

Product Specification



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General information

Based on the stable electronical circuit of traditional integrated solar street light and semi-integrated solar street light, the Solar Light is upgraded and developed by our senior ID, Mechanical, Software and Hardware engineers. Bidirectional rotatable solar panel, light without mechanical switch, mobile APP bluetooth remote control and convenient installation can meet the philosophy of PV industry perfectly --- Safety, Eco-friendly and Intelligent Application.

Product overview

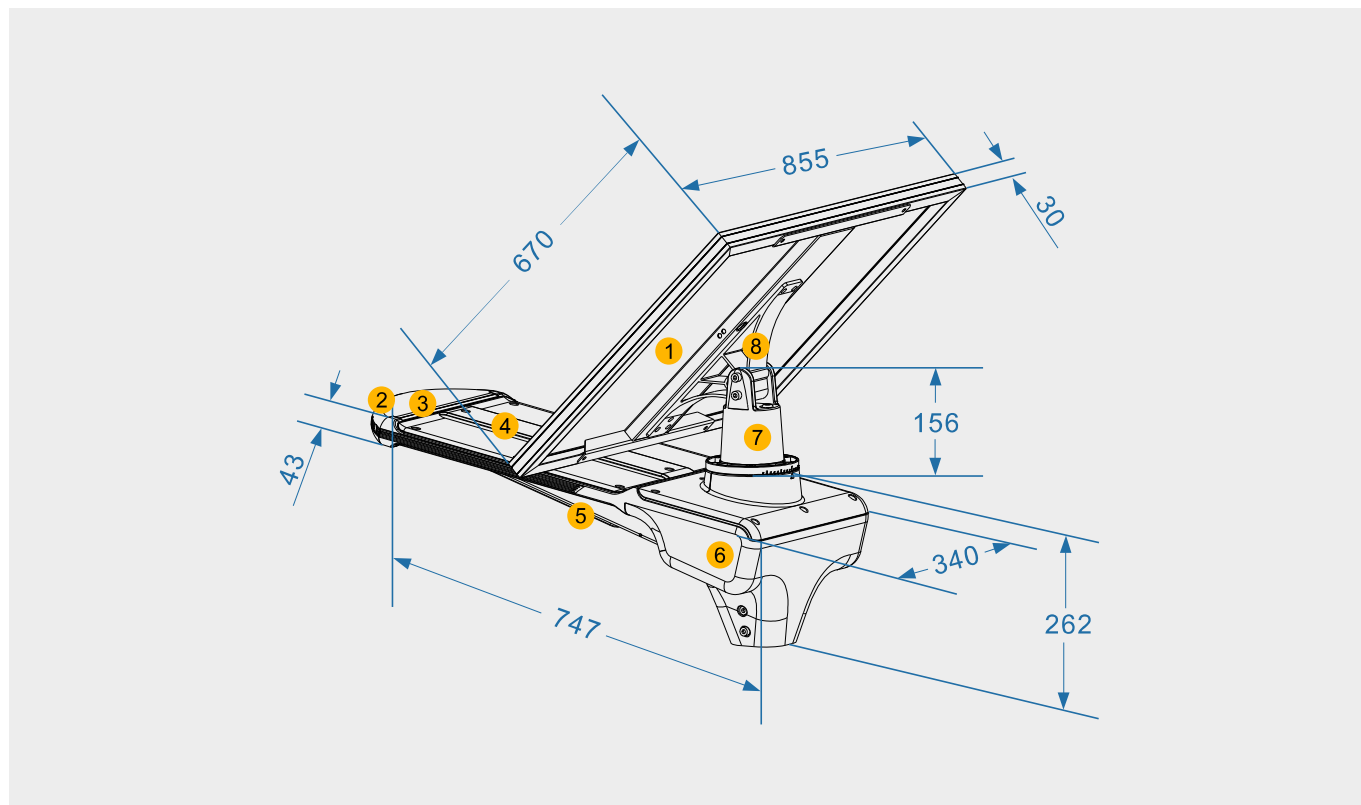
1. Product introduction: As a outdoor lighting fixture, the Solar Light is powered by solar energy and designed to offer outstanding quality by utilizing A-class LED beads, integrated optical LED lens, high efficiency mono solar panel, powerful lithium battery, self-developed developed MPPT controller and patent bluetooth APP system.

2.Operation principle: The Solar Light is a revolutionary product by utilizing Photovoltaic effect. It is designed to constantly absorb solar energy in daylight and convert to electricity, the intelligent controller could precisely control the charge, discharge and well preserve electricity into the lithium battery. And start to illuminate, which is powered by the lithium battery, once the illuminance of ground reduced to 15 lux in nighttime, or solar panel voltage drop to 5V below. The intelligent controller not only protects the battery from over-charging, over-discharging, but also can control the light switch-on, the time of swicth-on and optimize the brightness effectively according to the real-time environment.

