



Signify

**GreenLine V2**  
Sleek & Elegant- An innovative LED Street light

919515898003 BRP409 LED115 CW SLA FG PSU GR EX

# Lighting needs are transforming

## Urbanization

We are increasingly urban and global. Today, 50% of the world's population lives in cities. This is expected to rise to 70% by 2050, presenting new challenges



## The people's city

Better experiences and better lives

## Resourcefulness & Economic uncertainty

Surging demand for raw materials/energy means prices and availability are a concern. Impact on the environment too. Tighter budgets are encouraging cities to outsource operations more and more too



## Sustainability

Doing more to help people use less

## Branding

The public's enhanced sense of personal identity is today matched by their cities. Intercity competition aimed at attracting people, tourists and businesses is growing



## Urban development, Iconic landmarks

Enhanced experiences, in and around landmarks, and regeneration of old districts

I want to feel safe and comfortable



**Connectivity**  
There are huge new opportunities to improve urban life through connected intelligence, using highly efficient solutions enabled by ICT



**Connected city**  
Intelligent and connected city infrastructure to improve mobility and community life

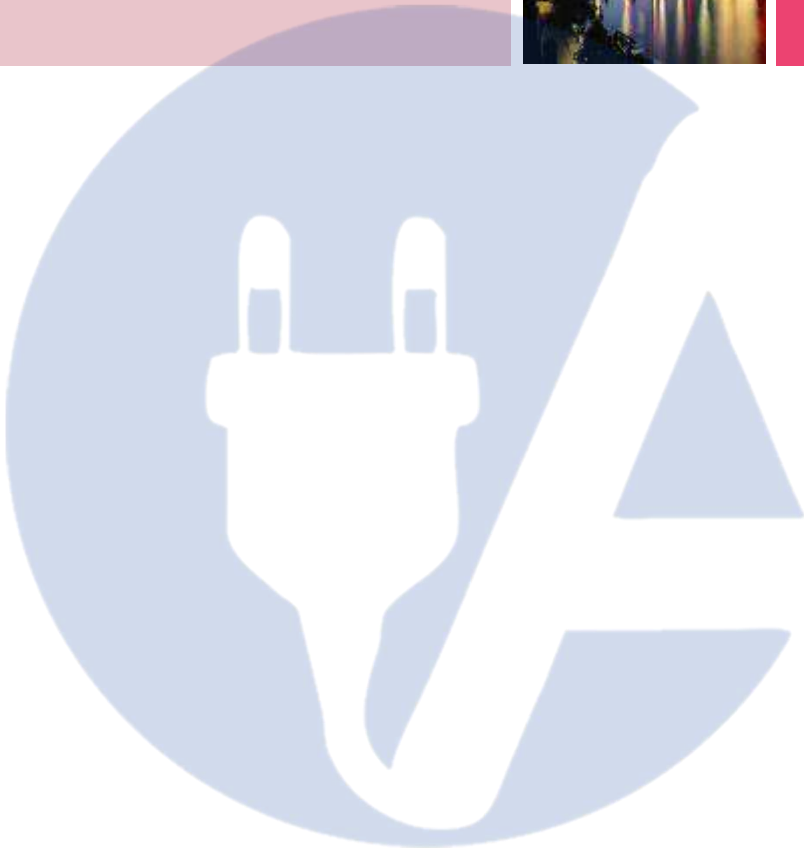
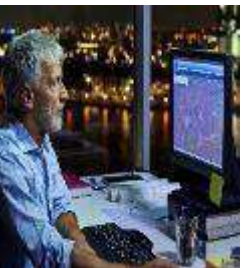
I need to think about the future



I want to inspire



I want to be in control



# Trends in Road Lighting

## An increasing level of social and environmental responsibility

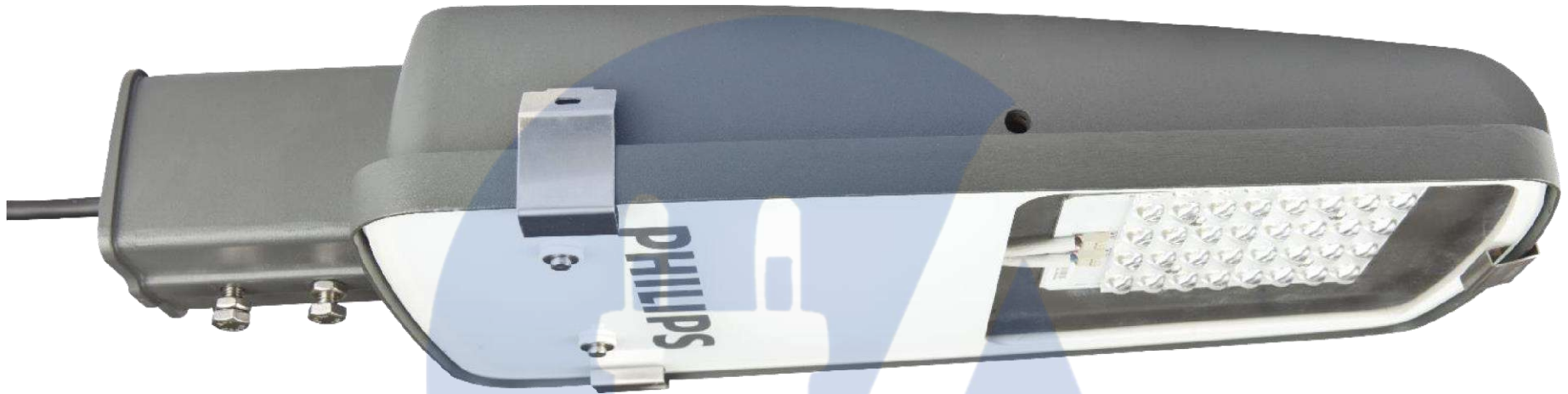
- Stronger interest in 'Energy Saving Solutions'
- Need for recyclable 'green products'
- Govt. recyclable subsidies & legislation at municipal level for energy saving & CO2 reduction

## Improving 'quality of life' and 'well being' considerations

- Enhanced comfort, safety and security
- Not just light on the road but better uniformity and aesthetic lighting solutions
- Feeling of civic pride, belonging

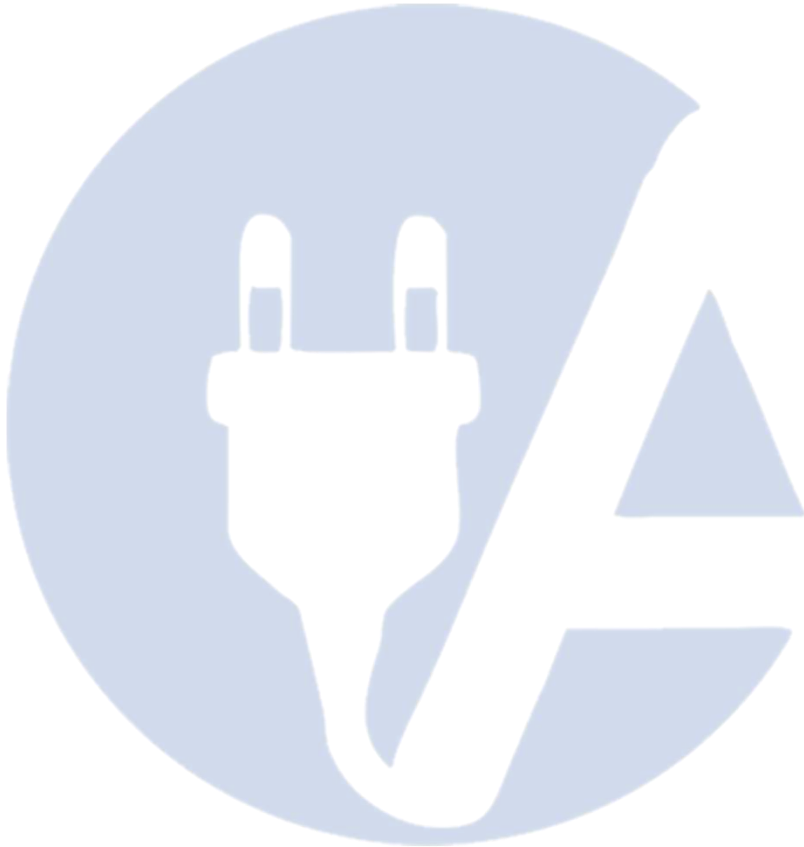
## Rapid urbanization; Economic expansion; GDP Growth; Increasing Wealth

