaging</b>	6 in 1 with brown box (Vertical stack)		
<b>Certification</b>	CB + EMC		
<b>Applications</b>	General building installations - offices, commercial buildings, education facilities, retail		

## Product dimensions







# Luminaires Retail and hospitality

Real professionals count on Philips

- [Sportstar/area and sport version BVP621](#)
- [Tango G4 BVP43X](#)
- [Tango G3 XL BVP38X](#)
- [Smartbright LED floodlight G2 BVP151](#)
- [Essential smartbright led floodlight BVP150](#)

# Flex accent gen 2

A functional LED accent lighting product delivering high quality of light, outstanding color, compact design and tailor mode option. It offers optimized color spectrum that enhances look of merchandise with PremiumWhite CoB LED technology. FlexAccent G2 creates very “true” lighting effect – the real CDM-Elite replacement with 1000lm to 3500lm output/head. It could apply to shopping mall, retail store, fashion shop etc.

## Benefits

- Quality of light, influence customer’s shopping experience positively
- Compact and stylish design to ease installation
- Diversity: different lumen package, CCT, and type of mounting to cater for different customers’ needs


## Features

- High CRI option, CRI80 or90
- “True” light(3000K) - Premium white
- SDCM <4
- High reliability, 30k hours (L70B50@25°C)

## Applications

- Shopping mall
- Retail store
- Fashion shop

## Technical specifications

30K hrs 



### Type (ST391T)

Lumen - typical (830)	1000-10%lm	2000-10%lm	3100-10%lm	3500-10%lm
Watt	11.5W	25.5W	37W	46W
Beam Angle	17±2		19±2	
	20±2		23±2	
	34±2		34±2	
CCT	3000K PW/4000K			
CRI	80/90			



<b>SDCM</b>	$\leq 4$	
<b>Adjustment Angle</b>	pane angle: 0-70°; tilt angle: 0-70°	
<b>Adaptor</b>	GC: 1C ; GM 1C & 3C ; TW: 2 line adaptor	
<b>Size (mm)</b>	Φ72x110mm (head)	Φ90x130mm (head)
	47x166x36mm (driver box)	50x186x36mm (driver box)
<b>Voltage ( ac)</b>	100~240V, 50/60Hz	220~240V, 50/60Hz
<b>PF (min.)</b>	0.9	
<b>Driver</b>	Mono	
<b>IP rate</b>	IP20	
<b>Classification</b>	Class II	
<b>Lifetime</b>	30,000 hrs @L70B50, Ta25°C	
<b>Operating Temperature</b>	-15°C~35°C	
<b>Installation</b>	Horizontal & Vertical (1C 1000lm/2000lm)	
<b>Approbation</b>	CCC/CB/CE/SAA/LM79 (2000lm 830/840,3000lm 830 internal lab report)	
<b>Color option</b>	White RAL9010	




# Essential smartbright LED projector

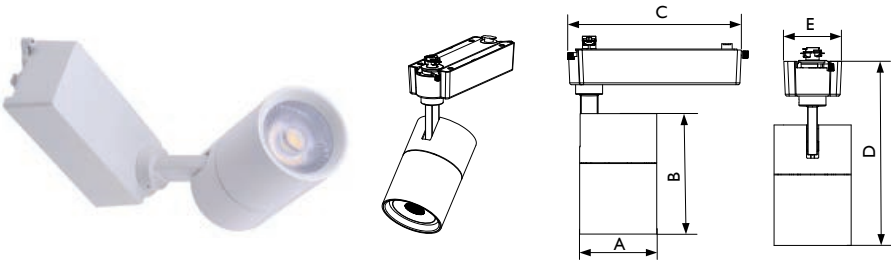
PowerBalance 3.0 keeps the design elegance of PowerBalance family with similar form

## Benefits and Features

- Full range of lumen output from 800lm to 3000lm: A complete family offer to customer
- 3 Colour Temperatures (3000/4000K/5000K for G.C) with 2 types of lens:
- Flexible to suit your style and meet different applications
- One piece of lens design (without using reflector)
- Better light beam control: 80lm/w System Efficacy
- To replace conventional downlights perfectly: 20K (ta=25C L70) hours life time
- Perfect hassle free solution: Aluminum housing
- Better thermal management

## Technical specifications and Product Dimension

20K hrs 



### Model (ST030T) Essential SmartBright

Power	8/14/23/35W
System lumen	800/1200/2000/3000lm
Power factor	0.9
CRI	>=80
Electrical Class	Class I
Input Voltage	220V-240V, 50/60Hz
CCT	3000K / 4000K / 5000K (for G.C)
Operating Temperature	25°C (-20°C < ta < 40°C)
Lifetime (L70B50@ta=25C)	20,000 hours
IP rating	IP20
Mounting Type	1C Track
Housing colour	RAL9003/9017
Beam Angle	24° and 36°
Material	Housing: Aluminum Lens: PMMA



# Luxspace gen 4

The a new offering in LuxSpace family, integrating the feature of CCT changeable for circadian lighting and dynamic lighting demand. The CCT range covers warm white to cool white, from 2700K~6500K.

The luminaire is equipped with one dual-channel driver achieving the wide CCT range and dimming as well.

## Benefits

- Energy saving counting on high system efficacy
- Design compactness – small cutout with high lumen
- Excellent light quality
- Well designed optics for visual comfort

## Features

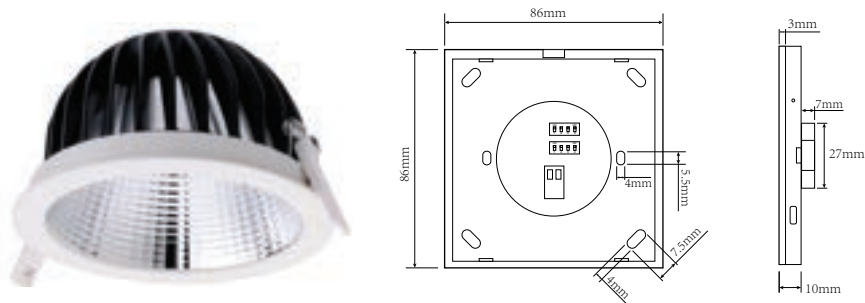
- System efficiency up to 95lm/W
- 6" up to 2200lm
- SDCM 3@ 2700K & 6500K, CRI>80
- UGR<19

## Applications

- Shopping mall
- Retail store
- Office
- Hotel

## Technical specifications and Product dimensions

50K hrs 



### Type (DN591B)

System lumen output (Max.)	2200lm
Voltage	220-240V 50/60Hz
Power consumption (Max.)	26W

**Type (DN591B)**

<b>Efficacy (Max.)</b>	95lm/W
<b>Power factor</b>	>=0.9
<b>LED driver</b>	DALI ( Dual – channel)
<b>SDCM</b>	3 @ 2700K & 6500K
<b>CRI</b>	>80
<b>Color temperature range</b>	2700K ~ 6500K
<b>Reflector</b>	Aluminum
<b>Materials and finishing</b>	PC diffuser with high haze and light transmission Die-casting aluminum heat sink
<b>Lifetime</b>	50,000 hours (70% lumen maintenance @ Ta = 25°C)
<b>Working Temperature Range</b>	- 20°C < Ta < 40°C
<b>Cut-out</b>	6" (D152~157mm)
<b>Dimensions (Dia x H)</b>	D150 cut out: Ø162 x 100mm
<b>Weight</b>	D150 cut out: 0.80KG
<b>IP rating</b>	IP20 / IP54 (front cover)
<b>Certifications</b>	CCC, CB, EMC




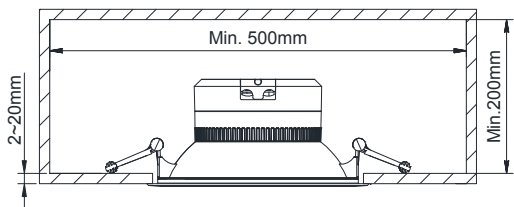
# GreenSpace Gen 5

## Benefits and Features

- Energy efficient – Average system efficacy 110 lm/W
- Product diversity – 4 lumens, 3 cut-out sizes, 3 CCTs; UGR22/25; IP20 & IP54 (Front)
- Design compactness – 4" up to 950lm, 6" up to 1600lm, height<=100mm (for 4"&6" models)
- Reliable performance – Lifetime 50,000hours L70 Ta 25°C
- System compatibility – DALI, POE, DALI-VLC, InterAct Office Pro(C4M) available in some lumen options

## Technical specifications and Product dimensions

50K hrs 



Technical Parameters	DN390B	DN391B	DN391B	DN392B	DN392B	DN393B
Reflector type	ALU / WH	ALU	ALU / WH	ALU / WH	ALU / WH	ALU / WH
Cutout	105~110mm	105~110mm	150~155mm	150~155mm	200~205mm	200~205mm
Lumen output (Typ. @4000K,IP20)	600lm / 650lm	950lm	1100lm / 1150lm	1600lm / 1650lm	1600lm / 1650lm	2100lm / 2200lm
System Power	5.5W	9.5W	9.5W	14.5W	14.5W	19W
SDCM	5	5	5	5	5	5
UGR	22 / 25	22 / 25	22 / 25	22 / 26	22 / 26	22 / 25
CRI	>=80	>=80	>=80	>=80	>=80	>=80
LED Source	APT 2835	APT 2835	APT 2835	APT 2835	APT 2835	APT 2835
CCT	3000K / 4000K / 6500K					
Input voltage	220V-240V/50-60Hz					
Lifetime	50,000 hours (L70 @Ta=25°C)					
Mounting Type	Recessed; fixed by spring tension clips					
Operating temperature	-20°C ~ 40°C					
IP Rating	IP20; IP54 (Front cover)					
Diffuser	PC diffuser with high haze and light transmission					
Reflector	High reflectance painted plastic (ALU coating / White color)					
Driver	PC plastic, driver is integrated into luminaire for PSU version					
Heat sink	Die-casting aluminum					



# Greenspace power Gen 2

- High lumen output version derived from GreenSpace
- Best TCO payback history LED Downlight : <0.5 years for new installation vs 145 CDM solution


## Benefits and Features

- Energy saving: Outstanding system efficacy, up to 110lm/W
- High lumen output for high ceiling application, up to 4,500lm
- Good reliability – Lifetime 50,000 hours L70@25C
- Easy: Integral lightweight design, saving installation cost

## Applications

- Department store
- Exhibition center
- Shopping mall
- Indoor public area
- Reception lobby
- Boutiques

## Technical specifications

50K hrs 



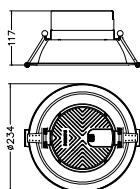
Technical parameters	DN284B-8	DN284B-10	DN285B-8	DN285B-10
Cut out	200~205mm (8 ")	250~255mm (10 ")	200~205mm (8 ")	250~255mm (10 ")
Input voltage	220V-240V/50-60Hz	220V-240V/50-60Hz	220V-240V/50-60Hz	220V-240V/50-60Hz
Color	White	White	White	White
Power	34W	34W	41W	41W
PF	0.95	0.95	0.95	0.95
CCT	3000K ; 4000K	3000K ; 4000K	3000K ; 4000K	3000K ; 4000K
System Lumen	3650lm @ 4000K	3650lm @ 4000K	4500lm @ 4000K	4500lm @ 4000K
System Efficacy	107lm/W @ 4000K	107lm/W @ 4000K	110lm/W @ 4000K	110lm/W @ 4000K
CRI	>80	>80	>80	>80
SDCM	≤4	≤4	≤4	≤4
Beam angle	100°	100°	90°	90°
Electrical class	Class I	Class I	Class I	Class I

Technical parameters	DN284B-8	DN284B-10	DN285B-8	DN285B-10
Operating temperature	-20°C < ta < 40°C			
Lifetime	50,000 hours (L70 @Ta=25°C)			
Mounting type	Recessed; fixed by spring tension clips			
IP rating	IP20			
Material	Optics: MCPET high reflectance film, PMMA diffuser with high haze and light transmission			
	Reflector: High purity aluminum, high reflectance coating			
	Driver box: PC plastics			
	Clips: Piano wire spring clip, PC plastic clip			

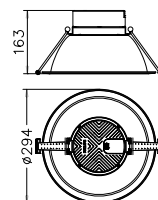
## Product dimensions

### Product Dimension

DN284B-8  
DN285B-8



DN284B-10  
DN285B-10





# Luminaires Road and Street

Real professionals count on Philips

**interact**

Intelligent Lighting  
(connected LED lighting)

- [Luma](#)
- [Roadflair G2](#)
- [GreenVision Xceed](#)
- [StreetStar](#)
- [SmartBright Road Gen 2](#)

# Luma

City planners think big when it comes to lighting. In cities where human activity is everywhere it is important to guide traffic down well-lit roads. Technical infrastructure is a major long-term investment and when you're planning ahead the lifetime costs of the lighting system need to be considered. Additionally public lighting requires energy consumption,

compromise-free LED lighting that offers high- performance illumination for real-world lighting needs. This affordable alternative to existing conventional lighting solutions generates big energy savings and minimizes maintenance costs. It covers the complete field of illuminance (S) and luminance

## Benefits

- Wide choice
- Energy Savings
- Fully Programmable
- Long lifetime
- Features
- Colours
- Integral design
- Tilt Adjustments
- Application
- Sports
- City Centre
- Traffic Route
- Area & Transportation
- Residential Area