Product features

1. Product structures

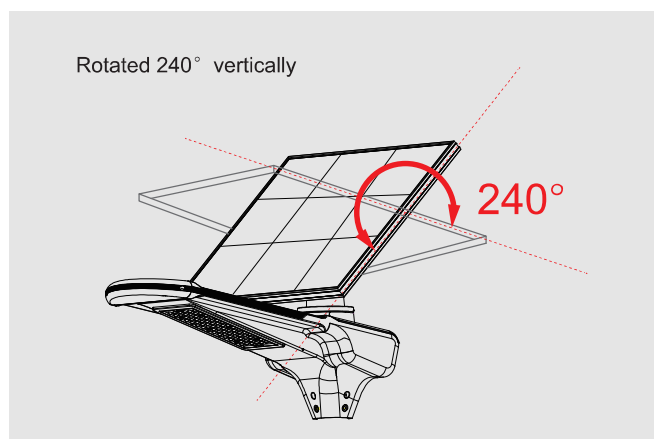
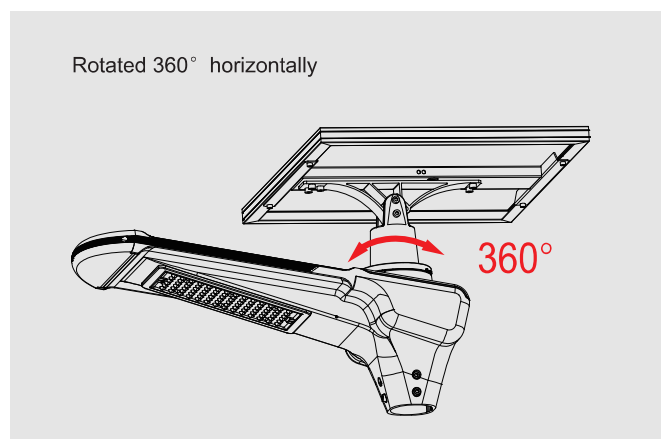
The Solar Light with streamlined design is manufactured with an Exclusive Private Mold and made of Aluminum Die Casting.



1.Solar panel 2.Pathway LED indicator 3.Microwave sensor 4.MPPT controller 5. LED source
6. Lithium battery 7. Horizontal bracket 8. Vertical bracket

2.Function Characteristic

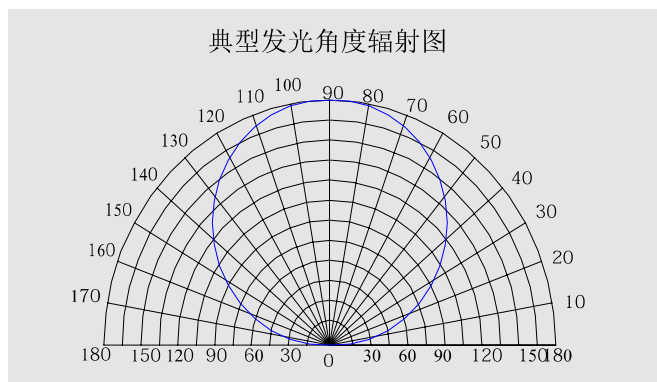
①.Solar panel could be rotated 360° horizontally and 240° vertically, which will increase the photoelectronical conversion maximum in different areas; customized solar panel is available



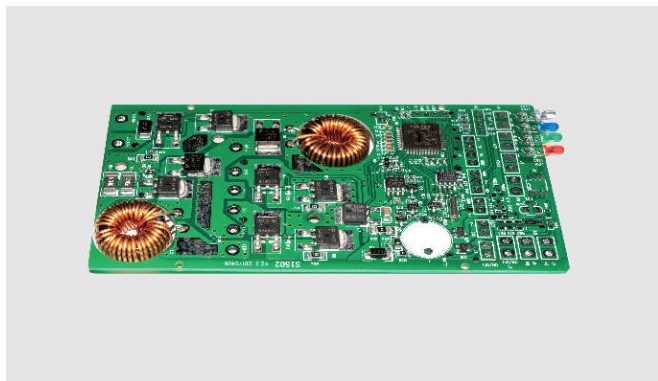
②.The integrated batwing lens offers excellent light transmittance and also durable to resist damage



③.A-class LED bead: The advanced lighting technology brings a higher Luminous Intensity, lower Thermal Resistance, longer Lifespan, and a greater Luminaire Stability



④.Patent MPPT controller developed by our R&D team, maximum power charging



⑤.Powerful lithium battery module package, lower self-discharge rate, longer lifespan, strong stronger depth of discharging, wider working temperature and environment-protecting



⑥.Microwave sensor

Use advanced Microwave Sensor technology, more sensitive and optimize brightness automatically. Max sensing distance is 20m. The build-in Microwave Sensor could automatically regulate brightness by identify moving object around, increase brightness when object approaches and decrease after object leaves about 20-30s (can be customized). This fluctuation of lighting intensity could preserves solar energy effectively.

