DIMON
TECHNOLOGY

Technical Datasheet

SONGNE-X

Smart All in one Solar Led Street Light 60W Max

UK DESIGN IK 08 IP65

- Smart All-in-one -Professional design to combine solar panel, light source, controller, battery as one.
- Third generation military induction technology microwave radar Motion Sensor. Have the pattern totrack the moving r adjusting the light brightness.
  It is more energy-saving and humanized.blntelligent battery protection, ultra-large capacity battery
- Dusk to Dawn + Time Control+ Motion Sensor (Bright Lighting 30secs When People Move Through The Light) +4 Modes
- Available by Remote App Smart application

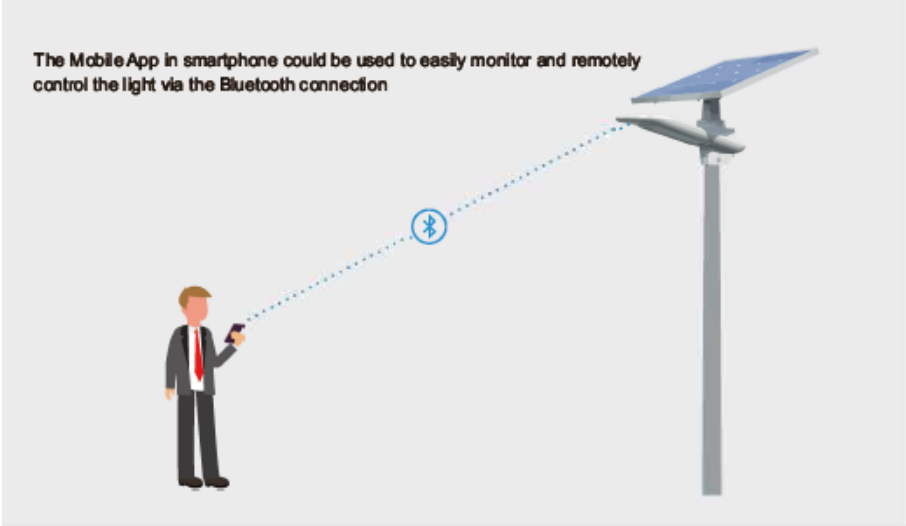
SONGNE-X

Smart All in one Solar Led Street Light 60W Max

DIMON TECHNOLOGY

Technical Data

LED Street Light Power Consumption	• 30W 40W 50W 60W
Function	• Smart App Control with MPPT Solar Controller • Microware Sensor • PIR Sensor • Mains Complementary Solar Controller
Solar Panel Power	18V 60W : 30W 40W 18V 80W : 50W 60W
Battery Capacity Lithium Battery	• 12V24AH@ 30W • 12V29AH@ 40W • 12V 34AH@50W • 12V 38Ah@60W
Charge Time	6-8 Hours By Bright Sunlight
Duration Time	36 hours Max
Daylight switch Threshold Motion Sensor Distance	• 15 Lux • 12 meter Max
LED Power Consumption Max	30W 40W 50W 60W
Color Temperature	3000K / 4000K / 5000K / 5700K
Color Rendering Index	> 70
Luminaire Efficacy	130 Lm/w(3000K), 150 Lm/w(4000K), 160 Lm/w(5000K), 160 Lm/w(5700K),
Beam Angle	Asymmetric
Housing materials	Aluminium alloy, Silicone gasket and stainless steel Screws
Housing Color	Aluminium Silver @ RAL 9006
Ingress Protection	IP65
Dimension	Refer to Drawing
Net Weight	15kg@ 30W 15.3kg@ 40W 17.1kg@ 50W 17.4kg@ 60W
Installation Height Distance of Two Lights	30W@ 4-6M 40W@ 5-7M 50W@6-8M 60W@ 7-9M
Operating Temperature Range / 工作溫度範圍 Rango de temperatura de funcion amiento	30 ℃ / +50 ℃
Certification	UK DESIGN IK 08 IP65



Project	Fixture#	Date
		Firm

DIMON TECHNOLOGY

Ordering Information

Choose the option that suits your need and write its corresponding code on the appropriate line to form the product code.

