

SE-SERIES

ALL IN ONE

## SOLAR STREET LIGHT

UP TO **220 LM/W**

- SUPPORT 12HOURS UNDER 5-7 RAINY DAYS
- POWER: 10W TO 60W



Bifacial Solar Panel  
Efficiency Increased 30%



High Efficacy Lighting  
60W Replace 400W Traditional Model



Rotatable LED Module  
Easy Installaton



Smart Lighting Control  
IOT Remote Monitoring Analysis

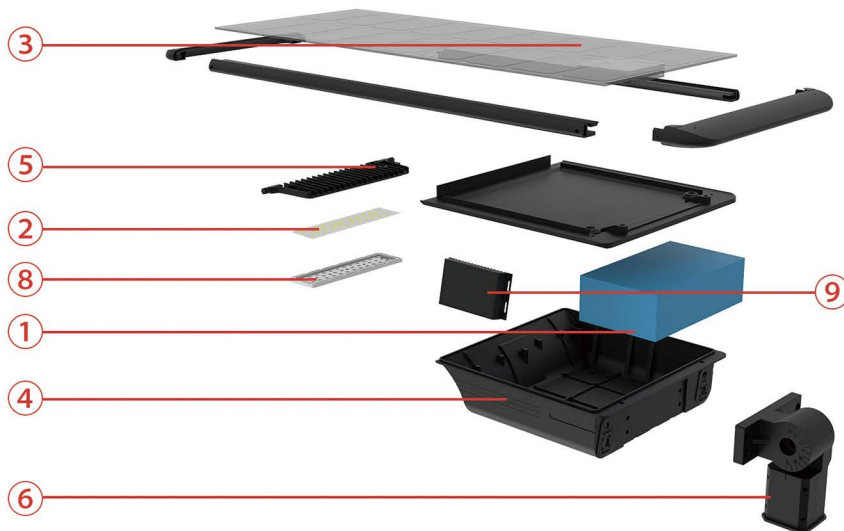
EXPERTS WITH  
PROFESSIONAL SOLUTION

WWW.AOKLEDLIGHT.COM  
2019.09-3RD EDITION

**PRODUCT DESCRIPTION**

- **SE solar LED street light** features all in one design function, low profile design, with PIR/microwave motion sensor and smart controller all built in.
- **Bifacial Solar Panel** design. Suitable for remote region, non electricity supply zone.
- Deep cycle battery, charge and discharge over **2000 times**.
- Continuously **work 5-7 rainy days in intelligent mode**.

**FEATURES**



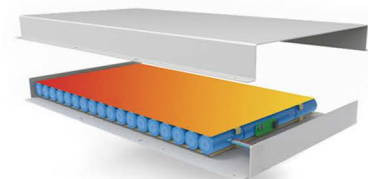
INTEGRAL MONOCRYSTALLINE SILICON SOLAR PANEL



CONVERSION RATE UP TO 30%

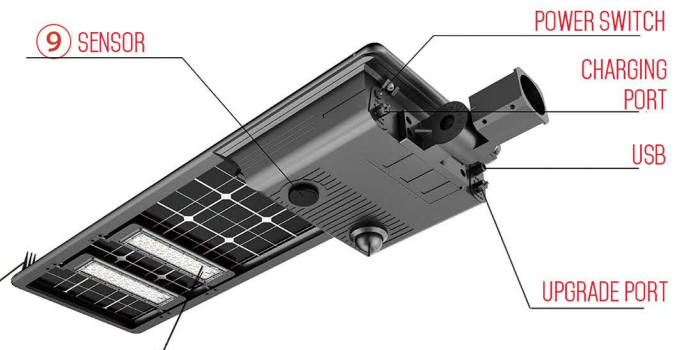
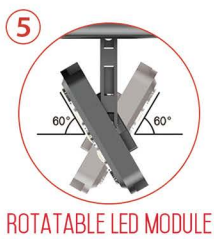


25 YEARS LIFESPAN



LIFESPAN CYCLE MORE THAN 2000 TIMES INTELLIGENT TEMPERATURE CONTROL

- ① Easy battery replacement design, can be renewed for 7 years.
- ② Ultra-high light efficiency, 10 watts equivalent to 20 watts of others at least.
- ③ Bifacial solar panels, the overall conversion efficiency is increased by 30%.
- ④ Unique anti-theft technology on battery door.
- ⑤ Rotatable LED module, worry-free installation, best solar panel angle adapt to the sun.
- ⑥ The various installation methods suit for any application likes light poles, wall surface and etc.
- ⑦ From 10 to 60 watts, can replace the traditional 35-240 watts, meeting all road application conditions.
- ⑧ More than 30 different optical road lighting designs, adapt to various road conditions but no waste of light.
- ⑨ PIR/microwave motion sensor and smart controller all built in. AC and DC complementary, also USB power and alarm supply when emergency use.



