# Philips Lighting, leading the LED Lighting transformation

## Market Share Leadership of the Year in the Indian LED Lighting Market – 2013

Frost & Sullivan presents the 2013 Market Share Leadership of the Year Award in the LED Lighting Market to Philips Electronics India Limited for demonstrating excellence by capturing the highest market share within the Indian LED Lighting Market by achieving highest sales revenues amongst all competitors.

## PHILIPS

Philips was leading revenue generation in the LED Lighting market with their 2012 sales exceeding 2011 by 83 percent as the company continued its dominant position of the past few years despite the market's exponential growth. With solutions across segments like indoor, outdoor, automotive, railways, and street lighting, the company has strengthened its leadership position by introducing a cost reduction program for LED lamps. For a towering 17 percent market share in the LED lighting market in 2012, Philips Electronics India Ltd. is the winner of the Frost & Sullivan Market Share Leadership award in the Indian LED Lighting market.

Learn more about Philips at
**http://www.lighting.philips.co.in/index.wpd**
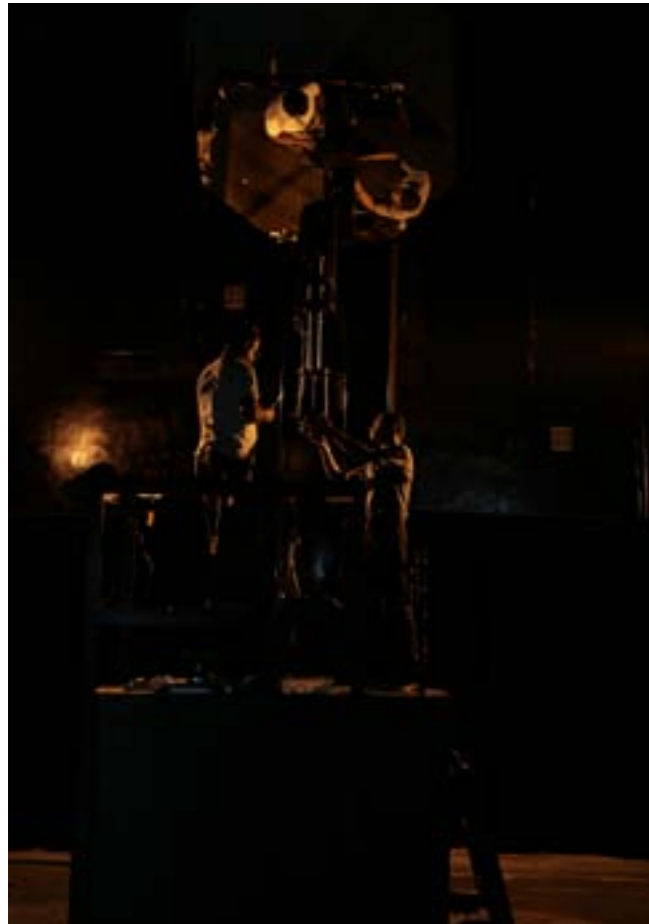
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**2013** BEST PRACTICES AWARD

Market Share Leadership of the Year in the LED Lighting Market

Learn more about Frost & Sullivan at **www.awards.frost.com**

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# Journey of LEDs
# at Philips

## Luminaire research and design centre

The brightest brains in the country work together on the latest technology platforms to develop the most optimised solution for the customer using cutting edge design software and analysis tools. The design centre is equipped with the state of the art measurement, simulation and validation facility to check the designs, prototypes, safety and protection parameters and finally, the finished products at every step, from conceptualisation to delivery.



Gonio-photometer in the photometric lab



PCB ocular inspection



Thermal testing

### Photometry lab
State of art facility (one of the biggest lab in Asia) for photometric measurements using rotating mirror type Gonio-photometer.
It is used to measure the light distribution of luminaires in a 3 dimensional space. The measurements may be used to derive photometric characteristics and is transformed for publication in graphical form such as polar curve. This is the most appropriate type of Gonio-photometer for measuring LED Luminaires with more than 98% accuracy.

### LED drivers and solar charge controller development lab
The lab is fully equipped for CE compliance testing of electronic drivers and solar charge controllers for LED modules. Testing facilities incorporate all IEC standards defined for solar and LED drivers and controls. Test facilities and equipments to monitor performance, safety, surge, EMI-EMC, thermal management, solar panel simulators etc. are used by the team of highly skilled professionals to deliver the best product in the industry.



LED drivers and solar charge controller development lab

### Thermal and electrical lab
Luminaires are tested here as per IEC and IS standards. Fully equipped to conduct tests for thermal endurance, high voltage and insulation resistance, heat-fire-tracking, electrical performance measurement, switching cycle tests. This lab is instrumental for endorsement of product quality.

### Dust ingress and water ingress facility
IP66 marking on luminaires imply ingress protection from dust and moisture, which is very important to ensure constant quality of light output. All products are rigorously tested for protection against dust and water, followed by electrical safety tests viz. high voltage and insulation resistance. The facility covers entire range of ingress protection and is instrumental for customer acceptance tests.



Thermal and electrical lab



Dust testing                    Rain chamber

# Applications of LEDs



| Office | Industry | Outdoor | Retail | Hospitality |

# LEDs in office

We offer a complete portfolio of LED lighting products and solutions for various application areas within an office. From open office areas to meeting rooms and other areas, our range of general lighting, functional lighting and task lighting solutions, meet your need.

### The office of the future

Specifically designed to meet the needs of people in offices, our new portfolio makes a serious statement about innovation, design and sustainability. It gives you the opportunity to seize the moment and help shape the office of the future, at the same time creating comfortable office spaces that are a pleasure to work in.

### Creative freedom

As the global market leader in lighting, Philips is at the cutting edge of innovation and design. Nowhere is this more apparent than in LED lighting. The very nature of LEDs offers so much more scope for new ideas and their compact size means even more creative freedom in luminaire design. What's more, because they're electronic devices you can control them with great precision to create the right ambience to suit needs, moods or tasks.

### Design innovation

Not surprisingly, all this creative freedom has spawned a new wave of office lighting solutions. For example, our DayWave concept, with its graceful curves, adds more than a touch of elegance to any office. New concepts such as DaySign and DayZone extend the possibilities even further, while the range of controls brings ease of use to the workplace.

### Green light thinking

Our new complete portfolio has also given the green light to sustainability and an explicit 'GO' to energy saving of up to 85%. Our LED lamps and luminaires set new standards in watts consumed per square meter, especially when combined with our lighting controls. Compliant with all office norms, LEDs also eliminate the need for hazardous substances and because they are designed to last up to three times longer, they create even more savings in terms of reduced spending on maintenance.

### The perfect portfolio

Offices require more than just illumination. They need creative lighting solutions that inspire ideas and make a statement, improve well-being and safeguard resources. Our LED portfolio does exactly that with stylish solutions for every workplace application. We provide truly sustainable ways to improve life in the office, without harming the planet.

# Reception

Light has the power to set the mood from the moment visitors walk into your reception. Our LED products are beautifully designed to create the most dramatic effects, from undulating waves of light, to crystal clear accents, and soft, colorful ambiences. Whether your office style is funky or functional, we have the right LED products for you.

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LuxSpace HE
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# Open plan office

Open plan offices are now far more dynamic. We believe that office lighting should be as well. Create a comfortable ambience that responds to natural light levels, switch lights off automatically when they're not needed. With our smart solutions it's easy to create the most inspiring light effects without compromising on the quality of light. And because they're designed to be highly-efficient, they'll even make your energy bills look good.

DayWave
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Sereno LED
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GreenSqaure
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Cirrus
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# Office Cabins

Cell offices and internal rooms that lack natural light require lighting more often and thus incur higher energy costs. Our intelligent solutions reduce energy consumption with luminaires that react to natural light, lighting controls* that glow on approach and sensors* that switch lights off when no one's around. You can now work smarter and save significantly on energy costs.

FullGlow
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*For more information on controls and sensors please visit http://www.lighting.philips.com

# Meeting rooms

Lighting has a profound effect on the way people feel. Tailor it to the task at hand and you can make your meeting room a far more effective space, enhancing wellbeing, creating excitement or providing an air of quiet calm. Our innovative solutions take LED lighting to new levels of sophistication. Clever features bring out the best in your meeting room and the people who use it.

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''The decision to fit out the entire third floor of our office with LED lighting was one of the best of the year. We're also making clear energy savings through the innovative lighting management. In addition, our colleagues feel great in the new atmosphere and are more motivated than ever.''

- Property Management, Audi AG Neckarsulm

## Customer requirement

Light quality, quantity and controllability similar to conventional fluorescent lighting systems since a good, productive atmosphere in the entire office space was essential.

## What Philips offered



PowerBalance



LuxSpace

PowerBalance 2x2 and LuxSpace, LED lighting solutions

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Good lighting levels.
• Long life.

**Design agency**
**Reggs**
Amsterdam,
The Netherlands

''Practise what you preach. If you are going to
promote sustainable business then you really
ought to make sure the lighting is an 'illuminating
example' as well.''

- Thomas Schuurmans, New business developer at Reggs

## Customer requirement

Use light to create a cosy, friendly atmosphere and at the
same time retain the industrial character of the space.

## What Philips offered

LED bulb

Master glow LED bulb

## Results

• Creative atmosphere
• Energy saving
• Low maintenance
• Eco friendly

## Eternal Heart
## Care Centre (EHCC)
Jaipur, India

"I wanted our hospital to be perceived moreas a hospitality hospital which could provide a very comfortable environment to patients. I was very clear from day 1 that I will go for the best products. When it came to lighting, we chose Philips LED lights"

-Mrs. Manju Sharma, Managing Director, EHCC

## Customer requirement

Best LED lighting which could provide a very comfortable environment to patients.

## What Philips offered

GreenLED

GreenLED, LED downlights

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Long life.
• Zero mercury.

**citi**

**Citibank**
Gurgaon, India

## Customer requirement

Lighting solutions which reduce energy costs without compromising on lighting quality.

## What Philips offered

| Sereno | LEDO |
|--------|------|

Sereno 2x2 luminaires and LEDO LED downlighters

## Results

• Energy efficient lighting.
• 2'x2' light fittings reduced by 24% and downlighters by 27 nos.
• Overall average illumination level on work-stations improved from 200 lux to 430 lux.
• Long life and maintenance free operation.

**HCL Technologies**
Gurgaon, India

"This is the first time HCL has done a green building for office use. Energy consumption for the whole building was an issue, including lighting. We were looking for low density lighting throughout the building, including outdoor areas, so that we are able to save lot of energy for achieving LEED certification. For achieving this, we were looking for a lighting partner and got the answer in Philips."

- Mr. Pranab Nandy, General Manager – Projects, HCL Technologies

## Customer requirement

Energy efficient lighting with good lighting levels in order to achieve LEED certification.

## What Philips offered

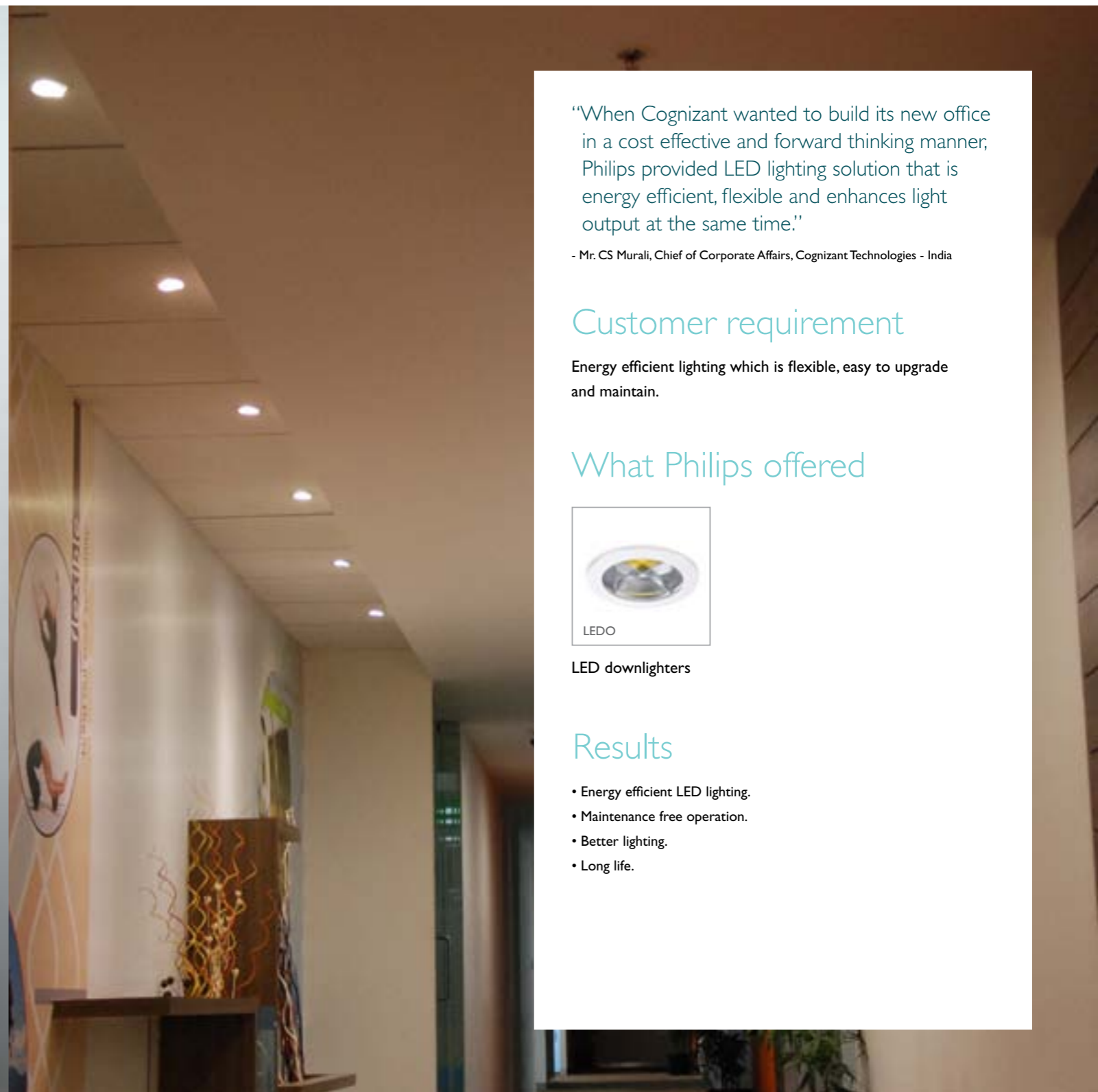

| Sereno | FBH145 | RoadStar |

Sereno TL5 luminaires, FBH145 downlighters and RoadStar LED street lights

## Results

• Energy efficient lighting.
• Good lighting levels.
• Improved visual comfort.
• Long life.

**Cognizant Technologies**
Bangalore, India

"When Cognizant wanted to build its new office in a cost effective and forward thinking manner, Philips provided LED lighting solution that is energy efficient, flexible and enhances light output at the same time."

- Mr. CS Murali, Chief of Corporate Affairs, Cognizant Technologies - India

## Customer requirement

Energy efficient lighting which is flexible, easy to upgrade and maintain.

## What Philips offered

LEDO

LED downlighters

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Better lighting.
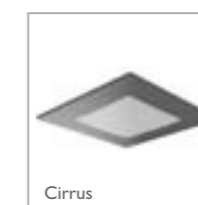• Long life.

**Akshaya Pvt. Ltd.**
Chennai, India

''We strongly believe in proposing green and sustainable solutions to our clients. As a developer, if we don't practice what we preach, there is no meaning. Also, we always go for the best brand while choosing any solution. Hence, we went for Philips LED lighting solutions.''

- Mr. T Chitty Babu, Chairman & CEO, Akshaya Pvt. Ltd.

## Customer requirement

Energy efficient LED lighting solutions.

## What Philips offered

| Cirrus | GreenLED |

Cirrus 2x2 and GreenLED, LED lighting solutions

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Long life.
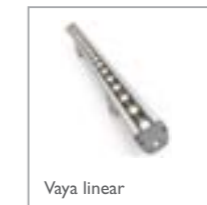• Good lighting levels.

## Orbit Arya
Mumbai, India

''I always think ahead, and wanted to use LED lighting for my dream project. When you look for quality lighting, the first name that comes to mind is Philips. After lot of internal discussions, we chose Philips Color Kinetics Vaya LED lighting system. We are happy that this product has met our requirements.''

- Mr. Ravi Kiran Aggarwal - Chairman, Orbit Group of Companies

## Customer requirement

LED lighting solution that could enhance the look of the facade of the building.

## What Philips offered



Vaya linear

Color Kinetics Vaya LED lighting system

## Results

• Energy efficient LED lighting.
• Sleek aesthetics.
• Good light output.
• Long life.

# GreenLED

**DESIGN REGISTERED**



Variant

## General description

GreenLED combines modern product design, latest LED technology and reliable heat management to deliver a long lasting, efficient and cost effective solution for offices and retail spaces.

## Features

- 50%* energy saving
- 5 times more life over CFLs
- Long life of 40000* hours

| Specifications | |
| --- | --- |
| Type | BBS170 |
| Light source | Philips Rebel ES |
| Lumen output | 850lm |
| Light color | 5000K/4000K |
| Power consumption | 15W |
| Voltage | 170-270V AC 50 Hz |
| Optics | High efficiency optics with high reflective diffuser providing efficient glare free lighting |
| Driver | Non-integral constant current electronic driver with a gear tray |
| Color | White |
| Lifetime | 40000 burning hrs. (At L70) |

# GreenLEDi



Available in 1500, 1200, 900 and 600 lumen

Variants

## General description

GreenLEDi range is a breakthrough offering which combines modern product design, the latest LED technology and reliable heat management to deliver a long lasting efficient solution for offices and retails spaces. Offering substantial energy savings compared to CFL/halogen, good light quality, complete stylistic freedom and significant maintenance savings, the product is an ideal value for money replacement for conventional solutions.

## Features

- 50%* energy saving
- 5 times more life over CFLs
- Long life of 40000* hours

| Specifications | GreenLEDi600 DN 191B | GreenLEDi900 DN192B | GreenLEDi1200 DN193B | GreenLEDi1500 DN194B |
| --- | --- | --- | --- | --- |
| LED engine | DLED Micro | DLED Mini | DLED Compact | DLED Power |
| Lumen package | 6500K - 650<br>4000K - 600<br>3000K - 600 | 6500K - 1000<br>4000K - 900<br>3000K - 900 | 6500K - 1200<br>4000K - 1100<br>3000K - 1100 | 6500K - 1650<br>4000K - 1500<br>3000K - 1500 |
| CRI | >70 | >70 | >70 | >70 |
| CCT | | | | |
| | Warm white: 3000K | Warm white: 3000K | Warm white: 3000K | Warm white: 3000K |
| | Neutral white: 4000K | Neutral white: 4000K | Neutral white: 4000K | Neutral white: 4000K |
| | Cool Daylight: 6500K | Cool Daylight: 6500K | Cool Daylight: 6500K | Cool Daylight: 6500K |
| Power (4000K) | 10W | 15W | 18W | 24W |
| Voltage | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz |
| Driver | Constant current integrated driver | Constant current integrated driver | Constant current integrated driver | Constant current integrated driver |
| Optics | High quality diffuser | High quality diffuser | High quality diffuser | High quality diffuser |
| Cut-out size | Ø 88mm | Ø 135mm | Ø 135mm | Ø 172mm |
| Material | heat sink: die-cast | heat sink: die-cast | heat sink: die-cast | heat sink: die-cast |
| | diffuser: High Efficiency | diffuser: High Efficiency | diffuser: High Efficiency | diffuser: High Efficiency |
| | reflector: PC | reflector: PC | reflector: PC | reflector: PC |
| | clip: steel | clip: steel | clip: steel | clip: steel |
| Installation | Spring Clip | Spring Clip | Spring Clip | Spring Clip |

# Sereno LED

Variant

## General description

Philips Sereno, a range of office luminaires with a wide range of optics specially designed to meet the highest standard of work place lighting. Sereno luminaires offer the latest technology for high comfort and optical efficiency in a miniature profile. Sereno is available in surface/suspended and wall mounted versions in a variety of dedicated optics such as D8 Mirrors, Opal Diffuzer and indirect optics. Sereno offers the best combination of performance, energy efficiency, asthetics and flexibility of designing.

