LED PL LAMP

SPECIFICATION

Energy Automation Systems UK Ltd,
2nd Floor, 145-157 St.John Street, London EC1V 4PY U.K.
+44(0)8708507669 www.easiuk.co.uk info@easiuk.co.uk

Energy Automation Systems Ireland
Unit 18, Doora Business Park, Quin Road, Ennis, Co.Clare, IRELAND
+353(0)656841722 www.easisave.ie info@easisave.ie

EASi ME Trading LLC
111F Ibn Battuta Gate, P.O.Box 390645, Dubai, UAE
+971 4 361 7021 www.easiuk.co.uk info@easiuk.co.uk

1. Introduction of LED PL Lamp

LED PL lamps are a comprehensive application of LED optoelectronic fantastic light source that is both energy efficient and decorative allowing us to create an ambient setting or environment a special feature atmosphere. They are ideal for discrete lighting, under shelves or along stairs and borders. The whole design has the merits of beautiful modeling, compact structure, and delicate appearance etc. and it can be a direct replacement for lamps that you use at this moment in time. Extremely bright, high Ra-color rendering index, it's the latest indoor illumination product. No need to use ballast and starter, and no flicker. Super long life and the estimated lifespan should be more than 32,000 hours.

INTRODUCTION OF PL LAMP

1.1. CoreShine PL Lamp Features

High Luminous Efficiency

We used top-brand LED chip package for this PL Lamp. In structural design, a unique optical mixed astigmatism technology ensures non-point source and soft light.

Quality of light

Coreshine adopts constant-current output power to fully guarantee the long life span and stable performance of the products. By using the excellent leds with wonderful color rendering index ,high lumen maintain rate ,no-flicker trait ,our products make your facilities more bright ,besides it can bring you more attractive and harmonious atmosphere

Fantastic Design

This PL lamp was designed as 180 degrees rotatable. So it can be more convenient for you to get the perfect angle.

Low lumen depreciation

The white light is adopting new technology, less than 3% light decay in 3000 hours, about 10% to 15% in 20,000 hours and 30% in 32,000 hours.

Environmentally responsible

This environmentally responsible LED system complies with RoHS standards, CE. CoreShine Lighting contains no lead, mercury or glass, so handling and disposal are less of a concern. What is more, it is higher as efficient as our previous cabinet light, effectively delivering more lumens per watt.

1.2. Absolute Maximum Ratings

Item	Unit	Minimum	Standard	Maximum
Voltage	V	AC 85V	AC 110V/220V	AC 265V
Operating Humidity	%DH	10%		80%
Storage Humidity	%DH	10%		80%
Operating Temperature	℃	-20℃	-20℃-40℃	65℃
Storage Temperature	℃	-40℃		85℃

1.2. Typical Technical Parameters:

Model	Power (W)	Diameter (mm)	Length (mm)	Weight (g)	LED Type	LED Qty	Color Temperature	Input V	PF	View Angle	Light Output	CRI	lamp base	Luminous Efficiency
PL Lamp 6W	6	Φ35	145	80	SMD2835	24	3000K/4000K/500K	AC100~240V	>0.9	145	560	72	G24/E27	93lm/W
PL Lamp 8W	8	Φ35	166	9.5	SMD2835	32	3000K/4000K/500K	AC100~240V	>0.9	145	750	72	G24/E27	93lm/W
PL Lamp 10W	10	Φ35	181	11	SMD2835	40	3000K/4000K/500K	AC100~240V	>0.9	145	960	72	G24/E27	96lm/W

1.3. Color Parameters:

1> Day Light :