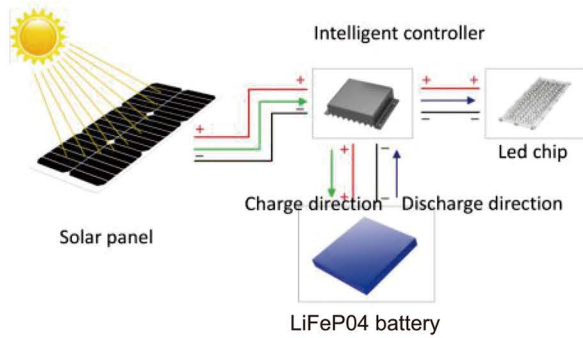
LED CHIP



By choosing the luxeon LED chips, single lumen value at 240lm/w, with the aluminum lamp base and sealed lens, with its excellent heat dissipation, it is as if the LED chip has been placed in a sealed unit. Thus it maintains high brightness levels with very little fading. The sealed lenses are made of strong UV protected PC and are aging and shock resistant; The well optimized light distribution, makes for a more uniform and wider lighting area.

Philips Lumileds Luxeon 5050 chip creates a first-class light source

WORKING WAY



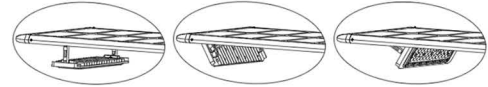
Where there is light radiation, photovoltaic modules are converted to electric energy by solar radiation, and intelligent controller is used to charge electric energy into lithium iron phosphate battery. At the same time, the intelligent controller protects the overcharge and over discharge of the battery. The lighting switch and adjust lighting intelligent control, without manual operation.

HIGH-LUMEN EFFICIENCY LED MODULE

Lumen efficiency > 220lm/w, achieve higher illumination

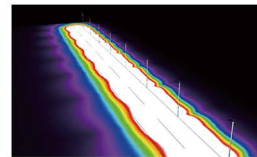


Angle of Light Source: -60°/+60°

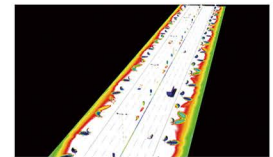


PHOTOMETRICS DESIGN

Planning and analyzing of street lights can be done by using lighting design software, which allows lighting simulations. It uses rendering, the process of generating an image from a model, by means of computer programs resulting in different tools for measuring the simulated light levels.

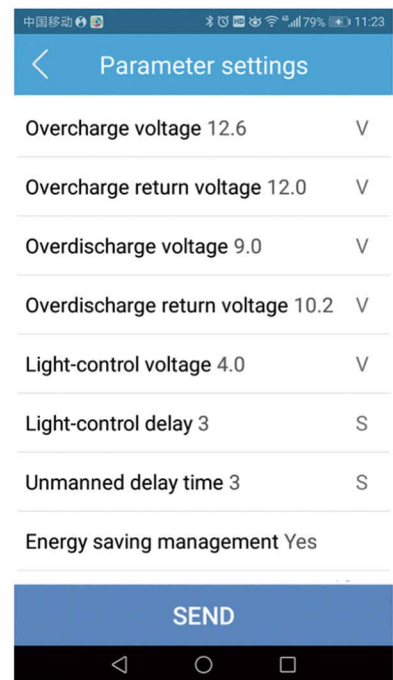
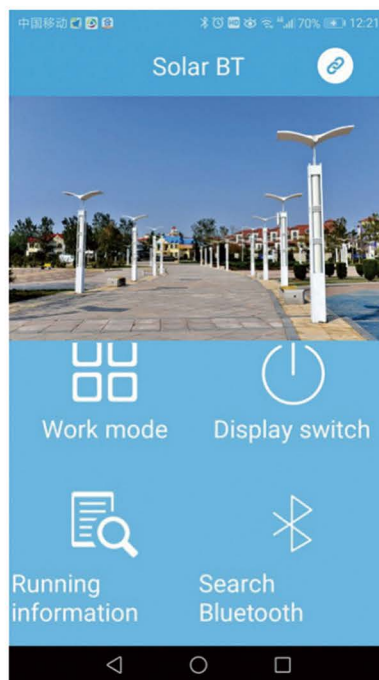


