

**2004-2007, The Sword Was Sharpened for Three Years, Be Braving to Do the First!**

After tireless efforts and struggles, we have finally developed a world led High Power LED Street Lights, this indicates that the prevalence of LED lighting Times has arrived!

LED Street Light, shocked appeared in front of us, 3 major revolutionary and innovative technologies have created a new Times of LED lighting!

- I. Super-rate high-power LED to replace the traditional light source, green, energy efficient, it is green, environmental protection and energy efficiency;
- II. Rectangular beam pattern design, realized high intensity, high uniformity and eliminate glare;
- III. Module integrated design, long life, easy to maintain;



**High Power LED Street Light-SPLU2/SPLU4/SPLU6**

Apply to Install: Expressway, highway, roads, sub-roads, ramps roads, residential areas, sidewalks lighting, square sports ground and other advertises lighting, etc.



**SPLU2**

**5000lm**



**SPLU4**

**10000lm**



**SPLU6**

**15000lm**

# LED Streetlight, Saving Energy, Saving Money, Saving Energy 80% Than the Conventional Street Lamp!

## Integrated High Power LED Street Light Functions and Features

- 1 **Revolutionary Photometric Design** - The world's first dedicated optical system (rectangular beam focusing lens). Reasonable control of the light distribution, spot rectangular beam pattern, and ensure an ideal uniformity of brightness on the road surface;
- 2 **Unique Integrated Lens and Lamphshade Design** - Array Lens play a protective and spot light role, avoid wasteful duplication of light and reduce the loss of light, also reduce the weight of the product and enable simplified structure;
- 3 **Creative Design of the Radiator and Lampholder Integration** - Fully protect LED life and heat dissipation requirements, satisfied with the structure and design of LED Lights fundamentally, with the most distinctive features of LED Lights(see attached picture);
- 4 **The Unique and Innovative Design of Modular Integration** - Can be arbitrarily combined to different power consumption and demand products. Each module is an independent light source also fungible, the partial failure does not affect the normal operation of the whole lamp, easy for take down and maintenance, save cost and the job has become very easy;
- 5 **Light and Thin Exterior** - Effectively reduce the weight and air resistance, reduce the load of lamp pole, enhance safety factor;
- 6 **Intelligent Current Control** - Each LED module can implement intelligent current control, whatever any deviant situation, it is able to achieve the precision constant current, ensure the LED can work under the secure current.
- 7 **No Adverse Glare** - Eliminate the glare caused by the adverse ordinary lights glare and visual fatigue sight interference, improve driving safety, reduce the incidence of traffic accidents, fully embodies the spirit of "People-oriented Technology" in this product;
- 8 **No Light Pollution** - Light Distribution designed for road lighting, in addition to illuminate the path and will not illuminate the road outside the region. Eliminate the interference signal by the residents of the light into the rest room;
- 9 **No High-voltage, No Dust Adsorption** - Eliminate the high-voltage adsorb the dust cause the lamphshade become dark, reduce the brightness;
- 10 **No High-temperature, No Aging Yellow Lamphshade** - Eliminate baking the traditional lamphshade which cause aging yellow, shortened life expectancy and decrease the brightness;
- 11 **Start Without Delay** - Reach the normal brightness and do not have to wait when switch on, eliminate a long process of starting of the traditional street lights;

# High Power LED Street Light-SPLU2/SPLU4/SPLU6

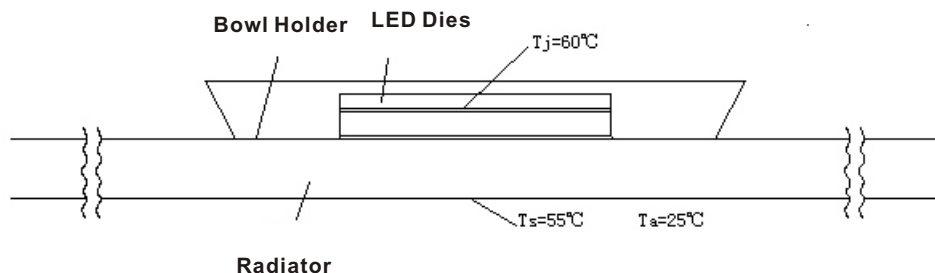
- 12 **No Strobe** - Eliminate the visual fatigue which caused by the strobe lights of the traditional street lamps;
- 13 **Impact Resistance, Shock-proof, Without Ultraviolet (UV) and Infrared (IR) Radiation** - No filament and glass frames, avoid break of the traditional lamp, without harm to the human body;
- 14 **High Color Index, Nice Coloration** - To show the true colors and more brighter;
- 15 **Multiple Color Temperature Options** - Color temperature to meet the needs of different occasions, eliminated the low color temperature of the sodium lamp which cause the hypnotic mood and high color temperature of the mercury lamp which cause the depressed mood, observers will feel more comfortable;
- 16 **Tremendous Energy Saving** - Used the ultra high power, high brightness LED light source, together with the high power efficiency power supply, which can save energy 50%-80% than the conventional sodium and mercury lamps;
- 17 **Long Life, Up To 50,000 Hours** - (Working for 10 hours a day, can be used for more than 13 years), is 5-10 times working life than a traditional sodium or mercury lamp;
- 18 **Green and Environmental Protection** - no lead, no mercury, no environmental pollution;
- 19 **Universal Input Voltage** - 85-264VAC full voltage range constant, constant-current PWM technology, high efficiency, low-heat, high-precision constant current;
- 20 **No Pollution to Power Network** - Power factor $\geq 0.9$  , THD $\leq 20\%$ , EMI apply with the global universal index, reduce the power loss and transmission lines to avoid contamination of the network of high frequency interference;
- 21 **Work Under Low-voltage and Low-Heat, Safe and Reliable** - LED junction temperature can be controlled under an ideal temperature ( $T_J < 60^\circ\text{C}$   $T_a = 25^\circ\text{C}$  ambient temperature);
- 22 **Perfect Combination With Solar Energy** - Fully exert the advantage of the LED work under low voltage and environmental work, according to the local solar energy resources, electricity and solar power can also be combined. To achieve the best cost performance and high reliability customers