No object

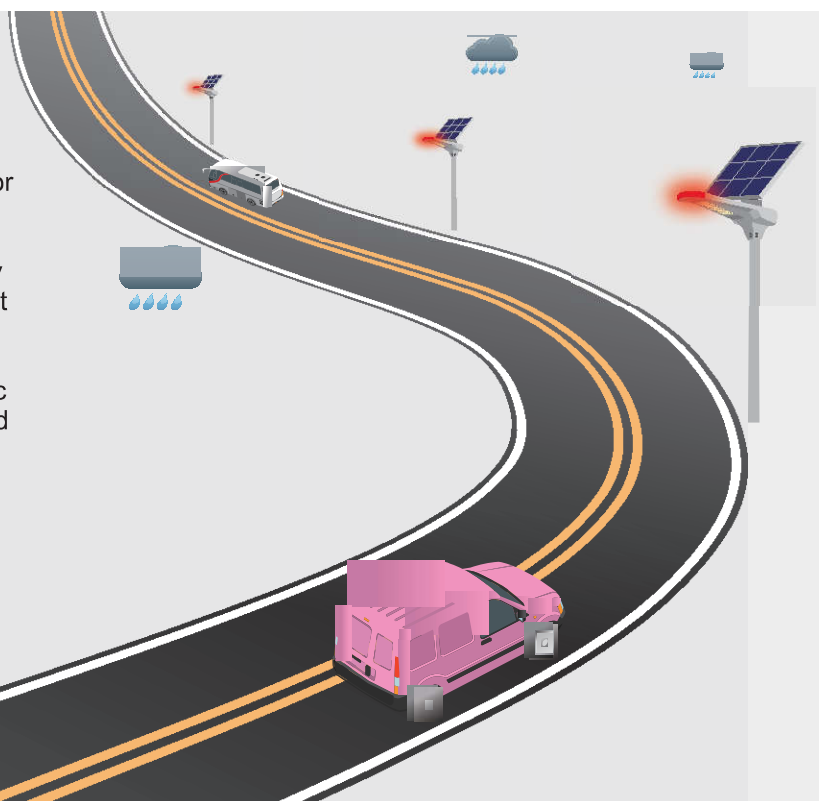


With object



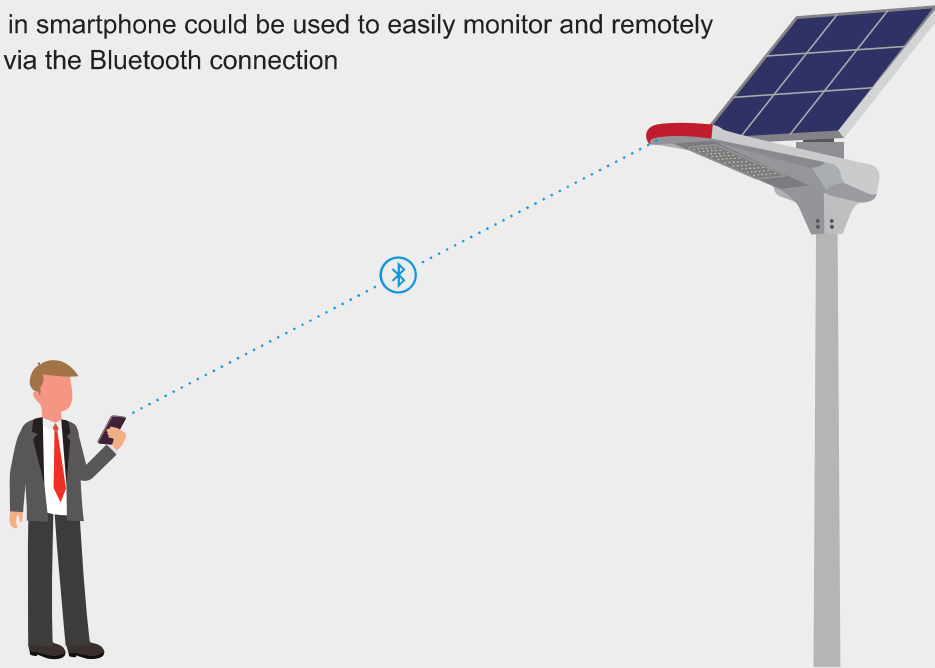
⑦.The Pathway LED Indicator

After nightfall, the Pathway LED Indicator will be turned on with the street light simultaneously, and could be served for pathway guidance and traffic warning by emitting a red rhythmic light, the red light offers a good penetrability even in the thunderstorm, fog etc. bad weather, effectively prevent the drivers from traffic accidents by pre-indicating the front road status.