Example product code: SONGNE-60W

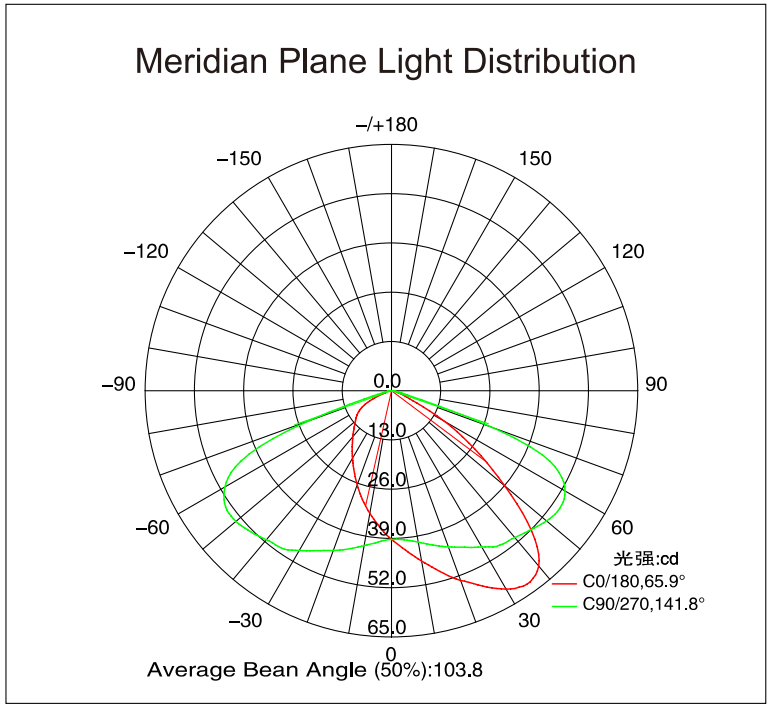
SONGNE - -

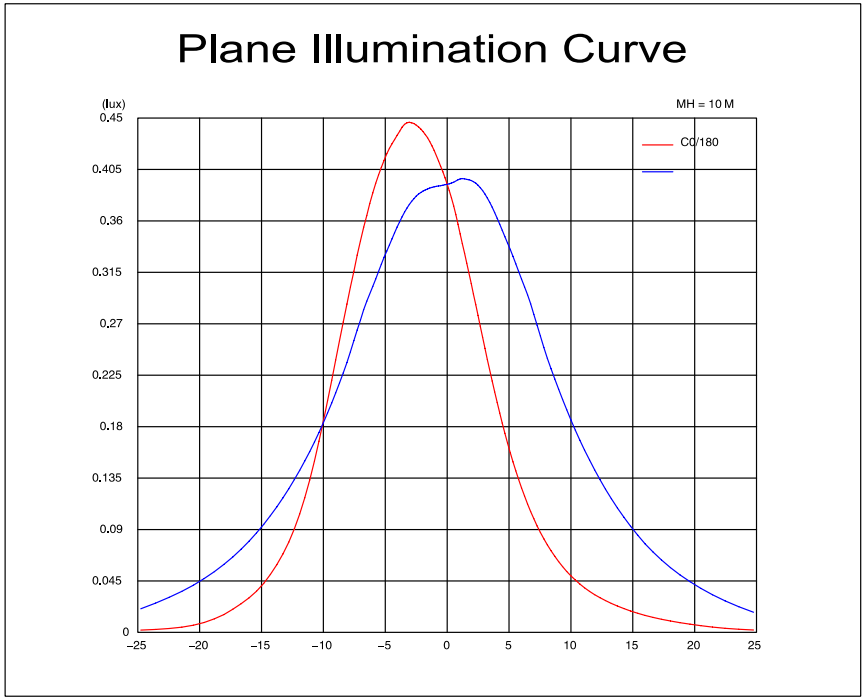
POWER

POWER	
Code	Description
30W	30W
40W	40W
50W	50W
60W	60W

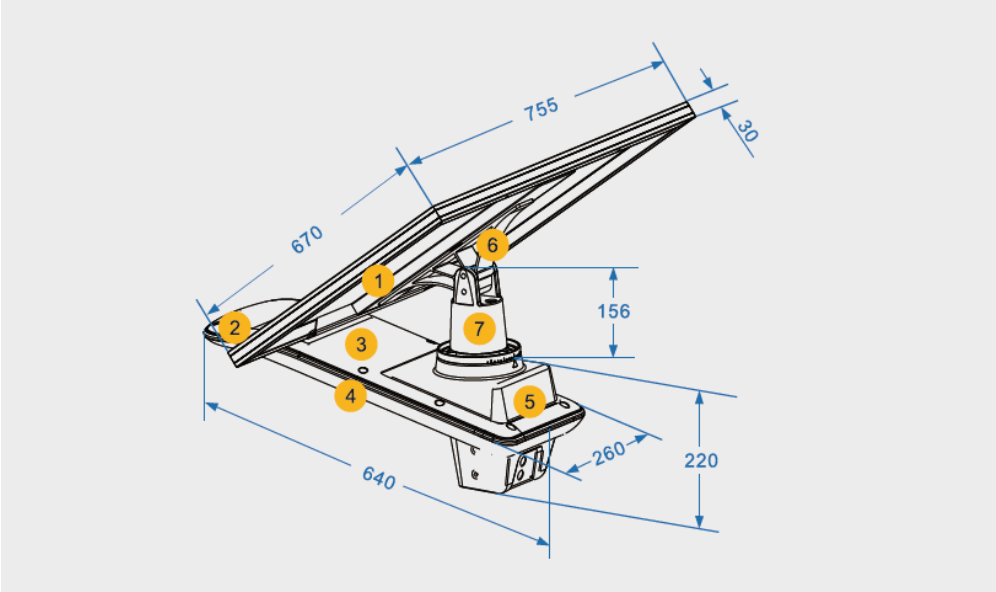
Beam Angle

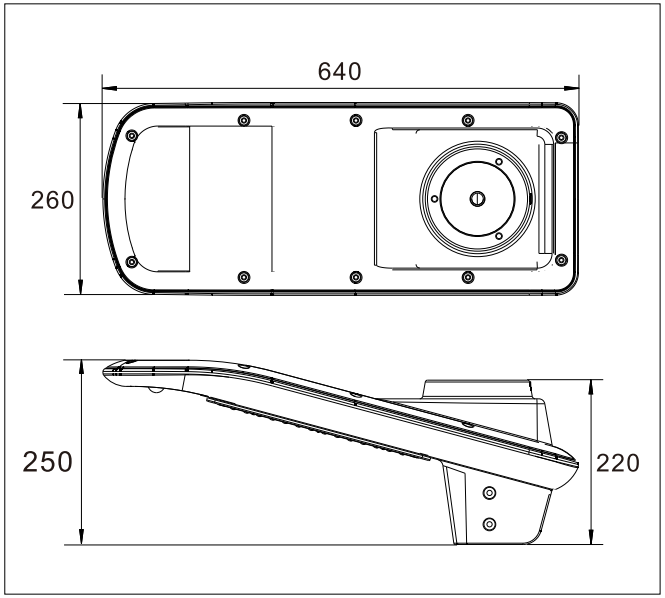
DIMON TECHNOLOGY

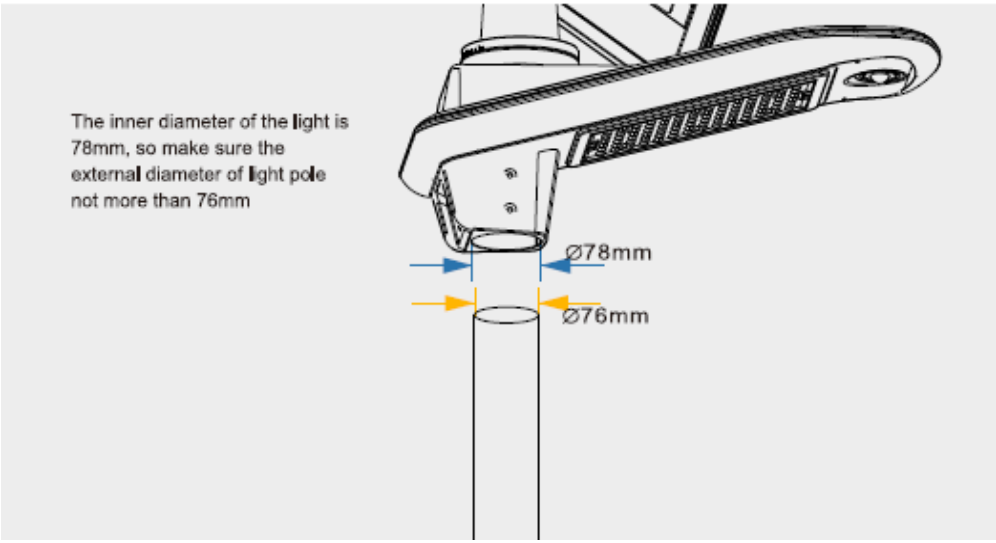




Technical Drawing







Unit: mm

General information

Based on the stable electronical circuit of traditional integrated solar street light and semi-integrated solar street light, the Solar Light is upgrated and developed by our senior ID, Mechnical, Software and Hardware engineers. Bidirectional rotatable solar panel, light without mechnical 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