- 21 **High Luminous Efficiency** - LED luminous efficiency of the existing conditions is  $\geq 65\text{lm/w}$ , with the rapid increase LED brightness, when the luminous efficiency reach  $150\text{lm/w}$ , the 400W sodium lamp will be replace by the 100W LED lamp, the luminous efficiency will reach  $300\text{lm/w}$  eventually;
- 22 **Have a number of patents for inventions and utility model patents;**

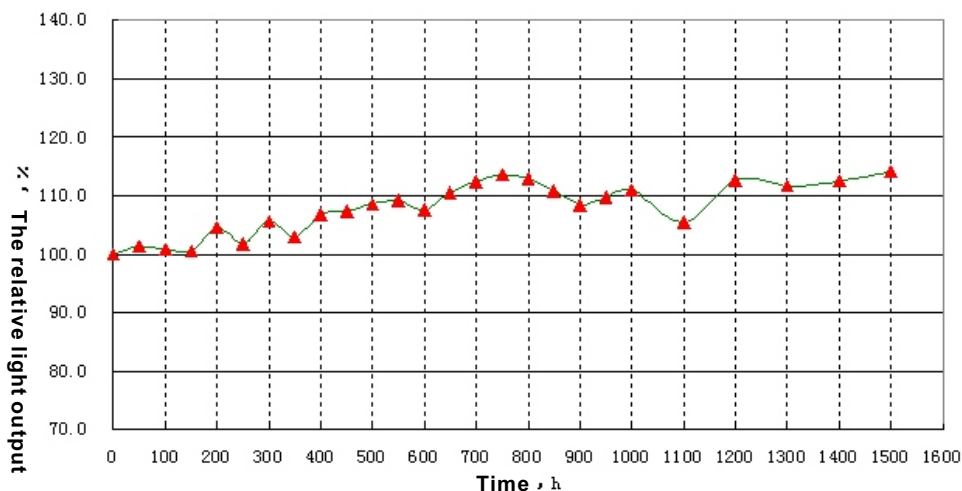
## Chip PN junction temperature and radiator temperature distribution



Above test data was measured by no wind conditions.

## 1,500 hours degradation test figure

The relative light output ( % )



Integrated High Power LED Street Light  
Main Technical Parameters

Item \ Model	SPLU2	SPLU4	SPLU6
Input Voltage	AC 85~264 V		
Frequency Range	47~63 Hz		
Power Factor(PF)	>0.9		
Total Harmonic Distortion (THD)	<20%		
Power Factor	83 %		
Working Voltage	24VDC		
LED Consumption	62 W	125 W	186 W
System Consumption	75 W	150 W	225W
LED Luminous Efficiency	≥80 lm/w		
LED Initial Flux	5,000 lm ( Tj=25 °C )	10,000 lm ( Tj=25 °C )	15,000 lm ( Tj=25 °C )
LED Maintain Flux	4,600 lm ( Tj=25 °C,Ta=25 °C )	9,300 lm ( Tj=60 °C,Ta=25 °C )	14,000 lm ( Tj=60 °C,Ta=25 °C )
Lamp's Flux	4,200 lm ( Tj=60 °C,Ta=25 °C )	8,400 lm ( Tj=60 °C,Ta=25 °C )	12,600 lm ( Tj=60 °C,Ta=25 °C )
Lamp's Efficiency( % )	>90%		
Illumination ( E )	≥26 lux(height=6 m ) ≥15 lux(height=8 m ) ≥9 lux(height=10 m ) ≥6 lux(height=12 m )	≥53 lux(height=6 m ) ≥30 lux(height=8 m ) ≥18 lux(height=10 m ) ≥13 lux(height=12 m )	≥80 lux(he ight=6 m ) ≥45 lux(he ight=8 m ) ≥28 lux(he ight=10 m ) ≥20 lux(he ight=12 m )
Effective Illuminated Area	20×8 m(height=6 m ) 26×10 m (height=8 m ) 33×13 m(height=10m ) 40×16 m (height=12 m )		