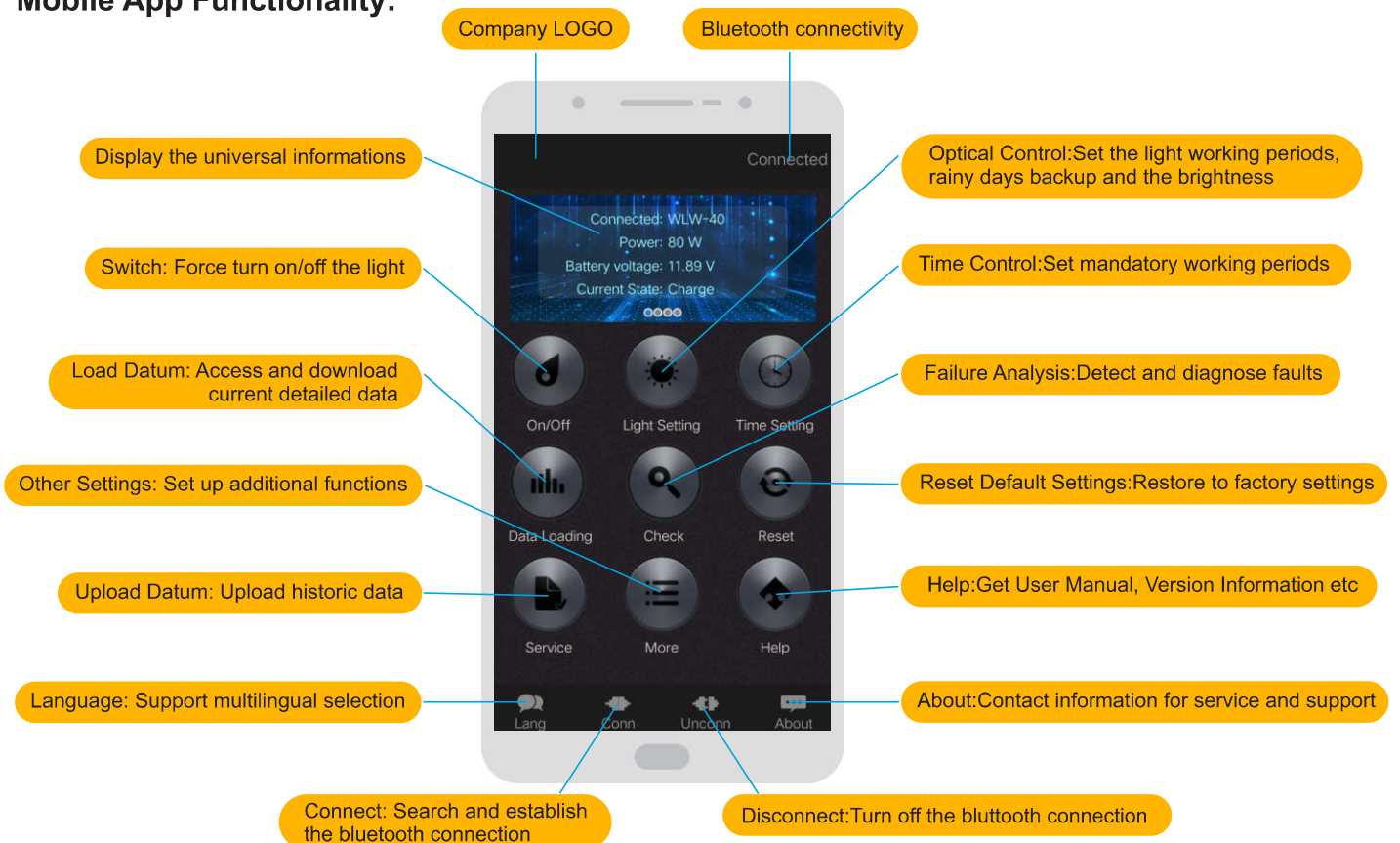


⑧.Mobile APP

The Mobile App in smartphone could be used to easily monitor and remotely control the light via the Bluetooth connection



Mobile App Functionality:



Applications



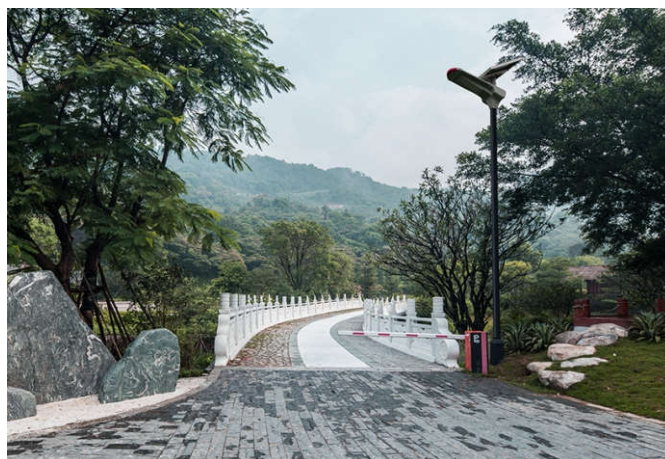
Traffic Road Lighting



Industrial Estate Lighting



Open Parking Lot Lighting



Scenic Spot Lighting



Large Square Lighting

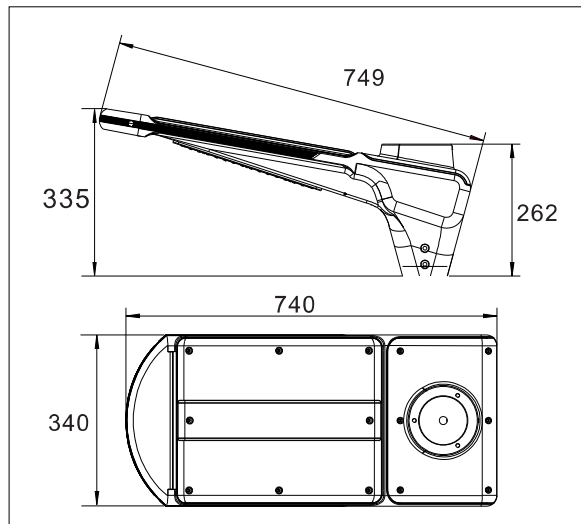


Outdoor Stadium Lighting

Technical parameters

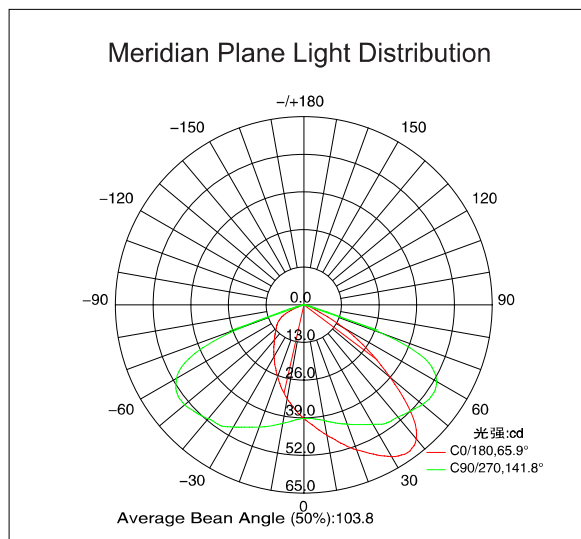
Electrical Characteristic

Rated Power	50W
Solar Panel Power	18V 90W
Battery Capacity	426.2WH
Charge Time	6-8 H
Discharge Time	> 36 H
Operating Temperature	-30°C ~ +60°C
Switch Threshold	15LUX
Max Sensing Distance	20M



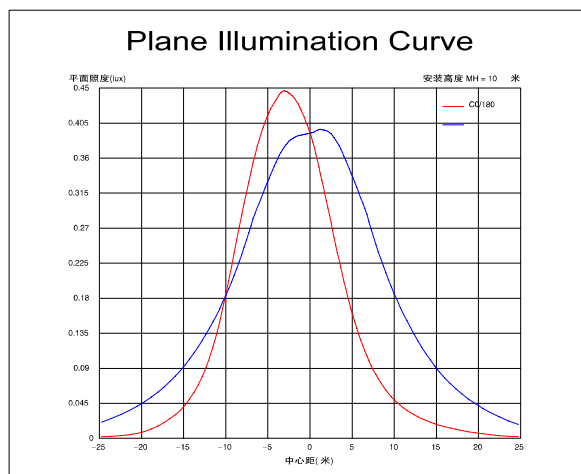
LED Parameters

LED Beads	60 Units 5050 LED
Lumen Flux (LM)	6500-7500 LM
Luminous Efficiency (LM/W)	130-150LM/W
Light Distribution	Batwing Type
Color Temperature (CCT)	3000-6500K