Example of urban branch road



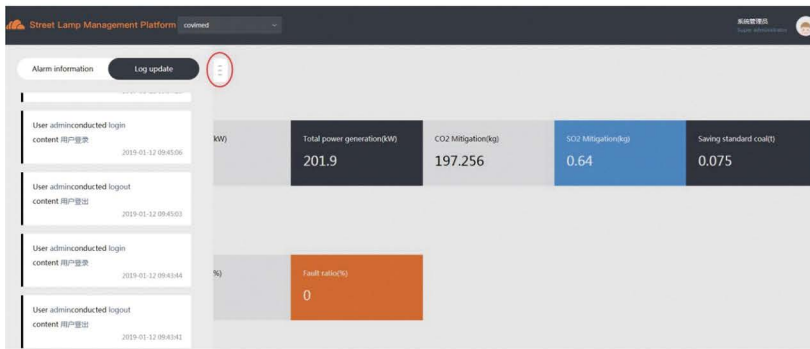
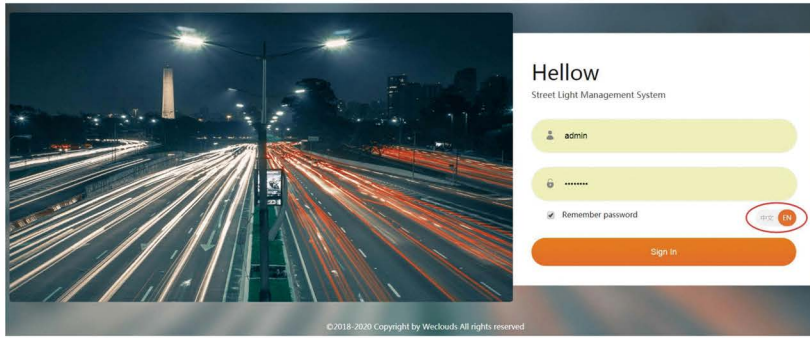
Example of main road and parking lot

MOBILE BLUETOOTH APP

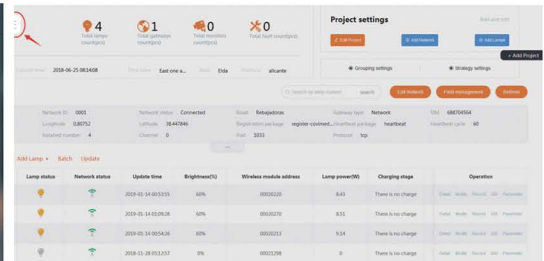


Multiple lighting modes can be programmed remotely by Mobile Bluetooth APP Solar Street light with inbuilt Bluetooth for health monitoring with APP

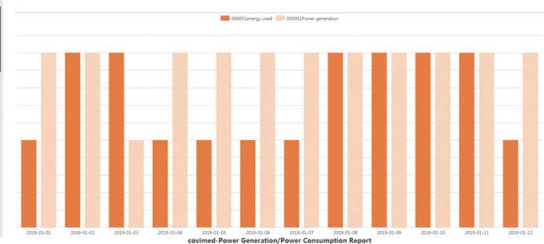
SMART LIGHTING CONTROL SYSTEM



DATA & PROJECT MANAGEMENT



Number	Lamp number	Lamp status	Network status	Update time	Brightness(%)	Wireless module address	Lamp power(W)	Charging stage
1	000001	🟡	🟢	2019-01-12 09:53:06	40%	00000207	5.3	There is no charge
2	000002	🟡	🟢	2019-01-12 09:53:02	40%	00000270	5.63	There is no charge
3	000003	🟡	🟢	2019-01-12 04:30:26	40%	00000251	6	There is no charge
4	000004	🟡	🟢	2019-11-26 09:12:57	0%	00002308	0	There is no charge



The system can pre-set one or more lighting modes according to different time of day and traffic flow, automatically turn on or off any lamp, and adjust the switching time and illumination according to environmental requirements to achieve the purpose of energy saving and consumption reduction.

IOT MANAGEMENT, INTELLIGENT LIGHTING

AOK perfectly combine traditional solar street lighting architecture+Internet of things + wireless communication technology perfectly, achieve monitoring and management of remote background data, real-time understand the normal working status of each component of solar energy (street lights, photovoltaic panels, batteries, controllers), allow you to know the end customer's product usage that is thousands of miles away without leaving home, or to manage the opening and closing of street lights and the adjustment of bright spot power in a timely manner.