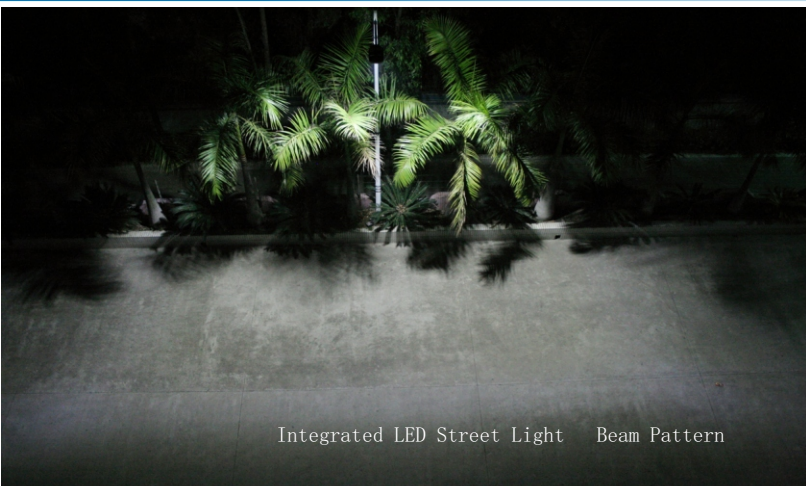
# High Power LED Street Light-SPLU2/SPLU4/SPLU6

Color Temperature	Pure White:5,000 ~ 7,000 K, Warm White:3,000~4,000K		
Color Index(CRI)	Ra>75		
Light Source	1 Watt High Power LED		
Light Distribution Curve / Beam Pattern	Asymmetric (Bat Wing) / Rectangular Beam		
The Highest Light Intensity Angle	The Horizontal Axis: 110°, The Vertical Axis : 45°		
Beam Angle	The Horizontal Axis: 120°, The Vertical Axis : 60°		
Junction Temperature ( Tj )	60 ° C ± 1 0% ( Ta= 25 ° C )		
System Resistance ( Rja )	0.56 ° C / W	0.28 ° C / W	0.19 ° C / W
Working Temperature	- 30 ° C ~ 40 ° C		
Working Humidity	10 % ~ 90 % RH		
Storage Temperature	10 ° C ~ 85 ° C		
Working Life	> 50,000 Hrs		
Light Body& Lampshade Material	Aluminum Alloy and PC		
The Dimensions (Units : mm)	540 ( L ) X 315 (W) X 90 (H)	715 ( L ) X 315 (W) X 90 (H)	890 ( L ) X 315 (W) X 90 (H)
Net Weight	7kg	10 kg	13kg
IP Rating	IP 65		

## Product Packaging Information:

Model	Q'ty/ Carton	Gross Weight(Kg)	Net Weight (Kg)	Dimension (mm)	Volume (m3)
LU2	1	7.5	7		
LU4	1	10.5	10		
LU6	1	13.5	13		

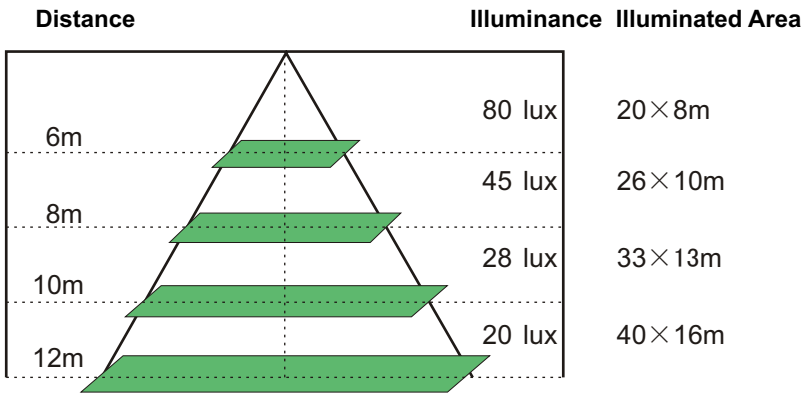
# High Power LED Street Light-SPLU2/SPLU4/SPLU6



## Integrated High Power LED Street Light Photometric Performance

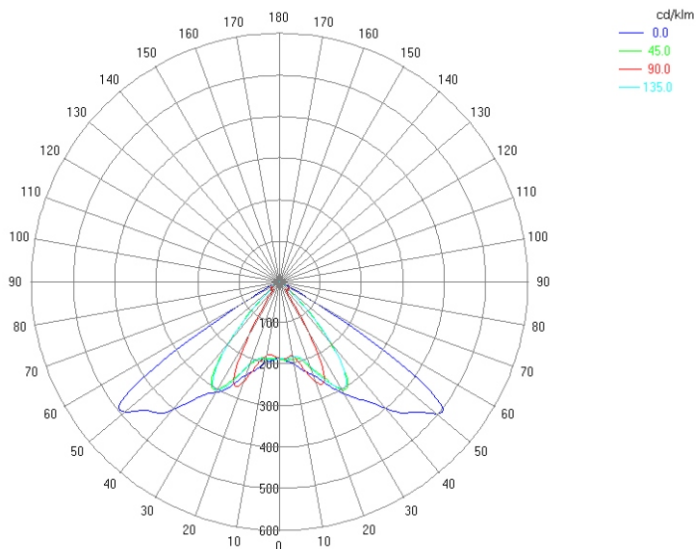
Bat-Wing beam Pattern of the distribution curve, also can be changed by different section's demand. Rationally control the distribution to be a rectangular beam pattern. When the installation height = 12m, the beam pattern is 40x16m rectangular, and the radiation-efficiency is more than 70% in the effective region, the total transparence is more than 90%, the greatest extent possible to reduce the loss of light, the LED light has been fully utilized. The illumination uniformity is very good in the effective irradiation region, even better than 0.5, higher than the highest grades of 0.4 of the state road's standards. The edge of the beam pattern is very clear and slide, no adverse glare out of the effective radiation region, will not cause any light pollution, it is an idea cut-lighting lamp. Satisfy the requirements of the road lighting or other special lighting, which can be widely used in the special requirements such as street lighting, advertising lighting, etc., it is a green, energy-saving, environmentally friendly lighting product.