- More roads as a result of rapid infrastructure development
- Upgrading city centers, residential areas, parks & squares



# Introducing ...Greenline V2

*“Maximize energy savings,  
Simple & Economical”*





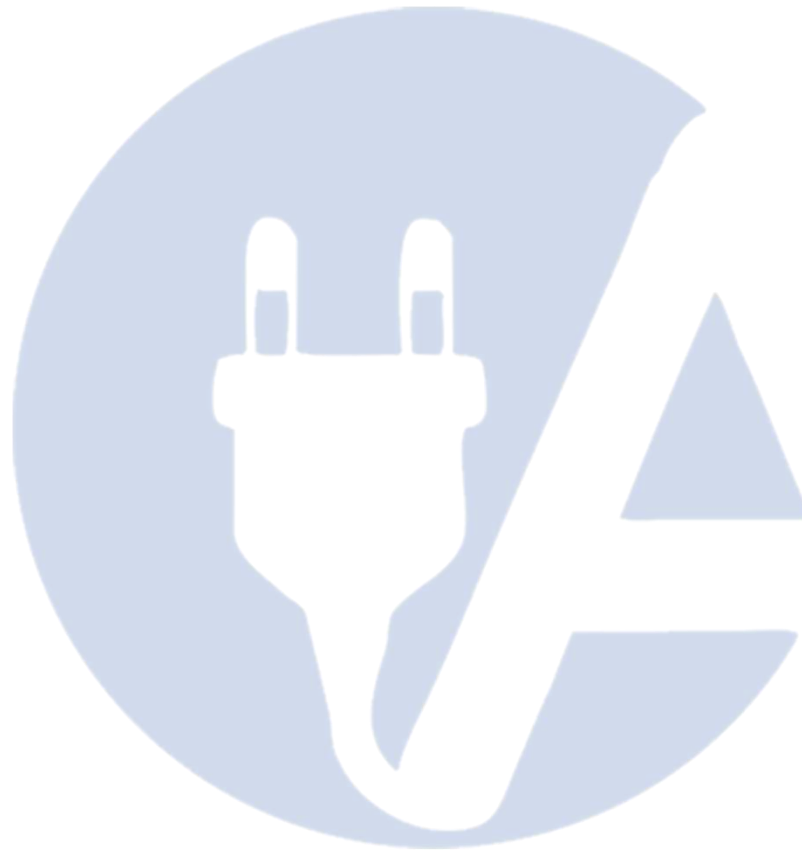
## Features & Benefits:

# Efficient lighting leads to a brighter future

- **Best in class energy-efficiency** : System efficacy of **125 lm/W (Nominal)**, 1:1 replacement of 280W SON Luminaire
- **Ease of Maintenance**: Toolless Opening & easy access to the Gear Compartment
- **Impact Resistant (IK 07)** : Protection against vandalism .
- **Ingress Protection (IP 66)** : Higher protection against intrusion of foreign bodies and moisture.
- **Dual optics** : For better uniformity and low glare

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- **Multiple Lumen Packs** : Available in 2 Lumen Packs for varied street applications & suited for ambient temperature up to 35 deg C.
- **Excellent Thermal Management** : Enhanced life of 50K Hrs. – L70B50@50K



Internal

**PHILIPS**



# Features & Benefits



## 1. Maximize energy savings

Up to 50% Energy Saving.

with full compliance to road lighting safety

standards.



## 2. Reliability

Unparalleled strength and durability. Solid die-cast housing with high ingress protection ensures long life.



## 3. Serviceable

**More Light on the Road.** Superior watts per square meter (W/m<sup>2</sup>) performance – Using less energy to light each m<sup>2</sup> on the road.

Excellent thermal management.

Class B Serviceability significantly reduces failures.

World class components.

C Easy Driver /SPD replacement Approbated, high quality LEDs, drivers etc.

Surge Protection.

T Fitted with Surge Protection Device up to 10KV  
o ensures reliability

Toolless opening

Easy opening of housing

# Maximized Energy Savings

## True Energy Savings vs Competitors

### Philips Greenline Classic delivers true



LED Efficacy











energy saving with the lowest W/m2.



System Efficacy  
Light out of the fixture



Light falling on the road

System	LED efficiency	System efficacy	Light on the road meeting safety	Safety	Energy Saving
Competitor LED system				 poor optics resulting in poor light distribution on the ground	 More lighting poles needed and thus higher energy consumption
Philips Greenline				 enough illuminance, perfect uniformity and minimized glare	 Reduce the no. of LED units, reduce pole numbers; Optimized energy saving

Philips takes care of all the steps from LED efficiency, system efficacy and road lighting optical design to achieve the best W/m<sup>2</sup> performance

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## Maximize Energy Savings

### Up to 50% Energy Saving

- Greenline Classic delivers a system efficiency of 120lm/W resulting in up to 50% energy savings against conventional SON systems.

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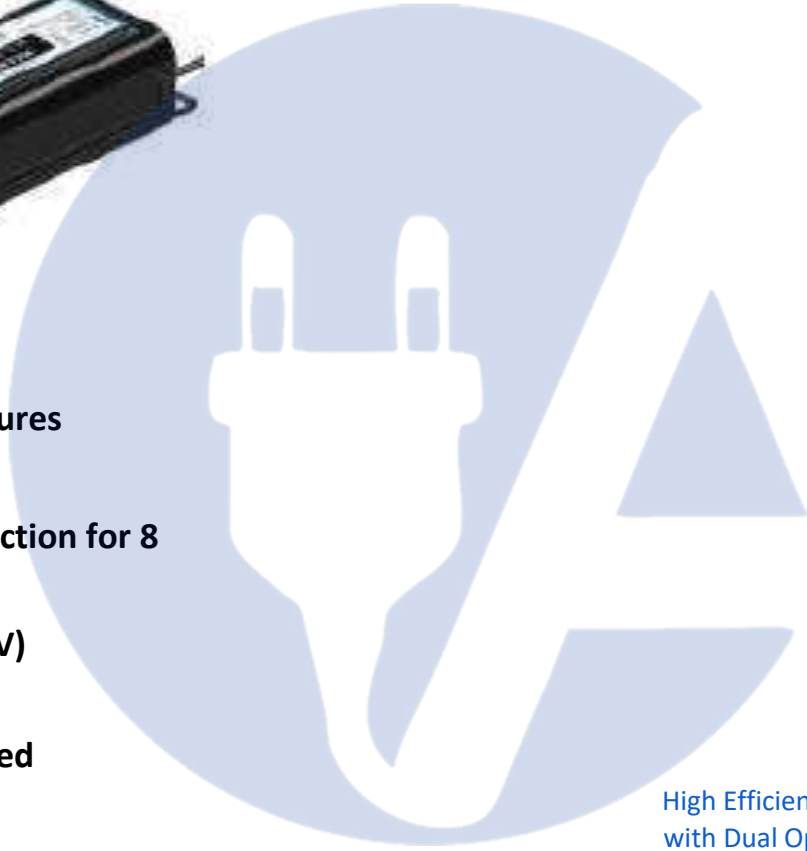
- Greenline Classic uses High efficacy driver and LED platform to ensure higher energy saving and reliable operation over committed lifetime.