## Technical specifications

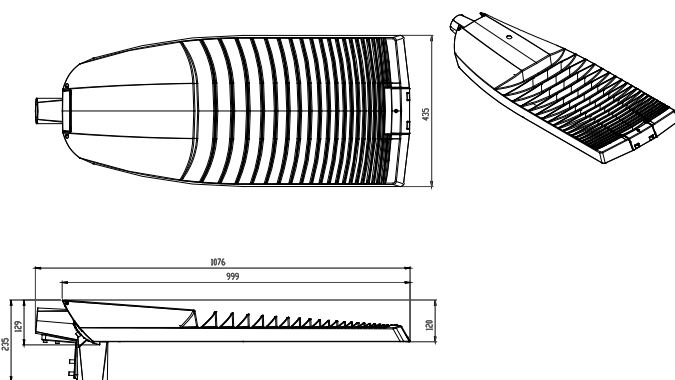


Type (Micro: BGP615/Mini: BGP621/1: BGP623/2: BGP625/3: BGP627)

Light source	Built-in LED module
Color temperature	3000 K (warm white), 4000 K (neutral white), 5700 K (cool white), not available for Luma Micro
Color Rendering Index	70 (cool white and neutral white), 80 (warm white)
Luminous flux	850 to 54,400 lm depending on LED configuration and color temperature
Power	10 to 446 W depending on LED configuration and color temperature
Luminaire efficacy	Up to 129 lm/W
Lumen maintenance	Up to 100,000 hours at L80B10
CLO	CLO is available

<b>Warranty</b>	Gold > 100,000 hours, Silver < 100,000 hours
<b>Optic</b>	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, DM10, DM11, DN10, DN11
<b>Optical cover</b>	Flat Glass (FG)
<b>ULOR</b>	0%
<b>Installation</b>	Post-top Ø 60 mm (dedicated spigot for post-top Ø 76 mm only) Luma Micro/Mini, Luma 1: side-entry Ø 32-60 mm Luma 2, Luma 3: side-entry Ø 42-60 mm Standard tilt adjustments post-top 0, 5, 10° and side-entry -10, -5, 0° Special spigot for post-top +10, +15 and +20° and side-entry -20, -15, -10, -5, 0°
<b>Controls system input</b>	1-10 V and DALI
<b>Driver</b>	Philips Xitanium Driver
<b>Intelligence control</b>	LumiStep (LS), DynaDimmer (DDF), SDU (D4), DALI (D9), StarSense RF Wireless, CityTouch Ready
<b>Mains voltage</b>	210-240 V / 50-60 Hz
<b>Electrical class</b>	Class I - II
<b>Material</b>	Housing: die-cast aluminum, non corrosive Cover: toughened glass Gear tray: aluminum Spigot: die-cast aluminum
<b>Color</b>	Futura Gris 900 Sablé or Futura Gris 150 Sablé Other RAL or Akzo Nobel Futura colors or duo-colors available on request
<b>IP-rating</b>	IP66
<b>IK-rating</b>	IK09
<b>Weight</b>	Luma Micro, 7.6 kg, Luma Mini, 9.5 kg, Luma 1, 11 kg, Luma 2, 15.5 kg, Luma 3, 19.5 to 20.5 kg depending on drivers
<b>ScX</b>	Luma Micro: 0.049 m2, Luma Mini: 0.055 m2, Lu
<b>Electrical connection</b>	M20 cable gland with strain relief, for cable Ø 10-14 mm
<b>Operating temperature range</b>	- 20°C < Ta < 35°C
<b>Surge protection</b>	up to 15 kV optional
<b>Maintenance</b>	From below by opening the housing with a single quick-release clip
<b>Options</b>	Wired for cell (WFC), mini Photocell or NEMA socket - including cable

## Product dimensions



## Polar Diagram





# Roadflair gen2 BRP49X

RoadFlair Gen2 is brand new design road lighting product family, set to meet customers' all-round requirements, including high lumen efficacy for energy saving and sustainability, aesthetic design for nice shape and appearance, quality material and components for product reliability and long lifetime, professional optics for various applications fulfilment, dimming and system control interface for improving municipal operations and offering future-proof features.

RoadFlair Gen2 competitive price would help on the acceleration of road lighting LED transformation, to more sustainable society and smarter city.

## Applications

- Illuminate residential road and Streets
- Lighting on suburban and connecting roads
- Brighten cycle paths and parking lots
- Urban road lighting

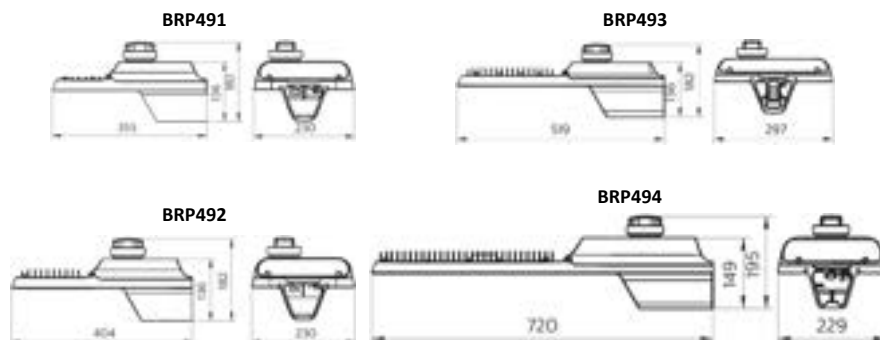
## Technical specifications



Specification	BRP491	BRP492	BRP493	BRP494
SYSTEM				
Flux packages (lm)	~14Klm	~22Klm	~36Klm	~44Klm
CCT/color *	4000K/3000K			
CRI	>70			
System efficacy(typical) **	140lm/W			
System wattage	~100W	~150W	~250W	~300W
SDCM	<=5			
OPTICS				
Light distribution	DM/DM1 (DW1/DWV design ready)		DM (DM1/DW1/DWV design ready)	
Lens & Optical cover	PC			
ELECTRICAL				
Input voltage	200-240V, 50/60Hz			
Power Factor	>0.95			
Driver	1-10V driver as default			
surge protection	10KV or 15KV			
Serviceability Electrical	Driver, SPD			

SYSTEM				
Socket	Top 7-pin NEMA			
LIFETIME				
Luminaire lifetime	100K hours (L70B50 @35°C)			
ENVIRONMENT				
Operating temperature	Outdoor: - 40°C < Ta< 50°C			
IP Rate	IP66			
IK Rate	IK08			
MECHANICAL				
Mounting	Spigot, 42-60mm side entry			
Housing material	Die cast aluminum, ADC1			
Color/Painting	RAL7040, 500hrs salt spray painting (ETO 1000hrs)			
Weight	~3.6Kg	~4.1Kg	~6.6Kg	~7Kg
APPROBATION / NORMS				
Approbation	CQC/CB/CE			
Sustainability	RoHS			

## Product dimensions

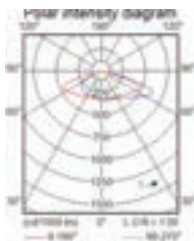


## Polar Diagram

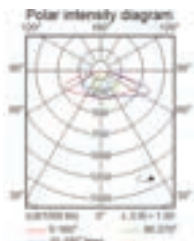
BRP391 LED65NW 50W 220-240V DM    BRP392 LED195NW 150W 220-240V DM    BRP394 LED325NW 250W 220-240V DM    BRP391 LED65NW 50W 220-240V DW1



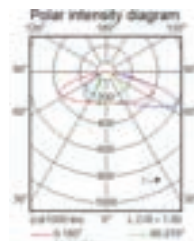
BRP392 LED195NW 150W 220-240V DW1



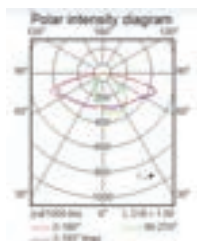
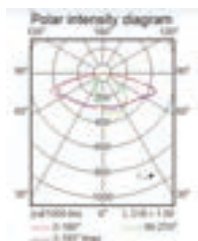
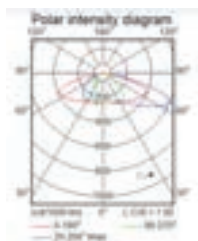
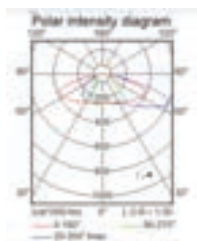
BRP394 LED325NW 250W 220-240V DW1



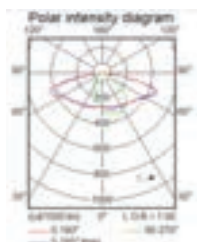
BRP391 LED65NW 50W 220-240V DWV



BRP392 LED195NW 150W 220-240V DWV



BRP394 LED325NW 250W  
220-240V DWV



# Greenvision xceed

Sustainability, citizen well being and connectivity are key players in the game of differentiation among cities all over the world. And a way of achieving this goals is lightingLighting up streets and roads enhance the comfort, security and overall safety of our rapidly growing urban environments. Our GreenVision Xceed Gen2 makes an affordable LED road lighting solution that ensures sufficient light on your roads & streetsThe GreenVision Xceed Gen2 family from Signify provides your city with a flexible lighting system which can be deployed anywhere in urban spaces, highways and rural areas – our luminaires provide the optimal light for all application areas. And, GreenVision Xceed Gen2 is ready to be connected and work with smart city ecosystemOur new GreenVision Xceed Gen2 range is enhanced to give city lighting departments even more control – to choose the right light

## Benefits and Features

- Robust & Reliable with a long service lifetime
- System efficacy 140lm/W  $\pm 10\%$
- Elegant finless design
- Long service lifetime 100Khrs L70@Ta 35°C

## Applications

- Pedestrian category roads (P1-P6)
- Vehicle category roads (M1-M6)
- Traffic routes and main access road
- Urban and residential area

## Technical specifications

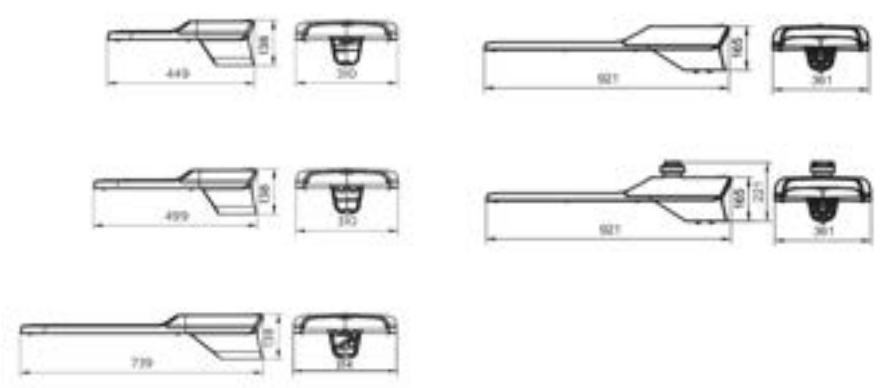


Type (BRP391 / BRP392 / BRP393 / BRP394)	
Housing	Aluminum die-cast (ADC1 aluminum, 500hrs salt spray)
CCT	3000K/4000K/5700K
CRI	min. 70
Color Consistency (SDCM)	5 SDCM
System Wattage	30W-300W, 10W a step
Lumen output	BRP391 max. 10400 lm / BRP392 max. 19500 lm BRP393 max. 30000 lm / BRP394 max. 39000 lm
Input Voltage	220V-240V 50/60hz
Power Factor	$\geq 0.95$
System Efficacy (typical) *	130 lm/w (3000K; 4000K; 5000K; 5700K)
Lifetime	Ta=35C; 100K hours; 70% lumen maintain
Protection	IP66(no glue); IK08

Type (BRP391 / BRP392 / BRP393 / BRP394)

Installation	Side entry, $\Phi 48-60\text{mm}$
Surge Protection	10kV/15kV, tool-less opening
System Support	Amplight G2; NEMA 7pin CityTouch; CityTouch Flex;
Controls (ETO)	1-10v; Dali; Dynadimmer; NEMA 7pin receptacle
Weight	BRP391: 5Kg / BRP392: 7Kg / BRP393: 8Kg / BRP394: 10Kg
Certification	CQC, CB, RoHS, CE, ANZ

Product dimensions



# Streetstar

Brings visually arresting brilliance and safety to local road and residential lighting projects. An optimized, long-lasting, and reliable solution that meets maximized operations and maintenance savings, this luminaire is the perfect synergy of performance, features, and value that will light up your way.

StreetStar is designed to perfectly fit one-to-one retrofit projects while catering to all lighting requirements. It provides crisp, brilliant light that surpasses existing HID and fluorescent luminaire performance while offering a long lifespan of up to 50,000 hours.

Backed by the Philips reliability promise, StreetStar ensures mechanical strength and excellent thermal performance, providing continuous operation and unparalleled safety and protection. StreetStar is the perfect cost-effective solution for any city, municipality, and utility lighting projects that need optimum quality, performance, and low maintenance.

## Benefits

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- Optimal light quality. Lighting consistency that outperforms current HID and fluorescent luminaire.
- Reliable performance. Backed by Philips quality standards to ensure durability and functionality.
- Meets standard lighting specifications. Competitive option for low lumen package street lighting that meets all IEC 60598 requirements.
- Easy to install. Compact design for quick and easy point-to-point replacement of fluorescent and HID street lights.
- Long lasting, low maintenance, and cost-effective. Low-power LED lighting with long lifespan to provide significant cost savings.