Remote monitoring real time monitoring

SE series with wireless communication function, Through the intelligent management system of solar street lamp and wireless module, have remote monitoring and real-time monitoring.



Automatic fault alarm

Real time monitoring of solar panel voltage, current, power, battery charging and discharging current, voltage, load working state, controller working state data and fault automatic alarm.



Remote control

Support remote switch on and off dimmer and battery, load parameter modification.



Fault tracking and precise positioning

Multi peak PWM technology, suitable for partial shading or partial damage of photovoltaic cells, and the tracking efficiency is more than 99%.

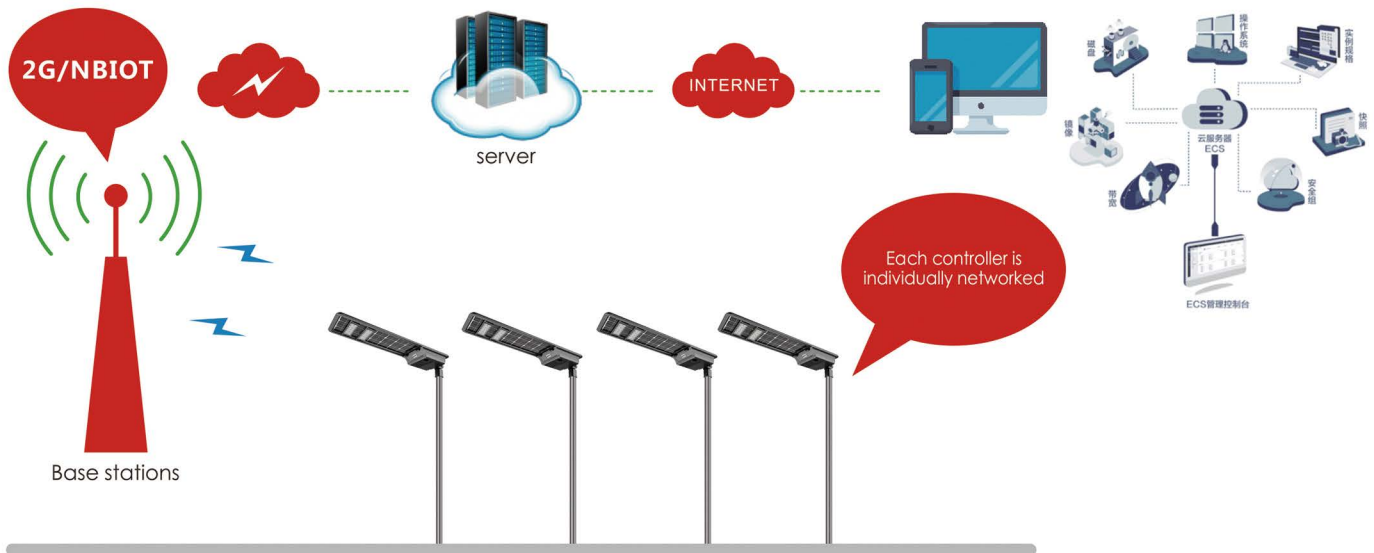


Map location

Using GIS maps, with geographic display capabilities.



The Internet of Things solar street light management system is mainly composed of a street light component+a centralized controller+a single light controller+a smart cloud platform. The centralized controller and the single light controller aggregate the data collected by the single light via the GPRS/NB-IOT wireless communication network. The centralized controller uploads data to the system cloud platform through GPRS data flow, providing data dependence for mobile phone and computer terminal access.



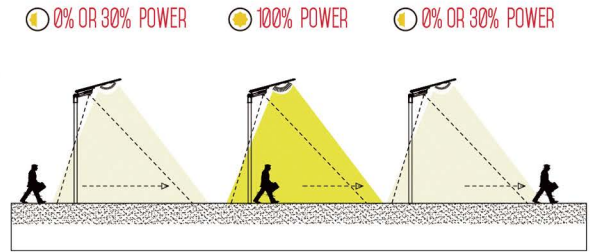
**PERFORMANCE COMPARISON BETWEEN SMART IOT SOLAR LED STREET LIGHT AND TRADITIONAL STREET LIGHT**