### I.Illuminance Distribution at Various Altitudes

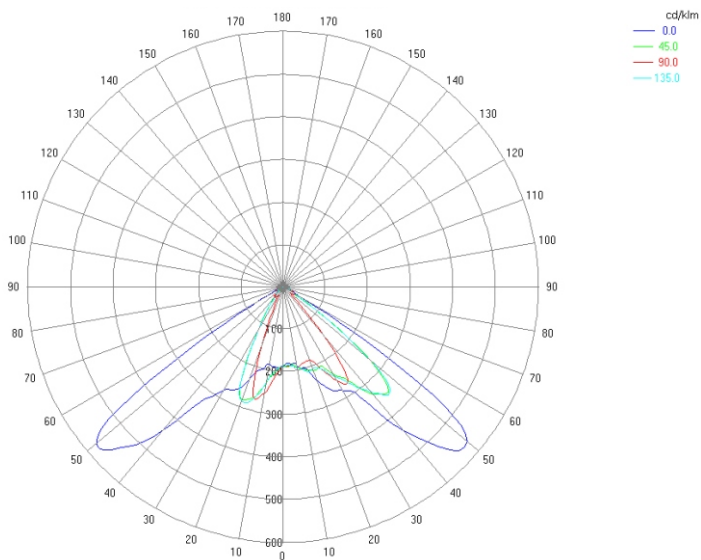


## II. Light Distribution Curve

### 1 Lamp's Plane Installation



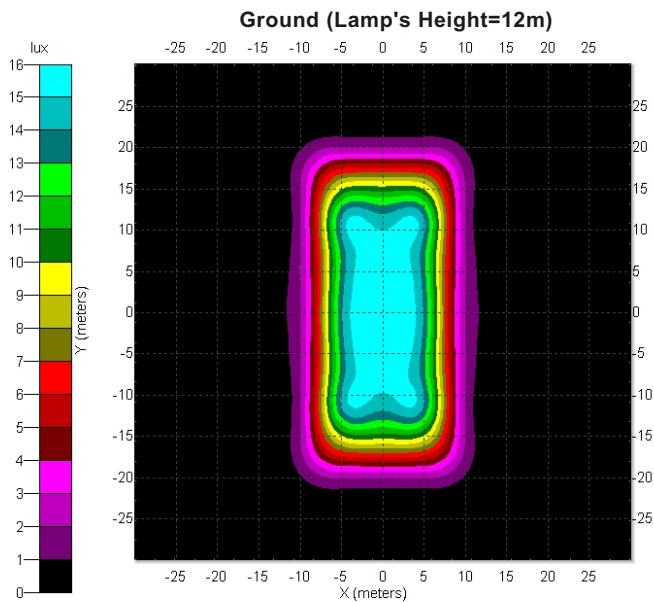
### 2 Lamp's Inclined Installation



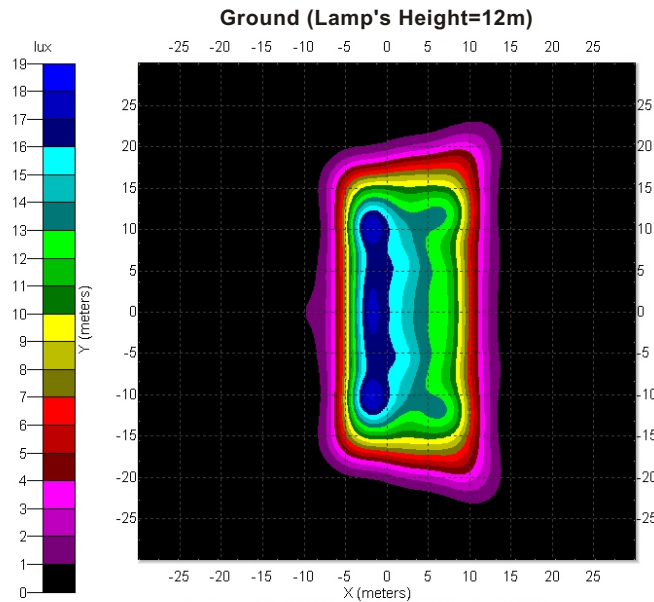


III. Plane Equal Illuminance Distribution

1 Lamp's Plane Installation



2 Lamp's Inclined Installation



## IV. Actual Lighting Effects (Beam Pattern)

### 1 Lamp's Plane Installation



### 2 Lamp's Inclined Installation

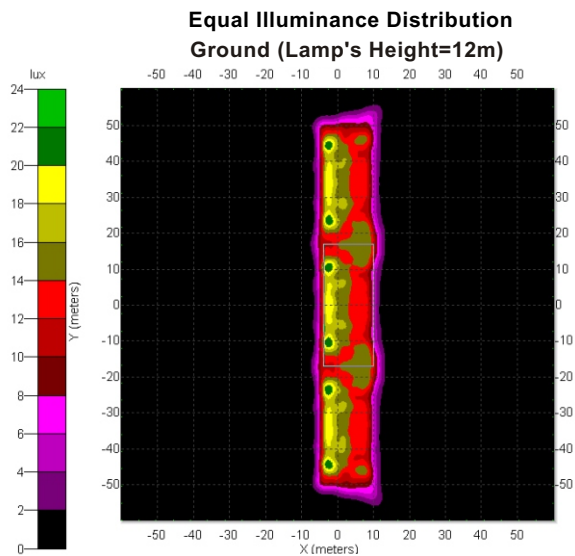


The Beam Pattern is rectangular (rectangle), good illumination uniformity, brightness difference is very little between the spot of center and periphery. Almost no difference in the direction of extending the road completely with the continuous extension of the road, it is the ideal lighting lamps for road lighting.

V.The Actual Effects On the Road:

1 Unilateral Road Layout

Below picture is we install the lamps on one side of the road, 3 lamps' illumination map and beam pattern, in a single lamp's effective covered regional(pane area) is very uniform illumination, 10M (3 lanes) width intensity values: 19lux maximum, 10lux