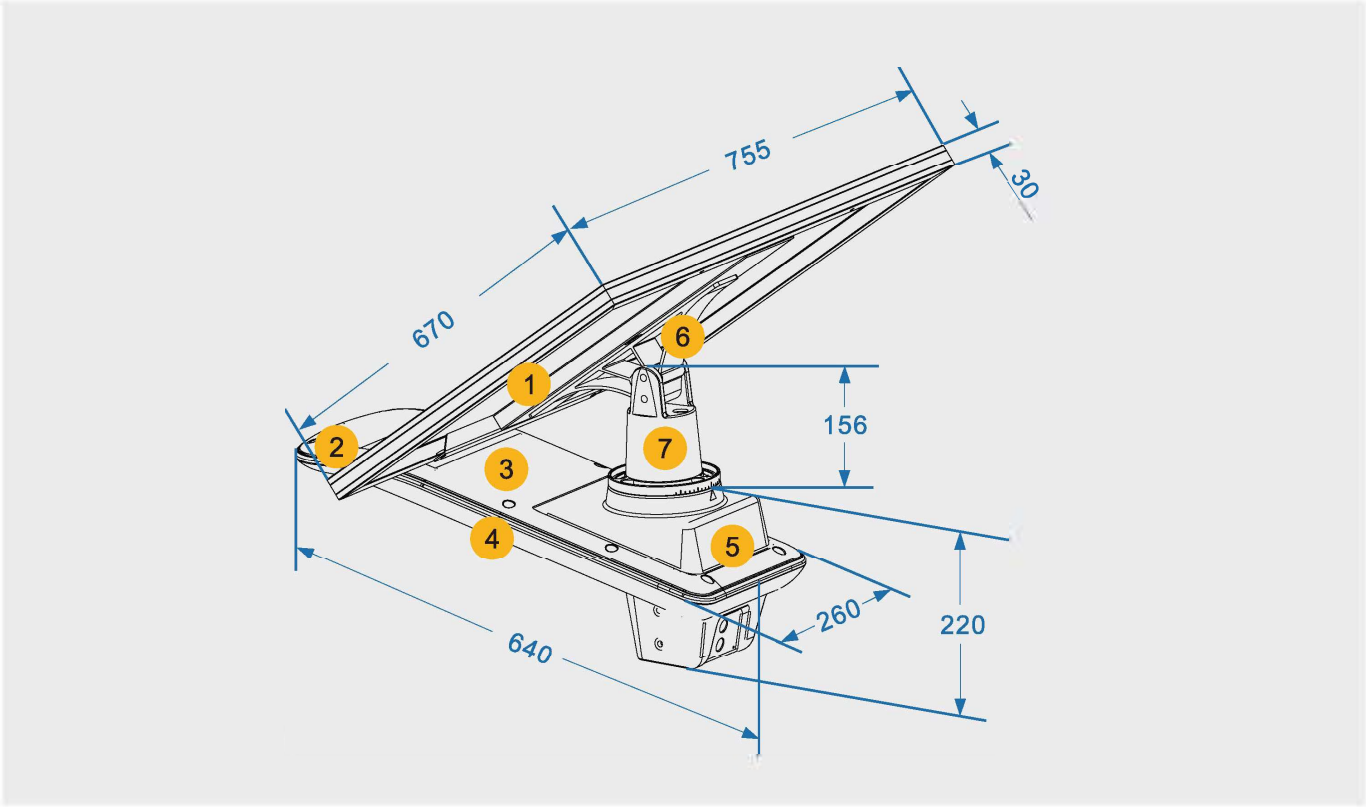
1. Product introduction： As a outdoor lighting fixture, the Solar Light is powered by solar energy and designed to offer outstanding quality by utilizing A-class LED beads, integrated optical LED lens, high efficiency mono solar panel, powerful lithium battery, self-developed developed MPPT controller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

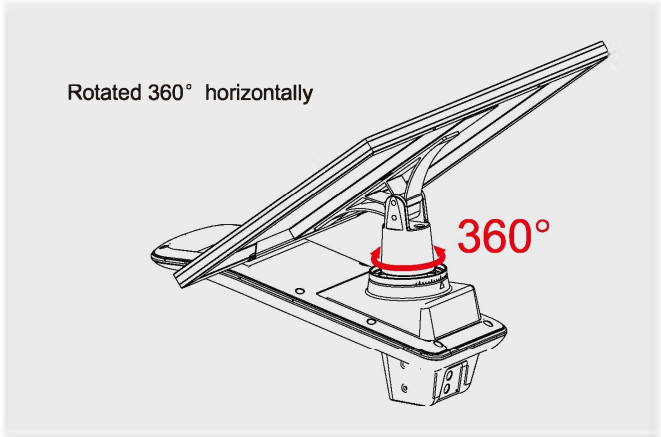
The Solar Light with streamlined design is manufactured with an Exclusive Private Mold and made of Aluminum Die Casting.