Solar led street light controller type	PWM+IOT controller	Instruction
Light decay detecting	✓	Automatic light decay detection and adjustment
Charging in rainy days	✓	PWM charge 3 rainy days is equivalent to a sunny day
Battery management	✓	Battery lifespan management
Remote monitoring	✓	Remotely monitor the status of each street light in real time
Optimize configuration	✓	Through data analysis, complete the optimal configuration of solar panels and batteries in different regions
Fault alarm	✓	Automatically detect system failures and alert to mobile phones or computers
Intelligent analysis	✓	Automatically collect the detailed data for per light at per night, and statistical report analysis
Artificial intelligence	✓	Big data collection and analysis through the system platform, complete the intelligent operation of street light and achieve stable lighting throughout the year

**TECHNICAL SPECIFICATION**

- Operating time: 15 hours full power, intelligent mode 5-7 days.
- Input Voltage: 12-24V constant voltage.
- Control Mode: Light Control + Motion Sensor/Time Control/PIR Built In.
- Working Mode: 30% of intensity at first 4 hrs, 100% bright when people or car pass by, then rest of time 30% of intensity, and 70% of intensity when people pass by.
- Housing: Die-Casting Aluminum, Anti-Corrosion.
- Life Hours: >50,000 hours.
- 3000K/4000K/5000K/5700K/6500K available. CRI: 70/80

**INTENSITY AUTO ADJUSTMENT**

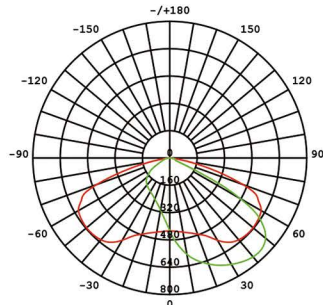


Model	Wattage	Replacement	Lumens (+/-5%)	Efficacy	Solar Panel	Battery			Optical Lens	IP&K Rating	Installation Height	Fixture Dimension	Carton Dimension
						Voltage	Wattage	Charging Time					
10WsE	10w	35W MHL	2205lm	218lm/w	30w/18v	12v	153.6w	5.12 hrs	65°*150° /75°*160° /90°*100° /120°	IP65	3-6M	L633*W365*H211.4mm L24.92*W14.37*8.32Inch	L825*W190*H435mm L32.48*W7.48*17.13Inch
15WsE	15w	35W MHL	3166lm	210lm/w	30w/18v	12v	153.6w	5.12 hrs					
20WsE	20w	60-80W MHL	4174lm	210lm/w	40w/18v	18v	230.4w	5.76 hrs		IP65	5-7m	L793*W365*H211.4mm L31.22*W14.37*8.32Inch	L985*W190*H435mm L38.78*W7.48*17.13Inch
25WsE	25w	60-80W MHL	5163lm	206lm/w	40w/18v	18v	230.4w	5.76 hrs					
30WsE	30w	90-120W MHL	6091lm	203lm/w	50w/18v	24v	307.2w	6.14 hrs		IP65	5-8M	L948*W365*H211.4mm L37.32*W14.37*8.32Inch	L1140*W190*H435mm L44.88*W7.48*17.13Inch
35WsE	35w	90-120W MHL	7368lm	210lm/w	50w/18v	24v	307.2w	6.14 hrs					
40WsE	40w	120-160W MHL	8382lm	209lm/w	60w/18v	30v	384w	6.40 hrs		IP65	6-9M	L1103*W365*H211.4mm L43.43*W14.37*8.32Inch	L1295*W190*H435mm L50.98*W7.48*17.13Inch
45WsE	45w	120-160W MHL	9300lm	206lm/w	60w/18v	30v	384w	6.40 hrs					
50WsE	50w	160-200W MHL	10091lm	203lm/w	70w/18v	36v	460.8w	6.58 hrs		IP65	6-10M	L1263*W365*H211.4mm L49.72*W14.37*8.32Inch	L1455*W190*H435mm L57.28*W7.48*17.13Inch
60WsE	60w	200-240W MHL	12480lm	208lm/w	80w/18v	42v	537.6w	6.72 hrs					
										IP65	7-12M	L1418*W365*H211.4mm L55.83*W14.37*8.32Inch	L1610*W190*H435mm L63.39*W7.48*17.13Inch