High Efficiency Drivers minimizes energy loss



### Features

- **BIS Approved Driver**
- **440V Stress Voltage protection for 8 Hrs.**
- **High Cut off : 325V(+/- 15V)**
- **Auto Restart**
- 8 • **Fully Potted & Encapsulated**

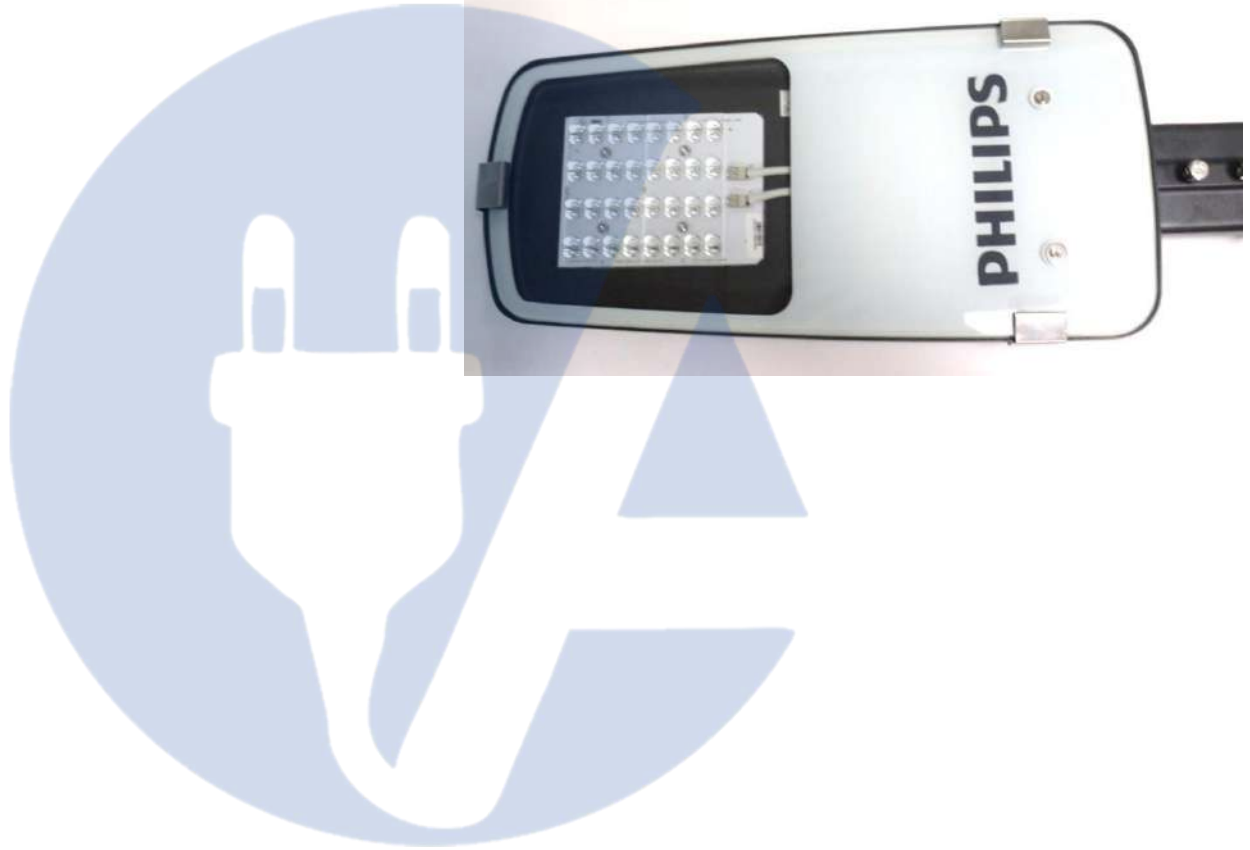


High Efficiency LED Platform  
with Dual Optics

Internal

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# Optimized Road Lighting Performance

## 1. Maximized Energy Savings - Optimized Road Lighting Performance

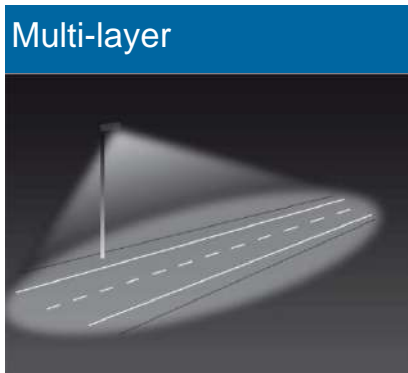
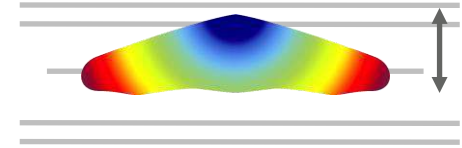
Selection of unique dedicated optical lens with flexible lumen packages to suit different applications.

### - More Light on the Road

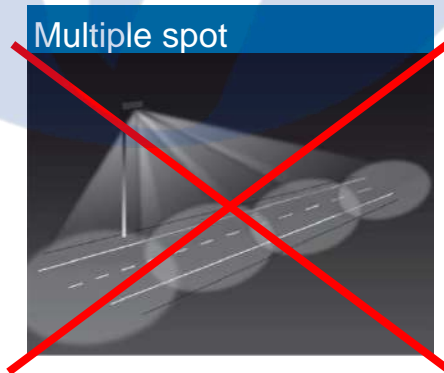
Superior watts per square meter (W/m<sup>2</sup>) performance – Using less energy to light per m<sup>2</sup> on the road.

### Philips Greenline V2 out-performs other Road Lightings:-

Dual optic design guarantees light uniformity. The innovative Led PCB design ensures road safety in the unlikely event of individual LED failure

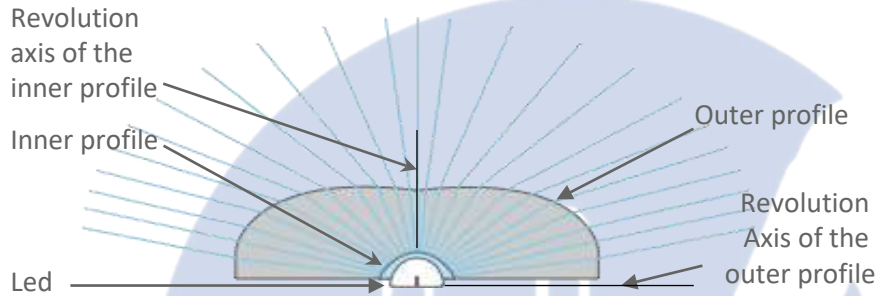


Internal



# Best-in-class Lens Design & Optics Integration

Best-in-class lens design to direct maximum light onto the road:



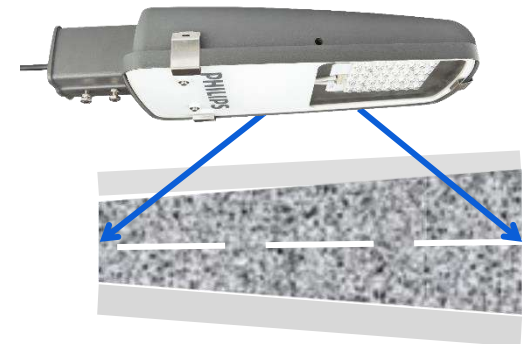
- Inner profile curve for maximum spacing between poles
- Outer profile curve to cover higher road widths

Optics integration: Light and energy loss is minimized with Integrated light source arrangement inside the housing.



The distance between the lens and the housing is calculated to ensure no light is blocked by the housing itself.

The distance between each lens is precisely calculated so the lenses do not block each other's light rays.



