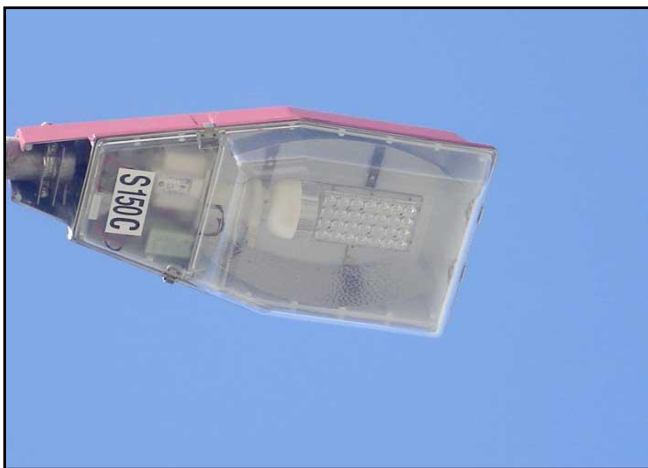


LED Street Lights – SP90

High Power LED Street Light, is a kind of innovative and energy-saving product that utilizes high power led's as lighting source. LED technology is increasingly used in street light applications due to its long working life and the nature of energy-saving. Our LED street lights have been installed all over the world since 2006, Our LED lighting products such as LED street lights and LED bulbs can work with very wide range voltage from 110VAC to 270VAC. And they can also be powered with the optional solar panel kit. The LED colour spectrum contains no ultraviolet light and infrared rays and little heat or radiation is produced. Comparing to an HPS street light, LEDs can light more than 50,000 hours and significantly causes no light pollution. LED Street Light can endure extreme hot and cold weather condition. This advantage makes LED street lights suit to outdoor use. Moreover, LED Street Light can launch 1000 times faster than other types of lighting products, almost no delay when we switch it on



Model Name	LED Street Light
Model No.	SP90
Power Consumption	23W
Luminous Flux	2,150lm
Working Voltage	100-240VAC
Life Span	>50,000 Hours
IP Rating	IP60
Certificates	CE, UL Pending
Payment Term	T/T, L/C
Warranty	12 Months



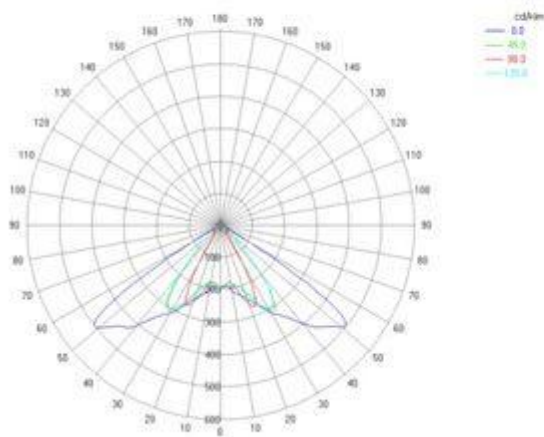
Model Number	SP90
Input Voltage	100-240VAC
Frequency Range	50 ~ 60 Hz
Power Factor(PF)	>0.94
Total Harmonic Distortion(THD)	<20%
Power Efficiency	84 %
Working Voltage	18~24V DC
LED Consumption	23 W
Power Supply Consumption	4 W
LED Luminous Efficiency	≥77lm/w
LED Initial Flux	2,800 lm (T _j =25°C)
LED Maintain Flux	2,400 lm (T _j =70°C,T _a =25°C)
Lamp Output Flux	2,150 lm (T _j =70°C,T _a =25°C)
Lamp's Efficiency (%)	>84 %
Illumination (E)	(Height=6 m) ≥17 lux(Equal to HPS 40 lux) (Height=8 m) ≥10 lux(Equal to HPS 25 lux) (Height=10 m) ≥6 lux(Equal to HPS 15 lux) (Height=12 m) ≥4 lux(Equal to HPS 10 lux)
Effective Illuminated Area	27×12 m (Height=6 m) 36×16 m (Height=8 m) 43×20 m (Height=10 m) 52×23 m (Height=12 m)
Color Temperature	Pure White: 5,000 ~ 5,800 K, White White:4,000~4,500K
Color Index(CRI)	R _a ≥ 65
Light Source	1 Watt LED
Light Distribution Curve / Beam Pattern	Asymmetric (Bat Wing) / Rectangular Beam
The Highest Light Intensity Angle	With 120° lens: The Horizontal Axis 110°, The Vertical Axis 45° With 140° lens: The Horizontal Axis 130°, The Vertical Axis 45°
Beam Angle	With 120° lens: The Horizontal Axis 120°, The Vertical Axis 60° With 140° lens: The Horizontal Axis 140°, The Vertical Axis 60°
Junction Temperature (T _j)	<78° C (T _a = 25 ° C)
System Resistance (R _{ja})	1.4 ° C / W
Working Temperature	- 30 ° C ~ 50 ° C
Working Humidity	10 % ~ 90 % RH
Storage Temperature	40° C ~70 ° C
Working Life	> 50,000 Hrs
Light Body & Lampshade Material	Aluminum Alloy and PC
Lamp Base	E40
The Dimensions(Units : mm)	φ 92x275 mm
Net Weight (g)	1.015 kg
IP Rating	IP 60