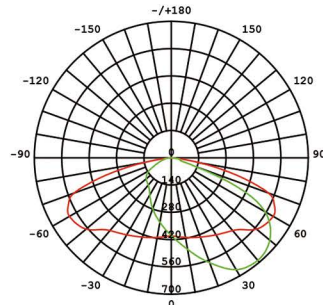
**ORDERING INFORMATION**

AOK	WATTS	VOLTAGE	LED CHIPS	TYPE OF SENSOR	CCT&CRI	DISTRIBUTION	MOUNT	OPTION
	10WsE 15WsE 20WsE 25WsE 30WsE 35WsE 40WsE 45WsE 50WsE 60WsE	DC=12-24V	L5=LUMILED 5050	00=Without Sensor SN=Motion Sensor ((up to 9M)) DV=Dimmable PIR(up to 7M)	3070=3000K 70CRI 3080=3000K 80CRI 4070=4000K 70CRI 4080=4000K 80CRI 5070=5000K 70CRI 5080=5000K 80CRI 5770=5700K 70CRI 5780=5700K 80CRI 6570=6500K 70CRI 6580=6500K 80CRI	120D=120DEG T2=T202 T3=T302 T4=T402	Type A Type B Type C Type D Type E	10KV (Surge Protector) Intelligent APP control IOT Management AC & DC complementary USB power Alarm Security camera

PHOTOMETRY



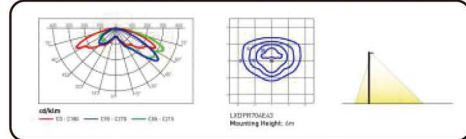
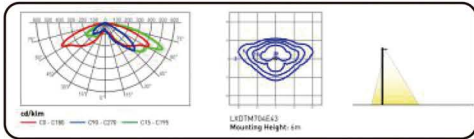
AVERAGE BEAM ANGLE(50%):108.3DGE  
UNIT: cd  
C0/180, 151.7° Ic: 426.3  
C90/270, 64.9° Ic: 759.2



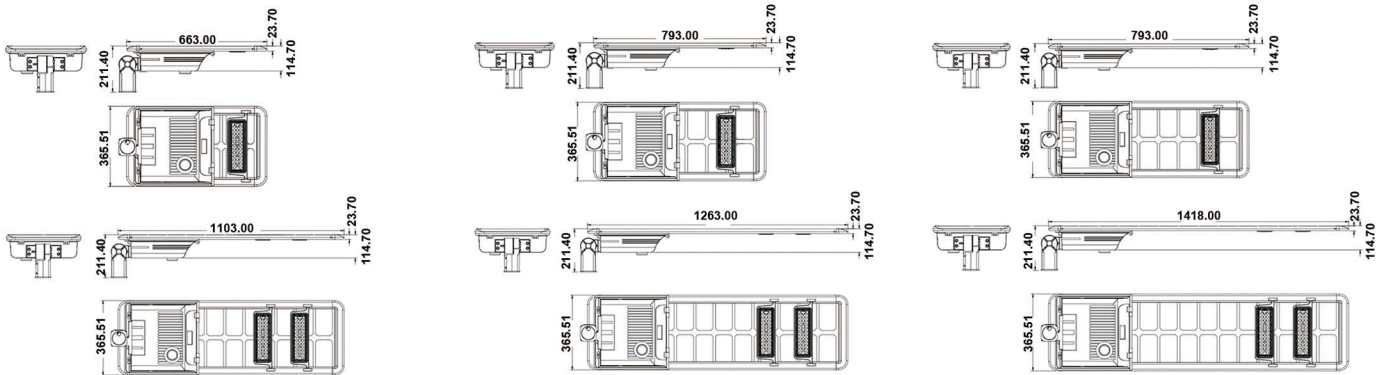
AVERAGE BEAM ANGLE(50%):116.3DGE  
UNIT: cd  
C0/180, 157.2° Ic: 399.6  
C90/270, 75.4° Ic: 687.3

Type 2 for street lighting, cycle paths and footpaths

Type 3 for street light and car parks



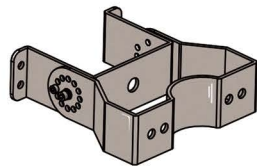
DIMENSIONS



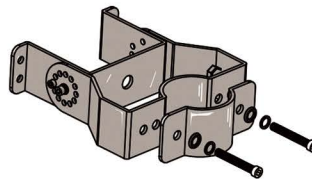
BRACKET OPTIONS



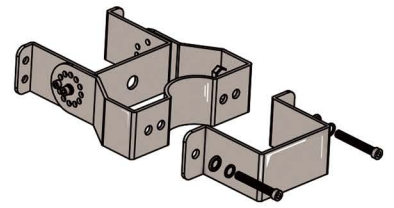
Type A  
Universal Bracket



Type B  
Wall Mount



Type C  
Round Pole



Type D  
Square Pole

**APPLICATIONS**



3-year standard warranty, 5-year warranty optional. Please consult with AOK sales for detailed agreement.