Mechanical Specification

Light Body Size	740x340x335 MM
Solar Panel Dimension	855x670x30 MM
Net Weight	23.2KG
Installation Height	6-8 M
Pole Install Distance	20-25 M



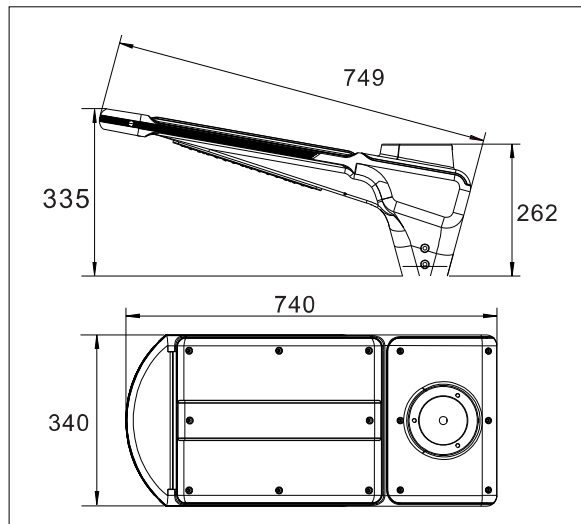
Packing Dimension

Quantity/Carton	1set/2carton
Carton Size(Lamp)	815x330x390MM
Carton Size(Panel)	900x715x75MM
Gross Weight	26.8KG
IP Rate: IP66	

Technical parameters

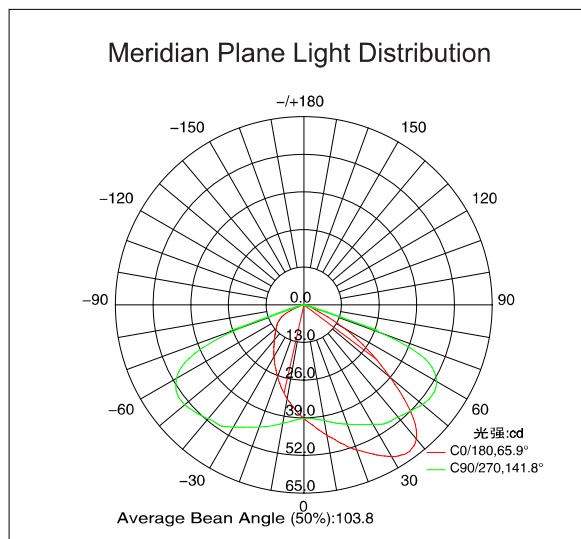
Electrical Characteristic

Rated Power	60W
Solar Panel Power	18V 90W
Battery Capacity	532.8WH
Charge Time	6-8 H
Discharge Time	> 36 H
Operating Temperature	-30°C ~ +60°C
Switch Threshold	15LUX
Max Sensing Distance	20M



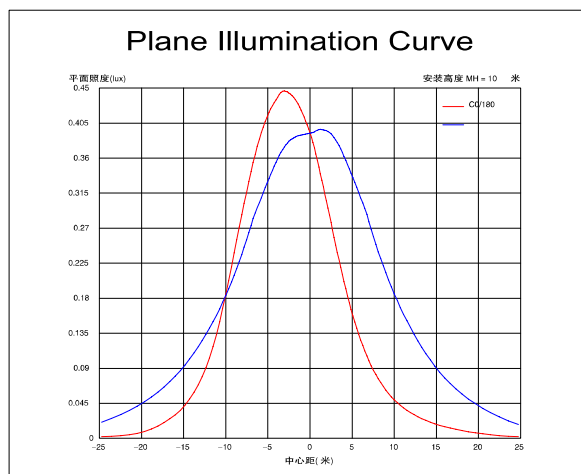
LED Parameters

LED Beads	60 Units 5050 LED
Lumen Flux (LM)	7500-8500 LM
Luminous Efficiency (LM/W)	130-150LM/W
Light Distribution	Batwing Type
Color Temperature (CCT)	3000-6500K



Mechanical Specification

Light Body Size	740x340x335 MM
Solar Panel Dimension	855x670x30 MM
Net Weight	23.7KG
Installation Height	7-9 M
Pole Install Distance	25-30 M



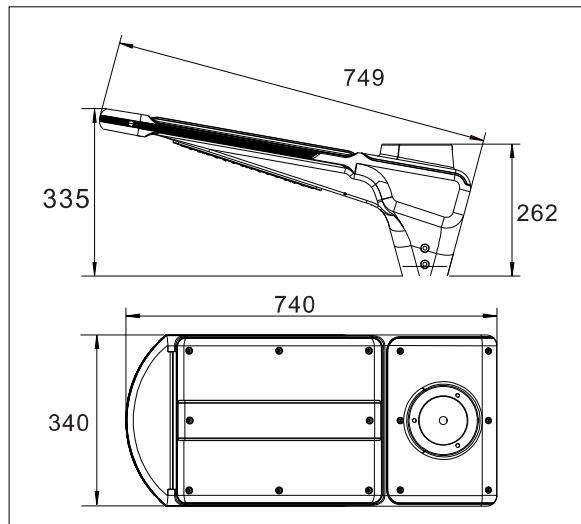
Packing Dimension

Quantity/Carton	1set/2carton
Carton Size(Lamp)	815x330x390MM
Carton Size(Panel)	900x715x75MM
Gross Weight	27.3KG
IP Rate: IP66	