## Features

- Consistent light output
- Energy efficient
- Low maintenance
- Ultra flat light with only 47mm in height

| Specifications | |
| --- | --- |
| Type | RC869 / SP824 |
| Light source | Non- Replaceable LED boards (33x8) LED's |
| Lumen output | 3275 lm |
| Light color | White |
| Power consumption | 42W |
| Voltage | 220-240V |
| Optics | High Efficiency OPAL Diffuser (OD) Transitivity > 87% |
| Gear | Constant Current Electronic Gear<br>PF > .9<br>Efficiency > 85%<br>THD < 25% |
| Material | • Extruded Aluminum Housing<br>• CRCA Front frame with High efficiency Opal Diffuser |
| Color | White |
| Installation | • Directly Onto RCC Ceiling with the help of special accessories.<br>• Suspended Through ZPS524 SMS |

## General description

PowerBalance is a premium LED luminaire which offers a comfortable working environment and at the same time complies with office lighting norms. It consumes significantly less energy while offering longer life, resulting in lower operational cost compared to traditional luminaires.

## Features

- Consistent light output
- Long life of 50000* hours
- CRI >85

| Specifications | |
| --- | --- |
| Type | PowerBalance |
| Light source | LED 31S , LED 40S |
| Lumen output | 3100lm<br>4000lm |
| Light color | Neutral white: 4000K |
| Power consumption | 38W/50W |
| Voltage | 220V-240V AC 50Hz |
| Driver | Philips - Xitanimum high voltage driver |
| Optics | Smart pyramid optics made out of anti-static plastic reflector with diffuser |
| Material | CRCA housing with metal rim with anti-static plastic reflector (extreme high reflectivity) |
| Color | White |
| Lifetime | 50000 burning hrs. (At L70) |
| CRI | >85 |

*Conditions apply

# FullGlow



## General description

FullGlow is a beautifully designed luminaire which is bound to delight the occupants with refreshing and comfortable experience through its pure form and glare-free light. It comes in two versions - standard and high efficiency version. With upto 30%* energy savings and maintenance free operation, this product is an owner's delight. This luminaire conforms to key quality demands of office lighting (UGR< 19, L65 <1000 cd/m$^2$, Ra= 80 at CCT 4000°K and 6500°K).

## Features

- >30%* energy saving
- Maintenance free
- Long life of 50000* hours
- CRI = 80/70

| Specifications | | |
| --- | --- | --- |
| Type | FullGlow Standard | FullGlow High efficiency |
| Light Source | MIDFLUX LED | MIDFLUX LED |
| Lumen OP | 2600 | 3100 |
| Light Color | 4000K/6500K | 4000K/6500K |
| Power Consumption | 40W | 40W |
| Voltage | 220-240V AC, 50/60 Hz | 220-240V AC, 50/60 Hz |
| Driver | Electronic In-Built PF > .9 , THD < 33% , IEC Compliant for Safety , Performance & EMI | Electronic In-Built PF > .9 , THD < 33% , IEC Compliant for Safety , Performance & EMI |
| Material | Housing : Metallic CRCA powder coated body Diffuser : high efficiency opal diffuser | Housing : Metallic CRCA powder coated body Diffuser : high efficiency Lumio Diffuser |
| Installation | Recessed | Recessed |
| Color | White | White |
| CRI | 80/ 70 | 80/ 70 |

# Cirrus



## General description

Cirrus is an office general lighting solution which offers excellent energy saving and maintenance-free operation. This luminaire has a slim design which is suitable for recessed mounted application for office spaces. Powered by a long lasting LED light source and high efficiency optical system, this luminaire offers uniform and uninterrupted lighting.

## Features

- 45%* energy saving
- Long life of 50000* hours
- Uniform illumination
- CRI >80

| Specifications | |
| --- | --- |
| Type | CIRRUS 43W |
| Light source | Mid flux LED |
| Lumen output | 3300lm |
| Light color | Neutral White -4000K/ 5000K |
| Power consumption | 43W |
| Voltage | 220-240V AC 50 Hz |
| Driver | Constant current driver |
| Optics | High efficiency powder coated refletors and high transitivity opal diffuser cover |
| Material | Powder coated CRCA housing CRCA front frame. |
| Color | Grey / white |
| CRI | >80 |

# GreenSquare

## General description

Office lighting should be advanced, energy efficient and one which complements interiors. GreenSquare, Philips LED luminaire, is specially developed to meet all such office requirements. It consumes significantly less energy and offers longer life, resulting in lower operational cost*. GreenSquare LED solution offers an attractive TCO over conventional solutions.

## Features

- 40%* energy saving
- Long Life of 40000* hours
- Maintenance free
- Eco-friendly

| Specifications | |
| --- | --- |
| Type | RC104B |
| Light source | Mid flux LED |
| Lumen output | 2900lm |
| Light color | 6500K |
| Power consumption | 39W |
| Voltage | 220V-240V AC 50Hz |
| Driver | Constant current electronic driver |
| Optics | Diffused |
| Material | CRCA housing, polycarbonate diffuser |
| Color | White |
| CRI | >70 |

# LumiStone

## General description

LumiStone is a LED luminaire consisting of two smaller ellipses rather than the traditional single voluminous piece. The ellipses have soft curvatures and resemble smooth stones found in nature. The flexible light effects created with direct and indirect light make LumiStone the perfect choice for inspiring lighting designs. With cutting-edge LED technology, LumiStone is also highly energy-efficient, delivering immediate savings on operational costs. A range of innovative mounting options make LumiStone extremely versatile in application.

## Features

- Consistent light output
- Long life of 50000* hours
- CRI >80

| Specifications | |
| --- | --- |
| Type | SP520P /SP524P/ SP522P /SP526P |
| Light Source | Non replacable LED module |
| Lumen output | 2000 /4000 Lumen |
| Light Color | 3000K / 4000 CCT |
| Power Consumption | 30W & 40W |
| Voltage | 220–240V AC 50 Hz |
| Driver | Constant current driver along with option for DALI dimmable driver |
| Optics | 1. Direct lighting<br>2. Combination of direct and indirect lighting |
| Material | Polycarbonate housing |
| Installation | Suspended |
| Color | White |
| Lifetime | 50000 Burning Hrs (At L70) |
| CRI | >80 |

# Stratus

# Arcus

## General description

Stratus is a suspended up-down LED lighting luminaire. It seamlessly integrates with the interior of your office with its end to end mounting features.

## General description

Arcus is a suspended LED Luminaire which gives freedom to create installation beyond the general norm. Arcus can be easily connected in grids, end to end and at an angle of 90 and 120 degrees. This high efficiency luminaire is suitable for both Office and Retail applications.

## Features

- Consistent light output
- Maintenance free
- CRI >80
- Long life of 50000* hours

## Features

- Upto 50%* energy saving
- Maintenance free
- CRI >80
- Long life of 50000* hours

| Specifications | |
| --- | --- |
| Type | Stratus Pendent Mounted |
| Light Source | MIDFLUX LED |
| Lumen OP | 4400 lm ( 3300lm UP / 1100lm DN) |
| Light Color | 4000K/5000K |
| Power Consumption | 54W |
| Voltage | 220-240V AC, 50/60 Hz |
| Driver | Electronic In-Built<br>PF > .9 , THD < 20% , IEC Compliant for Safety, Performance & EMI |
| Material | Housing : Extruded Aluminium<br>Diffuser : high efficiency opal diffuser |
| Installation | Pendent Mounted |
| Color | Grey/ White |
| CRI | >80 |

| Specifications | |
| --- | --- |
| Ceiling Type | Pendent Mounted |
| Light source | MIDFLUX LED |
| Wattage | 15W & 24W |
| Luminous Flux | 1280Lm & 2000Lm |
| Color Temperature | 6500K |
| Efficacy Lm/w | > 70 Lm /w |
| CRI | >70 |
| Mains Voltage | 220-240v , 50/60 Hz |
| Material | Housing : AL Extruded channel<br>diffuser : PC clear + PC white |
| Color | Silver Grey  End Caps + Silver anodized AL body |
| Installation | Suspension Mounting with the help  of aircraft Cable |

*Conditions apply

*Conditions apply

# DayWave

## General description

Philips DayWave represents a milestone in design of office luminaires that makes your office really stand out. DayWave is designed to create an ambience that is inspirational, pleasant to work in, as well enancing wellbeing and performance. The natural rhythm of the waves of light can be combined flexibly to suit a variety of office spaces. An intuitive lighting control enables office users to adjust light output and tone to their personal taste.

## Features

- Breakthrough and unique design
- Consistent light output
- Long life of 50000* hours

| Specifications | | |
|---|---|---|
| | Dynamic BPS800 | Mono Color BPS800 |
| Light source | Warm white/Cool white Version: 2x96xLED-HP | Neutral white version: 96xLED-HP Warm white version: 96xLED-HP |
| Light color | 3000-5500K (3000-5500) | Warm white: 3000K (3000) Neutral white: 4000K (4000), on request |
| | Indirect blue light (BLL) Note: indirect blue light can only be used when the white light is switched off | |
| Luminous flux | Acrylic cover(AC-MLO): 3400lm(3000K) 4450lm(4000K) 4300lm(5500K) Polycarbonate cover(PC-MLO): 3800lm(3000K) 4900lm(4000K) 4750lm(5500K) | Acrylic cover (AC-MLO): 3400lm (3000K) 3950lm (4000K) Polycarbonate cover (PC-MLO): 3800lm (3000K) 4400lm (4000K) |
| Power requirement | 100-240V AC, 50/60Hz | |
| | 130W (luminaire without supply unit) | |
| Optics | Micro-lense optic (MLO) | |
| Installation | Suspended: Individual or in line Suspended mounting with a set of two suspension tubes, 150 cm per luminaire (can be sawn to right length on site) | |
| Material | Housing: extruded anodised aluminium, finishing brushed (BRU), polished (POL) or white (WH) End-caps and suspension tubes: extruded anodised aluminium finishing brushed with polished front end (BRU), polished (POL) or white (WH) Cover: acrylic (AC-MLO) or polycarbonate (PC-MLO), micro-lense optic Ceiling unit: aluminium | |
| Classification | Class I, IP20, CE, ENEC | |
| Control interface | Dimming by DALI | |
| Remarks | Lighting controls to be ordered separately. Suspension set delivered with luminaire. Housing shapes: curved up (H-UP), curved down (H-DN) | |
| Lifetime | 50,000 burning hrs. (At L70) | |

# LuxSpace HE



Variant

## General description

These LED downlights with superior aesthetics and build quality suitable for applications that require a green general lighting solutions for instance in offices, shops, hotels and hospitals. Their extremely low power consumption results in significant energy savings compared with traditional CFL downlights.

## Features

- 50%* energy saving
- Long life of 50000* hours
- Good color rendering

| Specifications | | | | |
|---|---|---|---|---|
| Type | LuxSpace Micro BBS478 | LuxSpace Mini BS488/489 | LuxSpace compact BBS498/499 | Luxspace Compact Power BBS496 |
| Light source | DLED Micro | DLED Mini | DLED Compact | DLED Compact Power |
| System lm output | 560lm (3000K) 620lm (4000K) | 1000lm (3000K) 1100lm (4000K) | 2000lm (3000K) 2200lm (4000K) | 2750 (3000K) 3100 (4000) |
| System Power consumption | 8W | 13W | 28W | 40.5W |
| System performance* | 68lm/W(3000K) 75lm/W (4000K) | 74lm/W(3000K) 81lm/W (4000K) | 72lm/W(3000K) 80lm/W (4000K) | 70lm/W(3000K) 78lm/W (4000K) |
| Lifetime | 50k hours (L70) | 50k hours (L70) | 50k hours (L70) | 50k hours (L70) |
| CCT | 3000K / 4000K | 3000K / 4000K | 3000K / 4000K | 3000K / 4000K |
| RA | >80 | >80 | >80 | >80 |
| Driver/control | Fixed and dimmable | Fixed Dimmable (DALI) | Fixed Dimmable (DALI) | Fixed Dimmable (DALI) |
| IP | Option of IP54 Version | Option of IP54 Version | Option of IP54 Version | Option of IP54 Version |
| Accessories | Glass disk with frosted inner part in suspended position  SG-FRC Frosted-glass halo ring in suspended position SG-HR-FR Opal glass in suspended position SG-O | | | |

# Master LED MR16 7/7.2W dimmable





Variant

## General description

Philips MASTER LED MR16 dimable lamp integrates leading high power LED light source and compact high efficiency driver into a traditional halogen form factor. It is ideal for applications including track lighting, general architectural and landscape lighting.

## Features

- Low energy consumption: 7/7.2 W / 50 W (12 V)
- Air movement mechanism (unique air flux technology enabling 30%* higher efficiency)
- Retrofittable with low-voltage MR16 halogen lamps with GU5.3 socket

| Product description | Watt | Socket | Beam intensity ( cd ) | Beam angle | Lifetime ( hours ) | Lumens output | Color Rendering Index | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|
| MASTER LED 7-50W 2700K MR16 15D Dim | 7 | GU5.3 | 2900 | 15 | 40,000 | 380 | >80 | 2700 | Yes |
| MASTER LED 7-50W 3000K MR16 15D Dim | 7 | GU5.3 | 3150 | 15 | 40,000 | 420 | >80 | 3000 | Yes |
| MASTER LED 7-50W 4000K MR16 15D Dim | 7 | GU5.3 | 3250 | 15 | 40,000 | 440 | >80 | 4000 | Yes |
| MASTER LED 7-50W 2700K MR16 24D Dim | 7 | GU5.3 | 2100 | 24 | 40,000 | 420 | >80 | 2700 | Yes |
| MASTER LED 7-50W 3000K MR16 24D Dim | 7 | GU5.3 | 2200 | 24 | 40,000 | 440 | >80 | 3000 | Yes |
| MASTER LED 7-50W 4000K MR16 24D Dim | 7 | GU5.3 | 2350 | 24 | 40,000 | 470 | >80 | 4000 | Yes |
| MASTER LED 7-50W 2700K MR16 36D Dim | 7 | GU5.3 | 1200 | 36 | 40,000 | 420 | >80 | 2700 | Yes |
| MASTER LED 7-50W 3000K MR16 36D Dim | 7 | GU5.3 | 1250 | 36 | 40,000 | 440 | >80 | 3000 | Yes |
| MASTER LED 7-50W 4000K MR16 36D Dim | 7 | GU5.3 | 1300 | 36 | 40,000 | 470 | >80 | 4000 | Yes |
| MASTER LED 7.2-50+W 2700K MR16 24D Dim | 7.2 | GU5.3 | 2400 | 24 | 40,000 | 500 | >80 | 2700 | Yes |
| MASTER LED 7.2-50+W 3000K MR16 24D Dim | 7.2 | GU5.3 | 2500 | 24 | 40,000 | 510 | >80 | 3000 | Yes |
| MASTER LED 7.2-50+W 2700K MR16 36D Dim | 7.2 | GU5.3 | 1300 | 36 | 40,000 | 500 | >80 | 2700 | Yes |
| MASTER LED 7.2-50+W 3000K MR16 36D Dim | 7.2 | GU5.3 | 1350 | 36 | 40,000 | 510 | >80 | 3000 | Yes |

# NovaGlow
# E14 Candle

# Sultan and Prince LED bulb 7, 12 & 13W

Sultan

Prince

## General description

Philips NovaGlow E14 CANDLE integrates a high power LED light source with a unique lotus lens design for sparkling effect. It can replace up to 20W GLS candle.

## General description

Premium LED bulb providing high quality of light with less energy consumption and long life.

## Features

- Standard GLS Candle form factor
- Ultra Energy efficient, replacement up to 20W GLS
- Available in 4W
- 20,000* hours average life time
- No external driver is required
- No mercury, UV and IR
- RoHS complaint
- CCT: 2700K
- Dimmable

## Features

- Ultra energy efficient replacement up to 75W GLS
- 25,000* hours average life time
- No mercury, UV and IR
- RoHS complaint
- CCT: 2700K
- Dimmable

| Product description | Wattage | Socket | Lifetime (hours) | Lumens output | Efficiency lm/W | Color Rendering Index | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|
| Master LED 4W- E14 2700K 230W B35 CL DIM | 4 | E14 | 20,000 | 250 | 62 | >80 | 2700 | Yes |

| Product description | Wattage | Socket | Beam angle | Lifetime (hours) | Lumens output | Color Rendering Index | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|
| 12-60W 2700 E27 | 12 | E27 | 310 | 25,000 | 806 | 80 | 2700 | Yes |
| 7-40W 2700 E27 | 7 | E27 | 310 | 25,000 | 470 | 80 | 2700 | Yes |
| 7-40W 2700 B22 | 7 | B22 | 310 | 25,000 | 470 | 80 | 2700 | Yes |
| 13-75W 2700 E27 | 13 | E27 | 310 | 25,000 | 1055 | 80 | 2700 | Yes |

*Conditions apply
*Conditions apply
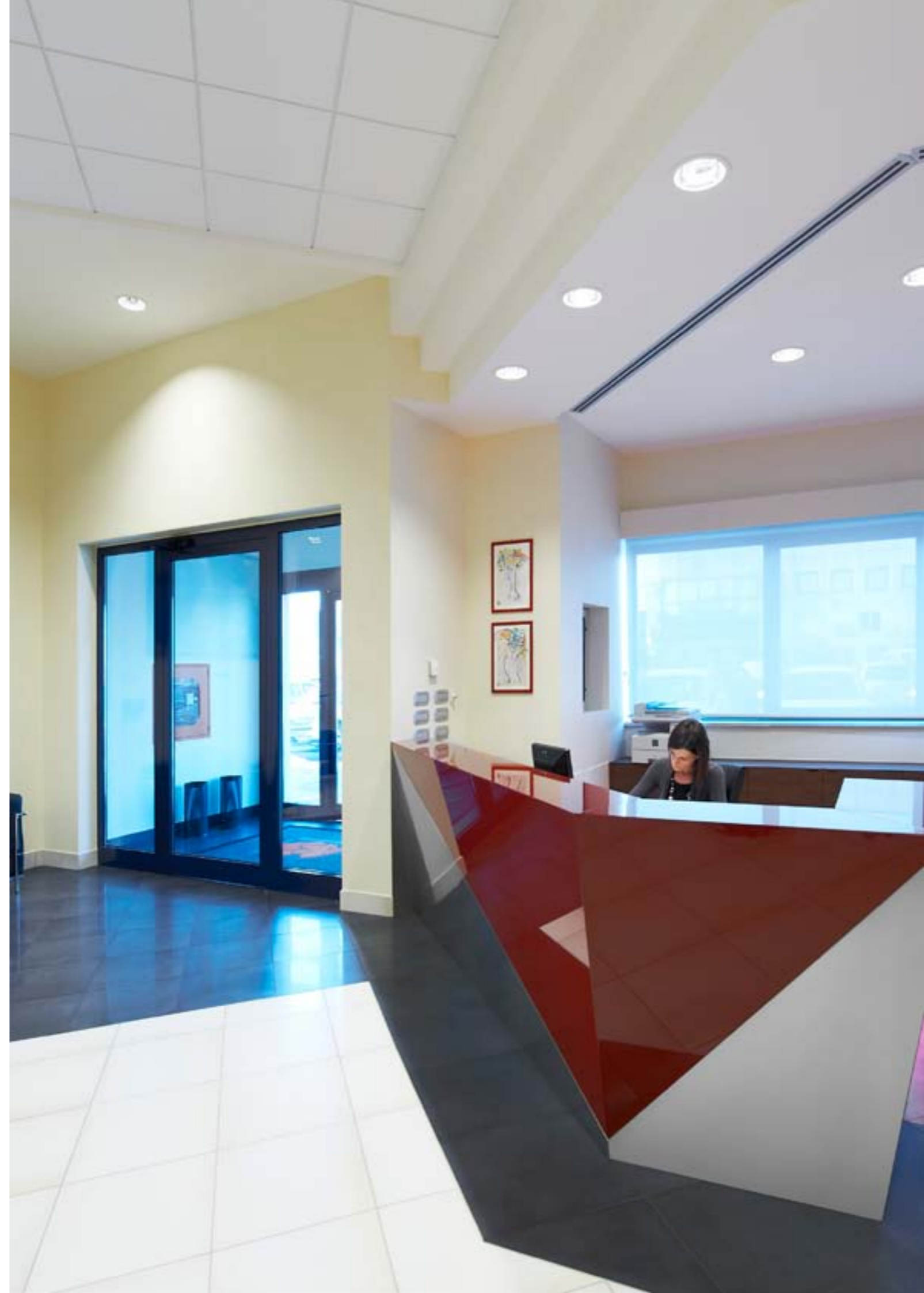
# Master
# LED GU10

## General description

Efficient accent lighting is now possible with GU10 MASTER LED lamp. With no heat, UV or IR in the beam, it outperforms halogen lighting in terms of lighting while saving on evergy and maintenance costs.