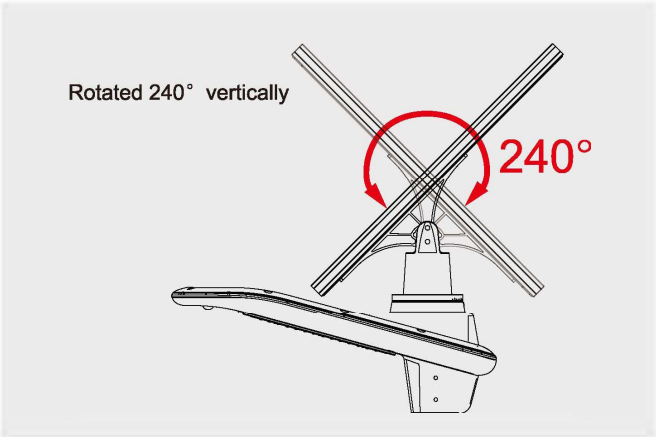


1.Solar Panel 2. Microwave/PIR Sensor 3. MPPT Controller 4. LED Source 5. Lithium Battery 6. Horizontal Bracket 7. Vertical Bracket

2.Function Characteristic

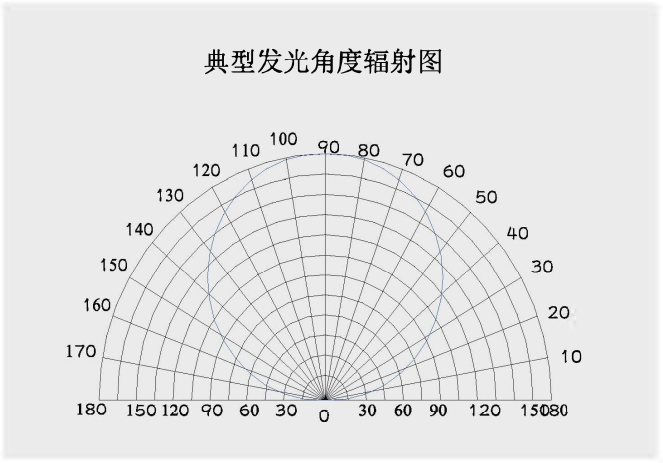
①.Solar panel could be rotated 360° horizontally and 240° vertically, which will increase the photoeletronical conversion maximum in different areas; customized solar panel is available



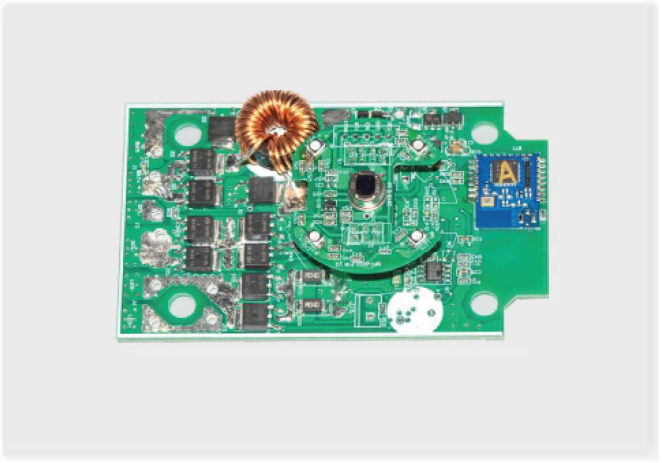


②.The integrated optical lens offers excellent light transmittance and also durable to resist damage

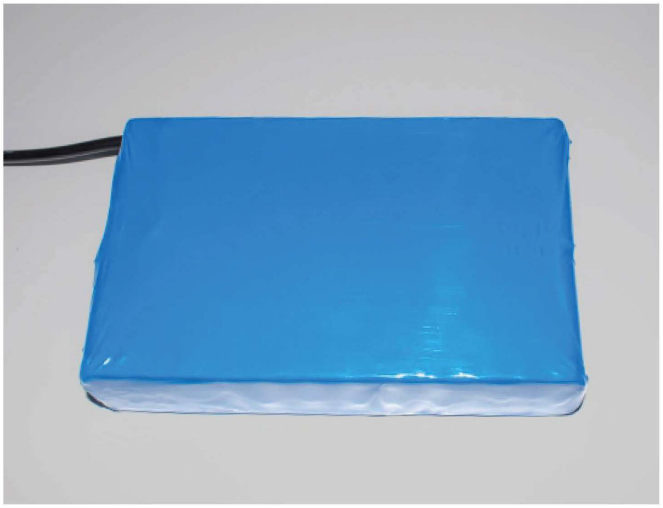
③.A-class LED bead: The advanced lighting technology brings a higher Luminous Intensity, lower Thermal Resistance, longer Lifespan, and a greater Luminaire Stability