## Features

---

- 2,500 to 3,700 lumen package (3000K, 4000K & 5700K ) with DW3 wide beam optics for crisp, brilliant light
- High-pressure die-cast housing to ensure mechanical strength and good thermal performance
- Rated for IP66 and IK08 protection to ensure continuous operation
- Pre-wired power cable and assembly of input connector for easy and safe installation
- High-quality components that are IEC 60598-certified for higher ambient temperature
- Operating lifespan of 50,000 hours for components and driver
- Available in AC and DC (Solar version)

## Applications

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- Local and rural roads
- City streets
- Residential streets
- Bridges and overpasses

## Technical specifications

---





GENERAL CHARACTERISTICS

Model (BRP210)	
Lifetime	Ta=35°C; 50K hours; 70% lumen maintenance

LIGHT TECHNICAL CHARACTERISTICS

CCT	3000K/4000K/5700K
CRI(typical)	75±5
Lumen Output	Max 3,700lm
System efficacy	AC: 137lm/w

ELECTRICAL CHARACTERISTICS

Input Voltage	220-240V, 50-60Hz AC ; 12V DC
Operational voltage Range ( AC driver)	170-250V (50/60Hz)
Power Factor	95%

ENVIRONMENTAL CHARACTERISTICS

IP protection	IP66 (without glue)
IK protection	IK08
Installation	Side entry; pole diameter 42-60mm Power input cable (0.5m) and connector (IP66) assembly included
Operating temp	-40°C < Ta< 55°C
Wind speed	Wind Force 83.5N
Humidity	Operation humidity: 93%

MECHANICAL

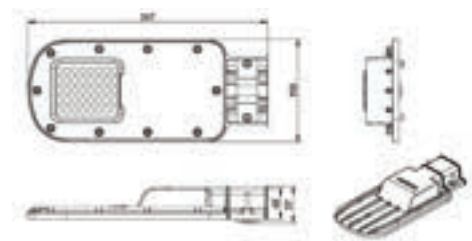
Housing	High pressure die-cast aluminium
Lens	Multilayer DW3 optic (IP66 integrated lens)

PRODUCT DATA

Weight	1.1 Kg
Dimension	347 x 159 x 57 mm
Surge protection	10kV (AC version)

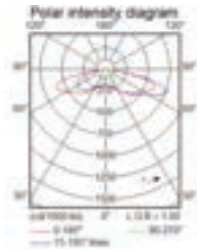
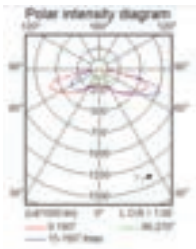
Ordering information (BRP210)	LED25/CW 18W 220-240V DW3 MP1 LED37/CW 27W 220-240V DW3 MP1 LED25/NW 18W 220-240V DW3 MP1 LED37/NW 27W 220-240V DW3 MP1 LED25/WW 18W 220-240V DW3 MP1 LED37/WW 27W 220-240V DW3 MP1
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Product dimensions



# Polar Diagram

BRP210 LED25NW 18W 220- 240V DW3 MP1  
BRP210 LED37NW 27W 220- 240V DW3 MP1



# Smartbright road

ideal for new streets and for renovating existing installations. This affordable range of lighting solutions combines clean, high-quality light with significant energy savings and reduced maintenance.

## Benefits

- Perfect for one-to-one replacement of conventional SON or HPL luminaires
- Offers initial investment with good quality, energy-efficient lighting
- Fits wide application areas and suitable to use for residential street, main road and parking area

## Features

- One-to-one replacement for 100W, 150W and 250W conventional SON or HPL luminaires
- Reliable design with diecast aluminum housing
- Fully IP66 Ingress and IK08 mechanical impacts protection
- 10kV/Ka replaceable surge protection device
- 30 000 hours rated lifetime (@L70B50, Ta 25°C)
- 100lm/w luminous efficacy
- Operating temperature range - 40°C < Ta < 50°C
- Optimised optic for road and street lighting

## Suggested application

- Parking areas
- Roads
- Residential

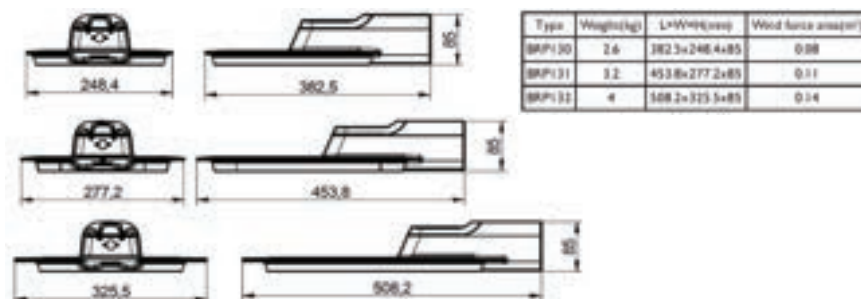
## Technical specifications



Type (BRP130)	70W	140W
System lumen output	7000lm	14000lm
System wattage	70W	140W
CCT	4000K	3000K/5700K
CRI	70 (typ.)	
SDCM	6	
Target light distribution	DM	

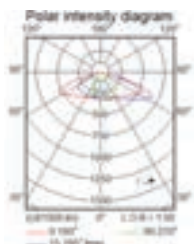
Type (BRP130)	70W		140W
Lens	PC		
System efficacy	100 lm/W		
Lifetime	30 000 hours @L70B50, Ta 35°C outdoor		
Surge protection	Replaceable 10kV/kA		
Power factor	0.9		
Input voltage	220-240V, 50/60hz		
Warranty	3 years		
IP/IK rating	IP66/IK08		
Working temperature range	- 40°C < Ta < 50°C		
Material and finishing	Aluminum/Dark grey colour		
Marine spray	500 hours		
Mounting	Side entry (42°60mm)		
Certifications	Min. Certification: CB/CQC/As/NZS 60598/CE. Sustainability: RoHS/REACH		
Dimensions: L x W x H (cm)	38.25 x 24.84 x 8.5		50.82 x 32.55 x 8.5
Weight (kg)	2.6		4.2

## Product dimensions

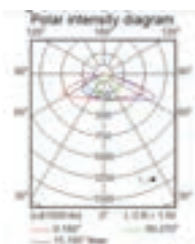


## Polar Diagram

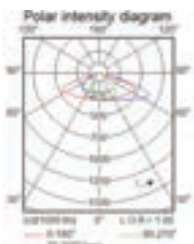
BRP130 LED70NW 70W 220-240V DM GM



BRP131 LED100NW 100W 220-240V DM GM



BRP132 LED140NW 140W 220-240V DM GM



# PHILIPS

Residential and  
Street

Solar Lighting

- [Sunstay all in one](#)
- [Smartbright AIO flood](#)
- [AIO street light BRP110](#)
- [Urban spark](#)

# All in one solar street light (Sunstay)

An integrated solar street light with a lithium ferro phosphate battery, solar panel and charger built into the luminaire. Pressure die-cast aluminium for sturdiness and long life. A specially designed pole-mounting bracket allows different tilt angles, lateral and pole-top mounting.

## Benefits

- Brings light to areas without access to electric grid
- Saves energy
- Preserves landscape as no trenching for cabling required
- Environment friendly
- Sturdy construction for long life

## Applications

- Class A & B roads
- Rural areas
- Parks, pedestrian path lighting
- Industries, office, schools
- Shopping centres, corporate campuses, plazas

## Features

- High luminous efficacy of 175 lm/Watt to maximise battery performance
- Replaceable Lithium Ferro Phosphate battery for long life and hassle free operations.
- MPPT charge controller for maximum efficiency
- Pressure die-cast aluminium housing for sturdiness and excellent heat dissipation.
- Specially designed pole mounting bracket with adjustable tilt angles of 0 to 15 degrees, which can also be used in post top & lateral mounting positions
- Factory set dimming profile along with PIR sensor for run time maximisation.
- Self diagnostic feature along with battery charging, discharging & cut-off LED Indicators

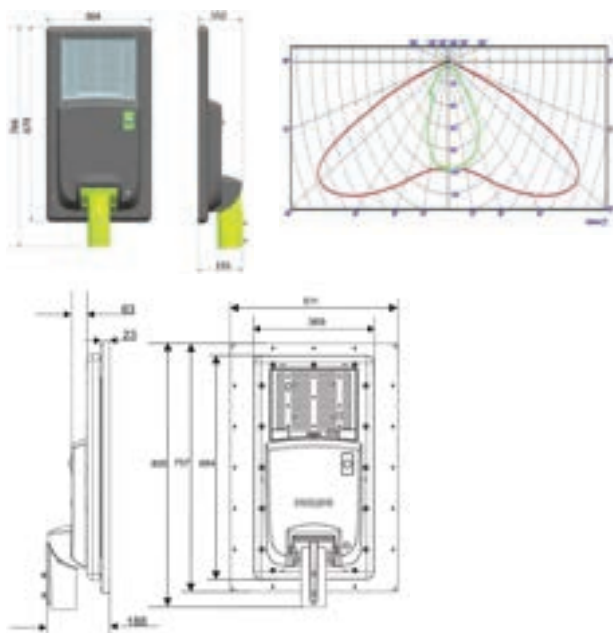
## Technical specifications



Type (BRP710)	LED20	LED30	LED45	LED60
Full Power Luminaire Flux	2000 lm	3000 lm	4500 lm	6000 lm
Autonomy Hours at 100% Full Power	12 hrs			
Water and Dust Proof	IP65			
Luminaire CCT	3000/4000/5700 K			
CRI	> 70			
Tilt Angle	0D, 5D, 10D, 15D			
Size	766 mm x 364 mm x 155 mm			
Weight	9 kg			
Lighting mode	Programmable Standard: 2 hours 100% full power and 10 hours 30% full power with PIR			

Solar panel	28 Wp
Battery	192 Wh
Operation temperature	20 C ~ + 60 C
Certification	CE/CQC/Rohs

## Product dimensions and Polar Diagram





# SmartBright flood LED

A solar flood lighting DIY kit with lithium ferro phosphate battery built in the luminaire. Split folding solar panel, remote control and installation accessories. IP 66, IK 07. Extruded aluminium construction for sturdiness and long life. Choice of four lumen packs – 1,000, 2,000, 3,000, 4,800 lumens.

## Benefits

- All components included in one box – do it yourself
- Easily configurable according to consumer need.
- Durable and long-lasting.
- Solar Flood for wide outdoor applications where electrical connection is not possible/difficult.

## Features

- Solar floodlight range of the 4 products – equivalent to 100 W, 200 W, 300 W and 500 W Halogen floodlights respectively
- Infrared remote controller to dim luminaires with three presets – low, medium, high
- Aluminium die-cast housing
- Split folding solar panel
- LiFePO4 battery included inside the luminaire.

## Applications

- Amenity
- Security
- Landscaping
- Parking
- Individual homes
- Plazas, squares
- Architectural lighting

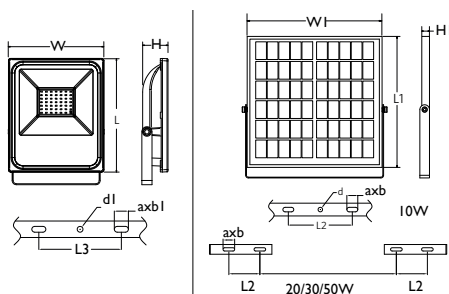
## Technical specifications



Type (BVP080)	LED10 60	LED20 100	LED30 150	LED40 200
Driver included	Yes			
Optical cover/lens type	Reflector			
Material	Aluminum			
OPERATING AND ELECTRICAL				
Battery type	Lithium Ferro Phosphate			
Battery voltage	6.4 V	12.8 V		
Panel type	Poly crystalline			

Type (BVP080)	LED10 60	LED20 100	LED30 150	LED40 200
Panel voltage	6 V	12 V		
Panel peak wattage	10 W	25 W	30 W	50 W
Cable connection kit	Included			
CONTROLS AND DIMMING				
Dimmable	Wireless Dim			
Configurability	Configurable			
MECHANICAL AND HOUSING				
Overall length	257 mm	311 mm	398 mm	451 mm
Overall width	190 mm	235 mm	310 mm	323 mm
Overall height	56 mm	65 mm	78 mm	90 mm
Colour	RAL 9007			
APPROVAL AND APPLICATION				
Ingress protection code	IP66 [ Dust penetration-protected, jet-proof]			
Mech. impact protection code	IK07 [ 2 J reinforced]			
Initial Performance (IEC Compliant) Initial luminous flux (system flux)	1000 lm	2000 lm	3000 lm	4800 lm
Colour Rendering Index	>70			
Lamp colour temperature	5700 K			
APPLICATION CONDITIONS				
Ambient temperature range	0 to +45 °C			
Solar dimming profile	As per remote controller			

## Product dimensions



TYPE	W	L	H	WI	LI	HI
10W	190	225	56	250	340	20
20W	235	280	65	602	340	20
30W	310	370	78	682	350	20
50W	323	425	90	702	540	20

TYPE	L2	d	axb	L3	dI	axbI
10W	150	8	8x30	100	7	7x17
20W	100	—	10x30	100	7	7x17
30W	100	—	10x30	130	12	12x32
50W	150	—	10x30	130	12	12x32

# SmartBright street LED

Integrated solar street light with Lithium Ferro Phosphate battery, solar panel and charger built into the luminaire. The independently tilt-able LED source and pole - mounting bracket allow the light beam to focus on the road, and the solar panel to face the sun. Microwave-based motion sensor for optimising battery autonomy.

## Features

- High luminous efficacy up-to 150 lm/watt to maximise battery performance
- Replaceable Lithium Ferro Phosphate battery for long life and hassle free operations.
- MPPT charge controller for maximum efficiency
- The independently tilt-able LED source and pole-mounting bracket allow the light beam to focus on the road, and the solar panel to face the sun.
- Factory-set dimming profile along with microwave sensor for run time maximisation.