## Features

- Low energy consumption: 6W/50W (230 V -240 V)
- Long life of 40,000* hours
- Clearly defined beam spread
- UV- and IR-free light for less heat and protection for heat-sensitive objects

| Product description | Watt | Socket | Beam intensity ( cd ) | Beam angle | Lifetime (hours) | Lumens output | CRI | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|
| Master LEDspotMV 6-50W GU10 2700K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 300 | >80 | 2700 | No |
| Master LEDspotMV 6-50W GU10 3000K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 320 | >80 | 3000 | No |
| Master LEDspotMV 6-50W GU10 4000K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 320 | >80 | 4000 | No |
| Master LEDspotMV 6-50W GU10 2700K 40D | 6 | GU10 | 600 | 40 | 40,000 | 300 | >80 | 2700 | No |
| Master LEDspotMV 6-50W GU10 3000K 40D | 6 | GU10 | 600 | 40 | 40,000 | 320 | >80 | 3000 | No |
| Master LEDspotMV 6-50W GU10 4000K 40D | 6 | GU10 | 600 | 40 | 40,000 | 320 | >80 | 4000 | No |

*Conditions apply

# LEDs in industry

We believe in energy-efficient lighting solutions for industry that reduce environmental impact and save on cost, at the same time improve quality and productivity.

## A greener and more efficient future

Manufacturers and industrial leaders face mounting challenges in today's economic environment. Increased competition from outsourcing, just-in-time inventory demands, heightened government regulations and shrinking operations budgets are only a few of the issues testing industry. The pressure is on for industrial facilities to perform better and more reliably to meet their quality targets, customer expectations and financial goals. Efficient lighting can help manufacturers in saving on energy cost while meeting their sustainability goals.

# Production areas

A properly illuminated environment can help reduce production errors, while adaptable lighting systems ensure the right light is available for specific tasks, even when production cells are reconfigured. With lighting solutions that fit the tasks at hand, the quality of output can improve so that production errors and accidents drop. Lighting solutions from Philips offer long life and better light output, meaning better conditions on the production floor.

GreenPerform
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Maxolid
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GreenBay
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EnduraLED well glass
Page 77

# Warehouses

Better work environments can elevate worker motivation and increase their productivity. By reducing energy loads and waste, new energy efficient lamps and fixtures can help companies save money on energy and maintenance. Philips lighting solutions for the industrial warehouses can help you meet those expectations, reducing costs while driving quality and efficiency.

GreenPerform

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Maxolid

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Essential LEDtube

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GreenBay

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## Royal Mail NDC
Daventry, UK

''The highly energy efficient LED technology delivers huge energy savings, reduces CO2 consumption and minimises maintenance costs without any compromise on light quality.''

- Mr. Mark Cavill, Energy & Building Engineering Services Manager at Royal Mail

## Customer requirement

Establish a lighting scheme that was sensitive to the operational needs of the building, making sure the working environment for staff was enhanced by the lighting installation, delivering the benefits of LED technology without compromising on light quality.

## What Philips offered

GentleSpace

GentleSpace LED Highbay

## Results

- Minimized energy consumption with LED lighting.
- Flat design of the luminaire saves space at the top of the building, leaving room for e.g. sprinkler installations.
- Maintenance free operation.
- Long life.

**East India Commercial Co.**
Andhra Pradesh, India

''We evaluated different players for LED lighting and chose Philips because they are the best. I m in love with Philips products & if it is meeting my requirement, there is no reason to divorce.''

- Brij Gopal Lunani, Managing Director - East India Commercial Company

## Customer requirement

Energy efficient lighting for upgrading existing lighting.

## What Philips offered

LEDtube

Philips Essential LEDtube

## Results

• Energy savings
• Maintenance free operation
• Eco friendly

"The company PPS Group a.s. located in Detva (Slovakia) is aware of its responsibilities for the environment. A new lighting installation was therefore chosen to help to reduce the impact of such a production engineering environment. Philips LED technology has enabled us to ensure efficiency in our lighting installation, not only in operational and maintenance cost savings, but by blowing a fresh wind into the production engineering floor."

- Pavol Šimkovic, CEO of PPS Group Inc.

## Customer requirement

Avoid environmental pollution by using the best resources available. At the same time increase the overall safety of employees. Also reduce operating costs.

## What Philips offered



GentleSpace

GentleSpace Highbay lighting

## Results

• Energy efficient lighting.
• Good lighting levels.
• Pleasant working environment.
• Maintenance friendly operation.

# Essential LEDtube

# Master LEDtube

## General description

Philips Essential LEDtube integrates LED light source with frosted cover design into traditional linear fluorescent form while consuming only 20W and offers energy saving upto 50%.

## Features

• Attractive payback
• No glare discomfort and uniform light distribution
• No external driver required
• Lifetime of 30000* hours

| Product description | Wattage | Operating voltage | Cap | Length (mm) | Beam angle | Lifetime (Hrs) | Lumen output (Lm) | Color temp. (K) | CRI* |
|---|---|---|---|---|---|---|---|---|---|
| Essential LEDtube 1200mm 20W840 T8 | 20 | 140-280V | G13 | 1200 | 160 | 30,000 | 1600 | 4000 | 80 |
| Essential LEDtube 1200mm 20W865 T8 | 20 | 140-280V | G13 | 1200 | 160 | 30,000 | 1600 | 6500 | 80 |
| Essential LEDtube 600mm 10W840 T8 | 10 | 140-280V | G13 | 600 | 160 | 30,000 | 800 | 4000 | 80 |
| Essential LEDtube 600mm 10W865 T8 | 10 | 140-280V | G13 | 600 | 160 | 30,000 | 800 | 6500 | 80 |

## General description

Philips Master LEDtube incorporates frontier LED chips and provides >100 lumen/watt. It provides very high energy savings >50%* v/s conventional products.

## Features

• Attractive payback with high efficacy
• No glare discomfort and uniform light distribution
• No external driver required
• Lifetime of 40000* hours

| Product description | Wattage | Operating voltage | Cap | Length (mm) | Beam angle | Lifetime (Hrs) | Lumen output (Lm) | Color temp. (K) | CRI* |
|---|---|---|---|---|---|---|---|---|---|
| Master LEDtube 1200mm 16W840 T8 | 16 | 140-280V | G13 | 1200 | 150 | 40000 | 1600 | 4000 | 83 |
| Master LEDtube 1200mm 16W865 T8 | 16 | 140-280V | G13 | 1200 | 150 | 40000 | 1600 | 6500 | 83 |
| Master LEDtube 1200mm 20W840 T8 I | 20 | 140-280V | G13 | 1200 | 150 | 40000 | 2100 | 4000 | 83 |
| Master LEDtube 1200mm 20W865 T8 I | 20 | 140-280V | G13 | 1200 | 150 | 40000 | 2100 | 6500 | 83 |
| Master LEDtube 600mm 20W840 T8 I | 10 | 140-280V | G13 | 600 | 150 | 40000 | 1050 | 4000 | 83 |
| Master LEDtube 600mm 20W865 T8 I | 10 | 140-280V | G13 | 600 | 150 | 40000 | 1050 | 6500 | 83 |

# GreenBay



## General description

GreenBay is an integrally designed, versatile lighting solution from Philips to address different lighting requirements within industrial spaces. From under canopies to truss mounted medium bay luminaires, GreenBay can be used across recessed or suspended mounted applications.

## Features

• >40%* energy saving
• Long life
• Maintenance free
• Eco-friendly

| Specifications | | | | |
|---|---|---|---|---|
| Type | BY 400V LED70S CW SK PSU S1 FG WH | BY 400V LED70S CW AK PSU S1 FG WH | BY 400V LED 135S CW SK PSU S1 FG WH | BY 400V LED135S CW AK PSU S1 FG WH |
| Optics | Symmetric | Asymmetric | Symmetric | Asymmetric |
| System wattage | 80 | 80 | 165 | 165 |
| Lumen output | 7300 | 7100 | 13600 | 13600 |
| System efficacy | 91 | 89 | 82 | 82 |
| Color temperature | 5700k | | | |
| CRI | Typical 70 | | | |
| IK rating | N/A | | | |
| IP | IP 65 | | | |
| Housing | High pressure die cast aluminum | | | |
| Cover | Tempered glass | | | |
| Mounting | Universal with dedicated mounting KITS | | | |
| THD | ≤ 20% | | | |
| PF | >0.9 | | | |
| Operating voltage range | 120V-277V | | | |

# MaXolid Highbay



## General description

Maxolid Highbay is an intelligent, direct HID highbay replacement which saves 50%* energy Vs conventional industrial highbay. The inbuilt intelligence through DALI compatibility enhances the energy saving potential as a result of daylight harvesting and occupancy sensing.
Combining the best features like instant start, long life, controllability and high efficacy, Maxolid provides significant and sustained energy savings over the product life cycle.

## Features

• System efficacy >100lm/W
• Luminaire housing made of high pressure die cast AL
• Installation possible with hook or threaded rod.
• Dedicated optics provide precise symmetric light distribution

| Specifications | |
|---|---|
| Type | BY688P |
| Optics | NB and WB |
| System wattage | 140 |
| Lumen output | 14000 |
| System efficacy | 100 |
| Color temperature | 4000K, 6500 K |
| CRI | >80 |
| IK rating | N/A |
| IP | IP 65 |
| Housing | High pressure die cast aluminum |
| Cover | Tempered glass |
| Mounting | Pipe / Threaded rod** |
| THD | <20% |
| PF | >0.95 |
| Operating voltage range | 120V-277V |

DESIGN REGISTERED

# EnduraLED
# Waterproof

## General description

EnduraLED Waterproof is a reliable and affordable LED Waterproof system that delivers upto 40%* energy savings compared to conventional lighting products. The reliable and robust housing structure helps to maximize inherent LED advantage of energy saving combined with long life.

## Features

- System efficacy >80lm/W
- Housing and cover made of virgin polycarbonate
- Installation possible with conduil / pipe/ surface mounting
- Dedicated optics provide precise symmetric light distribution
- L70 50K lifetime
- SDCM <3.5

| Specifications | |
| --- | --- |
| Type | WT550C LED355 CW PSU S1 PC |
| Optics | Symmetric |
| System wattage | 42W |
| Lumen output | 3500 lm |
| System efficacy | 83 |
| Color temperature | 6500 K |
| CRI | >80 |
| IK rating | N/A |
| IP | IP 65 |
| Housing | Virgin Polycarbonate |
| Cover | Virgin Polycarbonate |
| Mounting | Surface / Suspended |
| THD | < 10% |
| PF | >0.95 |
| Operating voltage range | 140V-270V AC |

*Conditions apply

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DESIGN REGISTERED

# EnduraLED-
# Well glass

## General description

Innovative LED based well glass luminaire for direct replacement of 70W HPSV conventional fixtures. EnduraLED has the potential to save > 40%* energy without on compromising lighting parameters.

## Features

- >40%* energy saving
- Complies with IP 66 ingress protection
- IK08

| Specifications | |
| --- | --- |
| Type | BY200P LED 27S CW PSU S1 PC |
| Optics | Symmetric |
| System wattage | 42W |
| Lumen output | 2700 lm |
| System efficacy | 64 |
| Color temperature | 6500 K |
| CRI | >80 |
| IK rating | IK80 |
| IP | IP 66 |
| Housing | High pressure die cast aluminum |
| Cover | Polycarbonate |
| Mounting | Dedicated mounting bracket |
| THD | < 10% |
| PF | >0.95 |
| Operating voltage range | 140V-270V |

*Conditions apply

# EnduraLED- Bulkhead

## General description

Presenting an innovative and reliable LED solution that fits seamlessly in a variety of applications. This luminaire can be installed as ceiling mounted and wall mounted. It serves as a simple energy efficient alternative to CFL/incandescent bulkhead luminaires.

## Features

- Complies with IP 66 ingress protection
- Long life of 50000* hours
- IK09 compliant

| Specifications | |
| --- | --- |
| Type | WT202W LED6S CW PSU S1 PC |
| Optics | Symmetric |
| System wattage | 10W |
| Lumen output | 600 lm |
| System efficacy | 60 |
| Color temperature | 6500 K |
| CRI | >80 |
| IK rating | IK 09 |
| IP | IP 66 |
| Housing | High pressure die cast aluminum |
| Cover | Polycarbonate |
| Mounting | Surface |
| THD | < 20% |
| PF | >0.9 |
| Operating voltage range | 120V-277V AC |

## General description

GreenPerform LED batten is an innovative solution for conventional twin lamp battens. It is designed to be a direct replacement for conventional battens providing energy savings of more than 30% with no compromise on lighting performance. Integrally designed and developed by Philips, this product provides seamless adoption towards industry leading technology.

## Features

- 30%* energy saving
- Efficacy > 90lm/W
- Long life of 50000* hours
- Maintenance free

| Specifications | |
| --- | --- |
| Type | BN 208C ( Standalone) |
| Optics | Symmetric |
| System wattage | 40W |
| Lumen output | 4000 lm |
| System efficacy | 100 |
| Color temperature | 3000K, 4000K, 6500 K |
| CRI | >80 |
| IK rating | N/A |
| IP | IP 20 |
| Housing | CRCA sheet steel |
| Cover | Frosted acrylic |
| Mounting | Mounting bracket extra |
| THD | < 10% |
| PF | >0.95 |
| Operating voltage range | 140V-270V AC |

# LEDs in outdoor

Philips is committed towards improving the lives of the people by providing efficient and glare free lighting. Our products are eco-friendly and help customers in saving significantly on energy consumption and costs. Better lighting also makes people feel safe in night as in day.

## Lighting a greener urban future

The landscape of the lighting industry is changing fast. The energy-efficiency imperative, legislative pressures such as Kyoto and the world of possibilities opened up by the LED revolution are all having a positive influence on our lighting choices. We're spreading the word under our theme of Sustainable Cities. It is our way of helping urban authorities to reduce energy consumption so they can lower $CO_2$ emissions and improve the quality of life in their towns and cities.

## Solutions for upcoming legislative needs

This period of financial and energy challenges is the time to look for new approaches. Cities and boroughs need to think ahead and introduce new lighting solutions into their future lighting projects. Modern lighting concepts will enhance the whole cityscape and the results will benefit residents and guests alike. Philips has a wide range of low-maintenance, high-quality products that are at the leading edge of outdoor lighting. What follows is only a selection. For more lighting products go to www.philips.com/lighting

# Architectural lighting

Recognizing landmarks is an important step in developing a comprehensive approach to urban environments. Lighting a building, monument or architectural feature contributes to the identity of a place. Whether you are working on a single building or an entire master plan, Philips Lighting has state-of-the-art technologies and solutions, backed up by more than a century of lighting application expertise.

Color Graze
Page 210

Color Blast TR
Page 210

Color Reach Powercore
Page 210

Color Burst 6
Page 210

# City centers

Lighting plays a central role in how people feel about their city, town or village. That is why the illumination of streets and pedestrian areas has evolved from simple functional lighting into a more demanding and creative discipline. Not only is light required so that people can drive, cycle and walk safely, it must be pleasing and inviting too. It should promote communication and wellbeing, encourage night-time socializing and complement night life. But luminaires also have an important architectural role. During the day they become an integral part of the street scene. Our range of architectural street luminaires are designed keeping this is mind, giving you a winning blend of performance and style.

LED Post-top
Page 118

LED Bollard II
Page 122

Roadstar
Page 108

GreenLine
Page 105

Professional LED lighting catalogue

Professional LED lighting catalogue

# Residential areas

For many years, residential lighting has been purely functional. Although safety, security and orientation are still essential, there is an ever growing need to improve quality of life and creating a pleasing identity for these areas through better lighting.

LED Post-top
Page 118

LED Bollard II
Page 122

LED Step-light
Page 119

LED Wall mount
Page 120

# Roads and transport

With more than one hundred years of experience and expertise in the field of road lighting, we are in an ideal position to analyze market trends and create appropriate solutions. We apply technological innovation to the design and development of the road lighting products of the future, to meet the wishes and needs of our customers.

Roadstar
Page 108

GreenLine
Page 105

Solar LED Street lights
Page 109

GreenLine Xtra
Page 106

**India Gate**
New Delhi, India

"I must say that a lot of thought has gone into designing the lighting architecture at India gate. The lighting now is brighter, lighter and whiter. It is evenly disbursed, soothing and is not glaring which gives a happy look. I compliment Philips lighting team for this wonderful job."