Technical parameters

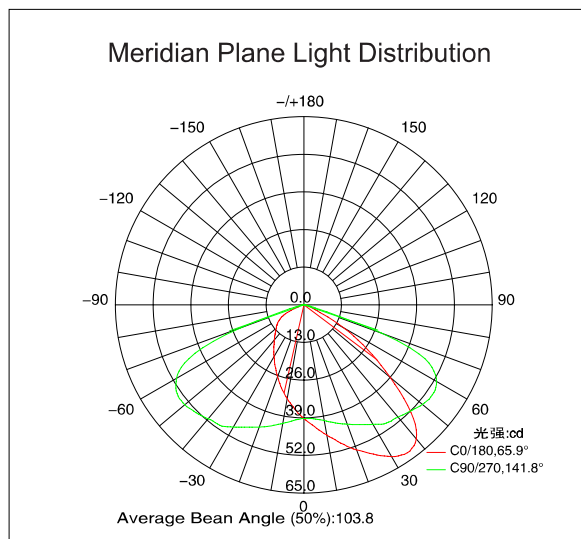
Electrical Characteristic

Rated Power	70W
Solar Panel Power	18V 110W
Battery Capacity	639.3WH
Charge Time	6-8 H
Discharge Time	> 36 H
Operating Temperature	-30°C ~ +60°C
Switch Threshold	15LUX
Max Sensing Distance	20M



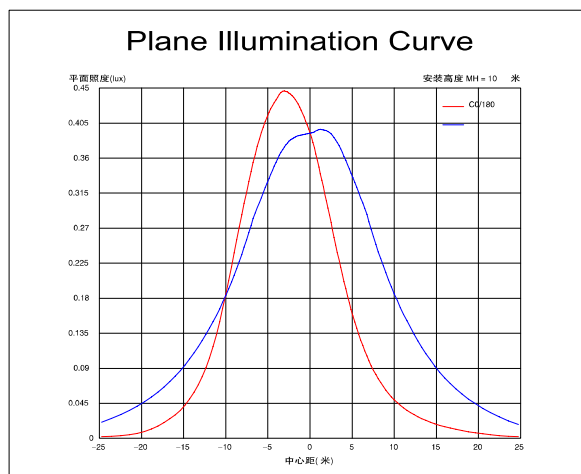
LED Parameters

LED Beads	84 Units 5050 LED
Lumen Flux (LM)	8500-9500 LM
Luminous Efficiency (LM/W)	130-150LM/W
Light Distribution	Batwing Type
Color Temperature (CCT)	3000-6500K



Mechanical Specification

Light Body Size	740x340x335 MM
Solar Panel Dimension	1035x670x30 MM
Net Weight	25.4KG
Installation Height	8-10 M
Pole Install Distance	30-35 M



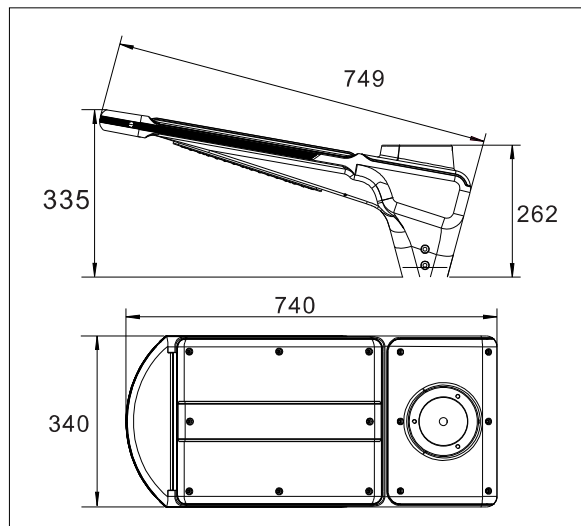
Packing Dimension

Quantity/Carton	1set/2carton
Carton Size(Lamp)	815x330x390MM
Carton Size(Panel)	1080x715x75MM
Gross Weight	29.3KG
IP Rate: IP66	

Technical parameters

Electrical Characteristic

Rated Power	80W
Solar Panel Power	18V 110W
Battery Capacity	799.2WH
Charge Time	6-8 H
Discharge Time	> 36 H
Operating Temperature	-30°C ~ +60°C
Switch Threshold	15LUX
Max Sensing Distance	20M



LED Parameters

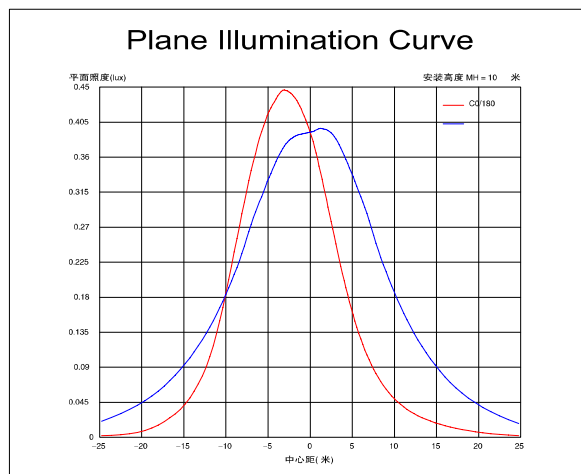
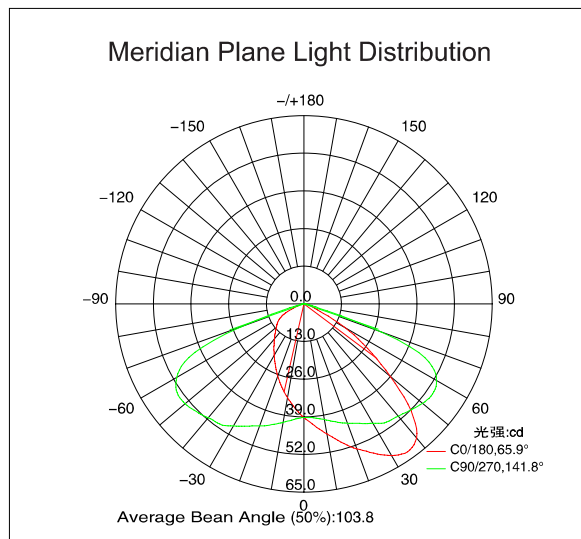
LED Beads	84 Units 5050 LED
Lumen Flux (LM)	9500-10500 LM
Luminous Efficiency (LM/W)	130-150LM/W
Light Distribution	Batwing Type
Color Temperature (CCT)	3000-6500K