Light Distribution and beam Patterns

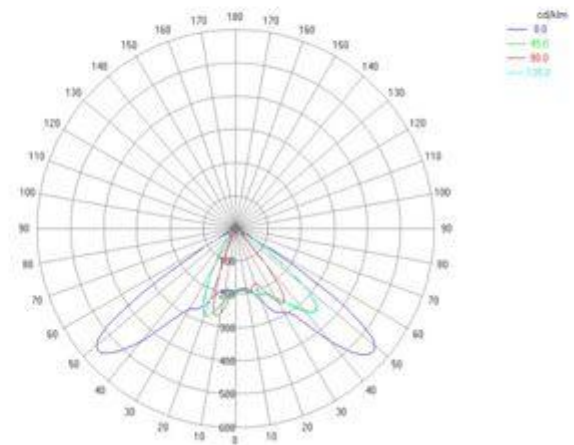
Bat-wing beam pattern of the distribution curve can be adjusted according to different section's requirements. Rationally we can control the distribution to let it be a rectangular beam pattern. When the installation height is 12m, the beam pattern is 40x16m rectangular, and the radiation-efficiency is more than 70% in the effective region, the total transparency is more than 90%, the possibility to reduce the loss of the light reaches the maximum. The illumination uniformity is very good in the effective radiation region, even it is better than grade of 0.5 and 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 is out of the effective radiation region, it causes no light pollution, it is an idea to cut-lighting lamp and meet the requirements of the road lighting or other special lighting, which can also be widely used for the special requirements such as street lighting, advertising lighting, etc.; it is a green, energy-saving, environmentally friendly lighting product.