- Dr. Sudhir Krishna, I.A.S
  Secretary - Ministry of Urban Development, Govt. of India

## Customer requirement

Lighting solution which brings out the beauty of the national monument and at the same time saves energy.
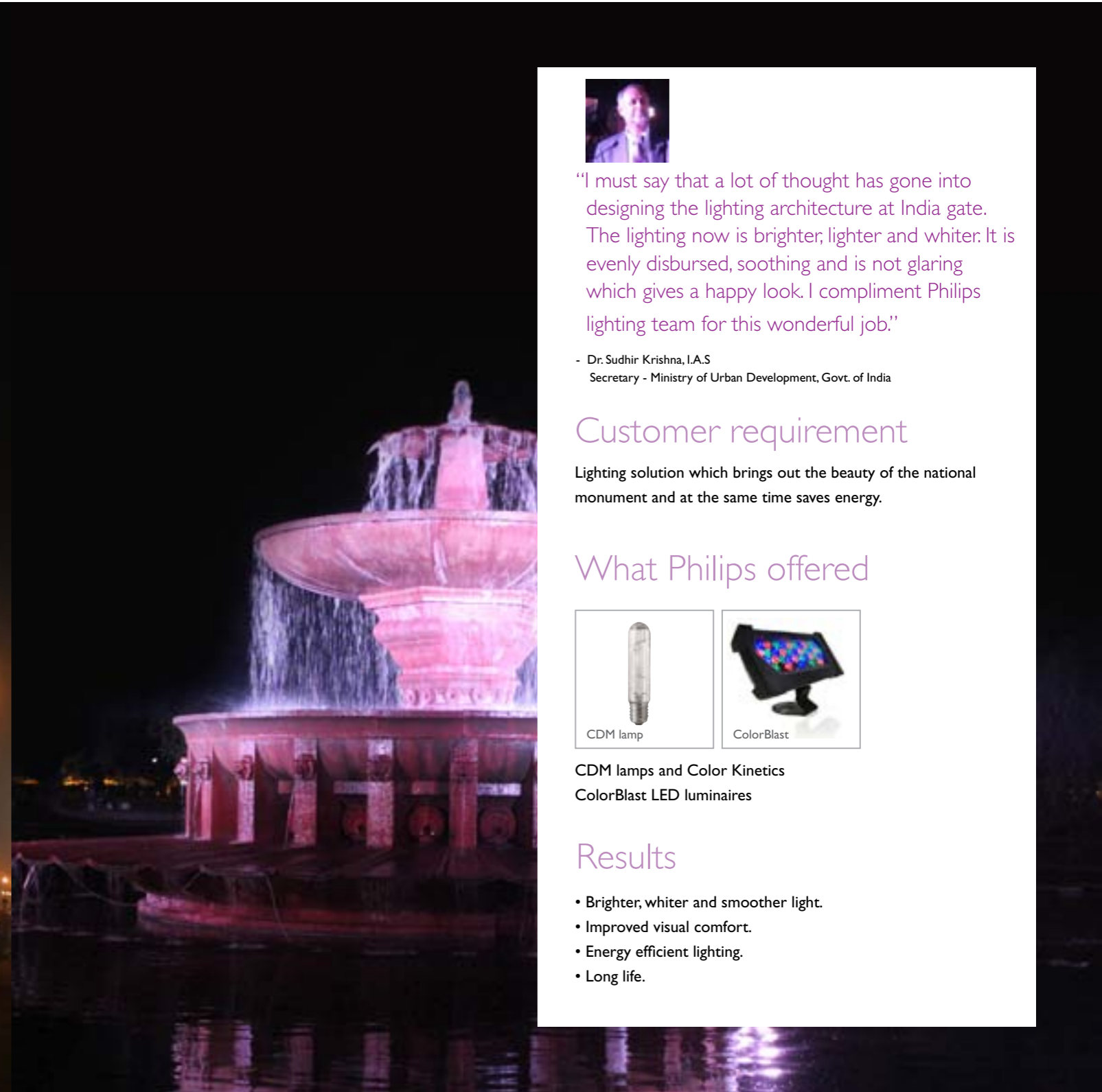
## What Philips offered



CDM lamp

ColorBlast

CDM lamps and Color Kinetics ColorBlast LED luminaires

## Results

• Brighter, whiter and smoother light.
• Improved visual comfort.
• Energy efficient lighting.
• Long life.

"Naya Raipur will be a green city. Street lighting is one of the most important things while planning any city. Philips LED street lights are providing better, more soothing white light & also have low operational costs as compared to conventional solutions. Combined with lighting control, we can now remotely control timers, control light dimming and can also get information about faults. We are very satisfied with Philips LED lighting and the way the team has executed this project."

- Mr. Salil Shrivastava, Chief Engineer, Naya Raipur Development Authority

## Customer requirement

LED street lights for lighting up roads within the perview of NRDA.

## What Philips offered



GreenLine Xtra



AmpLight Controls

GreenLine Xtra LED Street light

## Results

- 50%* energy savings.
- Long life of 50000* hours.
- IP66 Protection.
- AmpLight controls providing real time remote monitoring & control.
- Energy savings through dimming / time schedules.

*Conditions apply

**Municipal Council**
Rajsamand, Rajasthan
India

"We wanted to shift to LED lighting as it is environment friendly and provides energy savings. Philips LED street lights have enhanced the look and feel of areas around Rajsamand Lake. People are feeling safer with Philips LED lighting and are not afraid to visit the lake even during late night. Money saved as a result of energy savings provided by Philips LED street lights, can now be spent on other developmental activities in the area."

- Mrs. Asha Paliwal, Chairperson, Municipal Council, Rajsamand

## Customer requirement

LED street lights for lighting up areas around Rajsamand lake and important junctions within the town.

## What Philips offered

| GreenLine Duo | GreenLine |
|---|---|

GreenLine LED Street light

## Results

• 50%* energy savings.
• Long life of 50000 hours.
• IP65 Protection.

"Thanks to floodlighting and other lights using LED, colors and details can now really be seen. Even the bullet holes in the facade, which only older Rotterdammers knew were still there, are visible again."

- Marco de Boer, Primo Exposures

## Customer requirement

Show the stunning architecture and history of the building in full glory.

## What Philips offered

| LEDline² | Proflood |
|---|---|

LEDline2 and Proflood LED luminaires

## Results

• Energy efficient LED lighting.
• Better light levels.
• Low maintenance.

**Municipal
Corporation**
Kolkata, India

"Philips Lighting partnered with Kolkata Municipal Corporation and the Climate Group to help municipal corporations understand practical ways in which they could make substantial cuts in urban emissions and savings on energy from street lighting."

- Aditi Dass, The Climate Group

## Customer requirement

Lighting solution which uses latest LED technology and is energy efficient.

## What Philips offered

RoadStar

RoadStar street lighting luminaires

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Better lighting.
• Long life.

**Municipal Corporation**
Vijayawada, India

"We were looking at Solar street lighting solutions for a big housing colony being developed under JNNURM. Philips team approached us & showcased their range of solar lighting solutions. We have used Philips solar street lights in this housing colony & have also used their LED street lights for other roads. I'm happy that our city has been identified as a sustainable city particularly through use of LED street lighting solutions with energy consumption reducing by approx 30%. Philips has helped us in this journey."

- Mr. G Ravi Babu, I.A.S., Municipal Commissioner – Vijayawada

## Customer requirement

LED lighting solution which offers energy savings.

## What Philips offered

MiniGreen
BRP 402

Solar LED street lights

## Results

• Energy efficient LED lighting.
• Better light levels.
• Environment friendly.
• Long life.

"High mast lighting we have done at important areas – focusing on junctions where there is lot of public movement. We are very happy with the lighting. Quality and service levels of Philips is very good and we will continue to work with Philips in future projects."

- Dr. P.Ulaganathan, I.A.S, CEO – Haldia Development Authority

## Customer requirement

Lighting up of important junctions within Haldia town, where there is lot of public movement.

## What Philips offered

ConTempo

ConTempo LED

## Results

• High energy savings.
• Very good light distribution.
• Maintenance free operation.
• Long life.

# GreenLine Smart

# GreenLine

Variant

## General description

GreenLine Smart is completely maintenance free luminaire and ensures trouble free operation with the use of LED source and electronic driver. Specially designed polycarbonate cover reduces glare, spreads light evenly and is impact resistant. It is completely reliable for Indian conditions as it operates on a wide range of supply voltages. GreenLine Smart also has IP 65 protection with very high ingress protection against dust and water.

## Features

• Aesthetically designed
• Upto 50%* energy saving
• Long life of 50000* hours
• Versatile applications
• IP 65 protection
• Complies to IEC 60598 and IS 10322
• High impact resistance due to Poly carbonate cover
• Meets IS 1944 lighting requirement for B2 category road

| Specifications | |
| --- | --- |
| Type | BRP020 |
| Light source | High Power LED |
| Lumen output from luminaire | 1650lm |
| Color | Cool white |
| Power consumption | 25W |
| Nominal Voltage | 220V-240V |
| Driver | Integral |
| CRI | 70 |
| Mounting (OD) | 32-40mm |
| Weight | 1.0Kg. |
| Protection | IP 65, Class I |

Due to continuous change in LED technology the above values might change.

## General description

Philips road lighting luminaire comes with 24 high power LEDs and extendable up to 48 high power LEDs, with unique peanut lens to ensure uniform distribution, higher spacing between poles and maintenance free system. With a life class of 50000 hrs (At L70), this luminaire also has excellent thermal management system.

## Features

• Aesthetically designed
• Upto 50%* energy saving
• Long life of 50000* hours
• Versatile applications
• IP 65 protection
• Complies to IEC 60598 and IS 10322
• High impact resistance due to Poly carbonate cover
• Meets IS1944 lighting requirement for up-to A2 / B1 category road and other smaller roads

| Specifications | | |
| --- | --- | --- |
| Type | GreenLine | GreenLine Duo |
| Light source | 24 high Power LED | 2x24 high Power LED |
| Lumen output from luminaire | 3500lm | 7000lm |
| Color | Cool white | Cool white |
| Power consumption | 45W | 90W |
| Nominal Voltage | 220V-240V AC 50Hz | 220V-240V AC 50Hz |
| Optics | Peanut optics | Peanut optics |
| Driver | Integral type | Integral type |
| CRI | 70 | 70 |
| Mounting (OD) | 28-40mm | 48-60mm |
| Weight | 2.4Kg. | 6.0Kg. |
| Protection | IP 65, Class I | IP 65, Class I |

Due to continuous change in LED technology the above values might change.

# GreenLine Xtra

DESIGN
REGISTERED

## General description

Philips new maintenance free LED luminaires with urban looks for city roads offering best in class energy savings. Existing luminaires can be easily upgraded to new LED technology with minimum changes in existing installation.

## Features

- Aesthetically designed
- Upto 50%* energy saving
- Pressure die cast housing
- Long life of 50000* hours
- Options of cover Glass and poly carbonate cover
- IP 66 protection
- Meets IS1944 lighting requirement for A1 / A2 category road
- Complies to IEC 60598 and IS 10322
- Class I protection

| Specifications | |
|---|---|
| Type | BRP322 |
| Light source | High Power LED |
| Lumen output from luminaire | 7000-12500lm |
| Color | Cool white |
| Power consumption | 80-140W |
| Nominal Voltage | 220V-240V |
| Driver | Integral |
| CRI | 70 |
| Mounting (OD) | 42-60mm |
| Weight | 6.5Kg. |
| Protection | IP 66, Class I |

Please get in touch with local Philips colleagues if you are looking for lighting up bigger roads, where lumen output required is higher than 12500lm

Due to continuous change in LED technology the above values might change.

*Conditions apply
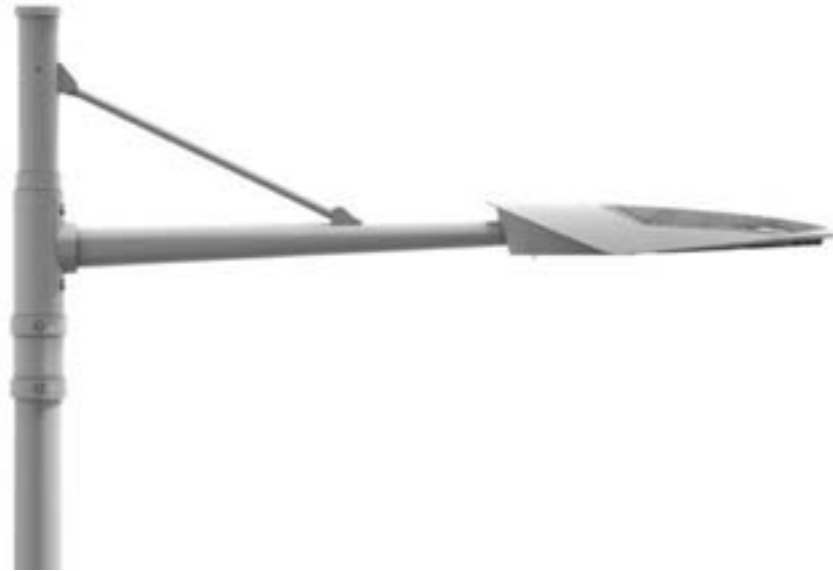
# Roadstar

## General description

Philips Roadstar road lighting luminaire is dark-sky compliant using unique, sealed optics with vibration resistant design, offering better light control and uniformity with upto 8 times spacing between poles and maintenance free operation. With a life class of upto 70,000 hours, this luminaire also comes with excellent thermal management system.

## Features

- High energy savings
- Consistent light output
- Long life
- Maintenance free

| Specifications | |
|---|---|
| Type | Roadstar |
| Light source | LED |
| Color | 4000K |
| Lamp wattage (LED) range | 40W-180W |
| System power range | 45W-204W |
| Nominal voltage | 220V-240V, 50Hz |
| Driver | Integral type |
| CRI | 70 |
| Mounting (OD) | 60mm |
| Protection | IP 66, Class I |

Due to continuous change in LED technology the above values might change.

Variants

## General description

Sun is an inexhaustive, reliable, non-polluting source of power. Concerns over global climatic change, air pollution and resource scarcity make photo-voltaic (PV) an increasingly attractive energy supply technology. Combining solar energy with LEDs can provide efficient lighting solutions. Solar powered outdoor lighting products are ideal for lighting areas where electricity is unavailable or erratic. Even in urban areas, these products find great usage as they reduce dependency on conventional power and contribute towards green energy.

## Features

- Self contained solution - light on/off controlled by automatic daylight sensing
- Independent power and light source
- No line voltage, trenching or metering
- No power outages
- IP65 luminaire ensures long lasting performance

| Specifications | | | | |
|---|---|---|---|---|
| Type | BRP 202 | BRP 020 | BRP 402 | BRP 403 |
| System (W) | 8W, 15W | 12W, 15W, 20W | 21W, 28W | 43W |
| Lumen output | 725lm, 1150lm | 970lm, 1200lm, 1350lm | 1800lm, 2300lm | 3500lm |
| Battery (AH) | 40, 80@12V, | 60, 75, 100@12V | 100@12V | 100x2@12V |
| Panel (WP) | 40, 80 | 60 | 100 | 100x2 |
| Pole | 4 | 4/5 | 5/6 | 7 |

Due to continuous change in LED technology the above values might change.

# Tempo LED



## General description

Philips Tempo LED is a general purpose LED flood lighting luminaire for various lighting applications, such as area lighting, sports lighting, bill board, facade, industry area, security lighting and other general applications. The Tempo LED flood light incorporates LED light sources, optical system, heat sink and drivers into one compact housing which ensures the LED's have a long life. Tempo LED takes advantage of the LED technology which provides energy savings and a longer lifetime, bringing area lighting into a new era.

## Features

- Consistent light output
- Wall, ceiling and surface mounting with various adjustment
- Upto 50%* energy saving
- Long life
- Maintenance free

| Specifications | |
| --- | --- |
| Type | BVP410 |
| Light source | High Power LED |
| Color temperature | Cool white (5700K) |
| Power consumption | 80W-210W |
| Nominal voltage | 240V AC, 50 Hz |
| System efficay | >80 lm/W |
| Material | Pressure die cast aluminium |
| Gear | Integrated electronic driver |
| CRI | 70 |
| Protection | IP 65, Class I |

# LED Spot
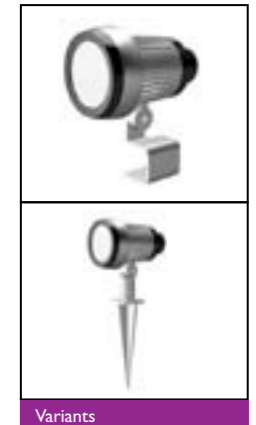
## General description

Philips LED spot lights are ideal for replacing conventional spot lights and provide accent lighting for a variety of applications. Easy to install, these products come with suitable mounting options like spike, clips & surface mounting.

## Features

- Consistent light output
- Long life
- Maintenance free

| Specifications | | |
| --- | --- | --- |
| Type | BGP310 | BGP311 |
| Light source | 3 High Power LED | 3 High Power LED |
| Color | WW, CW, Red, Green, Blue, Amber | WW, CW, Red, Green, Blue, Amber |
| Power consumption | 6W | 6W |
| Nominal voltage | 220-240V, 50 Hz | 220-240V, 50 Hz |
| Optics | 12D/24D/36D | 12D/24D/36D |
| Driver | Integral type | Integral type |
| CRI | 70 | 70 |
| Protection | IP 65, IK08 | IP 65, IK08 |
| Mounting Accessories optional | SPIKE (ZGP311) | |

Due to continuous change in LED technology the above values might change.

# Uplite

# AmphiLux

## General description

Philips LED Uplite is easy to install and comes with ingress protection. This product comes with suitable mounting options for varied applications.

## Features

- Consistent light output
- Long life
- Maintenance free

| Specifications | |
| --- | --- |
| Type | BBP330 |
| Light source | 9 High Power LED |
| Color | WW, CW, Green, Amber |
| Optics | 12D, 36D, 60D |
| Power consumption | 15W |
| Nominal voltage | 220V-240V, 50Hz |
| Driver | Integral type |
| Protection | IP 67, IK10 |
| Accessories | Equipped with recess mounting box |

Due to continuous change in LED technology the above values might change.

## General description

AmphiLux surface and recess mounted spotlight range is designed to enhance outdoor social areas (gardens, terraces, fountains, waterfalls, etc.) with architectural lighting. AmphiLux is a family of LED spots featuring a stunning, sleek Italian design with a stylish chrome finish. These solutions can be used under water and in semi-wet and dry environments. Available in Micro, Mini and Compact sizes, this range offers a choice of dynamic white-light and colored-light versions for maximum flexibility in flood and accent lighting applications.

## Features

- Consistent light output
- Maintenance free

| Specifications | | |
| --- | --- | --- |
| Type | BBD400 Micro (1 x LED, Mono color version)<br>BBC400 Micro (1 x LED, Mono color version)<br>BBD410 Mini (4 x LED, Mono and Dynamic color version)<br>BBD420 Compact (12 x LED, Mono and Dynamic color version) | BVD400 Micro (1 x LED, Mono color version)<br>BVD410 Mini (4 x LED, Mono and Dynamic color version)<br>BVD420 Compact (12 x LED, Mono and Dynamic color version) |
| Light source | High power LED's | High power LED's |
| Power | Micro versions: 1.5 W<br>Mini version (Mono color): 5 W<br>Mini version (Dynamic color): 4 W<br>Compact version (Mono color): 15W<br>Compact version (Dynamic color): 12W | Micro versions: 1.5 W<br>Mini version (Mono color): 5 W<br>Mini version (Dynamic color): 4 W<br>Compact version (Mono color): 15W<br>Compact version (Dynamic color): 12W |
| CCT | 2700, 4000 and 6000 K for the Mono color versions<br>2700 - 6000 K for tunable white | 2700, 4000 and 6000 K for the Mono color versions<br>2700 - 6000 K for tunable white |
| CRI | > 80 (2700 and 4000 K)<br>> 70 (6000 K) | > 80 (2700 and 4000 K)<br>> 70 (6000 K) |
| Corrosion resistance | For BBD versions:<br>- Salt water resistant up to 35gr/L salinity<br>- Chlorine resistant if water has a stable PH level between 6.8 and 8 | Salt water resistant up to 35gr/L salinity<br>Chlorine resistant if water has a stable PH level between 6.8 and 8 |
| Operating temperature range, voltage | -20 to +35°C, 12 V DC for Mono color versions | -20 to +35°C, 12 V DC for Mono color versions |
| Material | Housing:<br>- BBD versions: chromed brass<br>Optical cover: hardened glass | Housing: chromed brass<br>Optical cover: hardened glass |

# Vaya Linear



## General description

Philips Vaya Linear is a cost effective, reliable white and color-changing light fixture for both exterior and interior use. Designed for creating fixed or dynamic colorful lighting effect, VAYA Flood is ideal for wall washing and grazing applications. Integrated Power for all variants and RDM discovery & addressing and DMX 512 control for VAYA Flood Color make this product easy to use with Philips controllers.