X=0.32 **Y**=0.34

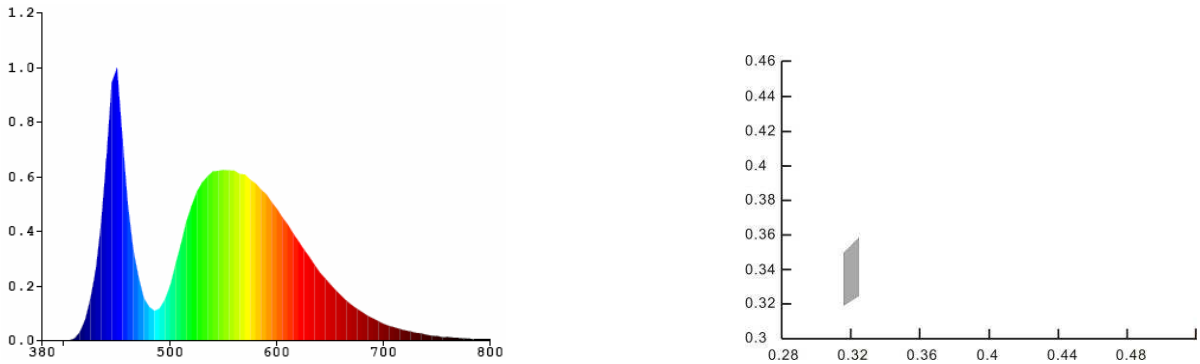
Tc=5600K-6300K

Dominant WL: =543nm **Purity**=5% **Centroid WL**:549nm

Ratio:R=13.7% G=83.3% B=3%

Peak WL:Lp=450nm **HWL**:23.5nm

Render Index:Ra=75



DAY LIGHT COLOR PARAMETER

2> Warm white :

X1=0.44 **Y1**=0.42

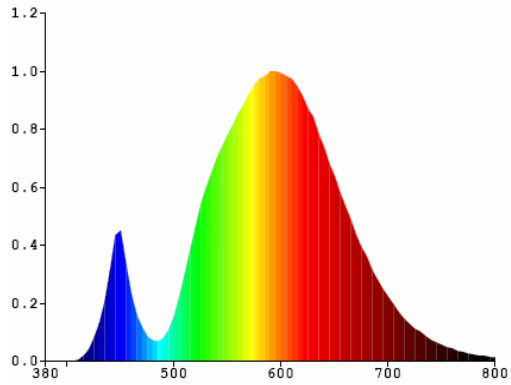
Tc=2900K-3250K

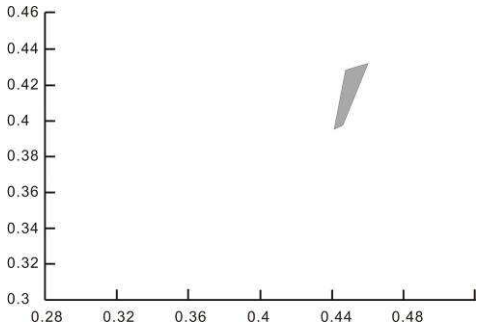
Dominant WL: =580.5nm **Purity**=61.5% **Centroid WL**: 592nm