minimum, Uniformity Value>0.5. The brightness difference is very little between the center of the beam pattern and edge, almost no difference in the direction of the road extension, fully consistent with the road for the extended, reached the ideal road lighting effects.



Actual Lighting Effects (Beam Pattern)

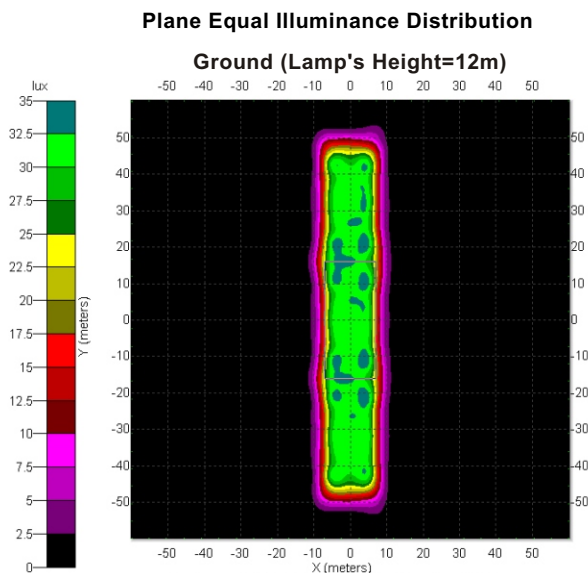


Unilateral Road Layout Related Parameters

- 1.Lamp Model: SPLU6
- 2.Lamp Power  
Consumption: 225W
- 3.Lamp Height: 12m
- 4.Lamp Pole Space: 32m
- 5.Lamp Elevation: 10°~ 15°
- 6.Road Width: 14m  
(two-way 4 lanes)
- 7.Lamp Pole Arm Length: 3-4m

## 2 Symmetrically On Both Sides of the Road:

Below picture is we install the lamps on each sides of the road, each 3 lamps' illumination map and beam pattern, in a single lamp's effective covered regional(plane area) is very uniform illumination, 14M (4 lanes) width intensity values: 35lux maximum, 25lux minimum, Uniformity Value  $> 0.7$ . The brightness difference is very little between the center of the beam pattern and edge, almost no difference in the direction of the road extension, fully consistent with the road for the extended, reached the ideal road lighting effects.