## Features

• Consistent light output
• Maintenance free

| Specifications | | |
| --- | --- | --- |
| Type | Vaya Linear Color (RGB) | Vaya Linear White |
| Height | 102 mm (including surface mount base) | 102 mm (including surface mount base) |
| Width | 63.5 mm | 63.5 mm |
| Length | 333 or 1000 mm | 333 or 1000 mm |
| Mounting | Location adjustable and tilting surface-mount bracket | Location adjustable and tilting surface-mount bracket |
| Source | High-brightness Red, Green and Blue LEDs | High-brightness White LEDs |
| Beam angle | Narrow (10° x 50°) or Wide (50°) | Narrow (10° x 50°) or Wide (50°) |
| Lumen output | 330 lm (0.33m) / 1000 lm (1.0m) all colors on full | 450 lm (0.33m) / 1350 lm (1.0m) for 4000K |
| Lumen mtaintenance | 50,000 hrs L50 at 25°C | 50,000 hrs L70 at 25°C |
| Input voltage | 100~240VAC, 50/60 Hz | 100~240VAC, 50/60 Hz |
| Housing | Extruded aluminum, anodized finish | Extruded aluminum, anodized finish |
| Weight | 0.33m: 3.0 Lbs (1.3 Kg), 1.0m 7.4 Lbs (3.3 Kg) | 0.33m: 3.0 Lbs (1.3 Kg), 1.0m 7.4 Lbs (3.3 Kg) |
| Connector | 3-conductor whip for power, 1.5m long 2-Pair twisted whip for data, 1.5m long | 3-conductor whip for power, 1.5m long |
| Lens | Tempered Glass | Tempered Glass |
| Control | DMX-512 control and RDM discovery and addressing (One address per fixture) | ON/Off, Not dimmable |
| Power consumption | 13 W (0.33m), 41 W (1.0m) | 15W (0.33m), 41W (1.0m) |
| Operating temperature | 0 to 35 DegC | 0 to 35 DegC |
| Protection rating | IP65, Wet location listed | IP65, Wet location listed |
| Certifications | CQC, CE, CB | CQC, CE, CB |
| CCT | - | 3000K, 4000K |

# Vaya Flood



## General description

Philips Vaya Flood is a cost effective, reliable white and color-changing light fixture for both exterior and interior use. Designed for creating fixed or dynamic colorful lighting effect, VAYA Flood is ideal for flood, wash and accent lighting applications. Having integrated power for all variants and RDM discovery and DMX 512 controls, VAYA Flood Color is a product that is easy to use with Philips controllers.

## Features

• Consistent light output
• Long life
• Maintenance free

| Specifications | | |
| --- | --- | --- |
| Type | Vaya Flood LP RGB | Vaya Flood LP White |
| Beam angle | 15°/30° | 15°/30° |
| Lumen output | 1050lm | 2200lm (for 4000K) |
| Lumen mtaintenance | 50000hrs L70 at 25°C | 50000hrs L70 at 25°C |
| Imput voltage | 100‑240 VAC, 50/60 Hz | 100‑240 VAC, 50/60 Hz |
| Power Consumption | 44W max at full output, steady state | 44W max at full output, steady state |
| Control | Auto discovery and addressing via Smartlack Pro, Control via standard DMX512 | On/off, non dimmable |
| Dimentions | 236mm x 77.4mm x 223mm (incl. mounting base) | 236mm x 77.4mm x 223mm (incl. mounting base) |
| Operating temperature | 0 - 40°C | 0 - 40°C |
| Certifications | CE, CB, COC, C-Tick, SAA | CE, CB, COC, C-Tick, SAA |
| Protection rating | IP65, wet location listed | IP65, wet location listed |
| Lens | Tempered glass | Tempered glass |
| Source | High brightness Red,Green and Blue LEDs | High brightness white LEDs |
| Housing | Anodised and power coated | Anodised and power coated |
| CCT | - | 3000K, 4000K |

# Philips smart LED landscape

## A total solution

At Philips, lighting urban landscapes is a passion as well as a science. From sleek designs, to excellence in engineering and excellent lighting performance, our Smart LED Landscape solution is cohesive and designed with attention to detail.

- All products are unified by a common design language making them seamless to combine and coordinate in your designs
- The lighting solutions are available in both warm white (3000K) and neutral white (4000K) color temperature, giving you choice and flexibility
- With full RoHS compliance, you have absolute peace-of-mind knowing that our products are free of toxic materials
- The exclusive use of LED technology also means an environmentally friendly lighting solution that needs less maintenance
- All our products have been engineered to a high degree of water and impact resistance (proven IP and IK standards) making them ideal candidates for outdoor environments

**In short, our solution is just perfect for –**
- Parks and Gardens
- Commercial areas such as squares, plazas etc.
- Residential areas
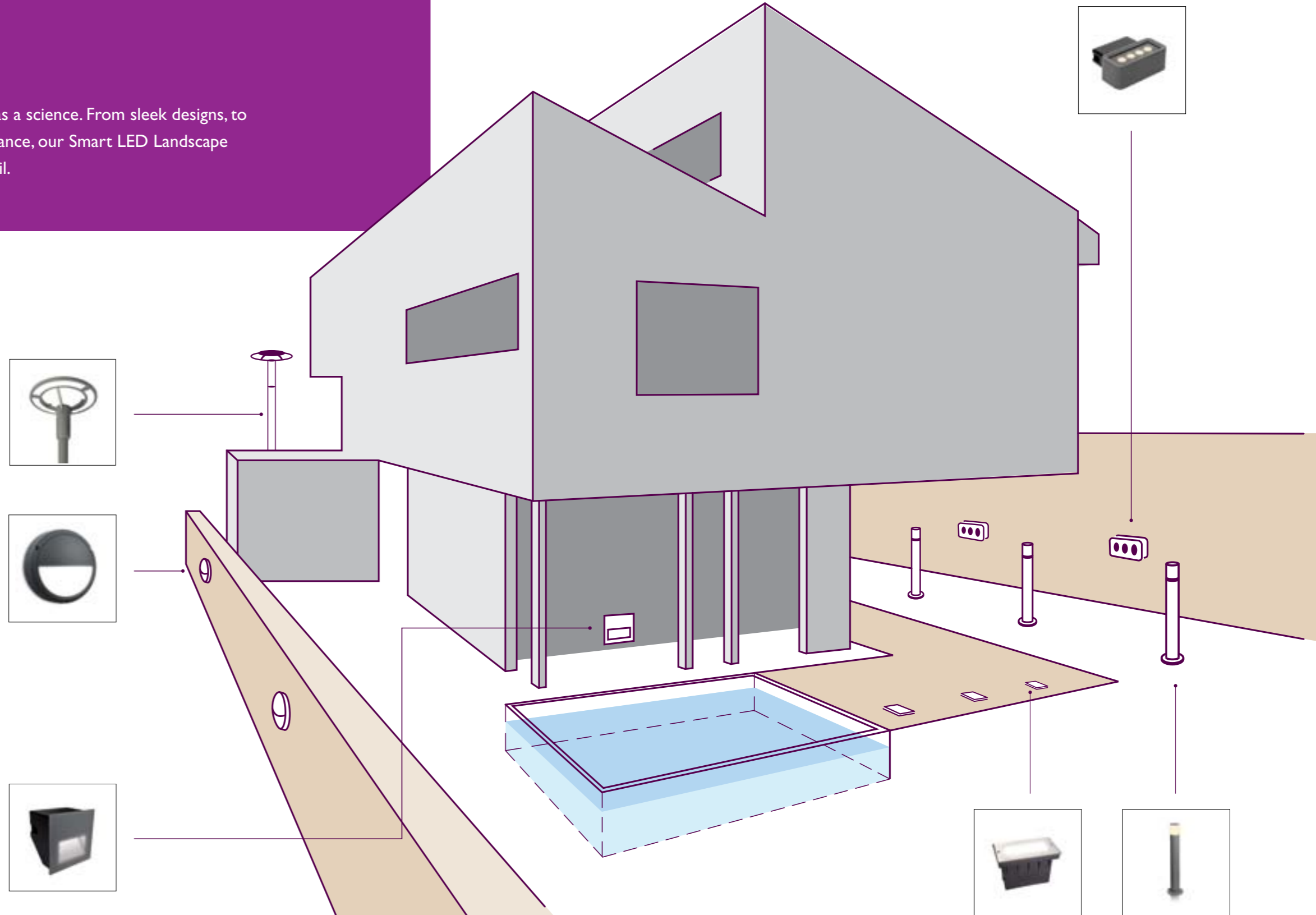
# LED Post-top



## General description

Stylish, robust and reliable post top lantern using LEDs. Having good light distribution, limited upward light component that avoids light pollution, this luminaire is an affordable landscape lighting solution.

## Features

- High energy savings
- Good light distribution
- Long life
- Maintenance free

| Specifications | | |
| --- | --- | --- |
| Type | BGP151 | BGP151 |
| Light source | LED | LED |
| Lumen output | 1900lm (WW), 2000lm (NW) | 2900 (WW), 3000(NW) |
| Light color | Warm White (3000K) | Neutral White (4000K) |
| Power consumption | 30W | 45W |
| Driver | Integral type | Integral type |
| Nominal voltage | 220-240V, 50 Hz | 220-240V, 50 Hz |
| Optics | Closed diffuser | Closed diffuser |
| CRI | 70 | 70 |
| Mounting (OD) | 60mm | 60mm |
| Weight | 7.5Kg. | 7.5Kg. |
| Protection | IP 65, Class I | IP 65, Class I |

Due to continuous change in LED technology the above values might change.

# LED Step-light



## General description

Philips LED Step-light offers uniform asymmetric lighting. This product is easy to install and comes with ingress protection. It also comes with suitable mounting box.

## Features

- High energy savings
- IP67, Class 1 compliant
- Maintenance free
- Long life

| Specifications | |
| --- | --- |
| Type | BWG 150 |
| Light source | 36 low power LED |
| Lumen output | 35lm(WW), 40lm(NW) |
| Light color | Warm White (3000K), Neutral White (4000K) |
| Power consumption | 4W |
| Driver | Integral type |
| Nominal voltage | 220-240V, 50 Hz |
| Optics | Polycarbonate diffuser |
| CRI | >75 |
| Weight | 0.55Kg. |
| Protection | IP 67, Class I |
| Accessories | Equipped with recess mounting box |

Due to continuous change in LED technology the above values might change.

# LED Wall mount

# LED Marker

## General description

Philips LED wall mount offers high level of durability with high impact resistance, ingress protection and comfortable soft lighting.

## Features

- Consistent light output
- Long life
- Maintenance free

| Specifications | |
| --- | --- |
| Type | BWS150 |
| Light source | 96 low power LED |
| Lumen output | 180lm (WW), 200lm (NW) |
| Light color | Warm White (3000K), Neutral White (4000K) |
| Power consumption | 8W |
| Driver | Integral type |
| Nominal voltage | 220-240V, 50 Hz |
| Optics | Polycarbonate diffuser |
| CRI | >75 |
| Weight | 0.58Kg. |
| Protection | IP 65 / IK08 / Class I |

Due to continuous change in LED technology the above values might change.

## General description

Philips LED marker lights offers high level of durability with high impact resistance, are easy to install and come with ingress protection. It also comes equipped with suitable mounting box.

## Features

- Consistent light output
- Long life
- Maintenance free

| Specifications | | |
| --- | --- | --- |
| Type | BBG 150 | BBG 151 |
| Light source | 30 Low Power LED | 30 low power LED |
| Lumen output | 180lm (WW), 200lm (NW) | 180lm (WW), 200lm (NW) |
| Light color | Warm White (3000K), Neutral White (4000K) | Warm White (3000K), Neutral White (4000K) |
| Power consumption | 3W | 3W |
| Driver | Integral type | Integral type |
| Nominal voltage | 220-240V, 50 Hz | 220-240V, 50 Hz |
| Optics | Closed,diffuser foggy glass | Closed diffuser foggy glass |
| CRI | >75 | >75 |
| Weight | 1.06Kg. | 0.97Kg. |
| Protection | IP 67 / IK10 / Class I | IP 67 / IK10 / Class I |
| Accessories | Equipped with recess mounting box | Equipped with recess mounting box |

Due to continuous change in LED technology the above values might change.

# LED Bollard II

## General description

Philips LED Bollard offers a high level of durability with high impact resistance. It is easy to install, comes with ingress protection and provides comfortable soft lighting.

## Features

• Consistent light output
• Long life
• Maintenance free

| Specifications | | |
| --- | --- | --- |
| Type | BCP150 | BCP151 |
| Light source | 96 low power LED | 96 low power LED |
| Lumen output | 300lm (WW), 400lm (NW) | 300lm (WW), 400lm (NW) |
| Light color | Warm White (3000K), Neutral White (4000K) | Warm White (3000K), Neutral White (4000K) |
| Power consumption | 8W | 8W |
| Driver | Integral type | Integral type |
| Nominal voltage | 220-240V, 50 Hz | 220-240V, 50 Hz |
| Optics | Closed diffuser | Closed diffuser |
| Mounting (OD) | Integral base plate | Integral base plate |
| CRI | >75 | >75 |
| Height | 0.5 Mts | 0.8 Mts |
| Weight | 1.32Kg. | 1.9Kg. |
| Protection | IP 65 / IK10 / Class I | IP 65 / IK10 / Class I |

Due to continuous change in LED technology the above values might change.
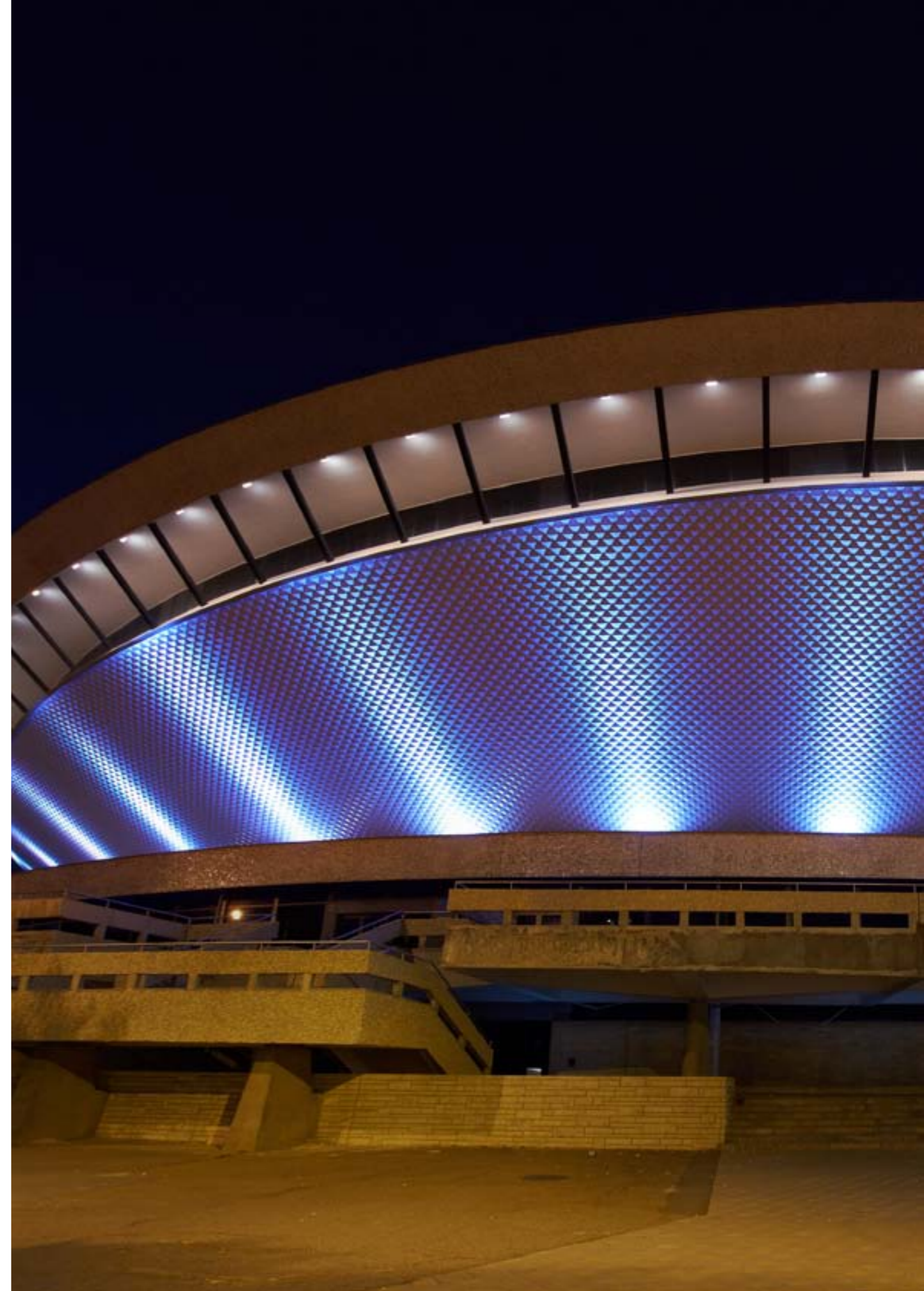
# Check list for installing

# LED outdoor lighting



1. Cables are passed through the pole up to the luminaire – not from outside

2. Cables of recommended size to be used – don't use single wires

3. Resistance on earthing wire – between luminaire connection and actual ground (at the bottom of the pole should not exceed 0.5 Ohm

4. Earthing connection must be done in luminaire instead of relying on local earthing (screw contact to pole during fixing)

5. Ideally conventional load (specially HID) should not be connected in the same line which is connected with a LED street light

6. Individual MCBs per pole with correct rating to be used

7. Preferably use a voltage controller and surge protector at the mains DB / supply cabinet panel

8. MI sheet that comes with the luminaire should be used for reference

# LEDs in retail

Being successful in retail, requires you to provide a relaxing environment & comfort to shoppers. The more the shoppers stay at your store, better are the chances of them buying your merchandise. Lighting plays a critical role in creating the right environment in retail stores.

## Attract people

Dynamic lighting has the power to attract people. It can give your store real stopping power by distinguishing your façade, creating irresistible window displays and bringing your brand to life. Light can support your marketing activities / POS promotions and run them effectively. At the touch of a button you can change your store environment.

## Make them stay

Once inside, a comfortable, exciting ambience will make people enjoy the experience and stay longer. Lighting controls are the perfect way to set the right lighting mood so you can encourage your customers to feel relaxed and carry on browsing.

## Return visits increase revenue

When more customers enjoy the experience at your store, more likely they will be recommending to their friends. And by optimizing the lighting with excellent color rendering you can ensure what they see is what they get, so you get more repeat visits and increased business.

## Secure brand consistency

Remote control management enables you to take control of the lighting design of all your stores.

# Entrances

Entrance of your store is the gateway to your brand. With effective lighting, you can attract shoppers and ensure they spend spend time in choosing the right merchandise.

| LuxSpace HE | GreenLEDi | LuxSpace Accent rounded | iColor Flex MX |
| --- | --- | --- | --- |
| Page 154 | Page 152 | Page 155 | Page 210 |

# Shop windows

Everybody is vying for attention. With proper lighting, your shop window can stand out in the crowd. Light can be directed wherever you want it. Also, by applying higher lighting levels to your display and avoiding dark rear walls in the background, you can avoid your window turning into a mirror.

LuxSpace Accent rounded
Page 155

GreenLEDi
Page 152

iColor Cove MX Powercore
Page 210

# Selling space and displays

It is here that your brand comes into its own. People need to see where they are walking and also view the products in the best way. Careful use of vertical lighting on walls can make your shop look more spacious.