Ratio: R=22.6% G=76.3% B=1.1%

Peak WL: Lp=590nm **HWL**: 141.7nm

Render Index: Ra=74





WARM WHITE COLOR PARAMETER

1.4. Optical Parameters:

1> 6W PL Lamp Illuminance and Distribution Curve

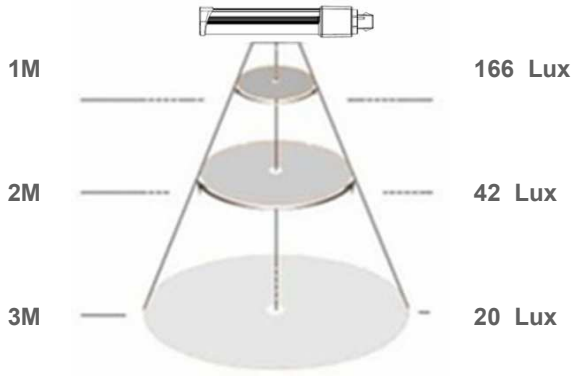


Figure1.4.1.1 6W day light PL lamp illuminance

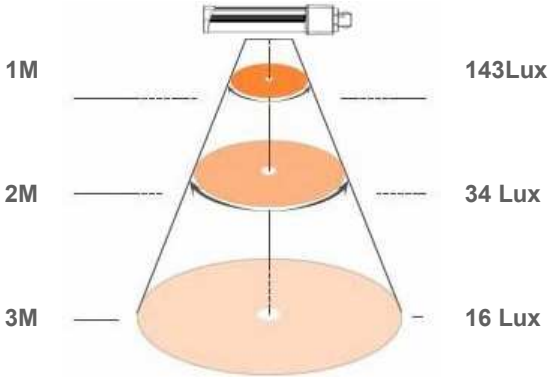


Figure1.4.1.2 6W warm White PL lamp illuminance

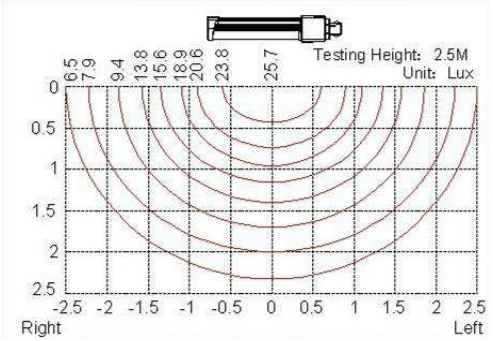


Figure1.4.1.3 6W daylight PL lamp Isolux curve at the height of 2.5m

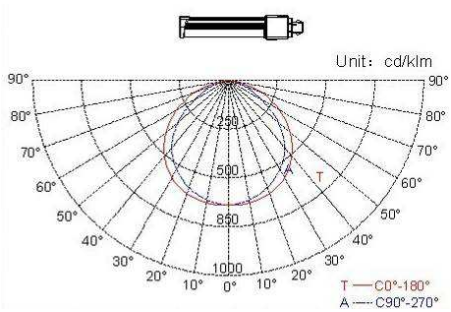


Figure1.4.1.4 6W daylight PL lamp distribution curve

2> 8W PL Lamp Illuminance and Distribution Curve

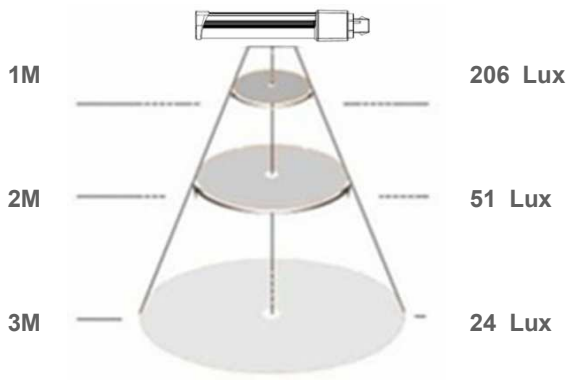