# Unparalleled Strength & Durability



Single  
Piece Die-  
Cast  
Aluminum  
Housing  
with LM6  
Alloy : IK  
07 rating

Philips  
Greenline

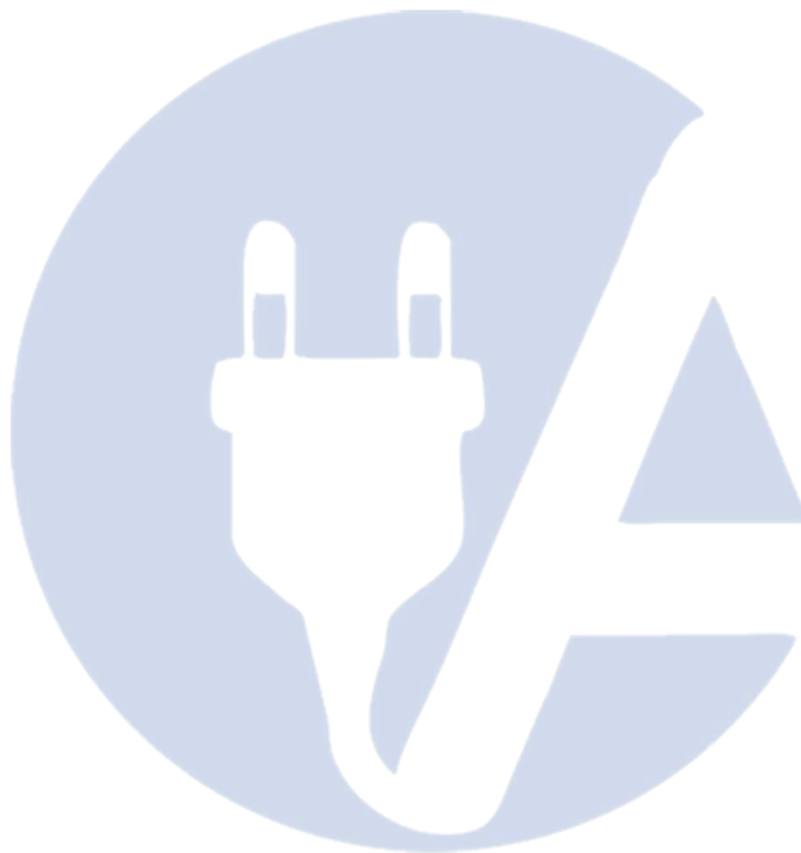
Classic LED Luminaire is a solid LM 6 alloy Pressure die-cast IK 07 rated housing, ensuring high strength and safety on the pole. The solid die-cast aluminum also has excellent heat dissipation, extending the life of the components inside.

## Full IP 66 Ingress Protection Against Water & Dust (without glue)

The double-wall construction, high-quality silicone gasket deliver reliable IP66 performance over the unit's lifetime. No glue is used in the construction to prevent any breakdown of the water and dust

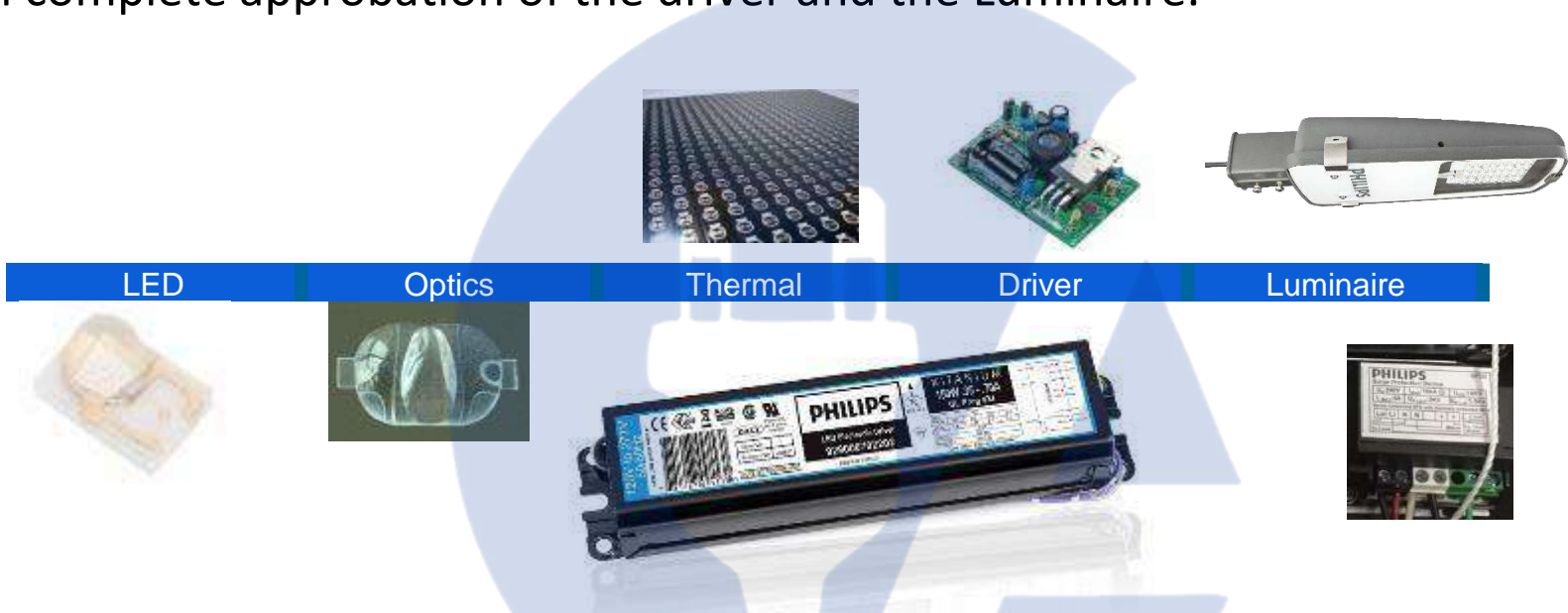


proof seal. Full IP66 protection ensures best lighting performance and reduces maintenance cycles, saving time and money.



# Reliability :Best in Class Components

Philips Greenline V2 is made with fully reliable components and comes with complete approbation of the driver and the Luminaire.



## Features

- **BIS Approved Driver**
- **440V Stress Voltage protection for 8 Hrs.**
- **High Cut off : 325V(+/- 15V)**
- **Auto Restart**
- **Fully Potted & Encapsulated**

# Reliability: Surge Protection

Philips GreenLine Classic range is protected with 10KV Series Surge Protection Devices to ensure the driver and LED modules are not damaged.

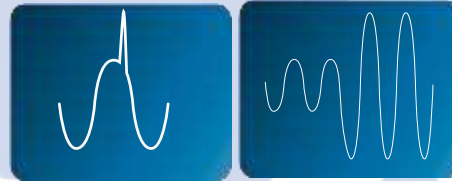


SPD to protect driver & LED



Driver

LED Module



- Surge > 10KV may break the SPD, but protect the luminaire since the circuit will be cut-out.



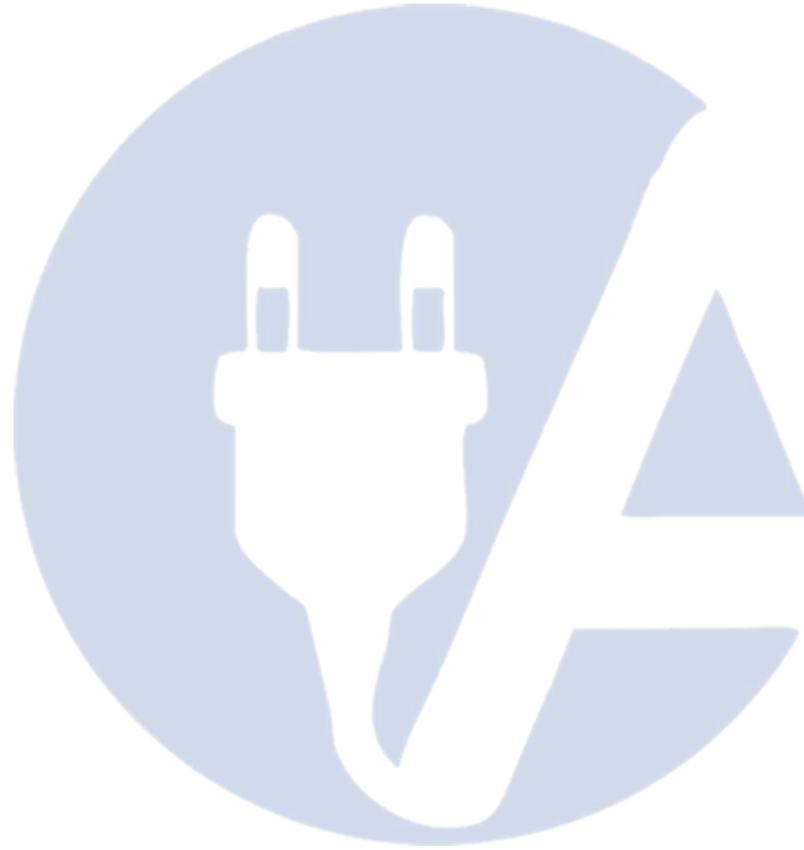
- Surge < 10KV, SPD will clamp voltage down to driver safe level.