LuxSpace HE
Page 154

GreenSpot
Page 151

GreenLEDi
Page 152
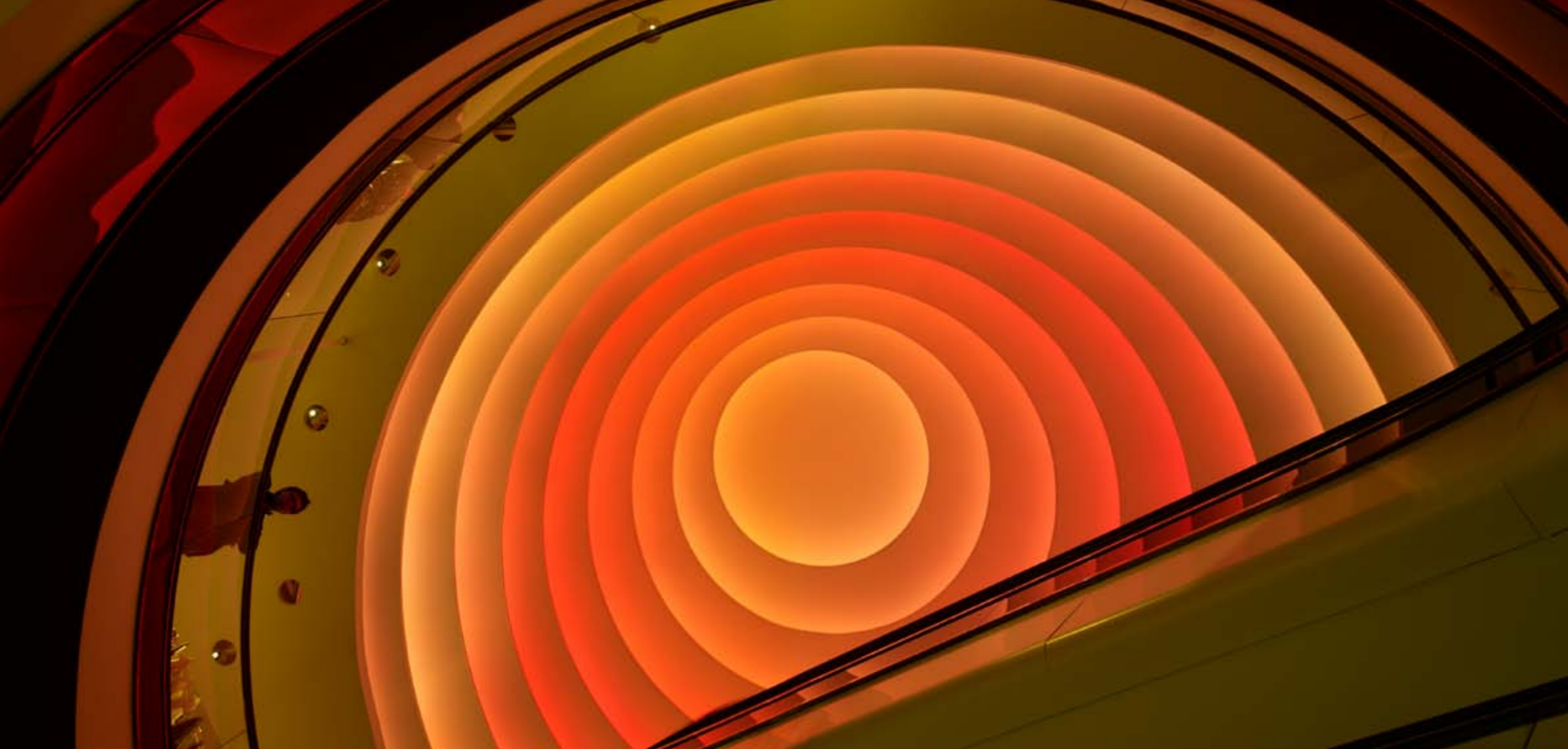
# In-store architecture

Shops often have interesting architectural features like interesting wall structures, an exposed girder, or columns. With careful lighting, you can make the stage more interesting for shoppers. It is all about crafting the right shopping experience. Creating the promise of something exciting, something out of the ordinary. Often such features can provide an inspiration for displaying products and for setting the scene for higher sales.

Color Blast Powercore
Page 210

iColor Cove MX Powercore
Page 210

iColor Flex MX
Page 210
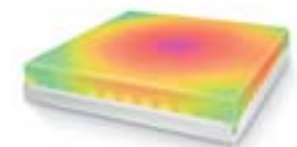
iColor Tile MX
Page 210

**Bio-Planet**
Leuven, Belgium

''With the green supermarket concept, Philips fits in seamlessly with Bio-Planet's green philosophy. It is a clever selection of environmentally friendly and cost-effective lighting solutions, as well as being customer-friendly.''

- Tamara de Ridder, Marketing Manager Bio-Planet

## Customer requirement

Bio Planet wanted to specify most durable and energy saving materials for their new branch in Leuven. At the same they also wanted to stand out in the market.

## What Philips offered



LuxSpace

LuxSpace, LED lighting solutions

## Results

• 25% energy saving.
• Low maintenance costs.
• Higher light output.
• Inviting ambience.

## Brown Tree
Chennai, India



"Lighting is very important for any retail store. We wanted to cut down on existing electricity bills and were  exploring different ways of reducing it. Post changing to Philips LED lighting, I m saving lot of electricity cost and customer experience has also improved since lighting is now more inviting & soothing."

- Mr. Abhinandan Lunkad, Partner, Brown Tree Stores

## Customer requirement

Brown Tree Retail, founded in 2009 is a health retail chain with more than 15 outlets across South India. They were exploring ways of reducing electricity costs  through various alternatives.

## What Philips offered



GreenLED

GreenLED, LED downlights

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Long life.
• Zero mercury.

**Nuts n Spices**
Chennai, India

''We were exploring ways of reducing energy costs. Philips Team showcased how we can save significantly on energy costs by upgrading existing lighting with Philips GreenLED. We have witnessed energy savings post this change and now the lights are producing very less heat as compared to earlier lights. Would definitely recommend LEDs to others.''

- Mr. Mahendra Sanklecha, Partner, Nuts n Spices

## Customer requirement

Energy efficient LED lighting for upgrading existing lighting.

## What Philips offered

GreenLED

GreenLED, LED downlights

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Long life.
• Zero mercury.

**Heineken The City**
Amsterdam,
The Netherlands

''LED lighting is innovative, offers a great many new possibilities and really suits the 'look and feel' we wish to convey. Furthermore, by fitting the entire shop with LED lighting we are 100% distinctive from everyone else.''

- Marc van der Mijn, Store Manager Heineken brand store

## Customer requirement

Create a new look and feel and distinctive identity for itself.

## What Philips offered

eW Downlight
Powercore

eW Downlight Powercore

## Results

• Energy savings.
• Low maintenance.
• Improved and pleasant ambience.
• Good quality light.

**UniverCell**
Chennai, India

''Earlier we were putting more lights which were consuming more energy and costs. With Philips LED lights, we have to use lesser number of lights but with better light output. Customers are spending more time in our stores, which is directly improving our sales.''

- Satish Babu, Founder and Managing Director - UniverCell

## Customer requirement

Energy efficient lighting for upgrading existing lighting.

## What Philips offered

GreenLED

GreenLED, LED downlights

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Long life.
• Zero mercury.

**more.**

**more Supermarkets**
Bangalore, India

"We were looking for upgrading lighting at our stores for saving energy costs and also enhancing customer experience. We are happy that we chose Philips LED lighting."

- Mr. Arun Kapur, Manager - City Operations, Aditya Birla Retail Ltd.

## Customer requirement

Lighting solution that enhances customer experience and saves costs.

## What Philips offered



GreenPerform

**GreenPerform**

## Results

• Very good lighting levels.
• Significant energy & cost savings.

**Zevar jewellers**
Porbandar, India

"In the jewellery business, apart from jewellery design, presentation of jewellery also plays a very important role in engaging customers. Different types of lighting effects are required depending on design. I'm totally satisfied with Philips LED lighting solutions since electricity costs have reduced substantially, heating problem has been solved and products are providing the right lighting effects."

- Sandeep Raninga, Owner, Zevar Jewellers

## Customer requirement

Lighting solution which is energy efficient, reduces heating problems and also provides the right lighting levels in the showroom.

## What Philips offered



GU10

Master LED lamps

## Results

• Upto 50% energy savings.
• Maintenance free operation.
• Long life.
• Less heat in the showroom.

# GreenSpace



Variants

## General description

GreenSpace is a high performance LED downlighter with high system efficacy for good quality and uniform lighting.
With its simple yet elegant design, it conforms to general lighting norms for offices, shops, and other indoor applications,
providing an essential tool to owners, designers, and installers to explore energy saving practices.

## Features

- Consistent light output
- Long life
- CRI >80

| Specifications | | | | |
|---|---|---|---|---|
| Type | GreenSpace Micro DN180B | GreenSpace Mini DN181B | GreenSpace Compact DN182B | GreenSpace Power DN183B |
| LED engine | DLED Micro | DLED Mini | DLED Compact | DLED Power |
| lumen package | 600lm | 1000lm | 1500lm | 2000lm |
| CFL replacement | up to 2x13W | up to 2x18W | up to 2x26W | up to 2x32W |
| CRI | 80 | 80 | 80 | 80 |
| CCT | Warm white: 3000K Neutral white: 4000K Cool white: 5000K | Warm white: 3000K Neutral white: 4000K Cool white: 5000K | Warm white: 3000K Neutral white: 4000K Cool white: 5000K | Warm white: 3000K Neutral white: 4000K Cool white: 5000K |
| Power (4000K) | 8.5W | 12W | 18W | 24W |
| System efficacy | 70lm/W (3000K) 75lm/W (4000K, 5000K) | 75lm/W (3000K) 78lm/W (4000K, 5000K) | 78lm/W (3000K) 80lm/W (4000K, 5000K) | 78lm/W (3000K) 80lm/W (4000K, 5000K) |
| Voltage | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz |
| Driver | Integrated | Integrated | Integrated | Integrated |
| Optics | High quality diffuser | High quality diffuser | High quality diffuser | High quality diffuser |
| Cut out | ø125mm | ø152mm | ø203mm | ø203mm |
| Material | Heat sink: die-cast Diffuser: PMMA Reflector: PC Clip: steel | Heat sink: die-cast Diffuser: PMMA Reflector: PC Clip: steel | Heat sink: die-cast Diffuser: PMMA Reflector: PC Clip: steel | Heat sink: die-cast Diffuser: PMMA Reflector: PC Clip: steel |
| Ring Color | White (RAL9010) | White (RAL9010) | White (RAL9010) | White (RAL9010) |
| Installation | Spring Clip | Spring Clip | Spring Clip | Spring Clip |
| SDCM | 5 | 5 | 5 | 5 |

# GreenSpot



Open

Diffused
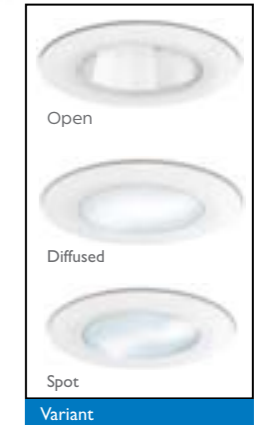
Spot

Variant

## General description

GreenSpot family offers a choice of lamps or LED light sources as well as a variety of optics, accessories and color finishes.
GreenSpot enables retailers to choose a lighting solution that meets their needs.

## Features

- Consistent light output
- Long life
- CRI >80

| Specifications | |
|---|---|
| Type | BBS 311  - GreenSpot IA (Adjustable) BBS 312  - GreenSpot IF  (Fixed open ) BBS 313  - GreenSpot IS (Fixed spot) BBS 314 -  GreenSpot ID (Fixed diffused) |
| Source | LEDDisk module |
| Versions | 1. Fixed - open/ diffused and spot 2. Adjustable - along with frames offering combination of 1/2/3/4 luminaires |
| Lumen OP(at Source) | 850 Lumens |
| Light Color | 5000K |
| Power Consumption | 15W |
| Voltage | 220-240V AC 50 Hz |
| Driver | Integral constant current driver |
| CRI | >80 |
| Optics | Aluminium reflector with - diffused, open and spot lighting options. |
| Color | White |
| Material | Die-cast aluminium heat sink.  Option of fixed and adjustable versions |
| Installation | Recessed |

Professional LED lighting catalogue

Professional LED lighting catalogue

# GreenLED i



Also available in
1200, 900, 600, 300 lumen

Variants

## General description

GreenLEDi range is a breakthrough offering which combines modern product design, the latest LED technology and reliable heat management to deliver a long lasting efficient solution for offices and retails spaces. Offering substantial energy savings compared to CFL/halogen, good light quality, complete stylistic freedom and significant maintenance savings, the product is an ideal value for money replacement for conventional solutions.

## Features

- 50%* energy saving
- 5 times more life over CFLs
- Long life of 40000* hours

| Specifications | GreenLED i600 DN 191B | GreenLED i900 DN 192B | GreenLED i1200 DN 193B | GreenLED i1500 DN 194B |
|---|---|---|---|---|
| LED engine | DLED Micro | DLED Mini | DLED Compact | DLED Power |
| lumen package | 6500K-600 4000K-600 3000K-600 | 6500K-1000 4000K-900 3000K-900 | 6500K- 4000K-1200 3000K-1200 | 6500K- 4000K-1500 3000K-1500 |
| CRI | >70 | >70 | >70 | >70 |
| CCT | Warm white: 3000K Neutral white: 4000K Cool Daylight: 6500K | Warm white: 3000K Neutral white: 4000K Cool Daylight: 6500K | Warm white: 3000K Neutral white: 4000K Cool Daylight: 6500K | Warm white: 3000K Neutral white: 4000K Cool Daylight: 6500K |
| Power (4000K) | 10W | 15W | 18W | 24W |
| Voltage | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz |
| driver | Constant current integrated driver | Constant current integrated driver | Constant current integrated driver | Constant current integrated driver |
| optics | High quality diffuser | High quality diffuser | High quality diffuser | High quality diffuser |
| Material | heat sink: die-cast diffuser: PMMA reflector: PC clip: steel | heat sink: die-cast diffuser: PMMA reflector: PC clip: steel | heat sink: die-cast diffuser: PMMA reflector: PC clip: steel | heat sink: die-cast diffuser: PMMA reflector: PC clip: steel |
| Installation | Spring Clip | Spring Clip | Spring Clip | Spring Clip |
| SDCM | 5 | 5 | 5 | 5 |

*Conditions apply

# LED Trunking



## General description

The product offers and high energy efficient solution (up-to 45% energy saving at similar lighting levels) long service life solutions for Hypermarkets / Warehouses / Distribution center and other similar applications.

## Features

- 30%* energy saving
- CRI >80
- Long life of 50000* hours

| Specifications | |
|---|---|
| Type | Optimus LED Trunking |
| Source | LED Module |
| Lumen OP(at Source) | 4030 lm |
| Color Temperature | 4000K / 5000K / 6500K |
| Power Consumption | 40W |
| Voltage | 220-240V, 50 / 60 Hz |
| Driver | Electronic-Xitanium Driver |
| CRI | >80 |
| Trunk Lengths | 1180mm . For standalone mounting 3540mm – single section for continuous mounting |
| Color | White |

# LuxSpace HE

Variant

## General description

These LED downlights with superior aesthetics and build quality suitable for applications that require a green general lighting solutions for instance in offices, shops, hotels and hospitals. Their extremely low power consumption results in significant energy savings compared with traditional CFL downlights.

## Features

- 50%* energy saving
- Long life of 50000* hours
- Good color rendering

| Specifications | | | | |
|---|---|---|---|---|
| Type | LuxSpace Micro BBS478 | LuxSpace Mini BS488/489 | LuxSpace compact BBS498/499 | Luxspace Compact Power BBS496 |
| Light source | DLED Micro | DLED Mini | DLED Compact | DLED Compact Power |
| System lm output | 560lm (3000K) 620lm (4000K) | 1000lm (3000K) 1100lm (4000K) | 2000lm (3000K) 2200lm (4000K) | 2750 (3000K) 3100 (4000) |
| System Power consumption | 8W | 13W | 28W | 40.5W |
| System performance* | 68lm/W(3000K) 75lm/W (4000K) | 74lm/W(3000K) 81lm/W (4000K) | 72lm/W(3000K) 80lm/W (4000K) | 70lm/W(3000K) 78lm/W (4000K) |
| Lifetime | 50k hours (L70) | 50k hours (L70) | 50k hours (L70) | 50k hours (L70) |
| CCT | 3000K / 4000K | 3000K / 4000K | 3000K / 4000K | 3000K / 4000K |
| RA | >80 | >80 | >80 | >80 |
| Driver/control | Fixed and dimmable | Fixed Dimmable (DALI) | Fixed Dimmable (DALI) | Fixed Dimmable (DALI) |
| IP | Option of IP54 Version | Option of IP54 Version | Option of IP54 Version | Option of IP54 Version |
| Accessories | Glass disk with frosted inner part in suspended position  SG-FRC Frosted-glass halo ring in suspended position SG-HR-FR Opal glass in suspended position SG-O | | | |

*Conditions apply

# LuxSpace
accent rounded

Variant

## General description

LuxSpace round accent adjustable provides a compact look and feel. This product provides high lumen package along with good color rendering and color consistency, thereby proving to be an effective solution than conventional solutions.

## Features

- Consistent light output
- Long life of 50000* hours
- CRI >80

| Specifications | | |
|---|---|---|
| Type | ST522B | ST526B |
| Light Source | SLED3200 | SLED3200 |
| Light Color | 2700K/4000K | 2700K / 4000K |
| Power Consumption | 3131 / 3998 Lumens | 3130 / 3998Lumens |
| Voltage | 220-240V AC 50 Hz | 220-240V AC 50 Hz |
| Driver | High effeciency constant current driver - external | High effeciency constant current driver - external |
| Optics | Clear diffuser optics with option of 25/36/60 degree beam angle | Clear diffuser optics with option of 25/36/60 degree beam angle |
| Material | Die-cast AL housing with polycarbonate reflector | Die-cast AL housing with polycarbonate reflector |
| Installation | recessed | recessed |
| Color | White | White |
| Lifetime | 50000 burning hrs (At L70) | 50000 burning hrs (At L70) |
| CRI | >80 | >80 |

Also available in 1000 and 600 lumens.

*Conditions apply

# AR111

# GreenAccent

## General description

Delivering a warm, halogen-like accent beam, MASTER LEDspot LV AR111 is an ideal retrofit solution for spot and general lighting applications in the hospitality and retail industry. It is particularly suitable for general lighting where the light is on all the time, such as creative accent lighting applications in shops, restaurants, hotels, and especially for galleries, exhibitions and museums. The robustly designed MASTER LEDspot LV AR111 offers various beam angles for a clearly defined beam spread. There is no UV or IR in the beam, making it suitable for illuminating heat-sensitive objects like food, organic materials, paintings, etc. The patented intelligent driver enables broad compatibility with existing electromagnetic and electronic halogen transformers. MASTER LEDspot LV AR111 delivers huge energy savings and minimizes maintenance cost without any reduction in brightness.

## Features

• Lower energy consumption: 15 / 75 W (12 V)
• Patented intelligent driver
• Long life of 40,000* hours
• Low energy consumption
• Clearly defined beam spread
• Dimmable

| Product description | Watt | Socket | Beam intensity ( cd ) | Beam angle | Lifetime (hours) | Lumens output | Efficiency lm/W | CRI | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|---|
| AR111 2700K 24D | 15 | G53 | 4560 | 25 | 40,000 | 830 | 55 | >80 | 2700 | Yes |
| AR111 2700K 40D | 15 | G53 | 1660 | 40 | 40,000 | 830 | 55 | >80 | 2700 | Yes |

## General description

Let Philips GreenAccent family inspire you with a range of accent lighting solutions designed with retail – and retail success – in mind.
GreenAccent Gen II applied latest high efficient COB LED technology, with a special optical system to deliver top quality light that makes your shop and merchandise look great and as a lighthouse in a sea of choices!