Figure1.4.2.1 8W day light PL lamp illuminance

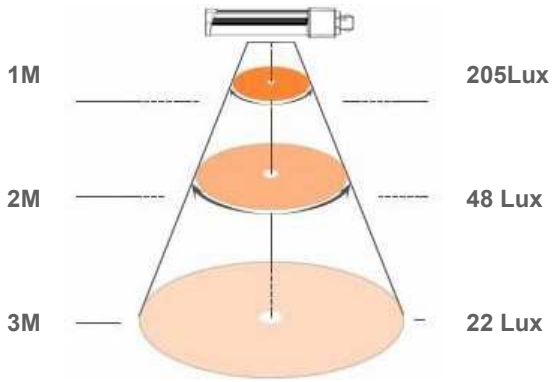


Figure1.4.2.2 8W warm light PL lamp illuminance

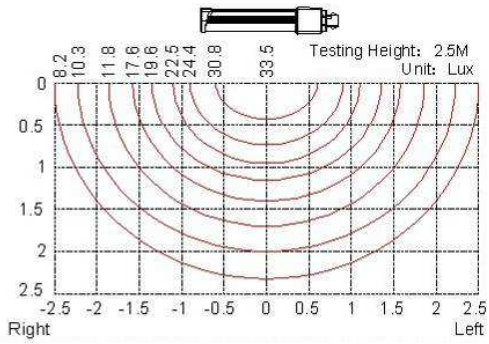


Figure1.4.2.3 8W daylight PL lamp Isolux curve at the height of 2.5m

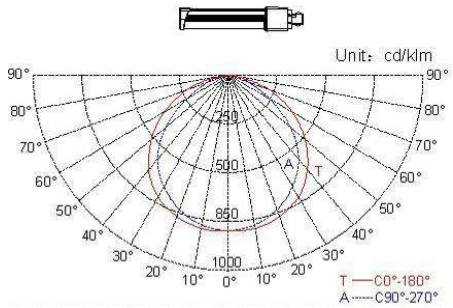


Figure1.4.2.4 8W daylight PL lamp distribution curve

3> 10W PL Lamp Illuminance and Distribution Curve

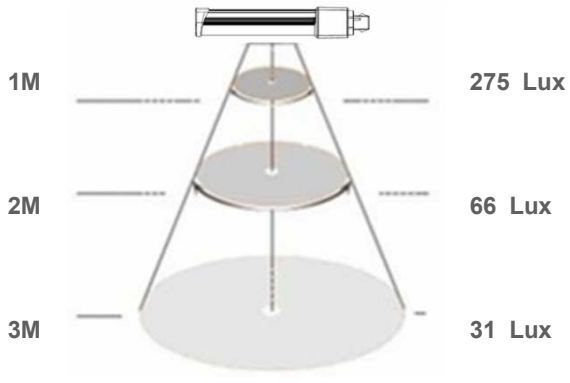


Figure1.4.3.1 10W day light PL lamp illuminance

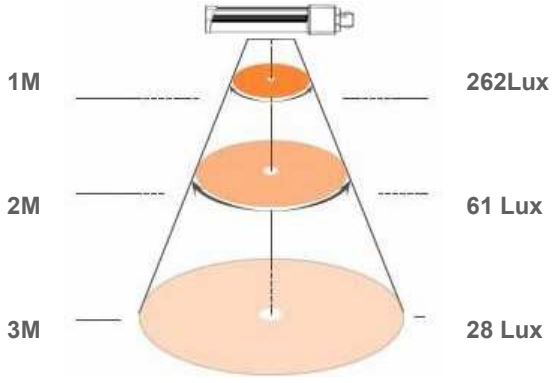


Figure1.4.3.2 10W warm light PL lamp illuminance

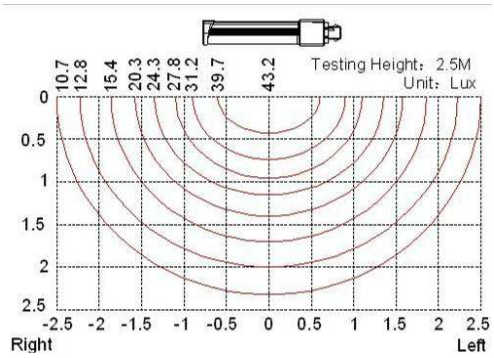