## Benefits

- Brings light to areas without access to electric grid
- Saves energy
- Preserves landscape as no trenching for cabling required
- Environment friendly
- Sturdy construction for long life

## Applications

- Class A & B roads
- Rural areas
- Parks, pedestrian path lighting
- Industries, office, schools
- Shopping centres, corporate campuses, plazas

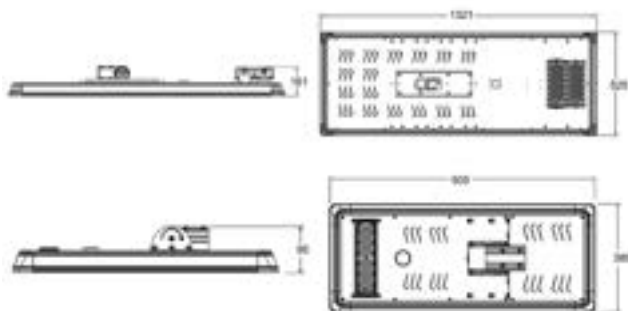
## Technical specifications



Type (BRP110)	LED50	LED85	LED120
GENERAL INFORMATION			
Driver included	Yes		
Optical cover/lens type	Polycarbonate		
Control interface	IR remote		
Warranty period	2 years		
Material	Aluminum		

Type (BRP110)	LED50	LED85	LED120
OPERATING AND ELECTRICAL			
Battery type Lithium	Ferro Phosphate		
Battery ampere hour	24 Ah	42 Ah	30 Ah
Battery voltage	12.8 V		25.6 V
Battery charging & discharging cycles	2000		
Panel type Mono	crystalline		
Panel voltage	18 V		36 V
Panel peak wattage	50 W	90 W	120 W
Charge controller type	MPPT		
Charge controller wattage 3	5 W	60 W	80 W
CONTROLS AND DIMMING			
Dimmable	Yes		
Configurability	Configurable		
MECHANICAL AND HOUSING			
Overall length	935 mm	148 mm	1321 mm
Overall width	380 mm	380 mm	525 mm
Overall height	95 mm	95 mm	161 mm
Approval and Application			
Ingress protection code	IP65 [ Dust penetration-protected, jet-proof]		
Mech. impact protection code	IK08 [ 5 J vandal-protected]		
INITIAL PERFORMANCE (IEC COMPLIANT)			
Initial luminous flux (system flux)	5000 lm	8500 lm	1200 lm
Lamp colour temperature	5700 K		
Colour Rendering Index	>70		
APPLICATION CONDITIONS			
Ambient temperature range -	20 to +50 °C		
Ambient temperature range for charging	0 to +45 °C		
Ambient temperature range for discharging (when light is on)	-20 to +50 °C		

## Product dimensions



# Urban spark

More and more cities look for recyclable solar energy, traditional solar lighting system can't match style of cities either modern or classic. UrbanSpark is a breakthrough innovation for solar lighting application in cities. Its artistic designing beautifies city centres like shopping malls, commercial blocks as well as campus, parks and residential areas.

Solar energy is green and renewable.

UrbanSpark is a solar integrated lighting system requires no energy from the grid. It's a 100% energy saving lighting solution.

## Benefits and Features

- Integrated vertical PV panel, long design life
- Recyclable Aluminum alloy pole
- Long life cycle of LiFePO4 battery
- Programmable
- Remote monitoring is optional
- Less impact by dust, sand and snow
- 100% energy efficient and no need on electricity
- No trenching and grid cabling work on site
- Automatic on/off according to day light and weather conditions
- Aesthetics design to beautify the surroundings
- Robust design to handle harsh conditions like sand, dust and snow
- Professional lighting effect to create safety & comfort
- Easy plug & play installation
- Integration design, a complete system that can be installed quickly with minimum installation costs and lowest total cost of ownership
- Lithium battery has long lifespan, lower system cost over the entire life cycle

## Applications

- Commercial plaza
- Shopping mall
- Landmark
- Side street
- Cycle path & footpath
- Parking area
- Pedestrian crossing
- Cycle path & footpath
- Landscape

## Technical specifications



Type (BGP151/161/711)		Post Top	Post Top	Street
	Luminaire	BGP151	BGP161	BRP711
	Maximum luminous flux	2000lm	2500lm	6000lm
Luminaire	CCT; CRI	CCT=4000K; CRI>70	CCT=4000K; CRI>70	CCT=5000K; CRI>70
	Standard light profile	6H 100% + 6H 50%	6H 100% + 6H 50%	6H 100% + 6H 50%
	Typ. service life of LEDs	> 50.000 hours	> 50.000 hours	> 50.000 hours
	Battery technology	LiFePO4	LiFePO4	LiFePO4
	Battery capacity	60Ah	60Ah	100Ah
LiFePO4	Life cycles	>2000 cycles @ 90% DOD	>2000 cycles @ 90% DOD	>2000 cycles @ 90% DOD
battery	IP rating	IP68	IP68	IP68
	Operating temperature	-0 to 60 °C	-0 to 60 °C	-0 to 60 °C
	Dimension	120x146x470mm	120x146x470mm	120x146x470mm
	Weight	8.5Kg	8.5Kg	12.2Kg
	PV cell technology	Mono-Si	Mono-Si	Mono-Si
	Watt peak rating per module	180Wp/23Voc	180Wp/23Voc	180Wp/23Voc
PV module	Solar cell efficiency (under STC)	16.40%	16.40%	16.40%
	Number of strings	4	4	8
	String topology	parallel	parallel	parallel
	PV module lifespan	>15 years	>15 years	>15 years
	Dimension	172x172x2000mm	172x172x2000mm	172x172x4000mm
	Programmable per application scenarios	Yes	Yes	Yes
Power management	Dynamic light profile customer-specific	Yes	Yes	Yes
	Run time extension	Yes	Yes	Yes
	Remote monitoring (LCU)	Yes	Yes	Yes
	Total column length	4m	4m	6m
	Aluminium bottom part	2m	2m	2m
	Solar PV module	2m	2m	4m
	Size of square column	172x172mm	172x172mm	172x172mm
Column	Construction material	Aluminium alloy		
	Aluminum surface finish	Powder painting		
	Security	Special locking mechanism		
	Total nominal peak power output	180 Wp	180 Wp	360 Wp
	Light poles certificates	EN 40-6	EN 40-6	EN 40-6
	CE certificate	Yes	Yes	Yes





A nighttime photograph of a city street, likely in Dubai, featuring palm trees and illuminated by Philips streetlights. The scene is captured from a low angle, looking down the street. The lights create a warm, golden glow, and the palm fronds are silhouetted against the bright sky and streetlights. In the background, blurred city lights and traffic are visible.

# Luminaires City beautification

Real professionals count on Philips

- [Townguide BDP10X](#)
- [PostTop BGGP161](#)
- [Smart bollard II BCP15X](#)

# Townguide

The modern urban environment is a highly dynamic and varied hub that brings together every kind of human activity. People live and work in cities, they spend their leisure time there, and they are always on the move – around the year and around the clock.

## Benefits and Features

- Comfort: State-of-the-art LEDs, on very low drive current, increase visual comfort for drivers and pedestrians.
- Energy savings: very good energy performance compared to other LED luminaires and conventional options for dedicated post-top application.
- Long lifetime: Low maintenance thanks to long life of LED light source. Easy to install: Suitable for new installations or direct retrofit replacement of existing installations

## Technical specifications



Product features	Specifications
Types: BDP100 (Flat Cone version) BDP101 (Bowl version) BDP102 (Classic Cone version) BDP103 (Classic T version) BDP104 (T version) BDP105 (Tzero version)	
Light source	Integrated LED module
Power	10-102 W, depending on LED configuration and colour temperature
Luminous flux	LED12, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 110, 120 (x100 = lm)
Luminaire efficacy	4000K: 99 up to 115 lm/w (PCC bowl) 3000K: 84 up to 101 lm/W (PCC bowl)
Correlated colour temperature	3000 K (warm white), 4000 K (neutral white)
Colour rendering Index	4000K: 70 min 3000K: 80 min
Lumen maintenance LXX	100,000 hours at 25 °C from L82 up to L98 (consult Lumen Power Table)
Operating temperature range	-30 to +35°C
Driver	Integrated programmable LED driver
Power/data supply	Philips Xitanium Xi-FP or Xi-SR or XI-CM depending on configuration.
Mains voltage	220-240 V / 50-60 Hz
Control system input	DALI
Intelligent control	LineSwitch, DynaDimmer, Coded Mains, LumiStep, StarSense RF Wireless, Interact City

<b>Options</b>	<p>Constant Light Output (CLO), also possible in combination with dimming Mains dimming (AmpDim) Class II version Mini photocell or NEMA socket. For smart connected lighting, SR socket on top (SRT) or 7-pin NEMA 10 kV surge protection (SRG 10) Factory-fitted cable, 4, 5 or 6 meter exterior length</p>
<b>Optics</b>	<p>Distribution Wide (DW) Distribution Narrow (DN) Distribution Medium (DM) Distribution Symmetrical (DS) Distribution Residential Wide (DRW)</p>
<b>Optical cover</b>	Polycarbonate cover Clear (PCC), Translucent (PCTR) or frosted (PCF)
<b>Material</b>	<p>Canopy and spigot: high-pressure die-cast Aluminium Cover: impact-resistant UV-stabilized polycarbonate</p>
<b>Colour</b>	<p>Silver grey (RAL 9006) Grey Aluminium (RAL 9007) Black (RAL 9005) Light grey (RAL 7035) Other RAL or AKZO Futura colours available on request</p>
<b>Connection</b>	Bayonet whistle connector with integrated M20 gland
<b>Maintenance</b>	Maintenance in (local) workshop only
<b>Installation</b>	<p>Post-top mounting: axial entry Ø 48-76 mm (48P, 62P or 76P) Recommended installation height: 4-6 m</p>
<b>Effective Projective Area</b>	<p>Max SCx: BDP100 (Flat Cone): 0.051 m<sup>2</sup> / BDP10 1 (Bowl): 0.095 m<sup>2</sup> / BDP102 (Classic Cone): 0.088 m<sup>2</sup> / BDP103 (Classic T): 0.093 m<sup>2</sup> / BDP104 (T) BDP105 (Tzero): 0.053 m<sup>2</sup></p>
<b>Surge protection</b>	6 kV standard, option to add 10 kV surge protection device (SRG 10)
<b>Cable gland</b>	M20, cable Ø 6-12 mm, with integrated strain relief
<b>Accessories</b>	Special adapter for post-top Ø 90 mm (in combination with Ø 62 mm spigot)
<b>Warranty</b>	5 years, extended warranty can be applied for
<b>Inrush current driver</b>	40W: 22A / 290µs, 100W: 45A / 285µs, 110W: 10A / 130µs
<b>IP rating</b>	IP66
<b>IK rating</b>	IK10
<b>Weight</b>	From 6.1 to 8.4 kg, depending on version and chosen flux

## Product dimensions

Flat Cone BDP100



Bowl BDP101



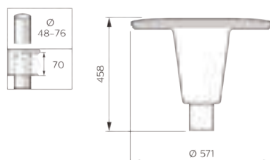
T BDP104 / Tzero BDP105



Classic Cone BDP102



Classic T BDP103





# PostTop Gen 3

Inherits the classic look and style of the previous generation with improved system efficacy and light quality.

The Smart Post Top G3 optimized optical design increases both horizontal and vertical uniformity. The highly efficient thermal system design ensures maximum heat transfer and longer LED service life.

This reliable luminaire system operates well in both low and high temperature environments. It offers more than 11 years expected life, reducing maintenance frequency and cost (based on a 50,000 hour rated life and 12 hours operation per day)

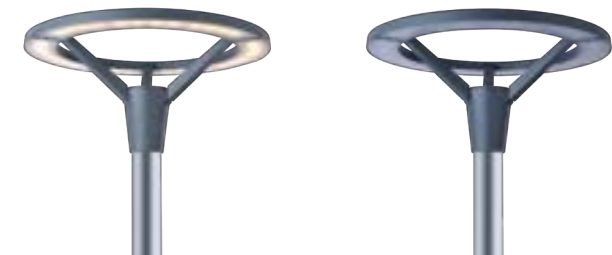
It provides a comfortable and safe atmosphere to gardens, residential areas, courtyards, side streets, squares, parks& playgrounds.

## Benefits and Features

- Outstanding Lighting Performance: SDCM≤4 high uniformity, up to 92 lm/w, high system efficacy, up to 2500lm high brightness, CRI>70 shows true colour
- Reliable Quality: 50K hours lifetime @L70B50IP65,IK07, water and shock resistant Corrosion resistant painting, Aluminium housing, anti UV polycarbonate optics
- Environment Friendly: compliant with the material restriction requirements of RoHS Significant energy saving compared to conventional lighting

## Technical specifications

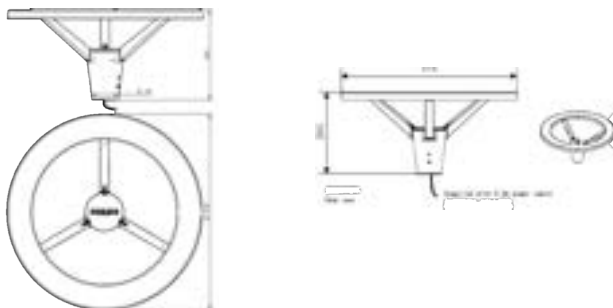
50K hrs 



Parameter	Smart Post Top G3
Type (BGGP161)	
Light source	Mid Power LED
Power Consumption*	27W
Input Voltage	220-240V AC, 50/60 Hz
System lumen output	2300lm @3000K CCT
	2500lm @4000K CCT
System Efficacy	> 85lm/w @3000K CCT
	> 92lm/w @4000K CCT
CRI	> 70
Colour temperature	3000K/ 4000K
Colour Consistency	SDCM ≤ 4

<b>Optics</b>	Symmetrical Beam
<b>Materials and finishing</b>	Housing: Die-casting Alum., 500hrs salt spray
	Optical cover: Polycarbonate, Anti-UV
	Colour: Dark Grey RAL7043 / Light Grey RAL9006
<b>Lifetime</b>	50K hours
	(70% lumen maintenance @ Ta = 35°C)
<b>Mounting Pole Dimensions</b>	Φ60mm, leader cable 0.5m
<b>Luminaire Dimension</b>	Φ578mm x H265mm
<b>Weight</b>	4.5Kg net weight
<b>Classifications</b>	Class I
<b>IP/ IK Grade</b>	IP65; IK 07
<b>Operating Temperature</b>	- 40oC to + 50oC
<b>Controls</b>	ON/OFF
<b>Certifications</b>	CB, CQC, RoHS

## Product dimensions







# Smart Bollard II

A reliable and impact-resistant lighting bollard perfectly suited for the outdoor environment. It's easy to install and provides comfortable soft lighting, offering an adequate source of light without consuming a large amount of energy.