**CONTROLLER**

· Turn on the anti-theft module

· Time control + PIR mode

4 hours 100% and 30%

3 hours 70% and 30%

3 hours 50% and 20%

4 hours 30% and 10%

· PIR mode

Human sensed, 100%

No sensed, 30%

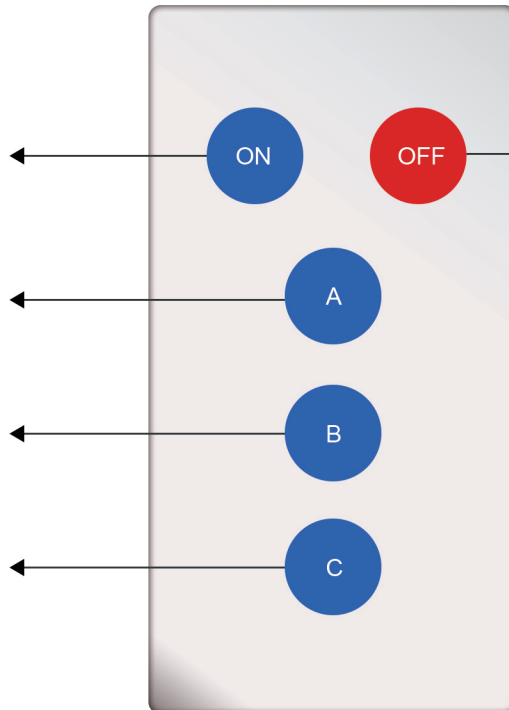
· Time control mode

2 hours 100%

2 hours 70%

4 hours 50%

6 hours 10%



· Turn off the anti-theft module

Note:

· Default output setting as Mode A.

· 5 buttons on controller:

“NO”, “OFF”, “A”, “B” and “C”. The remote control should aim at the sensor head on the fixture and press the corresponding key to send the signal. If it is written & received successfully, the indicator light will flash accordingly, else failed.

· Energy-saving description:

Mode A: Optimal (Economy)

Mode B: Medium

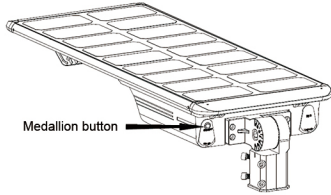
Mode C: High performance

(Energy consumed)

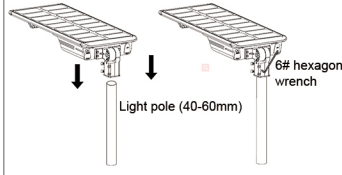
Please select the mode according to the condition of installation site.

**STYLE A: UNIVERSAL SUPPORT**

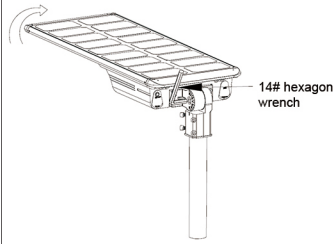
1. Open the package, check whether the appearance of the lamp is in good condition, and click the switch button to test whether the lamp is in good condition.



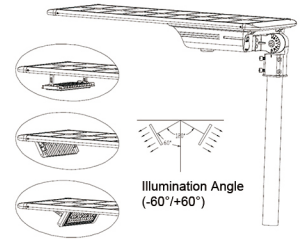
2. Put the lamp into the lamp pole and tighten the screw (6# hexagon socket wrench).



3. Loosen the screws on the universal support, adjust the appropriate solar panel irradiation Angle, and then tighten the screws (adjust the Angle of 90°-0°).

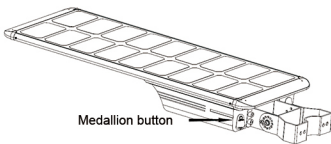


4. Adjust the appropriate exposure Angle of the light source, and then turn on the switch button.

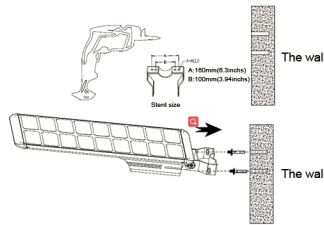


**STYLE B: WALL MOUNTING BRACKET**

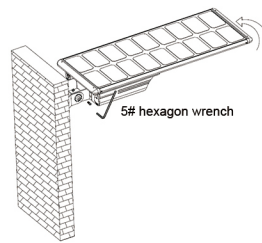
1. Open the package, check whether the appearance of the lamp is in good condition, and click the switch button to test whether the lamp is in good condition.