◆ Light Distribution Curve

1 Lamp's Plane Installation

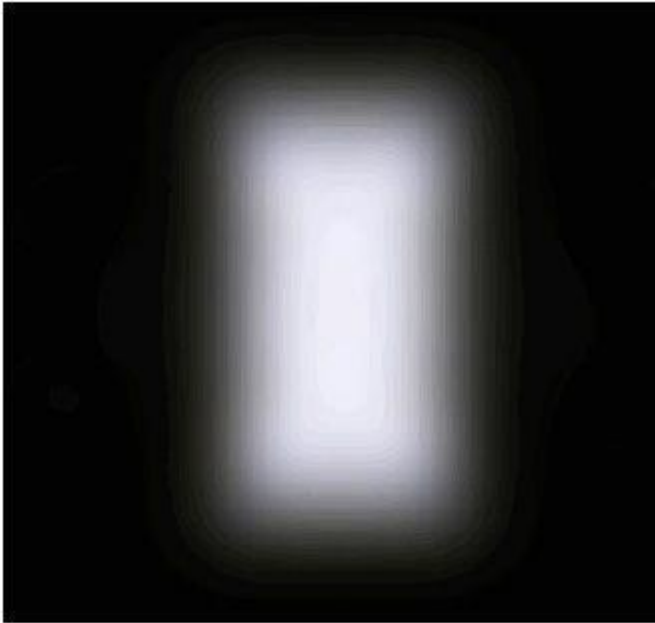


2 Lamp's Inclined Installation

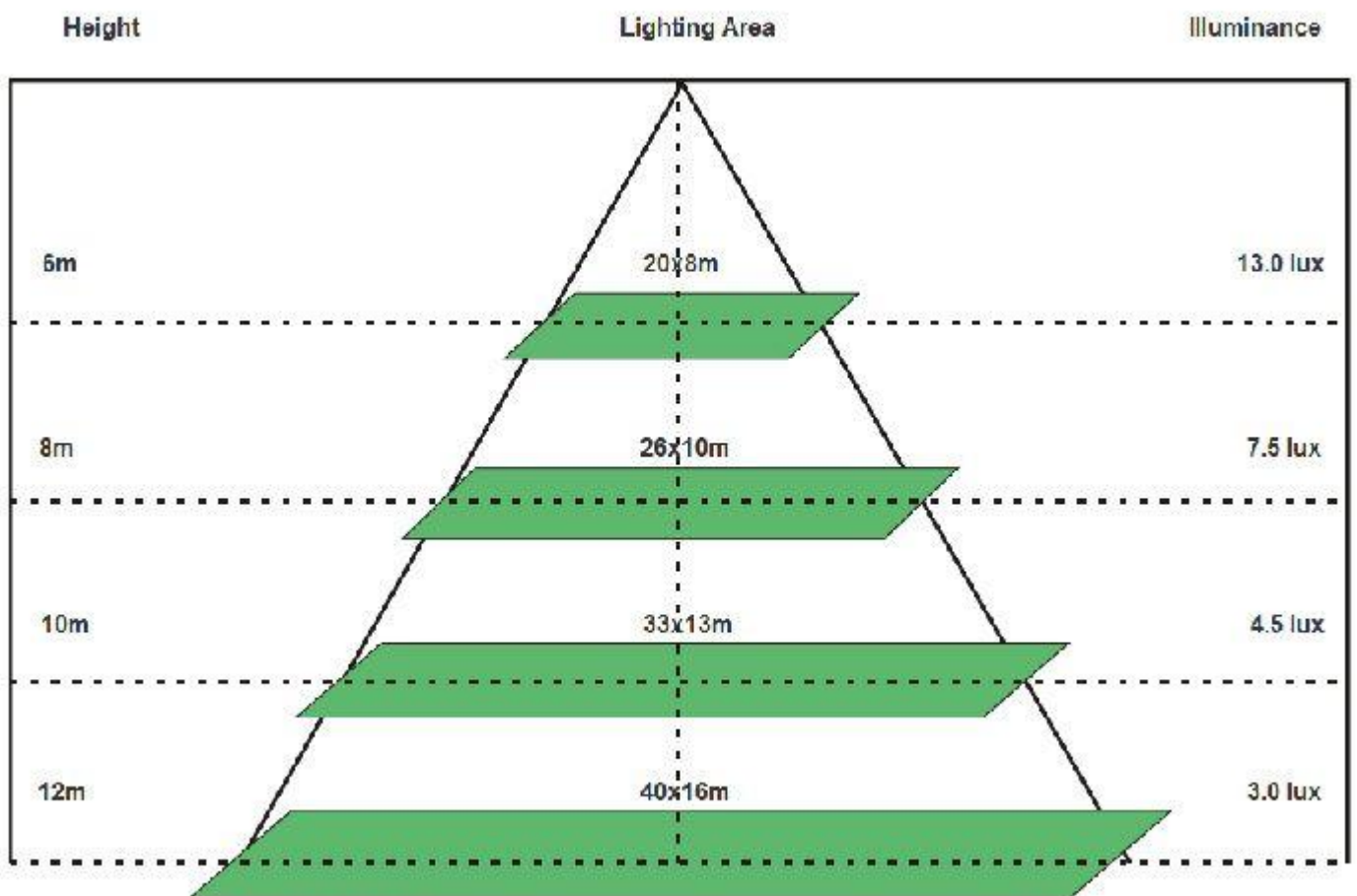
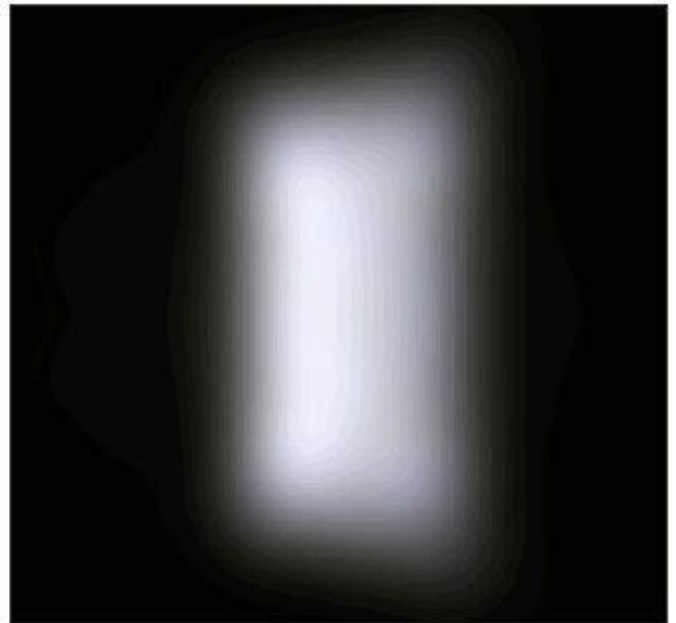