## Benefits and Features

- Gives 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

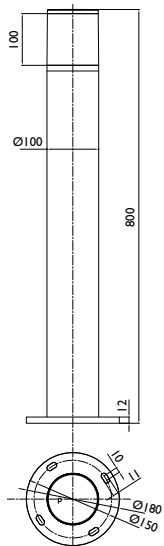
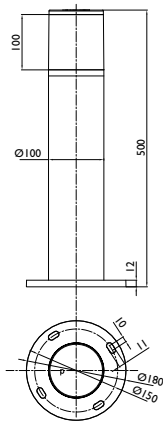
## Technical specifications



### Type (BCP150/151)

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 colour	Dark gray(RAL7043), Light gray(RAL9006)	
Lumen Maintenance	25Khrs (L70, Ta=25°C)	
Weight	1.32Kg	1.85Kg
Mounting	On ground surface mount	
Classifications	Class I, IP65, IK10	
Operating Temperature	-20°C ~ + 40°C	

Product dimensions







# Luminaires Sports, recreation and general

Real professionals count on Philips

- [Sportstar/area and sport version BVP621](#)
- [Tango G4 BVP43X](#)
- [Tango G3 XL BVP38X](#)
- [Smartbright led floodlight G2 BVP151](#)
- [Essential smartbright led floodlight BVP150](#)

# Sportstar/flood version

Philips SportsStar LED Floodlight sets the standard in high quality optical distribution with high performance and low light pollution (or effective light control). From Sports to Area Lighting, our system, including the high masts needed, projects the light exactly where it should be going. Choose the right illumination levels for any given setting with Philips SportsStar LED Floodlight.

## Benefits

- Fit for both high mast area and sports application
- Multiple lens covers as much as of customer needs
- Compatible with systems, including Philips Arenavision system
- Robust quality and reliability
- Comply with HDTV broadcasting requirement


## Features

- Both integrated version and remote version
- Wide range of optics
- DALI, 1-10V and DMX control interface
- Salty Spray 1,000hrs
- Typical lifetime up to 50K hours (L70B50)
- Flicker free (<1%) performance.

## Application

- Airport Apron
- Port & Container Yard
- Large industrial areas
- Large Car Park Areas
- Building facades
- Transportation Terminals & Tollways
- Golf Driving Range
- General flood lighting
- Professional Sports Stadium

## Technical specifications and Product dimensions

30K hrs 

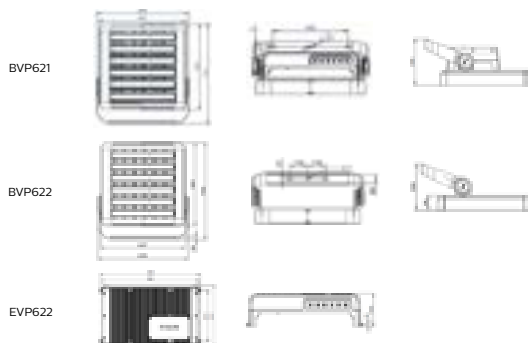


Specification		BVP621	BVP622	EVP622
System	Flux packages(lm)	Up to 111,000 lm		-
	CCT/color*	3000/4000/5700K	5700K	-
	CRI	70/80/90		-
System	System efficacy(typical)**	CRI70 3000K: 113lm/W CRI70 4000K/5700K: 120lm/W CRI80 5700K:100lm/W CRI90 5700K:93lm/W		-
	System wattage	450/600/750/900W		-
	SDCM	<=5		-

Specification		BVP621	BVP622	EVP622
Optics	Light distribution	AWB/NB/SWB/SMB	NB/S3/S5/S6/S7	-
	Lens& Optical cover	PC		-
Electrical	Inputvoltage	220~240V-50/60Hz	-	220~240V-50/60Hz
	Power Factor	>0.95	-	>0.95
	Driver	Fixed/DALI/Coded Mains	-	Fixed/DALI/Coded Mains/DMX
	surge protection	15KV	-	15KV
	Interface tomain	flyingwire	-	flyingwire
	Serviceability Electrical	Driver,SPD		Driver,SPD
Lifetime	Luminaire life time	50k hours(L70B50 @35°C)		
Environment	Operating temperature	Outdoor: -40°C<Ta<50°C (900W Fixed version45°Cmax.)	Outdoor: - 40°C < Ta< 50°CIndoor:-40°C <Ta<40°C	
	IP Rate	IP66		
	IK Rate	IK08		
Mechanical	Mounting	UBracket		-
	Housingmaterial	Aluminum		
	Weight	BVP621: max.32kg(fixedoutput);max.36kg(Dimming) BVP622:max.22kg EVP622:max.10kg(fixedoutput);max.14kg(Dimming)		
Approbation / Norms	Approbation	CQC/CB/CE		
	Sustainability	RoHS		

\*InitialCCT value,accordingtoANSIC78.377-2008, \*\* lowerlimit-5%

## Product dimensions





# Tango G4

Philips Tango G4 LED Floodlight is the 4th generation of Tango LED family. Tango G4 LED family delivers higher efficacy and has optimized windage area, less weight via technical design. The new ideal solution for a wide range of Area and Recreational Sports lighting applications. It incorporates the latest LED light source, one-piece optical system, heat sink and driver into compact and robust housing that meets globally recognized safety standards. Its specially designed heat sink incorporates aesthetics and functionality to ensure excellent reliability. Powered by LED technology, this luminaire delivers superior performance and a longer lifetime, bringing area lighting to a whole new level.


## Features and benefits


- Higher system efficacy with typical 140lm/W
- Full range lumen packages for kinds of application
  - BVP431 – up to 14Klm
  - BVP432 – up to 28Klm
  - BVP433 – up to 51Klm
- Multiple lens covers as much as of customer needs
- Less weight max.23% down and fewer windage area max.35% smaller than Tango G3 LED.
- High quality ADC1 diecast aluminum housing and steel bracket
- 500hrs (small and medium housing) and 1000hrs (large housing) salt spray pass for option, IP66 and IK08 protection.
- Robust quality and reliability

## Application

- General flood lighting
- Large industrial areas / Car Park Areas
- Billboard
- Airport Apron
- Port & Container Yard
- Building facades
- Transportation Terminals & Tollways
- Recreational Sports Stadium

## Technical specifications

50K hrs 

				
BVP43X	Product family codes	BVP431	BVP432	BVP433
System	Flux packages (lm)	up to 14Klm	up to 28Klm	up to 51Klm
	CCT/color (Flux package based)	4000K	4000K	4000K
	CRI (Flux package based)	min. 70	min. 70	min. 70

<b>BVP43X</b>	<b>Product family codes</b>	<b>BVP431</b>	<b>BVP432</b>	<b>BVP433</b>
<b>System</b>	<b>System efficiency</b>	up to 140 lm/W	up to 140 lm/W	up to 140 lm/W
	<b>System wattage</b>	max. 100W	max. 200W	max. 380W
	<b>CCT option**</b>	3000K/5700K	3000K/5700K	3000K/5700K
	<b>SDCM</b>	<5	<5	<5
	<b>CRI option**</b>	80	80	80/90
<b>Optics</b>	<b>Application Matrix</b>	Area/Road cross	Area/Road cross	Sports/Area/Road cross
	<b>Target light distribution</b>	SMB/SWB/AMB	SMB/SWB/AMB	NB/SAWB/AMB/ SMB/SWB/S6
	<b>Lens &amp; Optical cover</b>	PC (Makrolon LED5302)	PC (Makrolon LED5302)	PC (Makrolon LED5302)
<b>Electrical</b>	<b>Input voltage</b>	220-240V,50/60hz,	220-240V,50/60hz,	220-240V,50/60hz,
	<b>Power Factor (full load)</b>	0.95	0.95	0.95
	<b>Power Factor (half load)</b>	0.9	0.9	0.9
	<b>Dimming/control interface **</b>	1-10V; DALI; Coded Mains; SR	1-10V; DALI; Coded Mains; SR	1-10V; DALI; Coded Mains; SR; DMX (with EVP622)
	<b>surge protection</b>	10KV & 15KV	10KV & 15KV	10KV & 15KV
	<b>Interface to main</b>	0.5m-GC/1.5m-GM flying cable	0.5m-GC/1.5m-GM flying cable	0.5m-GC/1.5m-GM flying cable
	<b>Serviceability Electrical</b>	Driver & SPD	Driver & SPD	Driver & SPD
	<b>toolless replacement</b>	Gear box	Gear box	Gear box
<b>Lifetime</b>	<b>Driver lifetime</b>	follow luminaire lifetime requirement	follow luminaire lifetime requirement	follow luminaire lifetime requirement
	<b>Luminaire lifetime by SRT</b>	50k hours L70B50 @35C Ta outdoor	50k hours L70B50 @35C Ta outdoor	50k hours L70B50 @35C Ta outdoor
	<b>Warranty</b>	3-year standard warranty	3-year standard warranty	3-year standard warranty
<b>Environment</b>	<b>Operating temperature</b>	-40°C to 50°C	-40°C to 50°C	-40°C to 50°C
	<b>IP</b>	IP66	IP66	IP66
	<b>IK</b>	IK08	IK08	IK08
	<b>Salty spray</b>	500 hours	500 hours	1000hrs
	<b>Wind proof</b>	IEC60598 & ANZ	IEC60598 & ANZ	IEC60598 & ANZ
<b>Mechanical</b>	<b>Dimensions: W*L*H Full size surface size</b>	419X265X85 369*217*79	414X347X100 366*290*77	559X523X111 506*481*71
	<b>Mounting</b>	"U"-shape bracket	"U"-shape bracket	"U"-shape bracket
	<b>Tilt angle</b>	360 degree	360 degree	360 degree
	<b>Housing</b>	Die cast aluminum RAL9007	Die cast aluminum RAL9007	Die cast aluminum RAL9007
	<b>Bracket</b>	Steel Q235 RAL9007	Steel Q235 RAL9007	Steel Q235 RAL9007
	<b>Weight (w/o accessories)</b>	4.4	6.2	12.2
	<b>Industrial package</b>	Industrial package (1pc per box)	Industrial package (1pc per box)	Industrial package (1pc per box)

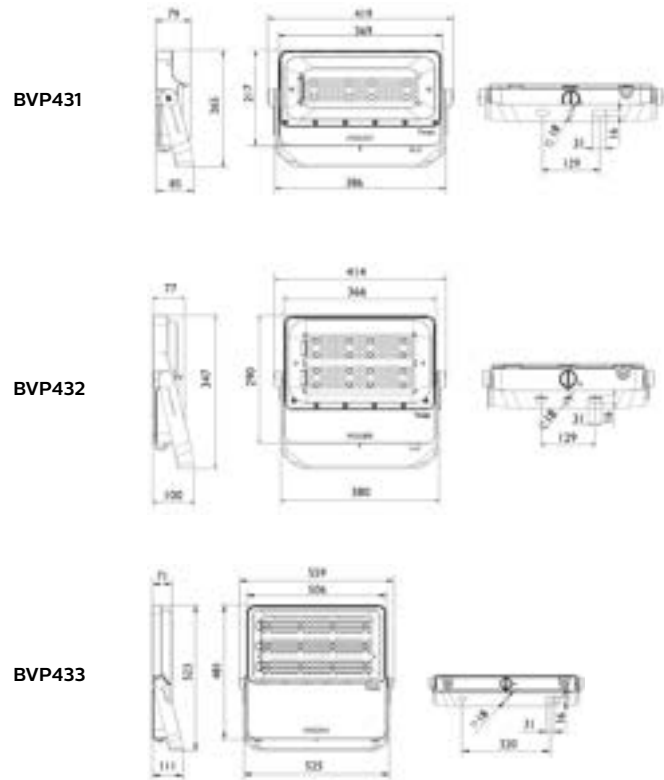
BVP43X	Product family codes	BVP431	BVP432	BVP433
Accessories		louvers	louvers	louvers
Approbation / Norms	Approbation	CQC/CB/CE/SAA/ SASO	CQC/CB/SAA/SASO	CQC/CB/SAA/SASO
	Sustainability (RoHS, REACH, E*...)	RoHS	RoHS	RoHS

\* Initial CCT value, according to ANSI C78.377-2008

\*\* lower limit -5%

\*\*\* Options could be customized

### Product dimensions



# Tango gen 3 XL

The ideal solution for a wide range of Area and Recreational Sports lighting applications. It incorporates the LED light source, optical system, heat sink and driver into one compact and robust housing that meets globally recognized safety standards. Its specially designed heat sink incorporates aesthetics and functionality to ensure excellent reliability. Powered by LED technology, this luminaire delivers superior performance and a longer lifetime, bringing area lighting to a whole new level.