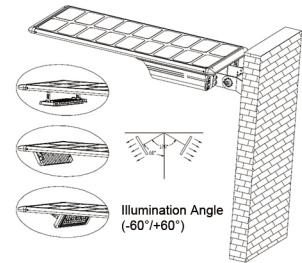
2. Drill holes in the wall to fix metal expansion screws and fix lamps on expansion screws.



3. Loosen the screws on the u-shaped bracket, adjust the appropriate solar panel irradiation Angle, and then tighten the screws (adjust Angle -90° - +90°).

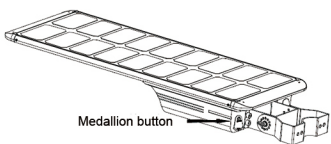


4. Adjust the appropriate exposure Angle of the light source, and then turn on the switch button.

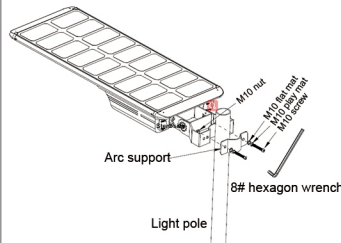


**STYLE C: ROUND ROD SUPPORT**

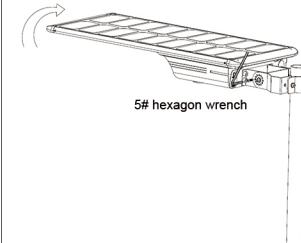
1. Open the package, check whether the appearance of the lamp is in good condition, and click the switch button to test whether the lamp is in good condition.



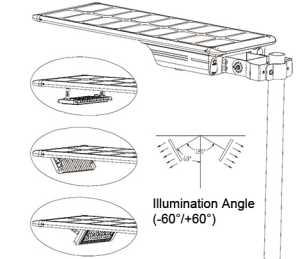
2. Fix the circular arc clasp and the lamp on the circular lamp pole through screws, and lock the screws.



3. Loosen the screws on the u-shaped bracket and adjust appropriate solar panel exposure Angle, then tighten Screw (adjust Angle -90° - +90°).

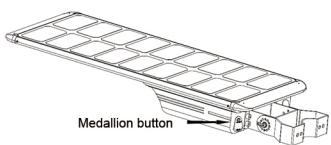


4. Adjust the appropriate exposure Angle of the light source, and then turn on the switch button.

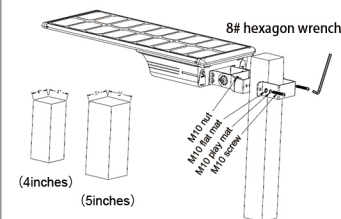


**TYPE D: SQUARE ROD BRACKET**

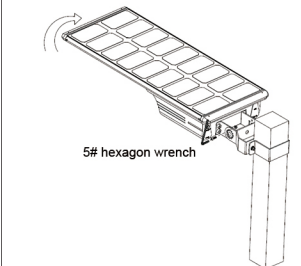
1. Open the package, check whether the appearance of the lamp is in good condition, and click the switch button to test whether the lamp is in good condition.



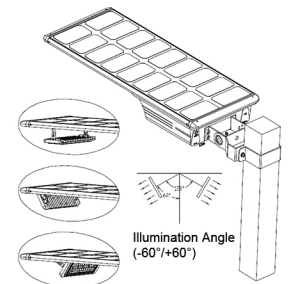
2. Fix the arc clasp and the lamp on the square lamp pole through the screw, and lock the screw.



3. Loosen the screws on the u-shaped bracket and adjust appropriate solar panel exposure Angle, then tighten Screw (adjust Angle -90° - +90°).

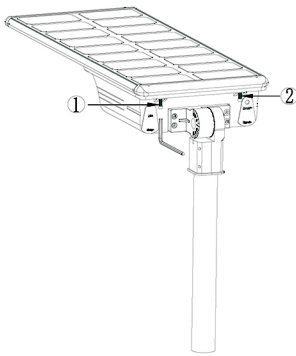


4. Adjust the appropriate exposure Angle of the light source, and then turn on the switch button.

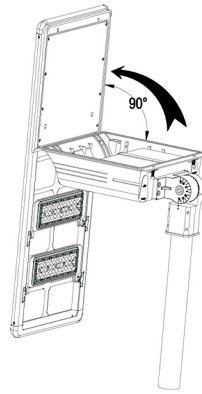


**MAINTENANCE STEPS**

1. Use a hexagon wrench to remove two M8 screws.



2. Open the lid and check the cause of defects.



3. After the inspection, close the battery cover and tighten the screw