Mechanical Specification

Light Body Size	740x340x335 MM
Solar Panel Dimension	1035x670x30 MM
Net Weight	25.4KG
Installation Height	9-11 M
Pole Install Distance	35-40 M

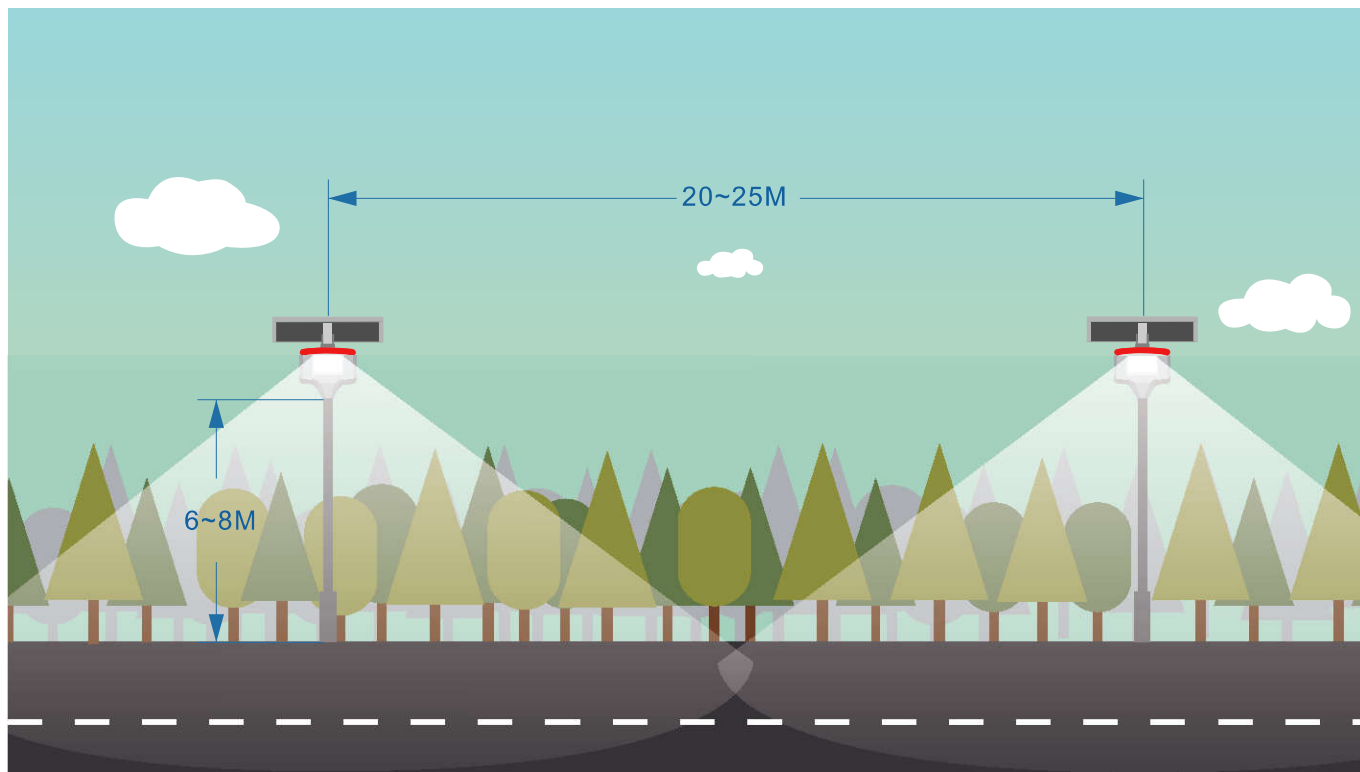
Packing Dimension

Quantity/Carton	1set/2carton
Carton Size(Lamp)	815x330x390MM
Carton Size(Panel)	1080x715x75MM
Gross Weight	30KG
IP Rate: IP66	