### Actual Lighting Beam Pattern Effects (Beam Pattern)



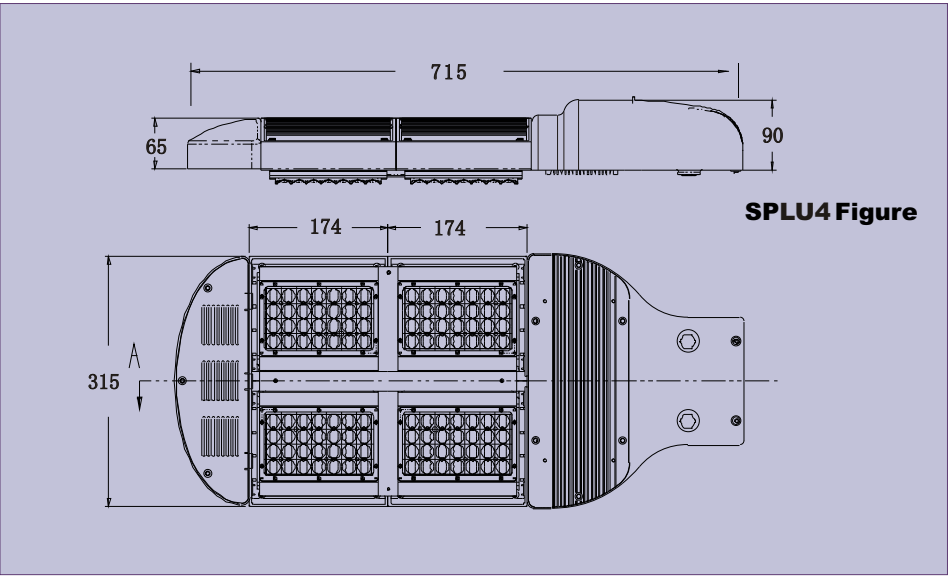
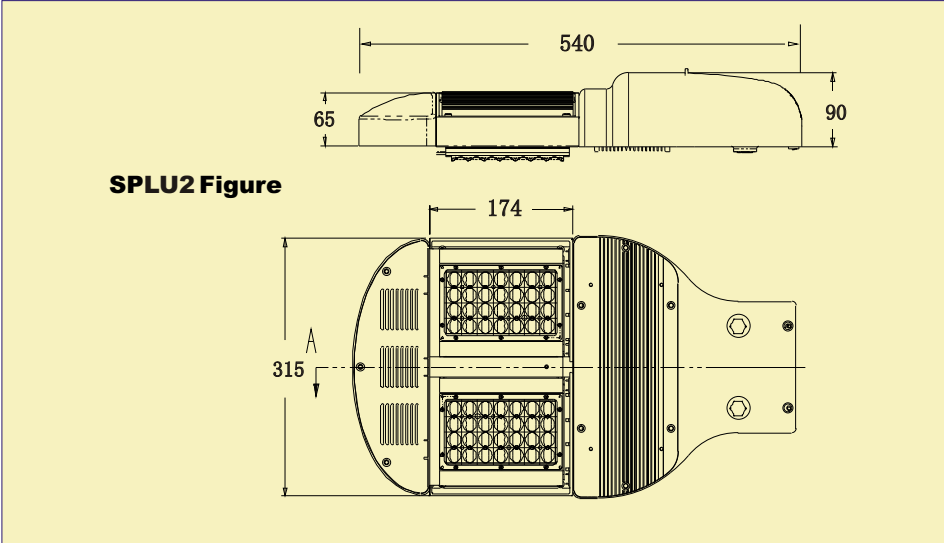
### Symmetrically On Both Sides Actual Lighting Beam Pattern Effects

#### Symmetrically On Both Sides Road Layout Related Parameters

- 1.Lamp Model: SPLU6
- 2.Lamp Power Consumption: 225W
- 3.Lamp Height: 12m
- 4.Lamp Pole Space: 32m
- 5.Lamp Elevation:  $10^{\circ} \sim 15^{\circ}$
- 6.Road Width: 14m (two-way 4 lanes)
- 7.Lamp Pole Arm Length: 3-4m

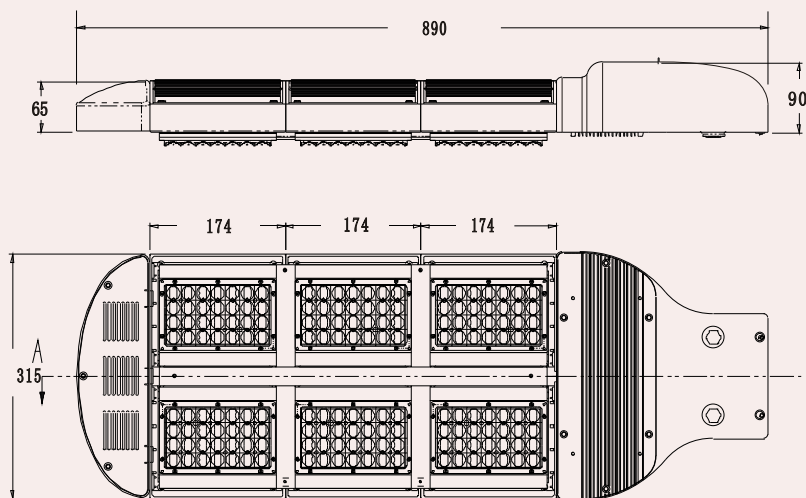
Integrated High Power LED Street  
Lamp Installation Method