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

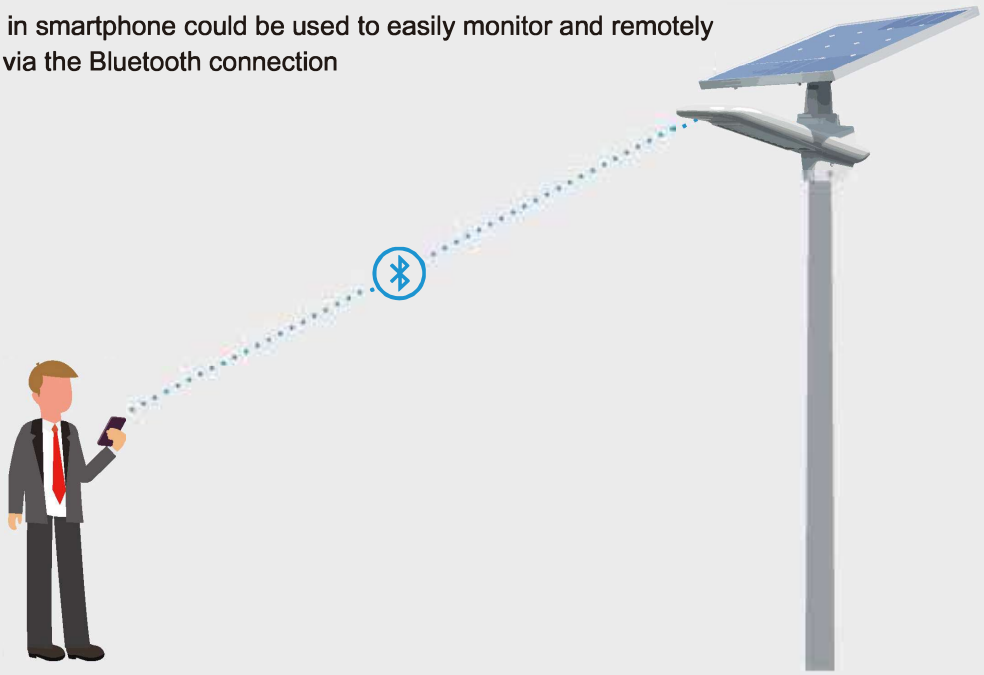


⑥.Microwave/PIR sensor

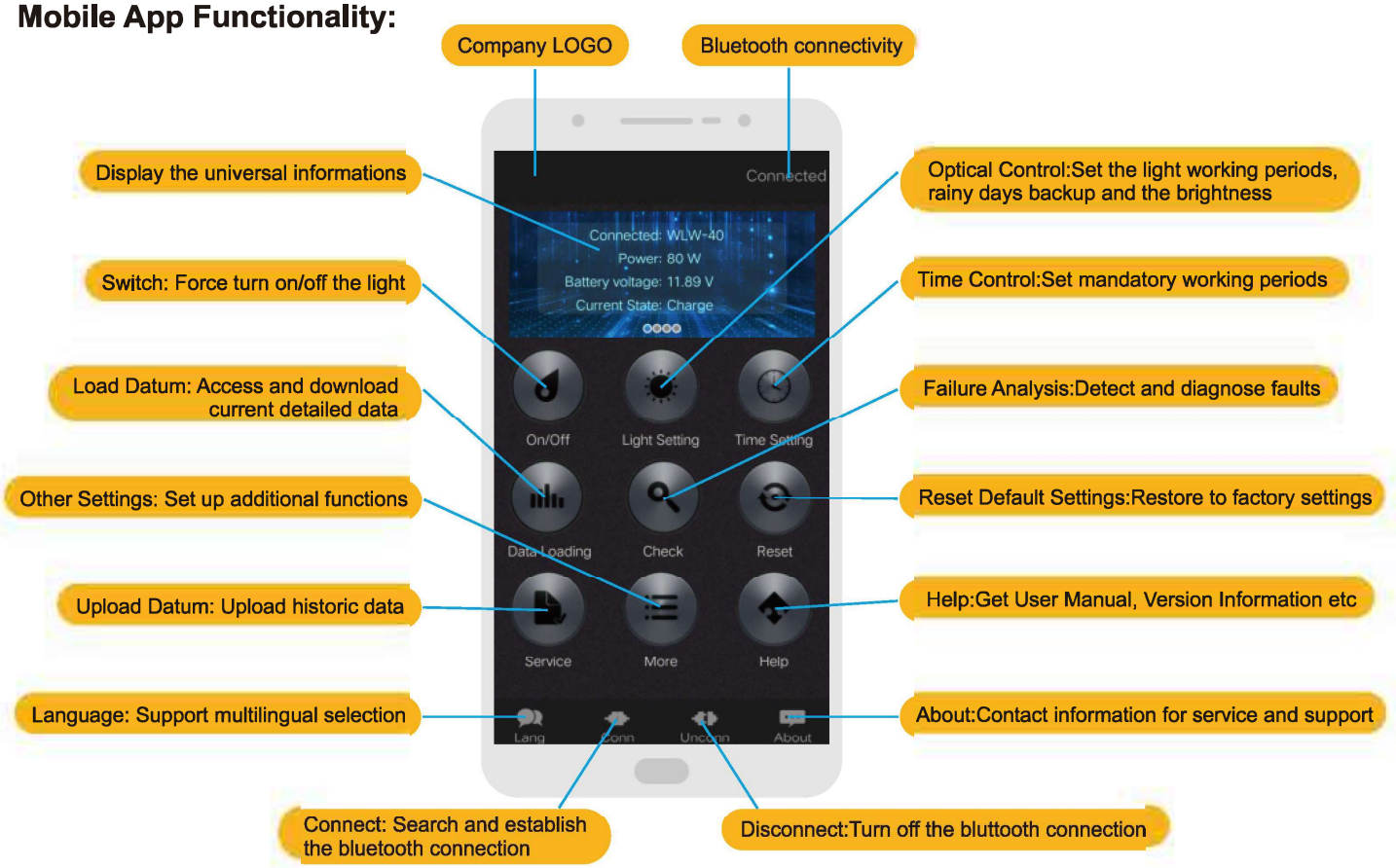
Use advanced Microwave/PIR Sensor technology, more sensitive and optimize brightness automatically. Max sensing distance is 12M. The build-in Microwave/PIR Sensor could automatically regulate brightness by identify moving object around, increase brightness when object approaches and decrease after object leaves about 20-30s (can be customized). This fluctuation of lighting intensity could preserves solar energy effectively.