## Features and benefits

- BVP384 with 60Klm for one to one replacement of HID 1000W
- Fit for both high mast area and recreational sports application
- Multiple lens covers as much as of customer needs
- Robust quality and reliability

## Application

- Airport Apron
- Port & Container Yard
- Large industrial areas / Car Park Areas
- Building facades
- Transportation Terminals & Tollways
- General flood lighting
- Recreational Sports Stadium

## Technical specifications

50K hrs 



### Type BVP384

System	Flux packages (lm)	Up to 60Klm
	CCT/color *	3000K/4000K/5700K
	CRI	70/80
	System efficacy(typical) ** CRI70: 3000K – 113lm/W; 4000K/5700K – 120lm/W CRI 80: 4000K – 105lm/W; 5700K – 110lm/W	
	System wattage	Up to 500W
Optics	SDCM	<=7
	Light distribution	SMB/SWB/AMB/AWB/NB
	Lens & Optical cover	PC
Electrical	Input voltage	220~240V- 50/60Hz
	Power Factor	>0.95
	Driver	Fixed output, as standard offer
	Controls interface option ***	1-10V/Dali/Coded Mains/SR/DMX
	surge protection	15KV
	Interface to main	flying wire
	Serviceability Electrical	Driver, SPD



## Type BVP384

Lifetime	Luminaire life time	50k hours (L70B50 @35°C)
	Operating temperature	Outdoor: - 40°C < Ta< 55°C
Environment	IP Rate	IP66
	IK Rate	IK08
Mechanical	Mounting	U Bracket
	Housing material	Aluminum
	Weight	20Kg; 1-10V + NEMA socket + Shorting cap – 22Kg
Approbation / Norms	Approbation	CQC/CB/CE/SAA
	Sustainability	RoHS

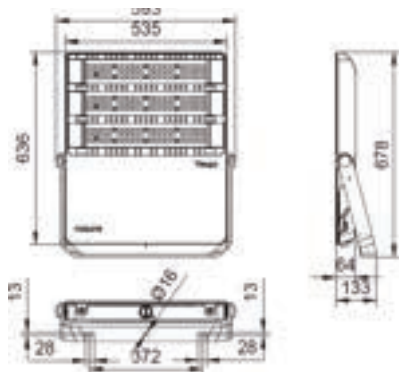
\* Initial CCT value, according to ANSI C78.377-2008

\*\* lower limit -5%

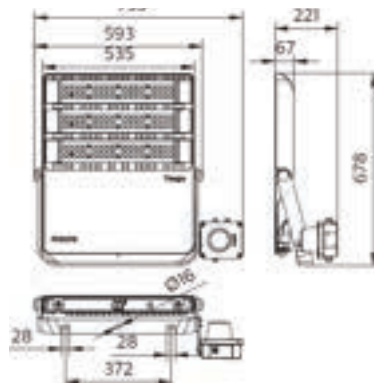
\*\*\* Options could be customized

## Product dimensions

**BVP384 base version**



**BVP384 with control IP box**



**EVP622 (DMX version)**



# SmartBright G2 LED floodlight

SmartBright G2 LED Floodlight delivers high lumen efficacy, with long lifetime and reliable design. Asymmetric optical distribution improves light effect. The product is an ideal solution for most floodlight applications.


## Features and benefits

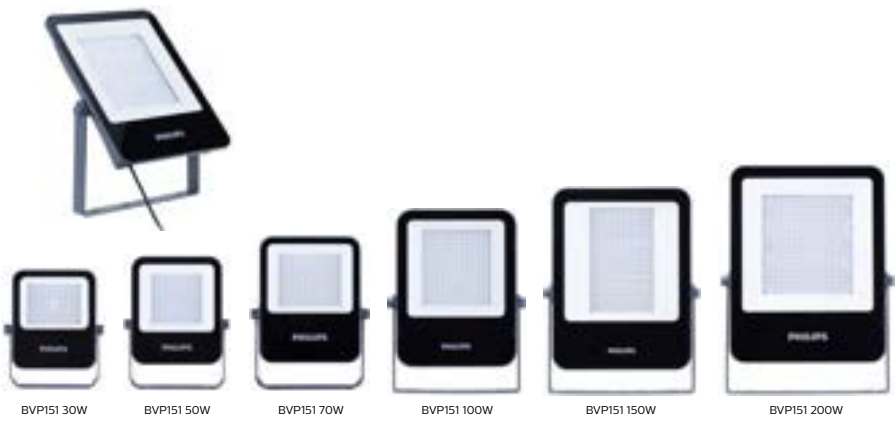
- High system efficacy, up to 100lm/W
- Long lifetime, 50Khrs lifetime @ Ta 25°C
- Robust design, die-cast housing, Front glass
- Multiple CCT options: 3000K/4000K/5700K
- Working temperature: -25°C to +40°C

## Application

- Architectural lighting
- Landscape lighting
- Billboard lighting
- Parking area lighting
- Amenity
- Security

## Technical specifications

50K hrs 



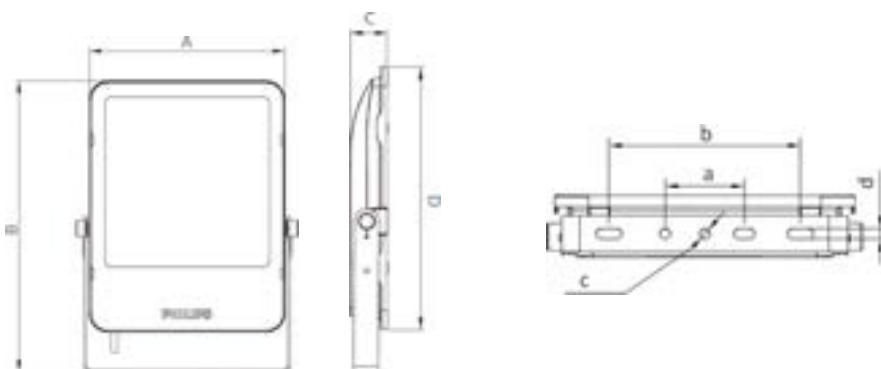
Product Family	SmartBright G2 LED Floodlight BVP151					
Configuration	30W	50W	70W	100W	150W	200W
System lumen * (lm)	3000 lm	5000 lm	7000 lm	10000 lm	15000 lm	20000 lm
Power factor	>0.9					
Surge Protection rating	2/2KV (DM/CM)			4/4KV (DM/CM)		
Beam angle	Asymmetrical Wide Beam (40° x 80°)					
CCT	3000K(WW)/4000K(NW)/5700K(CW)					
CRI	>80					
Operating temperature	-25°C to +40°C					
Lifetime	50,000hrs (L70B50@Ta25°C)					
IP/IK rating	IP65 / IK07			IP65 / IK08		



<b>Electrical class</b>	Class I					
<b>Input voltage</b>	220-240V, 50/60Hz					
<b>Connection cable</b>	600mm length flying cable					
<b>Mounting type</b>	Bracket mounting					
<b>Material and finishing</b>	Housing: Die-cast aluminum, powder coated dark grey(RAL7043) Front cover: Tempered glass Bracket: Steel, powder coated dark grey(RAL7043)					
<b>Weight</b>	0.8 Kg	1.45 Kg	1.98 Kg	3.28 Kg	5.02 Kg	6.26 Kg
<b>Certifications</b>	CE, CQC, CB, EMC, AS/NZS60598					

\* System lumen refers to typical lumen output of NW(4000K) product, it could result less lumen in WW(3000K) or higher lumen in CW(5700K).

## Product dimensions




Type	A	B	C	D	a	b	c	d
<b>BVP151 30W</b>	146	206	37	174	80	100	Ø 6.5	6.5
<b>BVP151 50W</b>	203	297	38	242	120	144	Ø 8.5	8.5
<b>BVP151 70W</b>	214	327	55	268	120	144	Ø 8.5	8.5
<b>BVP151 100W</b>	236	360	58	308	76.2	175	Ø 8.5	8.5
<b>BVP151 150W</b>	293	430	60	380	76.2	215	Ø 10.5	10.5
<b>BVP151 200W</b>	336	491	60	424	76.2	255	Ø 10.5	10.5
<b>BVP150 150W</b>	350	327.5	49.5	277	260	230	Ø 10.5	10.5
<b>BVP150 200W</b>	395	367	59	308	290	260	Ø 10.5	10.5

# Essential smartbright G3 LED Floodlight

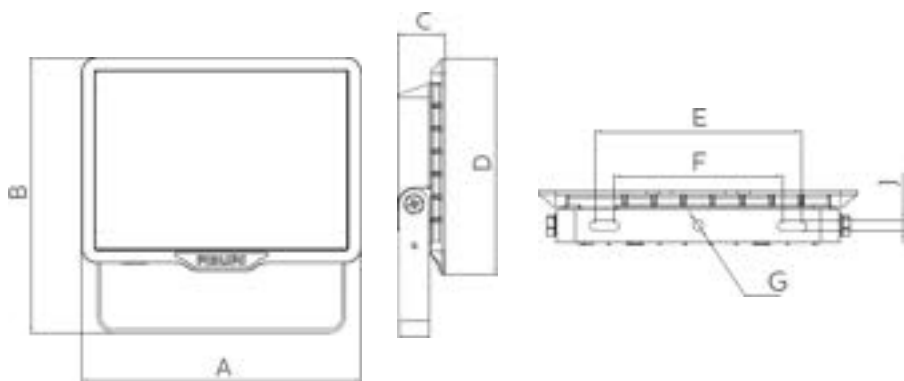
Essential SmartBright G3 LED floodlight comes with a compact and sturdy design. Its light weight with die-cast aluminum housing and corrosion-proof powder coating, suitable for general outdoor application. High efficiency designed with latest LED technology, achieves substantial energy savings comparing to conventional floodlights.

## Technical specifications

50K hrs 

Type	Essential SmartBright G3 – BVP150							
lumen output	850 lm	1700 lm	2550 lm	4250 lm	5950lm	8500lm	12750lm	17000lm
Power	10W	20W	30W	50W	70W	100W	150W	200W
PF	>0.9							
SDCM	<7							
CRI	80							
CCT	3000K / 4000K / 6500K							
Light distribution	SWB(110°)							
Voltage	220-240V~ 50/60Hz							
Surge protection	1KV/2KV					4KV/4KV		
LED driver	DoB design (driver on board)							
Connection (flying cable)	300mm				500mm	600mm		
Materials and finishing	Die-cast aluminum housing(black), Textured tempered glass							
Lifetime	20,000 hours (L70B50@25°C)							
Working Temp.	- 40°C < Ta < +50°C							
Electrical Class	Class I							
IP / IK rating	IP65 / IK06							
Certifications	CQC, CE, CB, EMC							

# Product dimensions



Type	A	B	C	D	E	F	G	J
BVP150 10W	115	117	28	92	76	60	Ø 4.4	4.4
BVP150 20W	140	133	28	110	80	60	Ø 4.4	4.4
BVP150 30W	170	168	29	130	110	90	Ø 4.4	4.4
BVP150 50W	200	181	33	145	114	90	Ø 6.5	6.5
BVP150 70W	245	220	36	185	154	130	Ø 8.5	8.5
BVP150 100W	290	278	42	226	200	170	Ø 8.5	8.5
BVP150 150W	350	327.5	49.5	277	260	230	Ø 10.5	10.5
BVP150 200W	395	367	59	308	290	260	Ø 10.5	10.5





# Professional UVC Disinfection

Real professionals count on Philips

- [Uvc upper air system wall](#)
- [Uvc upper air system ceiling](#)
- [Uvc air](#)
- [Uvc batten TMS030](#)
- [Uvc trolley \(single & double\)](#)
- [Uvc sensor batten](#)
- [Uvc chamber mini](#)
- [Uvc chamber medium](#)

# Absolute confidence, in a world of uncertainty

We are living in unprecedented times. In the face of a global pandemic, the world is demanding a proven and effective way to protect people from harmful micro-organisms.

Bacteria and viruses can cause a wide range of common infections. They can live in air, on surfaces and on objects, even after normal cleaning routines. That means any contamination left behind in the air we breathe and on the surfaces we touch can have a profound effect on our day-to-day health and wellbeing.

## **UV-C disinfection**

UV-C lighting disinfects radiated air and surfaces which contain bacteria and viruses and helps to reduce them from spreading further. All micro-organisms tested to date respond to UV-C lighting<sup>1</sup>.

## **Philips UV-C disinfection luminaires**

With 35 years of experience in UV-C lighting, we have built up strong application expertise. This has led us to develop a new range of UV-C disinfection luminaires and chambers, ideal for use in offices, retail outlets, factories, in hospitality areas, schools, public washrooms and even on modes of transport such as aircraft, buses and trains.

1 Fluence (UV Dose) Required to Achieve Incremental Log Inactivation of Bacteria, Protozoa, Viruses and Algae Revised, updated and expanded by Adel Haji Malayeri, Madjid Mohseni, Bill Cairns and James R. Bolton. With earlier contributions by Gabriel Chevrefts (2006) and Eric Caron (2006) With peer review by Benoit Barbeau, Harold Wright (1999) and Karl G. Linden.











“

Our test results show that above a specific dose of UV-C radiation, viruses were completely inactivated: in a matter of seconds we could no longer detect any virus.”

Dr. Anthony Griffiths, Associate Professor of Microbiology at Boston University School of Medicine



# Shining a light on UV technology

UV-C radiation is a known disinfectant for air, surfaces and objects that can help mitigate the risk of acquiring an infection.