Figure1.4.3.3 10W daylight PL lamp Isolux curve at the height of 2.5m

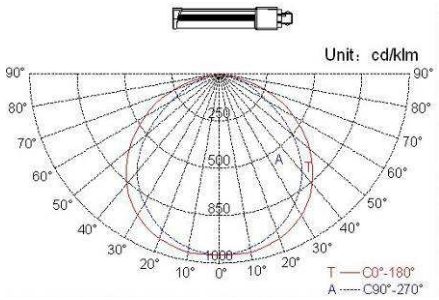


Figure1.4.3.4 10W daylight PL lamp distribution curve

2. Pictures of PL Lamp

2.1 CoreShine LED PL Lamp

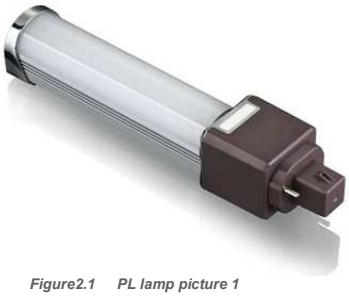


Figure2.1 PL lamp picture 1

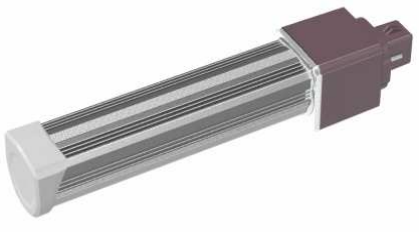


Figure2.2 PL lamp picture 2

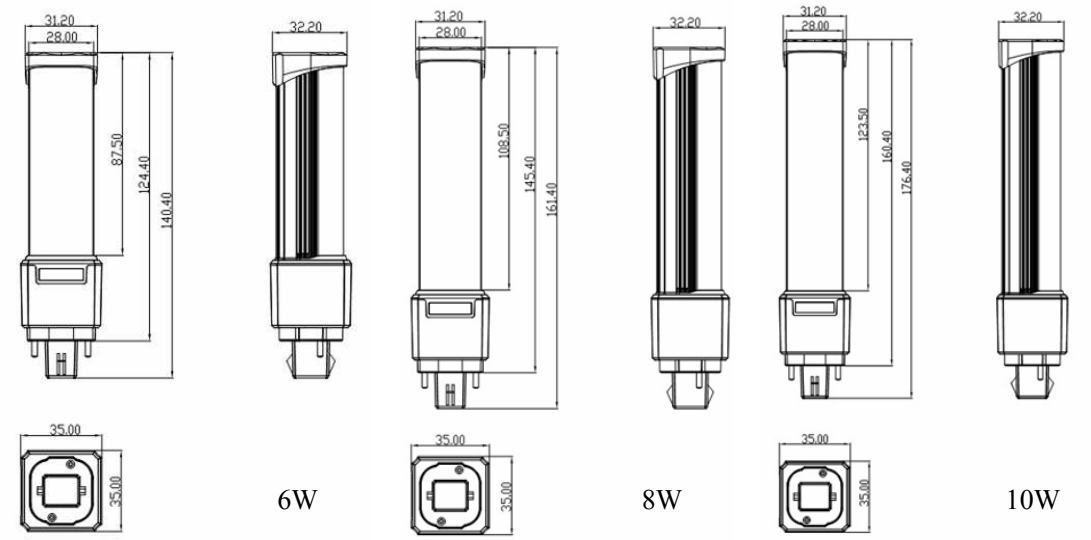
Figure2.3 PL lamp bases

2.2 Lamp Base Options:

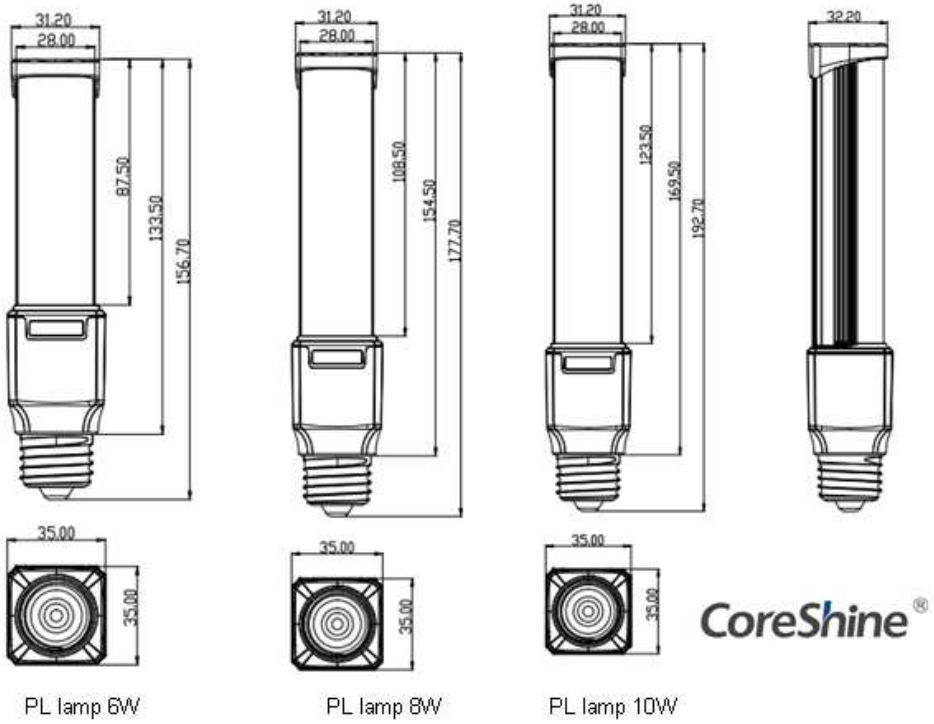
G24 2pins PL lamp is compatible with magnetic ballast, while G24 4 pins PL lamp is not compatible with electronics ballast. G24 2pins PL lamp, G24 4pins PL lamp and E27 PL lamp can work without ballast.