The Beam Pattern is rectangular (rectangle) and good illumination uniformity, brightness difference is very little between the spot of center and periphery. Almost no difference in the direction of extending the road completely with the continuous extension of the road, it is the ideal lighting lamps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

Horizontal Installation



Inclined Installation



Comparison

Items	High Pressure Sodium	BBE LED Street Light
Photometric Performance	Bad	Excellent
Radiator Performance	Bad	Excellent
Electric Performance	Electric Shock Easy(High Voltage)	Safe (Low Voltage)
Working Life	Short (5,000h)	Quite Long (>50,000h)
Working Voltage Range	Narrow ($\pm 7\%$)	Wide($\pm 20\%$)
Power Consumption	Quite High	Quite Low
Startup Speed	Quite Slow(Over 10minutes)	Rapid (2s)
Strobe	Yes(Alternating Current Drive)	No(Direct Current Drive)
Optical Efficiency	Low	High
Color Index/ Distinguish Feature	Bad, Ra< 50(The Color Of Object Is Faith, Boring, Hypnosis)	Good, Ra>75(The Color Of Object Is Fresh, Veritable And Comfortable)
Color Temperature	Quite Low (Yellow Or Amber , Uncomfortable)	Ideal Color Temperature (Comfortable)
Bad Glare	Strong Glare (Dazzle)	No Harmful Glare
Light Pollution	Strong	No
Heating	Serious (>300°C)	Cold Light (<60°C)
Lampshade Turn Dark	Easy (Absorb Dust)	No (Static Proof)
Lamp Aging Turn Yellow	In A Short Time	No
Shockproof Performance	Bad(Fragile)	Good (No Filament Nor Glass)
Environment Pollution	Contains Lead Element Etc.	No
Maintenance Cost	High	Quite Low
Product Cubage	Big	Small (Slim Appearance)
Product Weight	Heavy	Light
Cost-Effective	Low	High
Integrated Performance	Bad	Excellent

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 Lampshade 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	Standard E40, 360-degree Rotation Lamp Holder - It can still rotate after full tightening the lamp holder arbitrarily, adjust to ensure the best direction face to the ground;
5	Direct Replacement Light Source Design - Direct replace the existing high-pressure mercury lamp, high pressure sodium lamp, metal halide lamps, no need to change the original lamp shell;
6	Intelligent Current Control - 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 lampshade become dark, reduce the brightness;
10	No High-temperature, No Aging Yellow Lampshade - Eliminate baking the traditional lampshade which cause aging yellow, shortened life expectancy and decrease the brightness;
11	Wide Working Voltage - The brightness and working life will be reduced if the working voltage change more than 7% for the traditional streetlight, but it will not influence our LED Streetlight at all;
12	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;
13	No Strobe - Eliminate the visual fatigue which caused by the strobe lights of the traditional street lamps;
14	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;
15	High Color Index, Nice Coloration - To show the true colors and more brighter;
16	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;
17	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;
18	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;
19	Green and Environmental Protection - no lead, no mercury, no environmental pollution;

LED LIGHTING AND SOLAR SOLUTIONS

20	Universal Input Voltage - 100-240VAC full voltage range constant, constant-current PWM technology, high efficiency, low-heat, high-precision constant current;
21	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;
22	Work Under Low-voltage and Low-Heat, Safe and Reliable - LED junction temperature can be controlled under an ideal temperature (TJ<70 °C Ta=25 ° C ambient temperature);
23	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;
24	High Luminous Efficiency - LED luminous efficiency of the existing conditions is \geq 65lm/w, with the rapid increase LED brightness, when the luminous efficiency reach 150lm/w, the 400W sodium lamp will be replace by the 100W LED lamp,? the luminous efficiency will? reach 300lm/w eventually;
25	Have a number of patents for inventions and utility model patents.

Packing	1 pc/White Box, 10 pcs/Carton
Carton Size	690 x 330 x 315 mm
Container Q'ty (pcs)	20'Q: 3,750 pcs 40'Q: 7,950 pcs, 40'HQ:9,450 pcs