I. Integrated High Power LED Street Light Figure

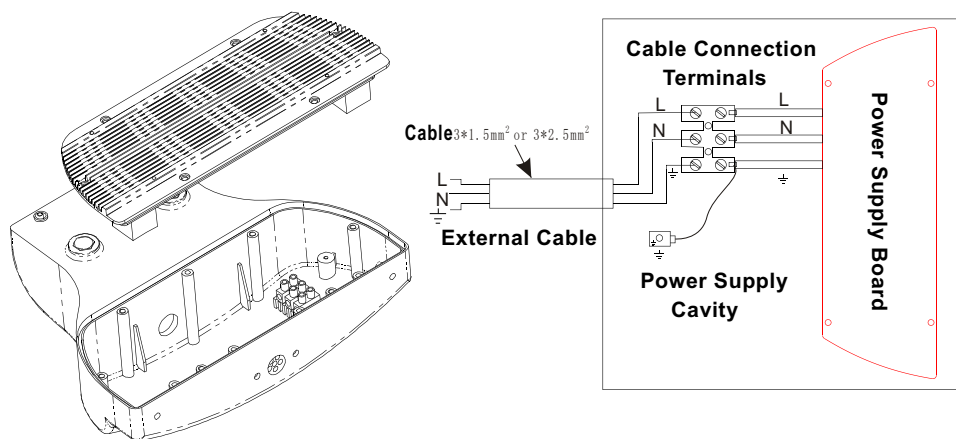




**SPLU6 Figure**



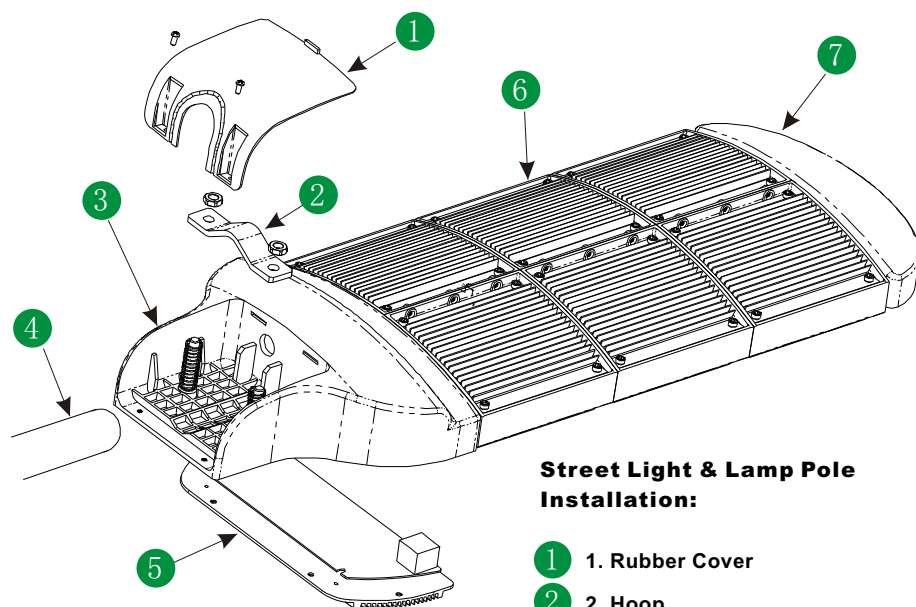
## II. Integrated High Power LED Street Light Power Supply Cavity Structure and Connection Diagrams



## III. Integrated High Power LED Street Light and Lamp Pole Installation Method

### Installation of Street Light and Lamp Pole

1. Demount the black rubber cover
2. Put the bolt into the hoop. Adjust the hoop to the suitable place according the lamp pole's diameter, and then put the street lamp on the lamp pole;
3. Locking the two M10 nut, fastening the lamp on the lamp pole (pay attention to adjust the angle of the lamp when locking);
4. Demount the board on the power supply;
5. Put the cable into the power supply cavity through the cable fixture, and then fix the cable on the cable Terminals;
6. Locking the cable fixture head (The cable should have sufficient length to prevent break off);
7. Mount the board on the power supply;
8. Mount the black rubber cover at last.



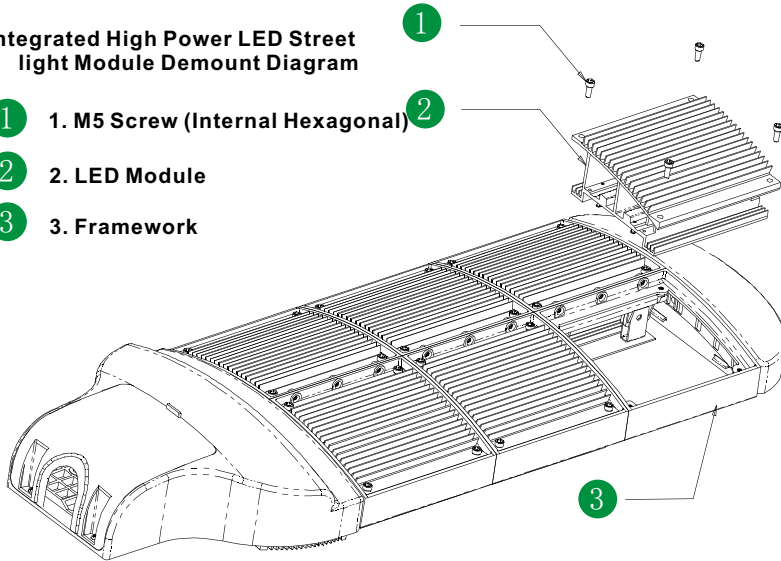
### Street Light & Lamp Pole Installation:

1. Rubber Cover
2. Hoop
3. Tailstock
4. Lamp Pole
5. Board of Power Supply
6. Module & Framework
7. Head Framework

## IV. Integrated High Power LED Street Light Module Mount & Demount Method

Integrated High Power LED Street  
light Module Demount Diagram

- 1. M5 Screw (Internal Hexagonal)
- 2. LED Module
- 3. Framework



### Modules Demounting

1. Demount the 4 screw fixation from the radiator;
2. Pick up the LED module slightly, and then slide it to the outside;
3. Overturn the LED module, take the radiator out to a certain position;
4. Unplug the power supply cable, remove the entire LED module.