2.3. Physical Dimensions

2.3.1 G24 Base PL Lamp



2.3.1 E27 Base PL Lamp



Product	6W PL Lamp	8W PL Lamp	10W PL Lamp
Diameter	35mm	35mm	35mm
Length(G24)	140.4mm	161.4mm	176.4mm
Length(E27)	156.7mm	177.9mm	192.7mm
LED Type	SMD2835	SMD2835	SMD2835
LED Qty	24pcs	32pcs	40pcs
Lumens	560Lm	750Lm	960Lm

3. PL Lamp Emergency Solution

3.1 Emergency Driver and Indicating Wire

Emergency Driver: Except for normal lighting, emergency LED PL lamp has a rechargeable lithium battery in the external driver, which is used for emergency lighting. For showing operating state, there are three indicators on it.

Red indicator: On-----Charging

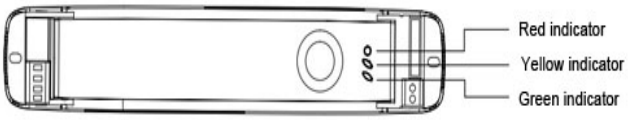
Off-----Charged

Yellow indicator: On-----System failure

Off-----Working

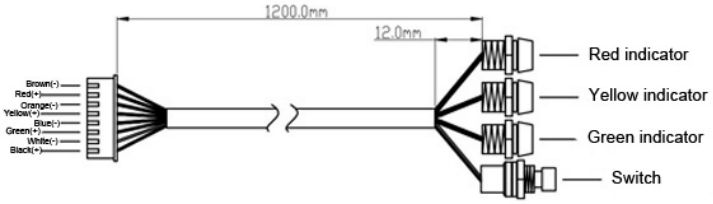
Green indicator: On-----Electricity supply

Off-----Electricity disconnected



Emergency Driver

Indicating Wire: In order to inform the working state of emergency driver more conveniently, indicating wire is available, which is inserted on the end of driver. The switch is used for emergency function test, and the purpose of red, yellow and green indicators is the same as the three indicators on the driver.



Indicating Wire

3.2 Function Description

The emergency LED PL lamp can switch automatically between normal lighting and emergency lighting. If there is no city electricity, the battery will be in operation. Two modes are available:

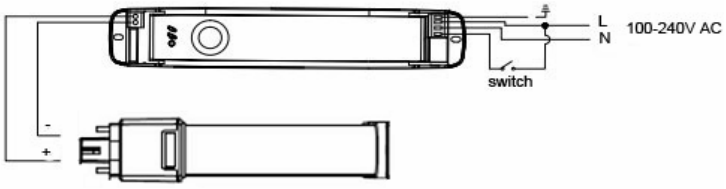
City electricity mode: When the city electricity is connected, the LED PL lamp can work as normal lighting for daily life. The battery in external emergency driver is being charged automatically.

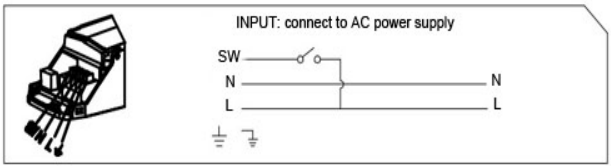
Emergency mode: If the city electricity fails, the battery will work and supply power to the LED PL lamp for lighting. And The emergency lighting can last for 3 hours. Perfect protection is applied for the battery when voltage is low and short circuit happens.

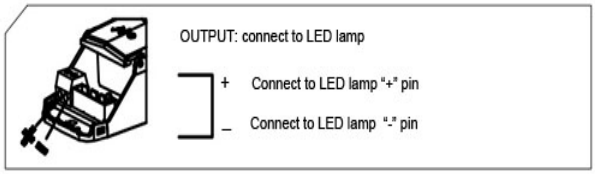
3.3 Installation

- Switch off the power of mains supply and respectively of the connection lead before installation to avoid electrical shock;
- Emergency LED PL lamp is fixed in the light fixture same as the normal LED tube;
- Use screw to fasten the emergency driver on flat place;
- Switch wire is connected to L, and AC 100-240V city electricity supply power to L and N;
- The product is used indoor only and kept away from direct sunshine and high temperature.