## Features

• Lower energy consumption
• Low maintenance
• Good color rendering

| Specifications | | |
|---|---|---|
| Type | GreenAccent LED20 | GreenAccent LED40 |
| Lumen Package | 2000lm | 4000lm |
| System Lumen | 1750lm(3000K); 1900lm(4000K) | 3700lm(3000K); 3900lm(4000K) |
| System Power | 26.5W | 54W |
| System Efficacy | 65lm/W(3000K); 70lm/W(4000K) | 67lm/W(3000K); 72lm/W(4000K) |
| Power Factor | 0.95 | 0.95 |
| Color Temp. | Warm white 3000K and Neutral white 4000K | Warm white 3000K and Neutral white 4000K |
| CRI | Typical 85, Minimum 80 | Typical 85, Minimum 80 |
| SDCM | ≤3 | ≤4 |
| Beam Angle | 12° / 24° / 36° | 16° / 22° / 34° |
| Power Supply | 220-240V/50-60Hz | 220-240V/50-60Hz |
| Driver | Fixed output | Fixed output |
| Mounting | Recessed fixed; Recessed adjustable; Semi-Recessed; Track | Recessed fixed; Recessed adjustable; Semi-Recessed; Track |
| Color | White (semi-recessed and track available in black) | White (semi-recessed and track available in black) |
| Optics | Vacuum Alu plating on PC reflector (LED40: antireflection coating glass applied) | Vacuum Alu plating on PC reflector (LED40: antireflection coating glass applied) |
| Lifetime | 40000hr L70 @25°C | 40000hr L70 @25°C |

# Master
# LED GU10



# Master
# LED PAR



PAR Outdoor                    PAR Indoor

## General description

Efficient accent lighting is now possible with GU10 MASTER LED lamp. With no heat, UV or IR in the beam, it outperforms halogen lighting in terms of lighting while saving on evergy and maintenance costs.

## General description

Philips MASTER LED PAR30 and PAR38 integrates a high power LED light source with excellent thermal management solution in a standard halogen form-factor to replace up to 75W traditional halogen lamp.

## Features

- Low energy consumption: 6W/50W (230 V -240 V)
- Long life of 40,000* hours
- Clearly defined beam spread
- UV- and IR-free light for less heat and protection for heat-sensitive objects

## Features

- Replacement for Standard 75W halogen lamp
- High energy efficiency of more than 80%*
- Long life of 45,000* hours
- Life of 20,000* hours for PAR38 outdoor
- No External driver is required
- Environment friendly RoHS complaint , No mercury
- No UV and IR
- CCT : 2700K

| Product description | Watt | Socket | Beam intensity ( cd ) | Beam angle | Lifetime (hours) | Lumens output | CRI | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|
| Master LEDspotMV 6-50W GU10 2700K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 300 | >80 | 2700 | No |
| Master LEDspotMV 6-50W GU10 3000K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 320 | >80 | 3000 | No |
| Master LEDspotMV 6-50W GU10 4000K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 320 | >80 | 4000 | No |
| Master LEDspotMV 6-50W GU10 2700K 40D | 6 | GU10 | 600 | 40 | 40,000 | 300 | >80 | 2700 | No |
| Master LEDspotMV 6-50W GU10 3000K 40D | 6 | GU10 | 600 | 40 | 40,000 | 320 | >80 | 3000 | No |
| Master LEDspotMV 6-50W GU10 4000K 40D | 6 | GU10 | 600 | 40 | 40,000 | 320 | >80 | 4000 | No |

| Product description | Watt | Socket | Beam intensity | Beam angle | Lifetime (hours) | Lumens output | Efficiency lm/W | CRI | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|---|
| D 7-50W 2700K PAR20 25D | 7 | E27 | 1000 | 25 | 45,000 | 250 | 36 | >80 | 2700 | Yes |
| D 12-75W 2700K 230V PAR30S 25D | 12 | E27 | 2250 | 25 | 45,000 | 630 | 53 | >80 | 2700 | Yes |
| D 17-100W 2700K 230V PAR38 OD | 17 | E27 | 3500 | 25 | 25,000 | 810 | 48 | >80 | 2700 | No |
| D 18-100W 2700K 230V PAR38 25D | 18 | E27 | 3400 | 25 | 45,000 | 810 | 45 | >80 | 2700 | Yes |

# Essential LED MR16 2.6/5W (Non dimmable)



MR16- 2.6W          MR16- 5W

## General description

Philips Essential LED MR16 lamp integrates high power LED light source and compact high efficiency driver into a traditional halogen form factor. It is ideal for applications including track lighting, general architectural and landscape lighting.

## Features

- Low energy consumption: 2.6 W/20 W, 5 W/50 W (12 V)
- Patented intelligent driver
- Retrofittable with low-voltage MR16 halogen lamps with GU5.3 socket

| Product description | Watt | Socket | Beam intensity ( cd ) | Beam angle | Lifetime (hours) | Lumens output | CCT | Color Rendering Index | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|---|
| Essential LED 2.6-20W MR16 2700K | 2.6 | GU5.3 | 600 | 24 | 15,000 | 150 | 2700K | >80 | 2700 | No |
| Essential LED 2.6-20W MR16 6500K | 2.6 | GU5.3 | 750 | 24 | 15,000 | 170 | 6500K | >70 | 3000 | No |
| Essential LED 5-50W MR16 2700K | 5 | GU5.3 | 1100 | 24 | 15,000 | 355 | 2700K | >80 | 3000 | No |
| Essential LED 5-50W MR16 6500K | 5 | GU5.3 | 1150 | 24 | 15,000 | 410 | 6500K | >70 | 3000 | No |

# MR11 (Non-dimmable)

## General description

Delivering a warm, halogen-like accent beam, MASTER LEDspot LV is an ideal retrofit solution for spot and general lighting applications. It is particularly suited for public areas such as receptions, lobbies, corridors, stairwells and washrooms, where the light is on all the time.

## Features

- Low energy consumption: 4 W / 20 W (12 V)
- Clearly defined beam spread
- UV- and IR-free light for less heat and protection for heat-sensitive objects
- Retrofit
- 24 degree beam angle
- CCT: 2700K and 4200K

| Product description | Watt | Socket | Bulb Shape | Beam intensity ( cd ) | Beam angle | Lifetime (hours) | Lumens output | Efficiency lm/W | CRI | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-20W GU4 2700K 24D | 4 | GU4 | MR11 | 580 | 24 | 25,000 | 140 | 35 | >80 | 2700 | No |
| 4-20W GU4 4000K 24D | 4 | GU4 | MR11 | 700 | 24 | 25,000 | 150 | 38 | >80 | 4000 | No |

# LEDs in hospitality

Creating the right lighting both inside and outside your restaurants and hotels is critical for attracting guests. Philips LED lighting products and solutions, provide your guests the comfort they seek and at the same time help you save significantly on energy consumption and costs.
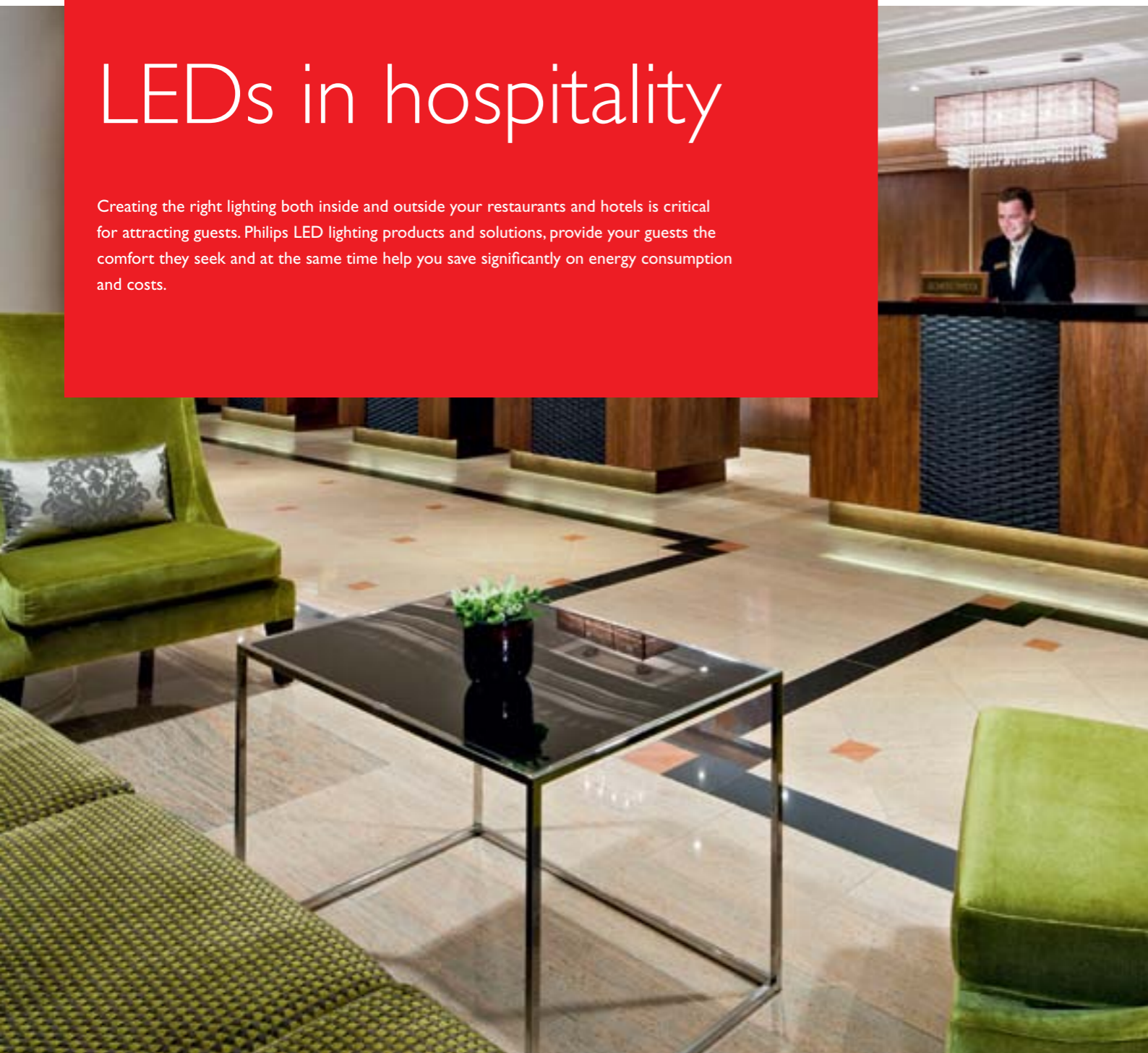
## Adding value

Our lighting products can add value throughout your hotels and restaurants. From guest rooms and public areas to outdoor & facade areas and other areas like common areas, meeting rooms, entertainment zones and well being areas, we have products that meet your need.

# Receptions and lobbies

Hotel reception provides a welcoming ambience and creates the right impact on your guests. At this busy area where people come together and interact during all hours of the day, thoughtful lighting can make a long lasting impression on your guests.

LuxSpace HE
Page 196

DayWave
Page 52

LumiStone
Page 199

Master LED GU10
Page 190

# Corridors and other transition areas

Corridors and other transition areas often lack natural daylight, but that doesn't mean they have to lack appeal. We have a variety of lighting solutions for brightening the mood and showing the way. And although such areas have to be illuminated whenever someone is present, the lights don't have to be on 24 hours a day.

Luxspace HE
Page 196

GreenLEDi
Page 198

Master LED GU10
Page 190

# Guest rooms and suites

Guests treating themselves to a few days of luxury or executives on a business trip deserve and expect 5 star treatment. We can help you give them exactly that and more! No expense has been spared in developing our state-of-the-art audio-visual solutions to offer your guests a profoundly enjoyable entertainment experience. Along with that our cutting-edge lighting solutions provide added visual comfort, creating that special ambience for a truly memorable stay.

Master LED GU10
Page 190

Master LED MR16
Page 191

DaySign
Page 197

# Bars, restaurants and lounges

The right ambience is crucial. These are places where people go to unwind, socialize and enjoy themselves, but also to meet and entertain business associates. Through the strategic use of creative lighting you can make things stimulating and refreshing during the day and more intimate and laid back at night. Or the other way round! On top of that, uniquely appealing and premium-quality infotainment displays can act as a real magnet for guests.

Master LED GU10
Page 190

Master LED MR16
Page 191

eWDownlight Powercore
Page 210

iColor Cove MX Powercore
Page 210

# Wellness areas

Wellness areas have become indispensable in hotels of all sizes. Gyms, saunas, swimming pools and massage rooms, as well as beauty salons, hairdressers and even spas, are becoming standard features. Whether you want to set the right ambience, ensure adequate levels of safety and security or provide some entertaining distraction for those trying to knock themselves into shape, we have plenty to offer.

Master LED GU10
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eWDownlight Powercore
Page 210

Master LED MR16
Page 191

iColor Cove MX Powercore
Page 210

# Facades

The facade is one of the most potent calling cards of your hotel. Create an exterior that is distinctive, memorable and eye-catching and you can generate a significant amount of extra revenue while making sure you really stand out from the crowd. LEDs in particular, with their ability to produce millions of color combinations and sequence in an endless variety of patterns, are ideal for generating attention and reinforcing the projection of your brand.

ColorReachTM Powercore
Page 210

ColorBurst Compact
Page 210

ColorBlast TR
Page 210

Color Graze
Page 210

**Cafe Ludus**
New Delhi, India

"Lighting is the most important part of any restaurant & bar. After evaluating various brands, we chose Philips lighting because they are the best."

- Rachit Khanna, Partner & Owner, Café Ludus

## Customer requirement

Lighting partner who could provide lighting which is inviting & inspiring for guests.

## What Philips offered



ColorFuse Powercore
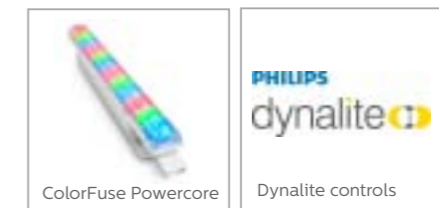


Dynalite controls

Philips Colorkinetics LED ColorFuse Powercore and Dynalite controls

## Results

• Inspiring and soothing lighting experience for guests
• Different light effects & scenes at click of a button using Philips Dynalite IPHONE and IPAD APP.

**ITC Maurya Hotel**
New Delhi, India

"ITC Hotels is a pioneer in eco initiatives. It is important that our hotels are not only energy efficient but the ambience is also appealing for our guests. Lighting constitutes almost 25% of our energy costs. Use of LED lights helps in almost 80% energy savings v/s conventional lighting. With use of Philips LED lights, we have not only saved energy costs but have also maintained the guest experience without compromising the ambience thereby creating a win win situation."

- Mr.Niranjan Khatri, Head – Sustainability Initiatives,
  ITC Welcomgroup

## Customer requirement

Make the chain of hotels energy efficient and at the same time create appealing ambience for the guests.

## What Philips offered

GU10

Master LED lamps

## Results

- Upto 80% energy savings.
- Pleasant ambience for the guests.
- Low maintenance.

i'm lovin' it™

**McDonald's**
Mumbai, India

"Philips LED retail lighting has given McDonald's more control over its operational cost. Our customers are saying 'I'm loving it' and we're saying 'I'm loving it.'"

- Mr. Vinay Halambi, General Manager –
  Projects, McDonald's India (West & South)

## Customer requirement

Lighting which can create an inviting and warm ambience for customers with maintenance free operation.

## What Philips offered



LEDO

LEDO LED downlighters

## Results

• Energy efficient LED lighting.
• Maintenance free operation.
• Better lighting levels.
• Long life.

**McDonald's**
New Delhi, India

''We wanted a lighting solution which looks aesthetically good and is also energy efficient. We are happy that we chose Philips LED lighting solutions.''

- Mr. Jamal Pervez, Head – Projects, McDonald's India (North & East)

## Customer requirement

Energy efficient lighting solutions for newly renovated chain of restaurants.

## What Philips offered

| MR16 | Latina |
|------|--------|

Master LED lamps and Latina framelights

## Results

• Significant energy savings.
• Maintenance free operation.
• Better lighting levels.
• Long life.

## Scandic Palace
Copenhagen,
Denmark

"The spirit of the hotel determined our new lighting."

- Hotel director Pia Jakobsen, Scandic Palace Hotel

## Customer requirement

Make the chain of hotels energy efficient and at the same time create appealing ambience for the guests.

## What Philips offered

| | |
|---|---|
| LuxSpace | LED bulb |

Master LED lamps and Latina framelights

## Results

• Energy efficient.
• Pleasant ambience for the guests.
• Low maintenance.

**The Westin Palace**
Madrid, Spain

''Brilliant savings.''

- Hotel director Pia Jakobsen, Scandic Palace Hotel

## Customer requirement

The Westin Palace Madrid volunteered to be a pilot hotel and test the new bulbs generation from Philips. The new bulbs were first tested in rooms, on the floors and in the banquet corridors.

## What Philips offered

NovaGlow E14 candle

Novallure LED candle

## Results

• Significant energy saving
• Long life
• Eco friendly

**CitizenM**
Amsterdam,
The Netherlands

"With the help of Philips, we're applying technology as an enabler to deliver a better customer experience and more cost-effective operations."

- Michael Levie, CEO of citizenM hotels

## Customer requirement

Provide a friendly technology, that enables customers to personalize their hotel stay exactly the way they want extending from personalized check-in to lighting controls.

## What Philips offered



iColor Cove MX



LuxSpace

Color Kinetics iColor Cove MX Powercore and LuxSpace LED luminaires

## Results

• Personalized experience.
• Pleasant ambience.
• Low maintenance.

# Master
## LED GU10

## Master LED
## MR16 7/7.2W
## Dimmable

Variant

## General description

Efficient accent lighting is now possible with GU10 MASTER LED lamp. With no heat, UV or IR in the beam, it outperforms halogen lighting in terms of lighting while saving on evergy and maintenance costs.

## General description

Philips MASTER LED MR16 dimable lamp integrates leading high power LED light source and compact high efficiency driver into a traditional halogen form factor. It is ideal for applications including track lighting, general architectural and landscape lighting.