⑧.Mobile APP

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

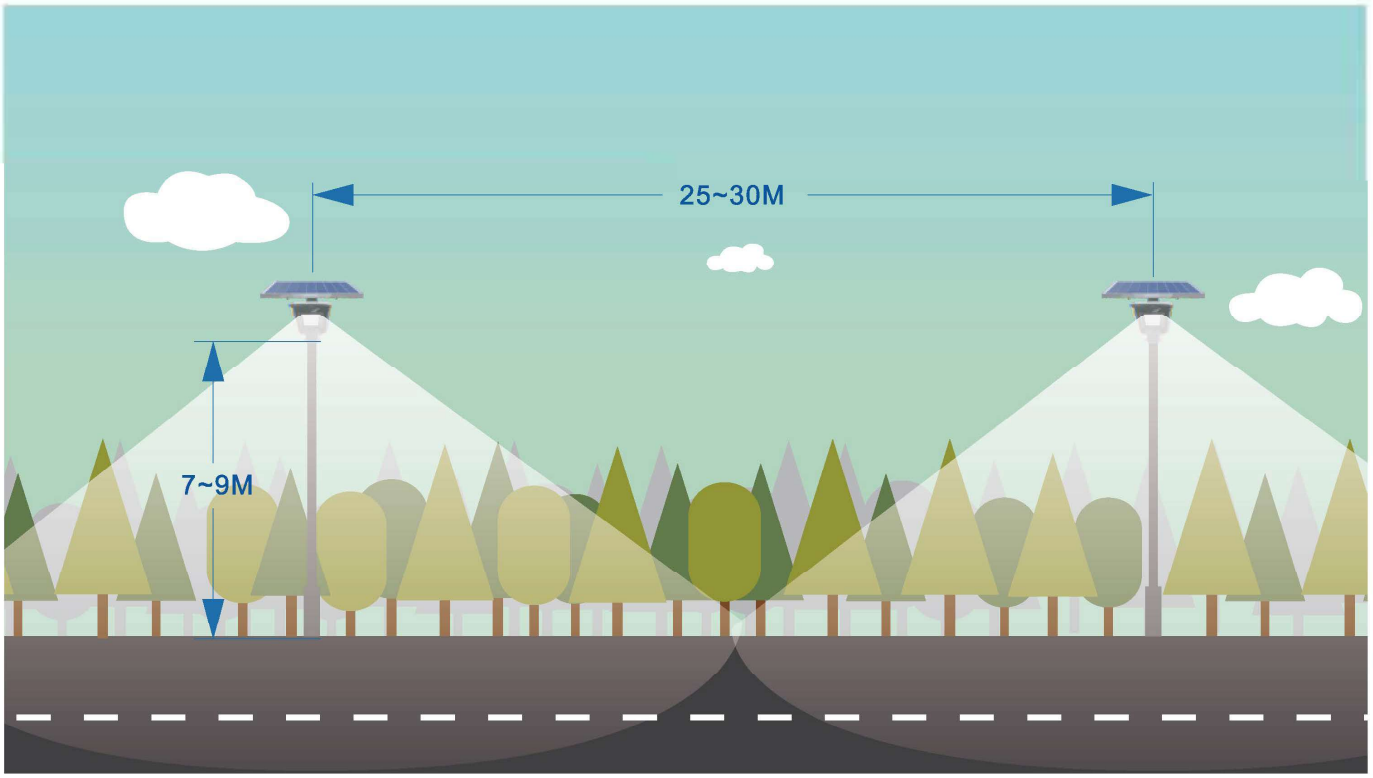


Mobile App Functionality:



Installation Instruction

1.Installation Diagram

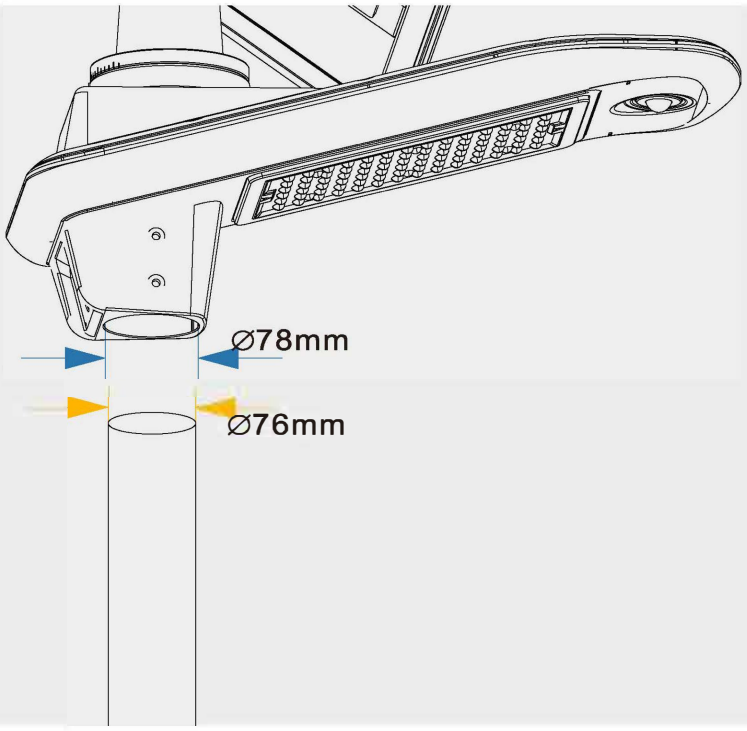


2. Packing accessories details

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

3.Preparations before installation

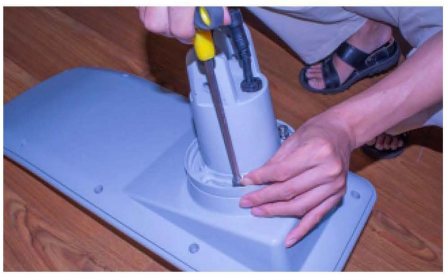
The inner diameter of the light is 78mm, so make sure the external diameter of light pole not more than 76mm



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

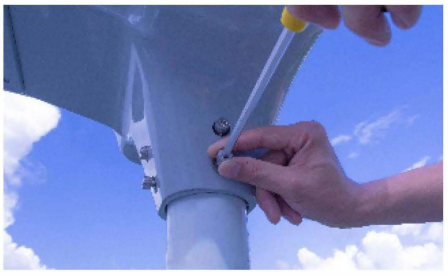


2.Put the Horizontal Bracket on the light body and fasten the screws。

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