Wiring Diagram







3.4 Descriptions:

1. It can recognize whether the light was turned off due to a grid power lost or by a person automatically.
2. It can keep light at least for 3 hours.
3. The largest power for the emergency solution is ≤3W.
4. Multifunctional TEST switches.
5. Perfect protecting functions such as protect the battery when the voltage is low and there is a short circuit
6. Instructions for power supplying, saving and failure.

3.5 Technical Parameters:

Item	Index	PL lamp 6W	PL lamp 8W	PL lamp 8W
Mains Supply	Power	6W	8W	10W
	Lumen	560lm	750lm	960lm
	LED Type	2835SMD	2835SMD	2835SMD
	Input Voltage to Emergency Driver	AC 100-240V	AC 100-240V	AC 100-240V
	Output Voltage from Emergency Driver	DC22-26V	DC22-26V	DC22-26V
	Output Voltage from Emergency Driver	205mA	270 mA	350 mA
	View Angle	145°	145°	145°
	CRI	72Ra	72Ra	72Ra
	Working Temperature	-20℃-45℃	-20℃-45℃	-20℃-45℃
Emergency Situation	Duration Time	3 hours	3 hours	3 hours
	Power	3W	3W	3W
	Lumen	250lm	250lm	250lm
	Output Voltage	DC20-36V	DC20-36V	DC20-36V
	Output Current	70mA	70mA	70mA
Battery Charging	Input Voltage	AC 100-240V	AC 100-240V	AC 100-240V
	Input Power	3.5W/Max	3.5W/Max	3.5W/Max
	Output Voltage	DC 4.7-8.4V	DC 4.7-8.4V	DC 4.7-8.4V
	Charging Current	275mA	275mA	275mA
	Battery Capacity	1500mAh	1500mAh	1500mAh
	Charging Time	6 hours	6 hours	6 hours
	Power Efficacy	70%	70%	70%

(Output from the LED emergency driver is the input of the emergency LED lamp.)

Figure3.1 LED Emergency Driver

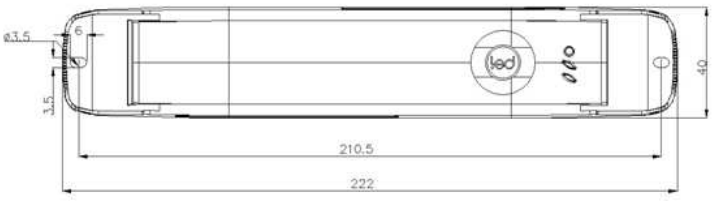


Figure3.2 LED Emergency Driver dimensions

4. Application

Applications: LED PL lamps are extensively applied in situations where traditional fluorescent lamps would normally be used. It can be used in almost all kinds of circumstances that need light, such as factories, hotels, stores, offices, and so on.

5. Attention

1. Please maintain normal voltage required
2. The outside temperature, when it is working, should be maintained between -20℃ and 65℃
3. Storage temperature should be maintained at -40 to +85℃
4. Please do not use in the moist or corrosive environment.
5. Please use it according to the instruction and avoid electric shock. Laypeople do not mount or take down.
6. LED PL lamp and all of its components must not be subjected to mechanical stress.
7. The complete installation must be done by an electrical expert who is familiar with the valid directives.
8. If any doubt about the installation or use of this product, consult a competent electrician
9. Don't use it if aluminum of the PL lamp has any damage or distortion. Otherwise the product or the installation might not be sufficiently safe!
10. Switch off power of the mains supply or respectively of the connection lead before doing any works.
11. Assembly must not damage or destroy conducting paths.
12. Make sure that the product is mounted on a stable, even and tilt-fixed background
13. Keep away from direct sunshine and high temperature
14. Indoor use only

6. Package information

PL Lamp	Outer Carton size (L*W*H) mm	Qty/Carton (pcs)	N.W (kg)	G.W (kg)
6W	425mmX425mmX220mm	100	12.2	13.5
8W	425mmX425mmX220mm	100	13.1	14.3
10W	425mmX425mmX220mm	100	13.8	15

7. Outer Driver Package information (Emergency Solution)

PL Driver	Outer Carton size (L*W*H) mm	Qty/Carton (pcs)	N.W (kg)	G.W (kg)
6W/8W/10W	580mmX260mmX210mm	40	13.6	15