## What is UV technology?

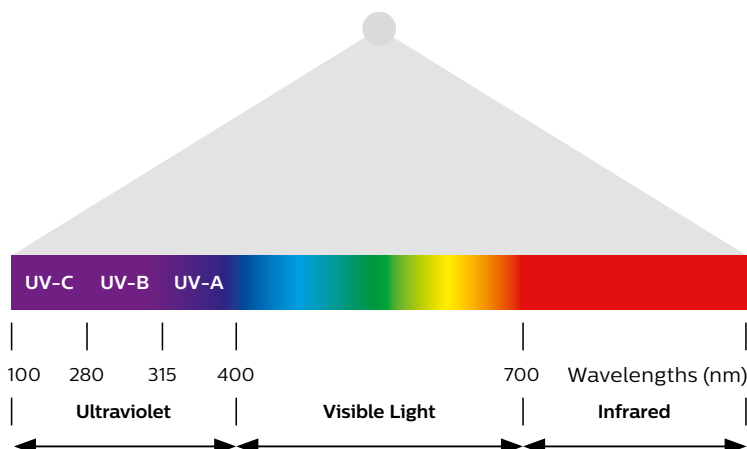
Ultra-Violet (UV) light is invisible to the human eye and is divided into UV-A, UV-B and UV-C.

UV-C is found within 100–280 nm range. The germicidal action is maximised at 265 nm. Philips Low pressure UV-C lamps have their main emission at 254 nm where the action on DNA is 85% of the peak value. As a result, our germicidal lamps are extremely effective in breaking

down the DNA and RNA of micro-organisms.

This means that they cannot replicate and cause disease<sup>2</sup>.

The technology has primarily been used in areas where there is a risk of microbiological contamination, and has been used safely and effectively for more than 40 years<sup>3</sup>.



<sup>2</sup> A comparison of pulsed and continuous ultraviolet light sources for the decontamination of surfaces. McDonald K.F., Curry R.D., Clevenger T.E., Unklesbay K., Eisenstark A., Golden J., Morgan R.D. IEEE Trans. Plasma Sci. 2000;28:1581–1587. doi: 10.1109/27.901237.

<sup>3</sup> EPA Report, "Building Retrofits for Increased Protection Against Airborne Chemical and Biological Releases" Pg. 56.



# Designed with safety in mind

## Correct usage

Our UV-C products are either provided with physically integrated equipment or time safeguards (such as presence or motion detection sensors or timers) or are to be installed together with the adequate containment safeguards to ensure that our UV-C products can be operated in line with the relevant safety standards.

UV-C disinfection luminaires that we provide without physically integrated equipment or time safeguards are meant to be used only as components in disinfection systems that contain the adequate safety safeguards such as, but not limited to, those indicated in the mounting

instructions and/or user manuals of such luminaires.

Warning: Plants and/or materials that are exposed to higher dosages of UV-C may become damaged and/or discoloured. For surface disinfection luminaires, ensure plants are not exposed to UV-C radiation. For using UV-C disinfection upper air, plants can be affected by UV-C radiation, whereby some plants are more sensitive than others. In tests, *Ficus Elastica* "Robusta", *Sansifera Laurentii* and *Peperomia Obtusifolia* showed good resistance to UV-C. Switch off luminaires when no disinfection is required.

# UV-C Services

## End-to-end Services Offer

The effectiveness and safe application of a UV-C solution starts with the right application design. We can support your business's UV-C project in the following key areas:



### Plan and design

Our team will assess your facility to identify potential areas for UV-C, customising a solution with the right light output, optimum installation position, mounting height, angle and system functionality.



### Build

For total peace of mind we provide end-to-end project management. We supply, deliver, install and commission your UV-C system, so you enjoy a smooth, seamless experience.



### Operate

We'll check your UV-C system is operating correctly on a regular basis, performing irradiation measurements, checking for faults and carrying out preventative checks.



### Maintain and optimise

We can also carry out maintenance and repairs, optimising your installation, verifying performance and providing fast replacements at the end of your UV-C light's useful life.



Direct exposure to UV-C is dangerous. Philips UV-C disinfection luminaires must only be sold through qualified UV-C partners and installed by professionals according to our stringent safety and legal requirements.





# Professional air, surfaces and objects disinfection

Everywhere it's needed

Philips UV-C disinfection luminaires can be used to disinfect air, surfaces and objects in a wide range of applications. These include hospitality areas, schools and public washrooms. In offices, retail outlets and factories. Even on modes of transport such as aircraft, buses and trains.

For more information on the benefits of Philips UV-C disinfection luminaires in your chosen application, please contact your local Signify representative.

# The power to protect in real-world applications



## Retail

Disinfecting shopping carts, shelves and counters



## Hair and beauty salons

Disinfect client rooms, floors, mirrors, chairs, counter surfaces and other sensitive areas



## Schools

Disinfect classroom walls, floors, desks and surfaces



## Offices

Disinfect work rooms, meeting spaces and corridors



## Banking

Disinfect counters, cash machines and work surfaces



## Hospitality

Disinfect guest rooms, reception areas and health club facilities



## Food outlets

Disinfect preparation surfaces and equipment



## Washrooms

Disinfect vanity units, basins and mirrors



## Transport

Disinfect interior and exterior surfaces of different vehicles and passengers' waiting spaces



# Philips UV-C disinfection luminaires **The power to protect**

We have more than 35 years of experience and expertise in developing and manufacturing UV-C products. Our Philips UV-C disinfection luminaires portfolio with UV-C lamps deliver on all the promises of UV technology.







## Designed for efficacy

All viruses and bacteria tested to date effectively respond to UV-C disinfection.<sup>4</sup> Our Philips UV-C disinfection upper air wall mount luminaires inactivated 99.99% of SARS-COV-2, the virus responsible for the COVID-19 disease, in the air of a room within 10 minutes. At 20 minutes, the virus was below detectable levels.<sup>5</sup>



## A lifetime of reliability

Made from durable, UV-C resistant materials, our UV-C solutions are designed to provide reliable disinfection over the useful long lifetime of the lamp and luminaire. This is supported by our stringent manufacturing and testing processes to guarantee the highest quality.



## Environmentally friendly

For added peace of mind, all our UV-C solutions are also environmentally friendly. We guarantee that no ozone gases will be emitted during or after use.



## Safety in mind

Philips UV-C products are delivered with a range of safeguards and instructions. They come with physically integrated equipment or time safeguards, such as presence or motion detection sensors or timers, or otherwise they are to be installed with containment safeguards to enable correct operation. In addition, we provide extensive training and certification programs to help ensure correct installation, usage and maintenance of our UV-C products.



## A wide range of applications

The Philips UV-C disinfection luminaires and components are innovative, high-quality solutions that are suitable for a wide range of applications. This includes upper air systems that disinfect passing air, as well as cabinets that are used to disinfect specific objects.

4 Fluence (UV Dose) Required to Achieve Incremental Log Inactivation of Bacteria, Protozoa, Viruses and Algae Revised, updated and expanded by Adel Hajj Malayeri, Madjid Mohseni, Bill Cairns and James R. Bolton. With earlier contributions by Gabriel Chevretils (2006) and Eric Caron (2006) With peer review by Benoit Barbeau, Harold Wright (1999) and Karl G. Linden.

5 According to results obtained from a laboratory test conducted by Innovative Bioanalysis, a CAP, CLIA, AABB Certified Safety Reference Laboratory, in a room with sufficient air circulation.

# UV-C lighting for commercial applications

Bacteria and viruses are transmitted through the air and via surfaces. We recommend to consider 3 main types of Ultraviolet Germicidal Irradiation (UVGI) using UV-C lighting for:



## Air applications

Viruses, bacteria, or fungi can be airborne, spreading through breathing, talking, coughing, sneezing, raising of dust or any activities which generate aerosol particles or droplets. Heating, cooling and air circulation in your spaces can further distribute airborne bacteria and viruses.



## Surface applications

When someone coughs or exhales, they release droplets of fluid. Most of these droplets fall on nearby surfaces and objects – such as desks, tables or telephones. If they are carrying a virus, staff could become infected by touching contaminated surfaces or objects, then touching their eyes, nose or mouth.



## Object applications

Viruses can live on surfaces for up to 5 days<sup>6</sup>, so devices which come into regular contact or are shared between people can provide a higher risk. Introducing a disinfection process to your daily cycle of item reuse or recharging helps ensure that viruses and bacteria are destroyed.

# Overview Philips professional UV-C disinfection luminaires

Philips offers a range of luminaires with compatible reflectors, lamps and drivers that are suitable for use in commercial applications.



## Air Disinfection solutions

### Philips UV-C disinfection upper air luminaires



Ceiling

Wall

### Philips UV-C disinfection air unit



Floor standing



## Surface Disinfection solutions

### Philips UV-C disinfection batten



Bare

Reflector

### Philips UV-C disinfection trolley



2 arm

### Philips UV-C disinfection linear luminaire with sensor



Sensor

### Philips Dynalite UV-C control systems



## Object Disinfection solutions

### Philips UV-C disinfection chamber



Mini



Small



Medium



Air  
Disinfection solutions

# Philips UV-C disinfection upper air

Airborne viruses and bacteria contaminate the air trapped indoors and can pose a real health threat. Upper air UV-C systems are powerful instruments to disinfect the upper air layers within rooms. Our Philips UV-C disinfection upper air wall mount luminaires inactivated 99.99% of SARS-COV-2, the virus responsible for the COVID-19 disease, in the air of a room within 10 minutes. At 20 minutes, the virus was below detectable levels.<sup>7</sup>

## Benefits:

- Optimised for low ceiling heights, the UV-C rays are distributed at device level and above.
- The beam of UV-C rays is controlled by specific reflectors and the louvre design. This allows for the disinfection of the air in a space, while ensuring that day-to-day business activities can continue underneath the area where the device is active.
- Radiates UV-C in the upper part of rooms, where it does not reach people directly.
- Quietly and effectively deactivates airborne viruses and bacteria with Philips UV-C (253.7 nm) lamps.
- Effective disinfection over the useful long lifetime of lamp and luminaire.
- Environmentally friendly – no ozone emissions during or after use.

## Features:

- Shortwave UV radiation peak at 253.7 nm (UVC).
- Louvres and reflector control the distribution of UV-C at the device level and above, where people are not usually present.
- Complies with IEC 62471 standard for photobiological safety.

## Philips UV-C disinfection upper air wall mounted

Designed for the disinfection of air in a variety of applications:

- Wall mounted installation.
- Philips T5 TUV lamp included: 25W.



<sup>7</sup> According to results obtained from a laboratory test conducted by Innovative Bioanalysis, a CAP, CLIA, AABB Certified Safety Reference Laboratory, in a room with sufficient air circulation.



## Philips UV-C disinfection upper air ceiling mounted

Designed to be installed on false ceilings for the disinfection of air in a wide range of applications.

- Surface mounted on false ceilings.
- Philips PL-S TUV lamp included: 4x9W.





Air  
Disinfection solutions

# Philips UV-C disinfection air unit

The Philips UV-C disinfection air unit is a powerful and effective way to disinfect circulating air. It draws air into the unit where UV-C radiation inactivates up to 90% of micro-organisms in 80m<sup>3</sup> within just 2 hours (circular coverage 28m<sup>2</sup>)<sup>8</sup>. With no need for mounting, the freestanding unit can be wheeled into place in a wide range of professional applications – from offices and retail to hospitality. The aesthetic design delivers well-controlled UV-C radiation (Risk Group 0) and can also be used when people are present.

## Benefits

- Achieves 90% air disinfection in 80m<sup>3</sup> in 2 hours<sup>8</sup>.
- Circular coverage of 28m<sup>2</sup>.
- No fixed installation or mounting required and replaceable in the room.
- Reliable and strong UV-C irradiance inner chamber.
- User-friendly interface with clear display and range of flexible options.

## Safeguard benefits

Mechanical safety and germicidal effectiveness validated by independent scientific reports:

- Specially-designed mechanical structure to control UV-C leakage and validated by independent scientific report<sup>9</sup>.
- Easy maintenance with display notification for spare parts.

## Features

- Housing material: anti UV plastic.
- Touch panel: timer button 30/60/120mins & On options, fan speed button with low, medium and high options, lock button to avoid unwanted operations, power on/off button.
- Display on user interface, which starts counting down on pre-set disinfection duration.
- Four wheels for portable & flexible movement.

<sup>8</sup> Guangdong Detection Center of Microbiology. Test conclusion: Turned the sample UV lamps on and the fan speed to maximum for a duration of 1 hour in a 10m<sup>3</sup> test chamber. The test was repeated 3 times. The detection result of the killing rate of staphylococcus while in the air was > 99.9%, which met the standard requirements of the Technical Standard for Disinfection (2002 Ministry of Health P.R.China).

<sup>9</sup> Guangdong Detection Center of Microbiology. Test conclusion: Turned the sample on maximum fan speed for testing, and after stabilisation, the ultraviolet radiation luminance collected at 30cm around the device was less than 5µ w/cm<sup>2</sup>, which met the requirements of GB 28235-2011 (safety and sanitary standard for ultraviolet appliance of air disinfection) -6.2.9.1.







Surface  
Disinfection solutions

# Philips UV-C disinfection batten

A fixed installation of luminaires on the ceiling is used at controlled times to fill a room or enclosed space with disinfecting UV-C radiation. Philips UV-C batten provides disinfection for high contact areas, such as meeting rooms, restaurants, supermarkets, washrooms and public buildings.

## Benefits:

- In laboratory testing, Signify's UV-C light sources reduced SARS-CoV-2 virus infectivity on a surface to below detectable levels in as few as 9 seconds<sup>10</sup>.
- Proven, effective disinfection over the useful long lifetime of lamp and luminaire.
- Environmentally friendly – no ozone emissions during or after use.

## Features:

- Lamp configurations possible: 1-lamp or 2-lamps version.
- Available: bare batten or with reflectors.
- Philips T8 TUV lamp included: 36W.
- Shortwave UV radiation peak at 253.7 nm (UVC).
- High reflective aluminium housing for better reflectivity and performance.