### Modules Mounting

1. Put the LED module on a suitable position on the framework, connect the power supply plug;
2. Put the outside of the module to the available place first, then put in the whole module;
3. Note there should no cable drop or block on the bottom of the framework which cause the decorative plate deformation;
4. Put the screws on the right place of the module, then tight the 4 fixed screw.

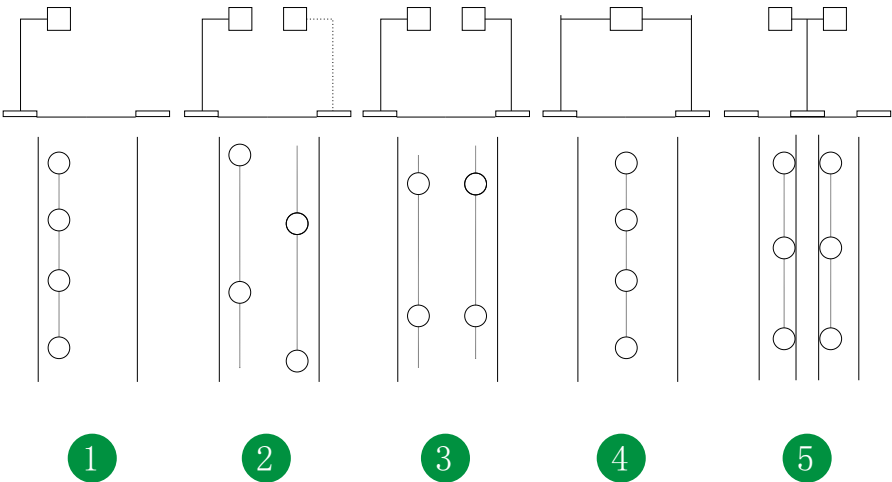
## Integrated High Power LED Street Light Common Installation and Illumination Comparison

### I. Integrated High Power LED Street Light Common Installation (Recommended) and Illumination Comparison List

Installation Style	Installation Angle	Road Width	Lamp Height	Lamp Distance	Ground Illumination						Luminance Uniformity	Vertical Uniformity	Remark
					SPLU2 (75W)		SPLU4 (150W)		SPLU6 (225W)				
					Max.	Average	Max.	Average	Max.	Average			
Unilateral Installation (No central buffer zone)	10°~15°	Two-way 2 Lanes(7m)	6m	15~18m	26	17	53	35	80	53	0.66	0.75	The Uniformity is good, the illumination on the lane of lamp pole side is better than other lanes (Please see page 18, Integrated High Power LED Street Light 5 common installation styles. About Illumination Actual Effects, please see page 10 of Unilateral Installation Sketch)
		Two-way 4 Lanes(14m)	12m	32~36m	6	4	13	9	20	13			
Center Symmetrical Installation / Bilateral Installation	10°~15°	Two-way 4 Lanes(14m)	6m	15~18m	26	17	53	35	80	53			
			8m	20~24m	15	10	30	20	45	30			
		Two-way 6 Lanes(21m)	10m	25~30m	9	6	18	12	28	18			
		Two-way 8 Lanes(28m)	12m	32~36m	6	4	13	9	20	13			
Horizontal Suspension Installation (Height Uniformity)	0°	Two-way 2 Lanes(7m)	8m	20~24m	15	11	30	23	45	34	0.75	0.75	Integrated High Power LED Street Light The Uniformity is very good, the illumination on each lane is same (Please see page 18, Integrated High Power LED Street Light 5 common installation styles. About Illumination Actual Effects, please see page 11 of Bilateral Installation Sketch)
		Two-way 4 Lanes(14m)	14m	36~42m	5	4	10	8	15	11			
Bilateral Installation (Height Uniformity)	10°~15°	Two-way 4 Lanes(14m) (No central buffer zone)	12m	32~36m	12	10	26	21	40	30	0.75	0.85	

**Remark: If it is necessary to increase the brightness, we can do the following measures:**

- A. Install 2 lamps on the same lamp pole;**
- B. Narrowing the gap between the lamp poles.**



- 1 Unilateral Installation**
- 2 Bilateral Staggered Installation**
- 3 Bilateral Symmetry Installation**

- 4 Horizontal Suspension Installation**
- 5 Center Symmetry Installation**



## Integrated High Power LED Street Light Maintenance and Troubleshooting Methods

### Troubleshooting Methods

Fault	Possible Reasons	Troubleshooting Methods
All the LED can not light up	The power input connector is noconnect well	Please use the “-” shape screwdriver connects the input cable on the input connectors.
	The fuse of power supply was damaged	Please use the 5A/250V fuse (glass tube) to replace it, if it still can not light up, please change the power supply.
	The power supply output plug was not connected well.	Please connect the 12P connector on the power supply output well, and then tighten the screws.
LED Flashing	Malfunction of the power supply.	Please change the power supply.
One of the LED Modules is darker	Malfunction of the power supply.	Please change the power supply.
Few individual LED is not light up or dark	LED was damaged	Please replace the same type of LED

## II. Integrated High Power LED Street Light Maintenance and Repairing

Integrated High Power LED Street Light In order to ensure the normal use of lights, enhance light flux rate, you should develop the maintain plans, clean the lamp regularly, cleaning cycle should be determined according to the local environment and climate.