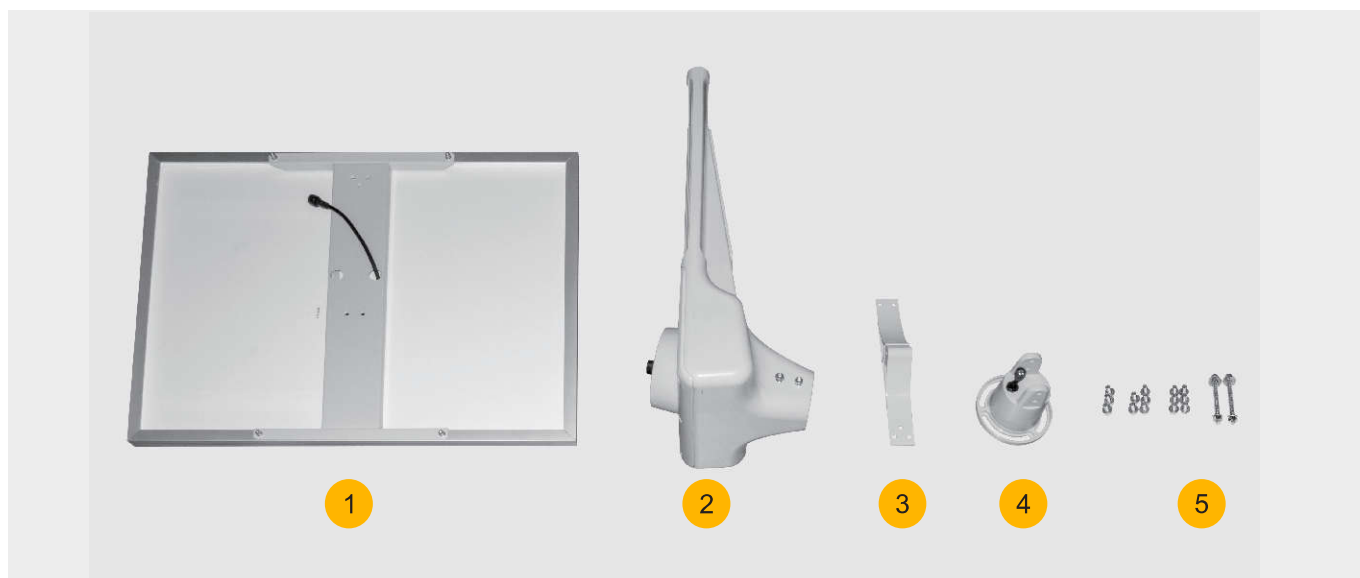


Installation Instruction

1.Installation Diagram



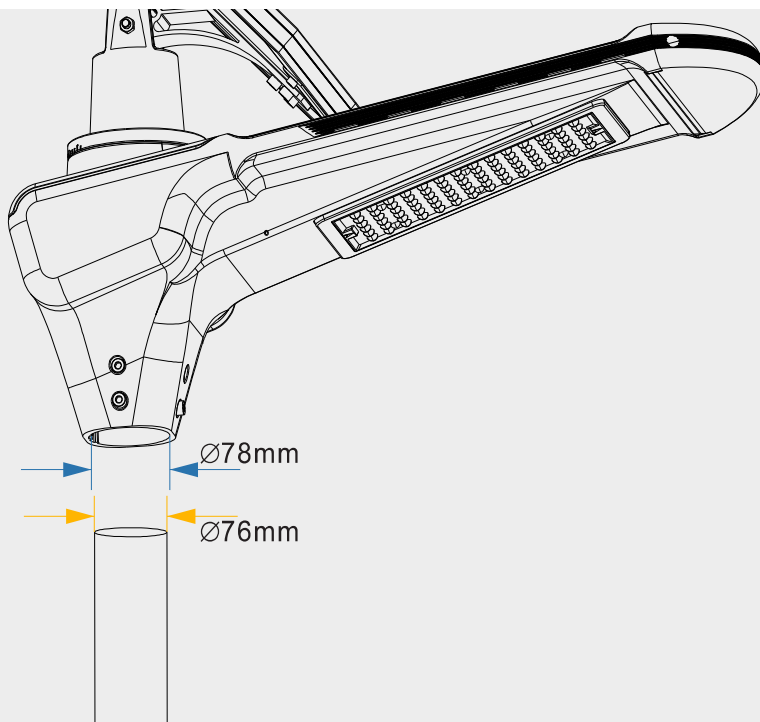
2. Packing accessories details



① Solar panel ② Light body ③ Vertical bracket ④ Horizontal bracket ⑤ Screws

3.Preparations before installation

The inner diameter of the light is 78mm, so make sure the external diameter of light pole not more than 76mm



4.Installation manual

The installation way of this Solar Light is by hat socket, please check the following steps:



1.Connect the quadripuntal connectors of Horizontal Bracket&light body together



2.Put the Horizontal Bracket on the light body and fasten the screws.



3.Fix the Vertical Bracket on the Solar Panel.



4.Mount the Vertical Bracket Module(in step3) into the Horizontal Bracket, keep the Vertical Bracket Module backside(with 3x screws) facing toward the light, tighten the bottom screw first and then the others after adjusting the Solar Panel vertically



5.Lock the quadripuntal connectors of the Solar Panel & Horizontal Bracket together



6.Insert the assembled light module into the pole and lock the screws to secure a desired position, after adjust the best angle for maximum sunlight exposure

General Troubleshooting

Fault Symptoms	Possibility	Suggestion
Light off at nighttime	The Solar Panel is being over exposure under light sources	Remove the light sources or adjust the installation angle
	The LED panel/beads damaged	Repair or replace the LED panel/beads
	The output source open/short	Verify if the cables connection is correct
	The battery pack abnormal	1. Examine the cables connection 2. Examine if the battery pack is insufficient charged due to bad weather, which could automatically recover in sunny day
	The solar panel damaged or blocked from any obstacles	Replace the damaged components Clear obstructions or clean the panel
	The controller malfunctioned	Repair or replace the controller if damaged
Light on at daytime	The controller malfunctioned	Verify if the cables connection is correct
	The solar panel abnormal	1. Examine the cables connection 2. Clear obstructions or clean the panel 3. Replace the panel if damaged
	The cable incorrect connect	Verify the cables connection
Bluetooth disconnect	The mobile is far away the lamp	Approach the lamp
	The Bluetooth module malfunctioned	Replace the Bluetooth module
	The APP version is out-of-date	Contact assistance for correct APP version
	The cable incorrect connect	Verify the cables connection

Maintenance and Warranty

1. Maintenance

- ① Regularly clean the solar panel from dirt spots, dusting or other kinds of soiled is suggested to assure the charging efficiency
- ② Regular maintenance is suggested to keep the locking screws of pole are secured to the ground, and keep the pole clear from rust or corrosion

2. Warranty : We provide 2 Years warranty for a whole light

Disclaimer Declaration:

- ① The manufacturer shall not be responsible or liable for failure to perform all or any portion of this specification due to earthquake, flood, thunder or other natural hazards, and fire disaster which not caused by The manufacturer product ;
- ② The manufacturer shall not be responsible for damage and loss caused by any unforeseen events such as theft, traffic accidents ;
- ③ The manufacturer shall not be responsible for loss which not complied with this product manual;
- ④ The manufacturer shall not be responsible for loss which caused by use in conjunction with irrelevant The manufacturer products .