## Philips Dynalite control system

When using UV-C lighting, the safety of people is always the priority. That's why the Philips Dynalite UV-C automated control system is designed to help ensure safe and risk-free management and correct operation of UV-C for surface disinfection.

**Bare**



**Reflector**



10 Nadia Storm et al, *Rapid and complete inactivation of SARS-CoV-2 by ultraviolet-C irradiation*, 2020.  
Report available at <https://www.nature.com/articles/s41598-020-79600-8>. The UV-C irradiance used in this study was 0.849 mW/cm<sup>2</sup>.

### **Safety first - why controls**

The Philips Dynalite UV-C disinfection control system's multiple mechanical and network safeguards help prevent exposure to harmful UV rays while at the same time applying the appropriate UV-C dosage.

The control system includes safety mechanisms such as authorised activation, UV-C cycle about-to-start warning, movement sensors and emergency stop switches to deactivate in case of potential hazards.





Surface  
Disinfection solutions

# Philips UV-C disinfection trolley

The UV-C trolley is designed to disinfect professional surfaces within a coverage of 20m<sup>2</sup> square area or 36m<sup>2</sup> circular area. The two arm trolley achieves 3-log disinfection within 15 minutes and comes without a sensor. The trolley is ideal for offices, banks, schools, retail outlets, hair and beauty shops, and hospitality areas such as hotel guest rooms and restaurants. In the transport industry for example, this device could also work well if placed in a bus or train carriage, when there are no people or animals present. With 360° wheels, the two arm UV-C trolley is a flexible solution as it can quickly and easily be placed and repositioned in the room/space requiring disinfection.

## Benefits:

- The UV-C radiation of the trolley disinfects within prescribed time settings and offers a wide variety of lamp direction options and disinfection durations.
- Environmentally friendly as there is no ozone emission, and no residue during or after usage.
- Additional warning and protection solution with containment safeguard against unexpected exposure to UV-C radiation.

## Features:

- Safeguard controls include a timer to plan disinfection for a predefined period, remote control, and voice alarm.
- Philips UV-C lamps:
  - Two arm trolley: 4pcs TUC 30W
- Anti UV PC & Stainless Steel housing
- Buzzer & LED indicator: to assist in displaying the working status.
- Lock & Key: extra protection to avoid unauthorised persons operating the trolley.



Two arm



Surface  
Disinfection solutions

# Philips UV-C disinfection linear luminaire with sensor

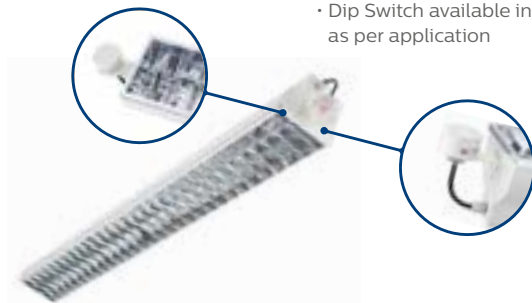
The Philips UV-C disinfection linear luminaire with sensor is designed for the disinfection of surfaces and is suitable for a wide range of applications. It provides universal UV-C irradiance with homogenous distribution. Its disinfection capability is based on wattage used and a specific exposure time for a given distance from that surface. The performance is enhanced by a highly-reflective and durable aluminium body, which improves efficacy even further and directs the UV-C light towards the surfaces to-be-irradiated. (within the safety range of the sensor)

## Benefits:

- Available with safeguard controls using sensor monitoring which makes it safe to use.
- In laboratory testing, Signify's UV-C light sources reduced SARS-CoV-2 virus infectivity on a surface to below detectable levels in as few as 9 seconds<sup>11</sup>.
- Proven, effective disinfection over the useful long lifetime of lamp and luminaire.
- Environmentally friendly - no ozone emissions during or after use.

## Features:

- Specially engineered mirror optics to cut off UV-C irradiation beyond the sensor range to avoid any accidental exposure beyond the coverage area.
- Philips T8 TUV lamp included: 36W.
- Shortwave UV radiation peak at 253.7 nm (UVC).
- Various mounting options.
- Specially designed mirror optics improve efficacy by average 90% by controlled distribution of the irradiance (Compared to UVC Batten with AI Cover)
- Dip Switch available in sensor for time settings as per application



<sup>11</sup> Nadia Storm et al, *Rapid and complete inactivation of SARS-CoV-2 by ultraviolet-C irradiation*, 2020. Report available at <https://www.nature.com/articles/s41598-020-79600-8>. The UV-C irradiance used in this study was 0.849 mW/cm<sup>2</sup>.



Object  
Disinfection solutions

# Philips UV-C disinfection chamber

An effective UV-C disinfection chamber for fast and environmentally friendly disinfection of objects. Suitable for a wide variety of uses in professional indoor environments (for bacteria & virus disinfection.)

## Benefits:

- In laboratory testing, Signify's UV-C light sources reduced SARS-CoV-2 virus infectivity on a surface to below detectable levels in as few as 9 seconds<sup>12</sup>.

## Features:

- Heavy-duty stainless-steel chamber
- Auto power off when the chamber is open ensuring no UV-C exposure to user
- Prefixed step timer for disinfection, easy to use, one touch operation
- Available in 2 sizes:
  - Small: height of 510 mm, 77 litres
  - Medium: height of 660 mm, 110 litres



Medium

Small

<sup>12</sup> Nadia Storm et al, *Rapid and complete inactivation of SARS-CoV-2 by ultraviolet-C irradiation*, 2020. Report available at <https://www.nature.com/articles/s41598-020-79600-8>. The UV-C irradiance used in this study was 0.849 mW/cm<sup>2</sup>.



Object  
Disinfection solutions

# Philips UV-C disinfection mini chamber

The Philips UV-C disinfection mini chamber provides the perfect solution for disinfecting the surfaces of small belongings, shared devices or objects touched by numerous people. These could include items such as a mouse, keyboard, headsets and remote controls etc. The lightweight and portable design allows the device to be used in a variety of professional applications - including office, retail and hospitality environments.

## Benefits

- Delivers 4-log disinfection rate up to 99.99% to ensure high effectiveness<sup>13</sup>.
- Easy to use touch panel to set and control disinfection time.
- Includes safeguards to prevent UVC exposure due to accidental door opening.

## Features

- Designed to disinfect all surfaces of the individual object with UV-C radiation coverage, thanks to embedded highly reflective metal plate.
- Philips 253.7nm UV-C tube emits no ozone during the operation.
- Size 470x440x400 mm - 48 litres



<sup>13</sup> Guangdong Detection Center of Microbiology, Report for Analysis. November 2020 China.





# Glossary

## of Terminology

### Average illuminance

---

Illuminance averaged over a specified surface.

Unit: lux (lx) = lm/m<sup>2</sup>

Symbol:  $E_{av}$

### Ballast

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Electrical device used with discharge lamps for stabilising the current in the discharge.

### Beam spread

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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

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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 colour.

### Candela

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The standard unit of light intensity, abbreviated to "cd", which is one lumen per steradian.

### Colour appearance

---

General expression for the colour impression received when looking at a light source.

### Colour change

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The facility to change the colour temperature of a lighting installation makes it possible to create a more comfortable working environment or to introduce dynamic lighting effects.

### Colour rendering

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Ability of a light source to render colours naturally, without distorting the hues seen under a full spectrum radiator (like daylight or incandescent lamps). The colour rendering index (CRI) ranges from 0 to 100.

### Colour rendering index CRI

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See Colour rendering. Symbol: Ra

### Colour temperature

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Temperature in kelvin of a full spectrum radiator closest to the colour appearance of a light source at the same brightness.

Unit: kelvin, K

Symbol: T<sub>c</sub>

### Contrast C (between two parts of a visual field)

---

The relevant luminance difference between two parts in accordance with the formula:

$$C = \frac{L_1 - L_2}{L_2}$$

Where the size of the two parts differs greatly and where:

L<sub>1</sub> = luminance of the smallest part (object)

L<sub>2</sub> = luminance of the largest part (background).

### DALI

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Digital Addressable Lighting Interface, a standardised communication interface to regulate lighting levels and to switch electronic HFD ballasts on and off.

### Daylight linking

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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

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Optical element used to mix light rays to improve uniformity or reduce glare. An opal cover is an example of a diffuser.

### Direct lighting

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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.

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### Disability glare

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Glare that impairs vision.

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### Discomfort glare

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Glare that causes discomfort without necessarily impairing vision.

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### Dust-proof luminaire

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Luminaire constructed so that dust of a specified nature and fineness cannot enter when it is used in a dust-laden atmosphere.

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### Emergency lighting

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Lighting provided for use when the supply to the normal lighting fails.

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### Escape lighting

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That part of emergency lighting provided to ensure that an escape route can be effectively identified and used in the case of failure of the normal lighting system.

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### Flashed area

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The light of a luminaire in a given direction. The area of the orthogonal projection of the luminous surface on a plane perpendicular to the specified direction.

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### Fresnel lens or reflector

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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.

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### Glare

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Condition of vision in which there is discomfort or a reduction in the ability to see significant objects, or both, due to an unsuitable distribution or range of luminance or to extreme contrast in space or time.

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### Halogen lamp

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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 colour temperature and a significantly extended life.

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### Horizontal illuminance (Ehor)

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Illuminance incident on the horizontal surface.

Unit: lux (lx) = lm/m<sup>2</sup>

Symbol:  $E_{av}$

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### 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 2000 lux for detailed or critical work.

Unit: lux (lx) = lm/m<sup>2</sup>

Symbol:  $E_{av}$

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### Incandescent lamp

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Lamp in which light is produced by means of an element heated to incandescence by the passage of an electric current.

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### Indirect lighting

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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.

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### Induction lighting refractor

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Optical element used to concentrate light rays to focus or improve the direction of light. A prismatic cover is an example of a refractor.

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### 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.

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### Isocandela curve (diagram)

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Curve traced on an imaginary sphere with the source at its centre and joining all adjacent points corresponding to those directions in which the luminous intensity is the same, or a plane projection of this curve.

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### Isolux curve (diagram)

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Locus of points on a surface where the illuminance has the same value.

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### Jet-proof luminaire

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Constructed to withstand a direct jet of water from any direction.

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### LED

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Light Emitting Diode used as a light source. Solid-state semiconductor device that converts electrical energy directly into light of a specific colour or white light.

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### 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.

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### Low-pressure sodium lamp

Sodium vapour lamp in which the partial pressure of the vapour during operation does not exceed 5 Pa – for example: a SOX lamp.

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### Lumen depreciation

The decline in the light output of a light source during its lifetime.

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### 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.

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### Luminance

The light intensity per square metre 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/m<sup>2</sup> | 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*

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### 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:  $\phi$*

---

### 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*

---

### Luminous intensity distribution diagram (table)

Luminous intensity shown in the form of a polar diagram, cartesian diagram or table, in terms of candelas per 1,000 lumens of lamp flux.

The diagram (table) for non-symmetrical light distributions gives the light distribution of a luminaire in at least two planes:

1. In a vertical plane through the longitudinal axis of the luminaire,
2. In a plane at right angles to that axis.

*Note: The luminous intensity diagram (table) can be used:*

- a. To provide a rough idea of the light distribution of the luminaire.
- b. For the calculation of illuminance values at a point.
- c. For the calculation of the luminance distribution of the luminaire.

---

### Lux

The standard unit of illuminance of a surface being lit. One lux equals one lumen per square metre.

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### 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.

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### Maintained illuminance (luminance)

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<sub>m</sub> , L<sub>m</sub>*

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### 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.

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### 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.

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### Non-maintained emergency lighting

Emergency lighting where the emergency lighting lamps come into operation only when the power supply to normal lighting fails.

---

### Obtrusive light

Spill light which because of quantitative, directional and spectral attributes in a given context, gives rise to annoyance, discomfort, distraction or a reduction in the ability to see essential information.

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### 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.

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### 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.

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### 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, that no additional phase compensation required.

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### 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 colours of a light source.

---

### Sky glow

The brightening of the night sky that results from the reflection of radiation (visible and non-visible), scattered from the constituents of the atmosphere (gas molecules, aerosols and particulate matter) in the direction of observation. It comprises two separate components as follows:

- a. Natural sky glow: That part of the sky glow which is attributable to radiation from celestial sources and luminescent processes in the earth's upper atmosphere.
- b. Man-made sky glow: That part of the sky glow which is attributable to man-made sources of radiation (e.g. outdoor electric lighting), including radiation that is emitted directly upwards and radiation that is reflected from the surface of the earth.

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### Solid-state lighting eg. LED

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).

---

### Spill light (stray light)

Light emitted by a lighting installation which falls outside the boundaries of the site for which the lighting installation is designed.

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### 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.

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### Threshold increment (TI)

The measure of disability glare expressed as the percentage increase in the contrast required between an object and its background for it to be seen equally well with a source of glare present.

---

*Note: Higher values of TI correspond to greater disability glare.*

### **Uniformity ratio**

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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/m<sup>2</sup>*

Symbol: E<sub>v</sub>

### **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



We strive to make the world a better place. We do this by enhancing people's lives with light. We use the transformative power of light to make people safer – providing quality light in public spaces and at home. We use light to make people happier – light that can dazzle, delight, inspire, inform and entertain; as well as make cities more livable and satisfy people's daily needs. We provide lighting to help make people more productive – providing the right light for the right task; light to help people concentrate better; lighting that saves energy and reduces the cost of maintenance, light that helps improve decision making, improves crop yields, even light that can help you to locate a product in a supermarket.

Our brand starts with you. We create technologies that improve your life. Each product, system and service that carries the Philips brand answers a need. We deliver innovation that matters to you.

**For innovative lighting solutions please contact our sales team on 011 844 8900 or email us on [projects-sa@signify.com](mailto:projects-sa@signify.com)**

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