LED Module



- **Driver** internal surge protection will clamp surge voltage.



# STREET LIGHT POSITIONING

18K- 26K  
Lumen

13K -18K  
Lumen

5K -12K  
Lumen

3.5K-4K  
Lumen

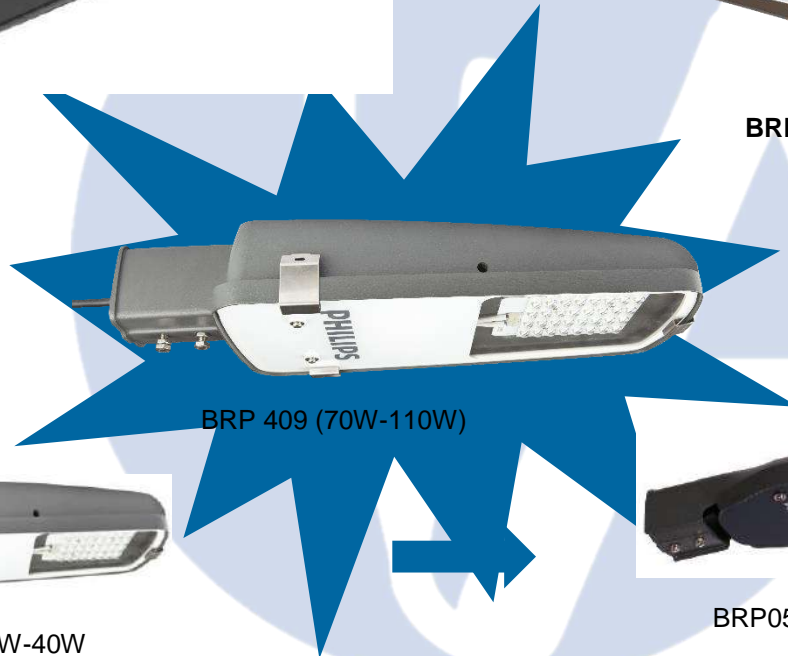
Upto 2000  
Lumen



BRP322 (120-250W)



BRP340 (120W-160W)



BRP 409 (70W-110W)



BRP409 \_ 35W-40W



BRP052 ( Upto 40W)



BRP022 Upto 20W



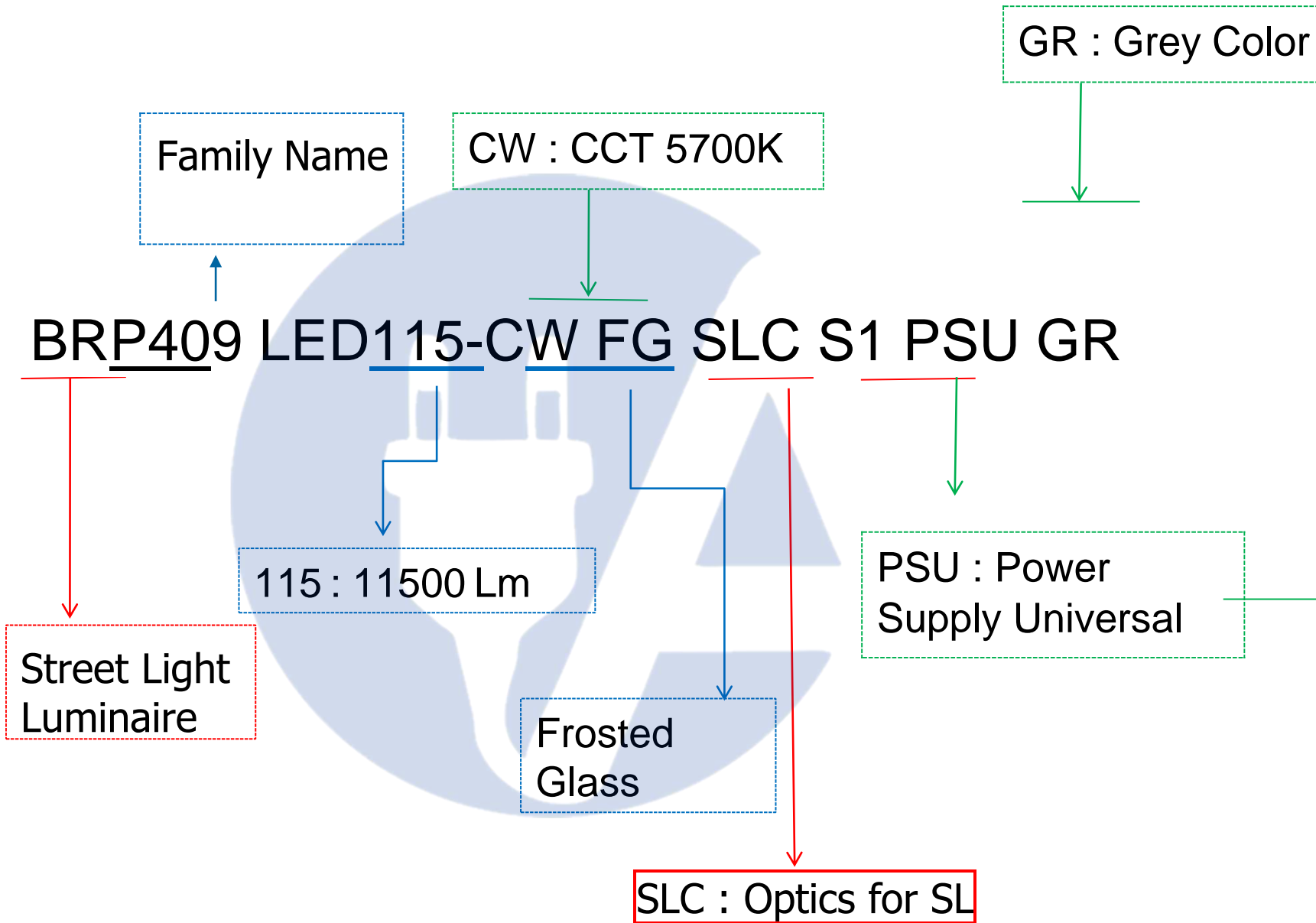
BRP042 (Upto 20W Finless Design)

# Overview / Applications



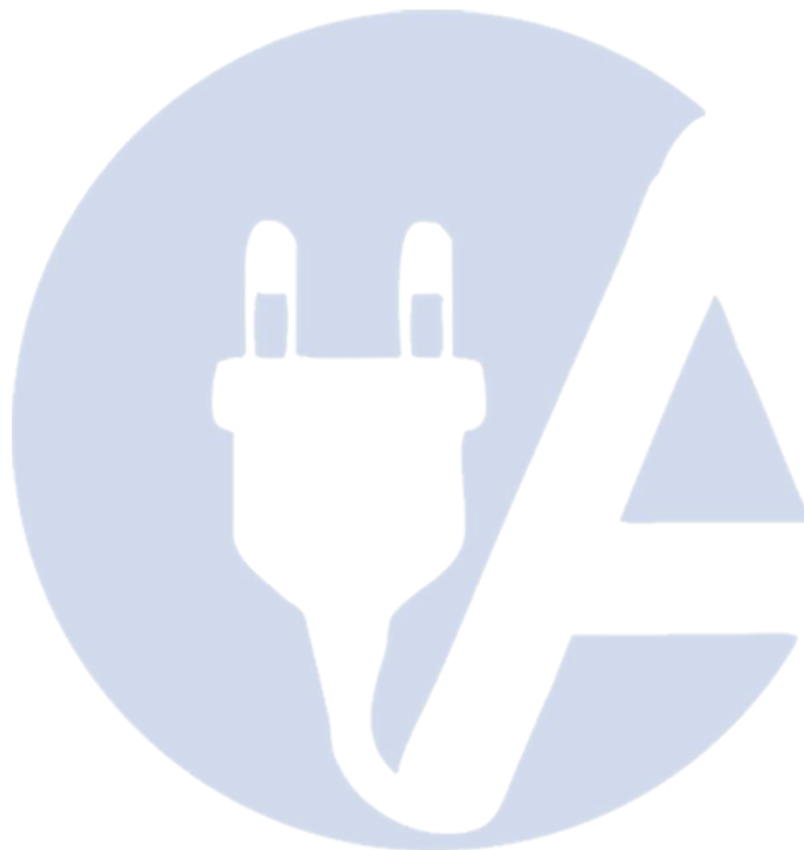
- Highways & Expressways
- City main traffic roads
- City shopping & commercial roads
- Industrial roads
- Residential streets