## Features

- Low energy consumption: 6W/50W (230 V -240 V)
- Long life of 40,000* hours
- Clearly defined beam spread
- UV- and IR-free light for less heat and protection for heat-sensitive objects

## Features

- Low energy consumption: 7/7.2 W / 50 W (12 V)
- Air movement mechanism (unique air flux technology enabling 30%* higher efficiency)
- Retrofittable with low-voltage MR16 halogen lamps with GU5.3 socket

| Product description | Watt | Socket | Beam intensity ( cd ) | Beam angle | Lifetime (hours) | Lumens output | CRI | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|
| Master LEDspotMV 6-50W GU10 2700K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 300 | >80 | 2700 | No |
| Master LEDspotMV 6-50W GU10 3000K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 320 | >80 | 3000 | No |
| Master LEDspotMV 6-50W GU10 4000K 25D | 6 | GU10 | 1100 | 25 | 40,000 | 320 | >80 | 4000 | No |
| Master LEDspotMV 6-50W GU10 2700K 40D | 6 | GU10 | 600 | 40 | 40,000 | 300 | >80 | 2700 | No |
| Master LEDspotMV 6-50W GU10 3000K 40D | 6 | GU10 | 600 | 40 | 40,000 | 320 | >80 | 3000 | No |
| Master LEDspotMV 6-50W GU10 4000K 40D | 6 | GU10 | 600 | 40 | 40,000 | 320 | >80 | 4000 | No |

| Product description | Watt | Socket | Beam intensity ( cd ) | Beam angle | Lifetime ( hours ) | Lumens output | Color Rendering Index | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|---|
| MASTER LED 7-50W 2700K MR16 15D Dim | 7 | GU5.3 | 2900 | 15 | 40,000 | 380 | >80 | 2700 | Yes |
| MASTER LED 7-50W 3000K MR16 15D Dim | 7 | GU5.3 | 3150 | 15 | 40,000 | 420 | >80 | 3000 | Yes |
| MASTER LED 7-50W 4000K MR16 15D Dim | 7 | GU5.3 | 3250 | 15 | 40,000 | 440 | >80 | 4000 | Yes |
| MASTER LED 7-50W 2700K MR16 24D Dim | 7 | GU5.3 | 2100 | 24 | 40,000 | 420 | >80 | 2700 | Yes |
| MASTER LED 7-50W 3000K MR16 24D Dim | 7 | GU5.3 | 2200 | 24 | 40,000 | 440 | >80 | 3000 | Yes |
| MASTER LED 7-50W 4000K MR16 24D Dim | 7 | GU5.3 | 2350 | 24 | 40,000 | 470 | >80 | 4000 | Yes |
| MASTER LED 7-50W 2700K MR16 36D Dim | 7 | GU5.3 | 1200 | 36 | 40,000 | 420 | >80 | 2700 | Yes |
| MASTER LED 7-50W 3000K MR16 36D Dim | 7 | GU5.3 | 1250 | 36 | 40,000 | 440 | >80 | 3000 | Yes |
| MASTER LED 7-50W 4000K MR16 36D Dim | 7 | GU5.3 | 1300 | 36 | 40,000 | 470 | >80 | 4000 | Yes |
| MASTER LED 7.2-50+W 2700K MR16 24D Dim | 7.2 | GU5.3 | 2400 | 24 | 40,000 | 500 | >80 | 2700 | Yes |
| MASTER LED 7.2-50+W 3000K MR16 24D Dim | 7.2 | GU5.3 | 2500 | 24 | 40,000 | 510 | >80 | 3000 | Yes |
| MASTER LED 7.2-50+W 2700K MR16 36D Dim | 7.2 | GU5.3 | 1300 | 36 | 40,000 | 500 | >80 | 2700 | Yes |
| MASTER LED 7.2-50+W 3000K MR16 36D Dim | 7.2 | GU5.3 | 1350 | 36 | 40,000 | 510 | >80 | 3000 | Yes |

# NovaGlow
# E14 Candle

## General description

Philips NovaGlow E14 CANDLE integrates a high power LED light source with a unique lotus lens design for sparkling effect. It can replace up to 20W GLS candle.

## Features

- Standard GLS Candle form factor
- Ultra Energy efficient, replacement up to 20W GLS
- Available in 4W
- 20,000* hours average life time
- No external driver is required
- No mercury, UV and IR
- RoHS complaint
- CCT: 2700K
- Dimmable

| Product description | Wattage | Socket | Lifetime (hours) | Lumens output | Efficiency lm/W | Color Rendering Index | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|
| Master LED 4W- E14 2700K 230W B35 CL DIM | 4 | E14 | 20,000 | 250 | 62 | >80 | 2700 | Yes |

# Sultan and Prince LED bulb 7,12 & 13W

Sultan                    Prince

## General description

Premium LED bulb providing high quality of light with less energy consumption and long life.

## Features

- Ultra energy efficient replacement up to 75W GLS
- 25,000* hours average life time
- No mercury, UV and IR
- RoHS complaint
- CCT: 2700K
- Dimmable

| Product description | Wattage | Socket | Beam angle | Lifetime (hours) | Lumens output | Color Rendering Index | Color Temp. | Dimmable |
|---|---|---|---|---|---|---|---|---|
| 12-60W 2700 E27 | 12 | E27 | 310 | 25,000 | 806 | 80 | 2700 | Yes |
| 7-40W 2700 E27 | 7 | E27 | 310 | 25,000 | 470 | 80 | 2700 | Yes |
| 7-40W 2700 B22 | 7 | B22 | 310 | 25,000 | 470 | 80 | 2700 | Yes |
| 13-75W 2700 E27 | 13 | E27 | 310 | 25,000 | 1055 | 80 | 2700 | Yes |

# Consumer
# LED lamps
# (Non-dimmable)

## General description

Philips Consumer LED lamps provide high quality light with less energy consumption and long life at an affordable price.

## Features

- Upto 50%* energy saving compared to CFL
- Upto 90%* energy saving compared to GLS
- High efficacy
- No UV and IR

| Product description | Wattage | Lamp base | Lifetime (hours) | Lumens output | Color Rendering Index | Color Temp. |
|---|---|---|---|---|---|---|
| LED Bulb 230 lm | 2.5W | B22 and E27 | 15,000 | 230 | 80 | 3000K and 6500K |
| LED Bulb 350lm | 4W | B22 and E27 | 15,000 | 350 | 80 | 6500K |
| LED Bulb 350lm | 5W | B22 and E27 | 15,000 | 350 | 80 | 3000K |
| LED Bulb 600lm | 7W | B22 and E27 | 15,000 | 600 | 80 | 6500K |
| LED Bulb 600lm | 7.5W | B22 and E27 | 15,000 | 600 | 80 | 3000K |
| LED Bulb 806lm | 9W | B22 and E27 | 15,000 | 806 | 80 | 6500K |
| LED Bulb 806lm | 9.5W | B22 and E27 | 15,000 | 806 | 80 | 3000K |
| LED Bub 1055lm | 12.5W | B22 and E27 | 15,000 | 1055 | 80 | 6500K |
| LED Bub 1055lm | 12.5W | B22 and E27 | 15,000 | 1055 | 80 | 3000K |
| LED Bulb 1400lm | 14W | B22 and E27 | 15,000 | 1400 | 80 | 6500K |
| LED Bulb 1400lm | 14W | B22 and E27 | 15,000 | 1400 | 80 | 3000K |

*Conditions apply

# LuxSpace HE



Variant

## General description

These LED downlights with superior aesthetics and build quality suitable for applications that require a green general lighting solutions for instance in offices, shops, hotels and hospitals. Their extremely low power consumption results in significant energy savings compared with traditional CFL downlights.

## Features

- 50%* energy saving
- Long life of 50000* hours
- Good color rendering

| Specifications | | | | |
|---|---|---|---|---|
| Type | LuxSpace Micro BBS478 | LuxSpace Mini BS488/489 | LuxSpace compact BBS498/499 | Luxspace Compact Power BBS496 |
| Light source | DLED Micro | DLED Mini | DLED Compact | DLED Compact Power |
| System lm output | 560lm (3000K) 620lm (4000K) | 1000lm (3000K) 1100lm (4000K) | 2000lm (3000K) 2200lm (4000K) | 2750 (3000K) 3100 (4000) |
| System Power consumption | 8W | 13W | 28W | 40.5W |
| System performance* | 68lm/W(3000K) 75lm/W (4000K) | 74lm/W(3000K) 81lm/W (4000K) | 72lm/W(3000K) 80lm/W (4000K) | 70lm/W(3000K) 78lm/W (4000K) |
| Lifetime | 50k hours (L70) | 50k hours (L70) | 50k hours (L70) | 50k hours (L70) |
| CCT | 3000K / 4000K | 3000K / 4000K | 3000K / 4000K | 3000K / 4000K |
| RA | >80 | >80 | >80 | >80 |
| Driver/control | Fixed and dimmable | Fixed Dimmable (DALI) | Fixed Dimmable (DALI) | Fixed Dimmable (DALI) |
| IP | Option of IP54 Version | Option of IP54 Version | Option of IP54 Version | Option of IP54 Version |
| Accessories | Glass disk with frosted inner part in suspended position  SG-FRC Frosted-glass halo ring in suspended position SG-HR-FR Opal glass in suspended position SG-O | | | |

*Conditions apply

# DaySign



## General description

DaySign, is our innovative collection of LED-based luminaires with super-thin light-emitting surfaces, comprising adjustable spots (360° horizontal, 2x90° vertical) and surface-mounted and pendant luminaires (solo or twin LED disc), DaySign can be used for atmospheric general lighting and eye-catching accent lighting in retail and hospitality areas.

## Features

- Consistent light output
- Long life of 60500* hours
- Good color rendering

| Specifications | |
|---|---|
| Type | BPG742 1xGLED/840 PSU 36 3C WH |
| Light Source | LED module |
| Lumen output | 685 Lumen |
| Light Color | 4000K |
| Power Consumption | 19W |
| Voltage | 220-240V AC 50 Hz |
| Optics | 36 (Beam angle 36°) |
| Color | White |
| Lifetime | 60500 Burning Hrs (At L70) |
| CRI | 80 |

*Conditions apply

# GreenLEDi



Also available in
1200, 900, 600, 300 lumen

Variants

# LumiStone



## General description

GreenLEDi range is a breakthrough offering which combines modern product design, the latest LED technology and reliable heat management to deliver a long lasting efficient solution for offices and retails spaces. Offering substantial energy savings compared to CFL/halogen, good light quality, complete stylistic freedom and significant maintenance savings, the product is an ideal value for money replacement for conventional solutions.

## Features

• 50%* energy saving
• 5 times more life over CFLs
• Long life of 40000* hours

| Specifications | GreenLED i600 DN 191B | GreenLED i900 DN 192B | GreenLED i1200 DN 193B | GreenLED i1500 DN 194B |
|---|---|---|---|---|
| LED engine | DLED Micro | DLED Mini | DLED Compact | DLED Power |
| lumen package | 6500K-600 4000K-600 3000K-600 | 6500K-1000 4000K-900 3000K-900 | 6500K-4000K-1200 3000K-1200 | 6500K-4000K-1500 3000K-1500 |
| CRI | >70 | >70 | >70 | >70 |
| CCT | Warm white: 3000K Neutral white: 4000K Cool Daylight: 6500K | Warm white: 3000K Neutral white: 4000K Cool Daylight: 6500K | Warm white: 3000K Neutral white: 4000K Cool Daylight: 6500K | Warm white: 3000K Neutral white: 4000K Cool Daylight: 6500K |
| Power (4000K) | 10W | 15W | 18W | 24W |
| Voltage | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz | 220V-240V/50, 60Hz |
| driver | Constant current integrated driver | Constant current integrated driver | Constant current integrated driver | Constant current integrated driver |
| optics | High quality diffuser | High quality diffuser | High quality diffuser | High quality diffuser |
| Material | heat sink: die-cast diffuser: PMMA reflector: PC clip: steel | heat sink: die-cast diffuser: PMMA reflector: PC clip: steel | heat sink: die-cast diffuser: PMMA reflector: PC clip: steel | heat sink: die-cast diffuser: PMMA reflector: PC clip: steel |
| Installation | Spring Clip | Spring Clip | Spring Clip | Spring Clip |
| SDCM | 5 | 5 | 5 | 5 |

## General description

LumiStone is a LED luminaire consisting of two smaller ellipses rather than the traditional single voluminous piece. The ellipses have soft curvatures and resemble smooth stones found in nature. The flexible light effects created with direct and indirect light make LumiStone the perfect choice for inspiring lighting designs. With cutting-edge LED technology, LumiStone is also highly energy-efficient, delivering immediate savings on operational costs. A range of innovative mounting options make LumiStone extremely versatile in application.

## Features

• Consistent light output
• Long life of 50000* hours
• CRI >80

| Specifications | |
|---|---|
| Type | SP520P /SP524P/ SP522P /SP526P |
| Light Source | Non replacable LED module |
| Lumen output | 2000 /4000 Lumen |
| Light Color | 3000K / 4000 CCT |
| Power Consumption | 30W & 40W |
| Voltage | 220-240V AC 50 Hz |
| Driver | Constant current driver along with option for DALI dimmable driver |
| Optics | 1. Direct lighting 2. Combination of direct and indirect lighting |
| Material | Polycarbonate housing |
| Installation | Suspended |
| Color | White |
| Lifetime | 50000 Burning Hrs (At L70) |
| CRI | >80 |

*Conditions apply
*Conditions apply

# Color

# Kinetics

**Realize your vision**

Philips Color Kinetics offers professional LED lighting systems in a multitude of types, form factors, and output levels. Color-changing, tunable white, solid white, and solid color LED lighting fixtures deliver high-quality, digitally controllable light in the full range of interior and exterior architectural and entertainment applications. Our line of DMX and Ethernet controllers, video servers, controller accessories, and power / data supplies integrate seamlessly with our LED lighting fixtures in any installation, no matter how simple or complex.

"We have used Philips Color Kinetics ColorBlast LED luminaires for façade lighting. Our management team is very happy with the lighting. We are planning to replicate similar lighting at other railway stations across the country."

-  K Nagendra Prasad, Senior DEE, South Central Railways, India

## Customer requirement

Install an energy efficient facade lighting solution.

## What Philips offered



ColorBlast Powercore

Color Kinetics ColorBlast LED luminaire

## Results

• Low energy consumption.
• No maintenance.
• Long life.
• Improved facade lighting.

Asian Paints,
Mumbai, India

"We feel we've created something engaging and inspiring that has redefined not only perception of Asian Paints in the market but the Indian retail landscape in general."

- Mr. KBS Anand, President of Decorative Business, Asian Paints

## Customer requirement

Design a flagship store that would inspire consumers to do more with colour by choosing the best lighting partner.

## What Philips offered

iColor Flex SLX

Color Kinetics iColor Flex LED luminaire

## Results

• Dynamic ambience.
• Energy efficient LED lighting.
• Comfortable lighting.
• Long life.

**County Hall**
London, UK

## Customer requirement

Lighting system that allows County Hall to become a distinctive and attractive landmark on the night time scene as well as providing a sense of cohesion with other attractions along this popular stretch of the river. At the same time, the lighting solution should be flexible enough to accommodate the requirements of corporate clients who hire out the area for their own events.

## What Philips offered



ColorReachTM
Powercore

Color Kinetics ColorReach
Powercore LED luminaires

## Results

- Energy efficient LED lighting.
- Better visual comfort with color changing light effects.
- Sleek aesthetics.
- Long life.

**Gateshead**
**Millennium Bridge**
Newcastle, UK

## Customer requirement

LED architectural floodlight which is powerful enough to illuminate large-scale structures having more lumen output than any other comparable fixture for exterior illumination.

## What Philips offered



ColorReachTM
Powercore

Color Kinetics ColorReach
Powercore LED luminaires

## Results

• Energy efficient LED lighting.
• Better visual comfort with color changing light effects.
• Sleek aesthetics.
• Long life.

# Color Kinetics latest product range

## Theatrical / Touring

ColorBlaze TRX    ColorBlaze    ColorBlast TRX    ColorBlast TR    iW Blast TR

**Available in**
Color-Changing LED Lighting Systems
IntelliWhite LED Lighting Systems

## Graze / Wash

ColorGraze MX Powercore    ColorGraze QLX Powercore    ColorGraze EC Powercore    ColorFuse Powercore    ColorBlast Powercore    ColorBlast 12    ColorBlast 6

**Available in**
Color-Changing LED Lighting Systems
EssentialColor LED Lighting Systems
EssentialWhite LED Lighting Systems
IntelliWhite LED Lighting Systems

## Flood / Spot

iColor MR gen3    ColorReach Powercore gen2    ColorReach Compact Powercore    ColorBurst Powercore    ColorBurst Compact Powercore    ColorBlast 6

**Available in**
Color-Changing LED Lighting Systems
EssentialColor LED Lighting Systems
EssentialWhite LED Lighting Systems
IntelliWhite LED Lighting Systems

## Cove

iColor Cove MX Powercore    iColor Cove QLX Powercore    iColor Cove EC Powercore    iColor Cove QLX    iColor Cove EC    eW Cove MX Powercore with Precision Dimming

**Available in**
Color-Changing LED Lighting Systems
EssentialColor LED Lighting Systems
EssentialWhite LED Lighting Systems
IntelliWhite LED Lighting Systems

## Direct View

ArchiPoint iColor Powercore    iColor Flex LMX    iColor Flex MX    iColor Accent MX Powercore    iColor Tile MX      eW Flex SLX

**Available in**
Color-Changing LED Lighting Systems
EssentialWhite LED Lighting Systems

## Task / Downlight

eW Downlight Powercore gen2    eW Profile MX Powercore    eW Profile Powercore

## Controllers

Video System Manager Pro    Light System Manager    iPlayer3    ColorDial Pro    iColor Keypad      iColor Player    DMX Splitter Booster    Pharos Controllers

## Controller Accessories

Controller Keypad    Ethernet Controller Keypad    AuxBox    Multi-Protocol Converter    PoE Switch / PoE Injector      QuickPlay Pro    ColorPlay3    LSM Remote    QuickConfig    Remote Keypad

For most updated product information please refer to www.colorkinetics.com or call service executive at 1860 180 1111, 011 6600 1111 "standard call rates apply"

# LEDs: 1960 to today

| 1960 | 1970 | 1980 | 1990 | 2000 | 2013 and beyond |
|------|------|------|------|------|-----------------|

- Red LEDs used as small indicator lights in electronic devices
- First green and yellow LEDs

- LEDs used in watches, calculators, electronics, traffic lights
- First blue LEDs

- First super-bright red LEDs

- High-brightness blue LED created by Shuji Nakamura in 1993, allowing LED sources to produce virtually any color, including white
- First white-light LED sources developed in 1996
- LEDs begin to replace incandescent sources for applications that call for colored light
- RGB lighting applications appear in 1998
- High-brightness green and amber LEDs

- Output levels of up to 100 lumens achieved
- LEDs widely accepted for entertainment lighting by 2003
- First tunable white light fixtures
- White-light LEDs viable for accent lighting by 2004
- White-light LEDs viable for general illumination by 2008

- LED technology expected to be the preferred lighting method in homes and offices by 2025*

# Notes

**South**

**Philips India Ltd,**

Temple Towers, 5th. Floor,
Old no. 476, new no. 672,
Anna Salai, Nandanam,
Chennai 600 035
Tel :- 91 44 6650 1000
Fax :- 91 44 6650 1075
lighting.india@philips.com

**Philips India Ltd,**

Philips Innovation Campus
Manyata Tech Park, Nagavara
Bengaluru-560045
Tel : 080-4189 0000
Fax :- 080 6692 9930
lighting.india@philips.com

**Philips India Ltd,**

6-3-1109 / 1 / P/ 103, 3rd floor
Jewalpawani Towers, Rajbhavan
Road, Somajiguda, Hyderabad
Tel :- 040 6646 7676 / 4825
Fax :- 040 6678 7974
lighting.india@philips.com

**East**

**Philips India Ltd,**

7, Justice Chandra Madhab Road,
Kolkata 700 020
Tel : 91 33 2486 7621-24
Fax : 91 33 2486 8318
lighting.india@philips.com

**North**

**Philips India Ltd,**

9th Floor, DLF - 9B, DLF Cyber City
DLF Phase 3, Gurgaon 122002
Tel :- 91 124 460 6000
Fax :- 91 124 460 6666
lighting.india@philips.com

**Philips India Ltd,**

8th floor, DLF - 9B, DLF Cyber City
DLF phase 3, Gurgaon 122002
Tel :- 91 124 460 6000
Fax :- 91 124 460 6666

**West**

**Philips India Ltd,**

Technopolis Knowledge Park,
Mahakali caves road,
Chakala, Andheri East,
Mumbai 400093
Tel :- 91 22 6691 2000
Fax :- 91 22 6691 2389 / 6691 2398
lighting.india@philips.com

**Philips India Ltd,**

602, Heritage Tower, 6th floor,
Behind Visnagar Co-op Bank,
Near Gujarat Vidyapith, Usmanpura,
Ahmedabad, Gujarat
Tel :- 91 79 2754 0708
Fax :- 91 79 2754 0666
lighting.india@philips.com

For more information contact us at lighting.india@philips.com or call at 1800 102 2929

www.lighting.philips.co.in