# How to read the Cat ref

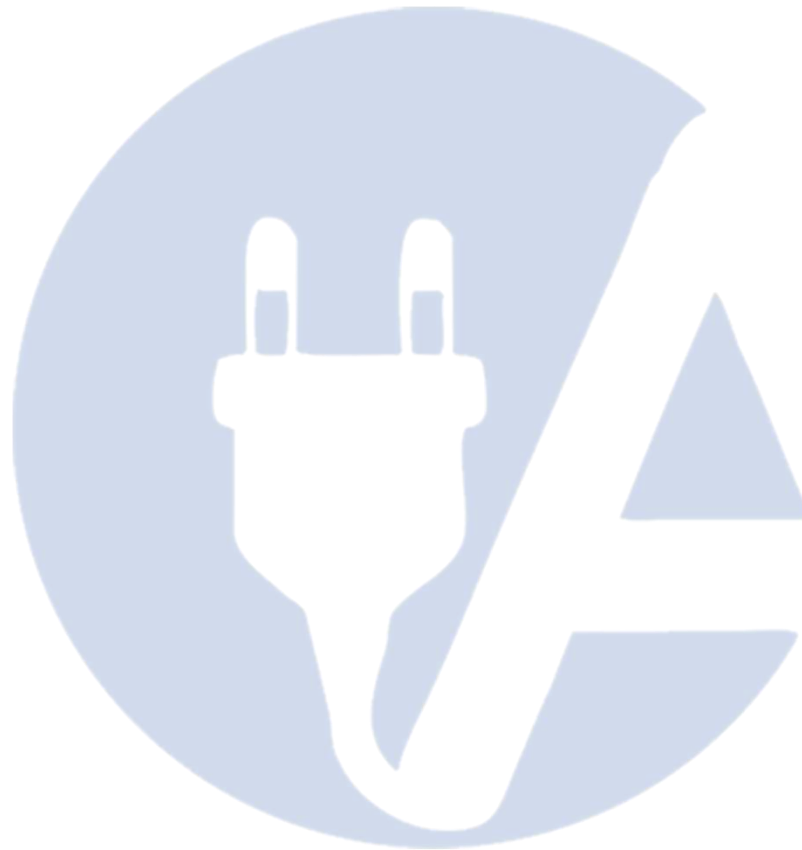
**PHILIPS**





# SPECIFICATION SHEET - Internal

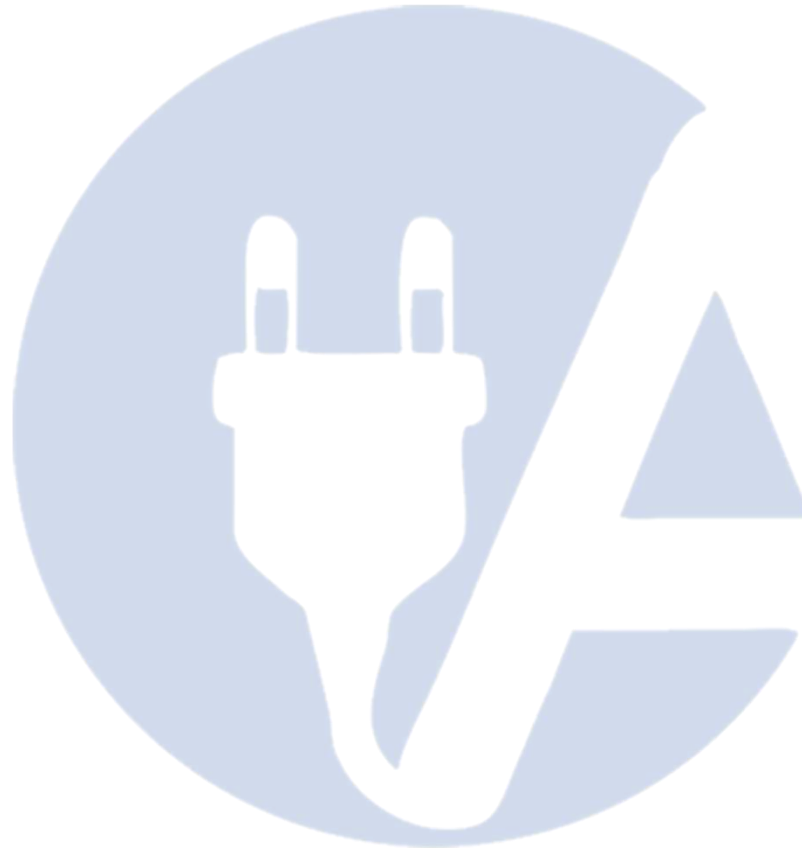
**\*All the electrical and photometry parameters will have a variation of +/-10% as per IS**



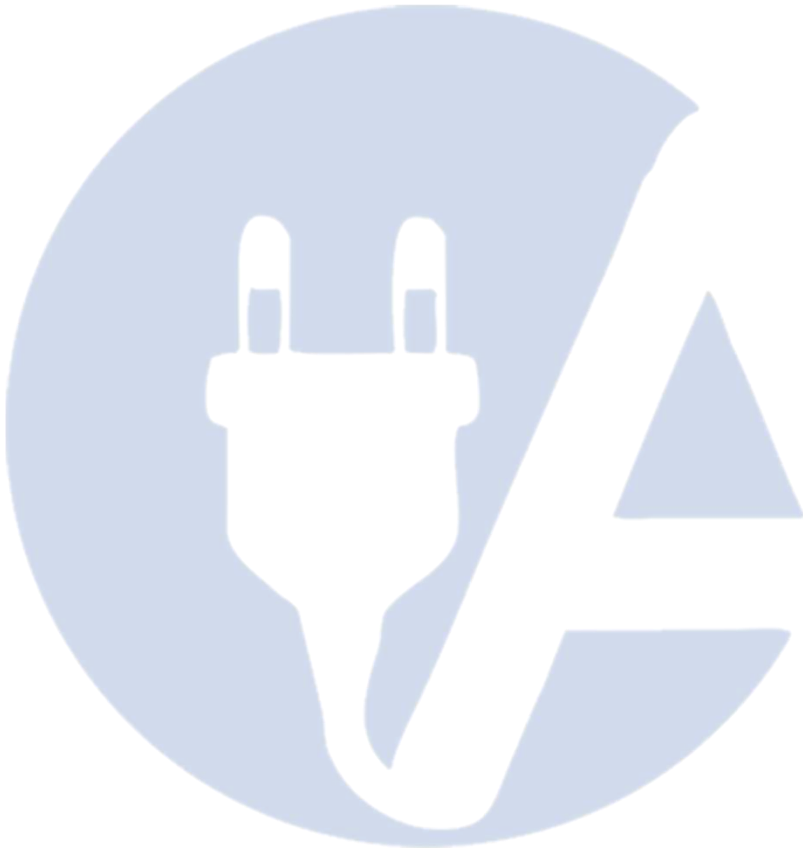
<b>S No.</b>	<b>Description</b>	<b>BRP 409 V2</b>
<b>1</b>	<b>System Lumen</b>	<b>11.5K Lm , 13K Lm (Nominal)</b>
<b>2</b>	<b>CCT</b>	<b>5700K</b>
<b>3</b>	<b>CRI/ SDCM</b>	<b>70 , &lt;5</b>
<b>4</b>	<b>Electrical Insulation</b>	<b>Class -1</b>
<b>5</b>	<b>IP/ IK</b>	<b>66 / 07</b>
<b>6</b>	<b>Serviceability</b>	<b>Class B</b>
<b>7</b>	<b>Mounting</b>	<b>Pole Dia. : 48mm to 60mm</b>
<b>8</b>	<b>Efficacy</b>	<b>125 Lm/W</b>
<b>9</b>	<b>Surge</b>	<b>4KV Internal and 10KV External</b>
<b>11</b>	<b>Driver</b>	<b>Fixed output</b>
<b>12</b>	<b>LED</b>	<b>High Power</b>
<b>13</b>	<b>Housing Material / Finishing</b>	<b>Pressure Die Cast Housing LM 6 Alloy/ Dual Optics</b>
<b>14</b>	<b>THD</b>	<b>≤10% (At Full Load)</b>
<b>15</b>	<b>NEMA</b>	<b>Not Compatible</b>
<b>16</b>	<b>Optical Covers</b>	<b>Optics with Glass Cover</b>
<b>17</b>	<b>Wattage</b>	<b>90W , 105W (Nominal)</b>
<b>20</b>	<b>Optics</b>	<b>SLA / SLC</b>
<b>21</b>	<b>Operating Voltage Range</b>	<b>120-277V</b>
<b>22</b>	<b>Dimensions/Weight</b>	<b>L-458mm , W-203mm , H-94mm , 3 Kg(Nominal)</b>

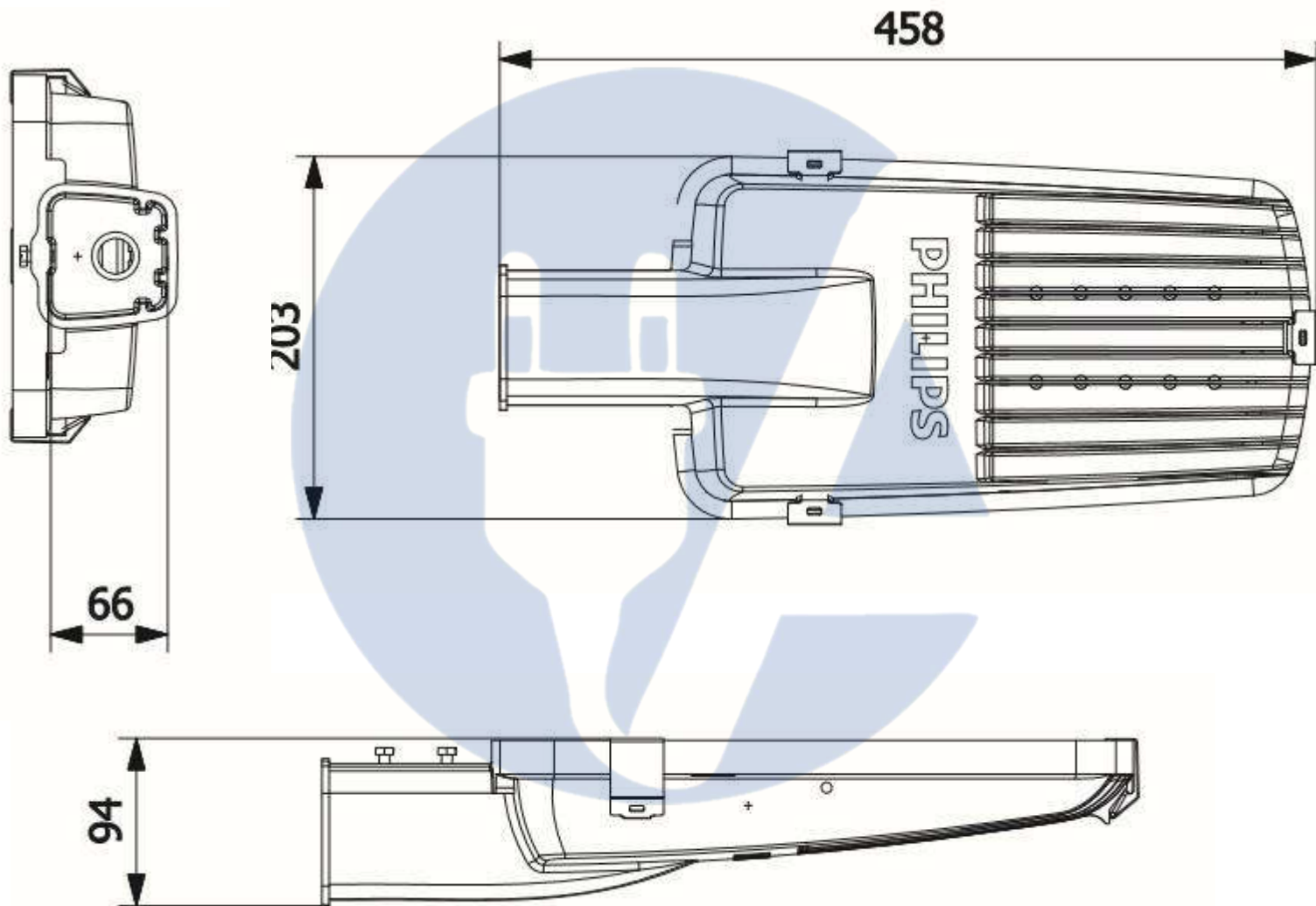
- Internal

Type	Luminaire Dimension(mm)	Weight(kg)
BRP409 V2	L458xB203xH94	Kg

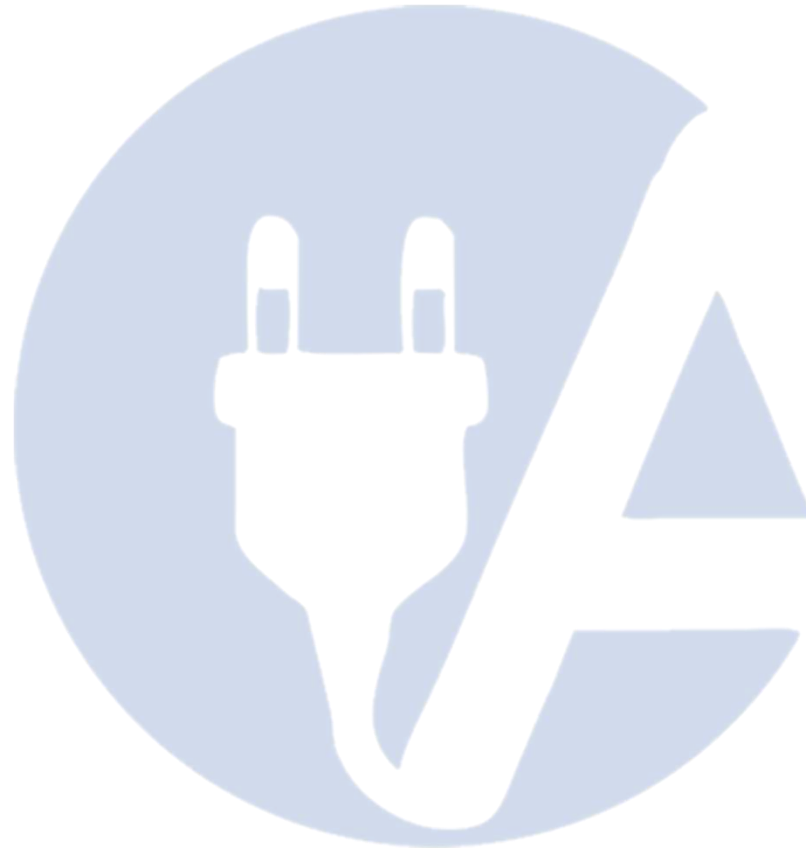


# Dimensions

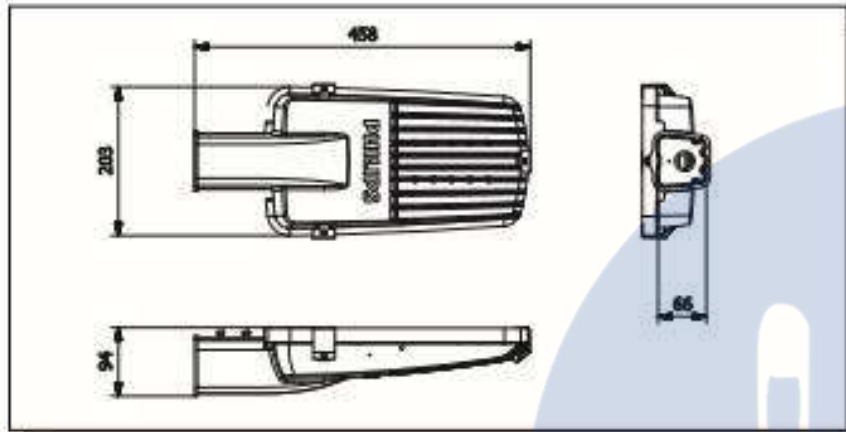




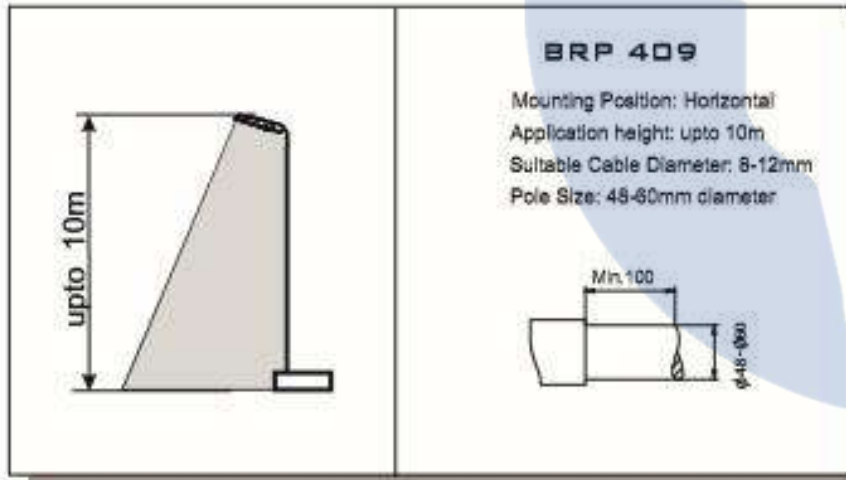
# Mounting Instructions



## Dimensions

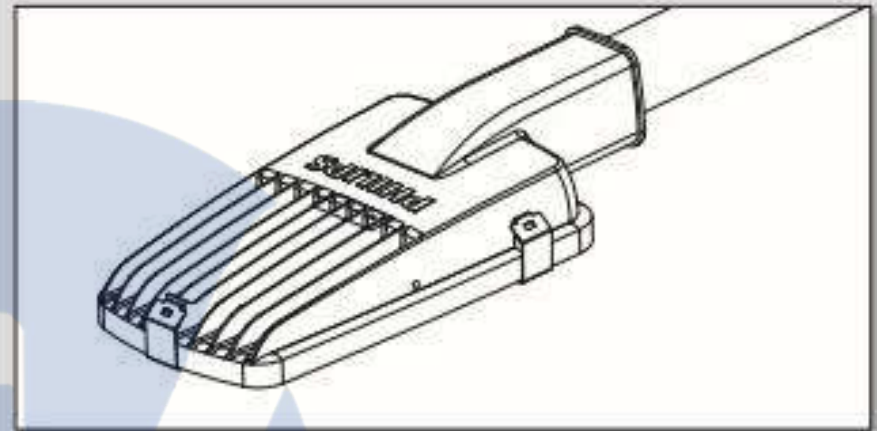


## Installation

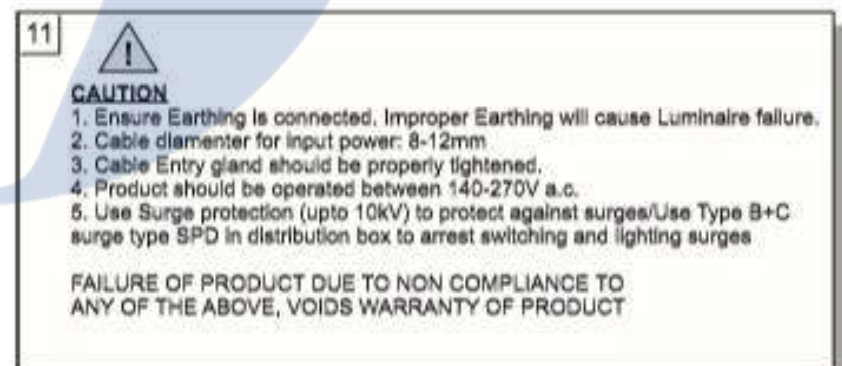
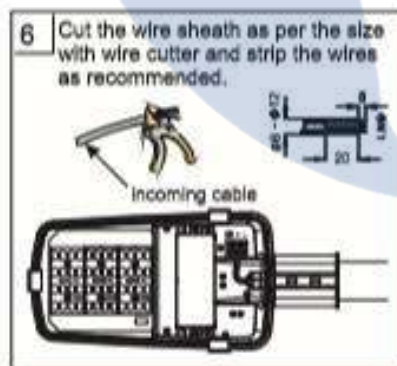
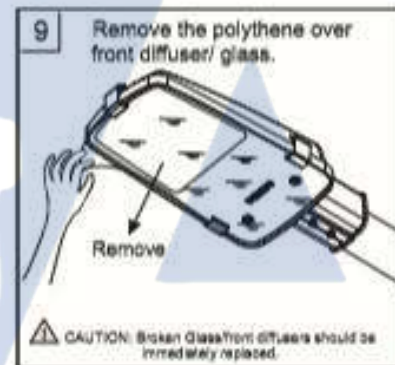
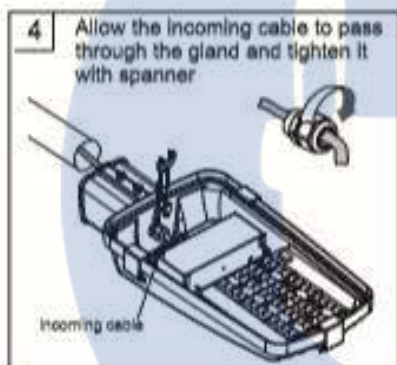
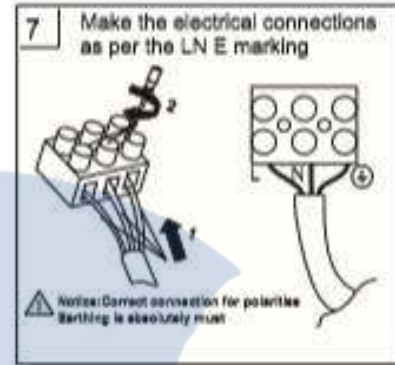
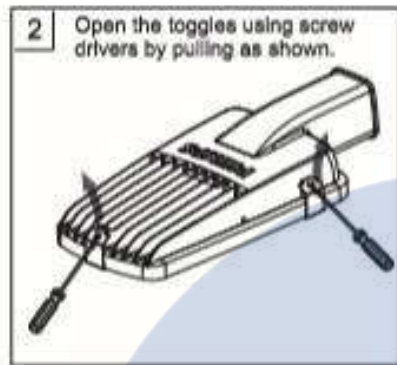


## BRP 409

## Street Lighting Luminaire



Type	:	BRP 409
Lamp	:	LED
Voltage	:	240 V, 50 Hz
IP Classification	:	IP 66
Net Weight	:	3.0kgs
Max. Projected Area	:	0,075 m <sup>2</sup>
Application	:	Outdoor use only





# We listen to and understand your needs



Global presence  
and local experience  
delivering multi-tiered  
support



One-stop shop:  
solutions and services  
across the lighting value  
chain



World-class innovation  
capabilities and deep  
application and system  
expertise



Proven record of  
quality and reliability –  
no unpleasant surprises

