

# SPECIFICATION OF STARSHIP I AL ALL-IN-ONE SOLAR LIGHT

## 1. Product Overview

This is our patent product, designed to provide users with high-quality solar street lamp, which has passed CE, FCC, RoHS and some other international certificate. “elegant design”, “electricity/wiring free, easy to install”, “high charging efficiency”, “strong endurance” and “outstanding lighting effect” are the main advantages of this product. Solar system equipped with large capacity lithium battery, which can absorb solar energy and convert it into electric energy by solar panel. Energy stored in the battery and then supplied to the solar street lamp. Products are widely used in street, path, residence, lodge, farm, square, orchard, park, parking lot and other areas.

## 2. Product Design

The outlook of this product is designed by our company's product visual design team, is our patent product (patent number: 2022307269546). Product design concept keeps with the “outer space family” design element, mixed with the inspiration from “STARSHIP”, coming out with a unique industrial design in the market. While providing the lighting, also bring a brand-new product visual impact to users and add a unique decoration to users!

MJ-SSO100



MJ-SSO200



MJ-SSO300



MJ-SSO400



MJ-SSO100C



MJ-SSO200C



MJ-SSO300C



MJ-SSO400C



# 3.Product Parameter

## 1)Primary Version

Model	MJ-SSO100	MJ-SSO200	MJ-SSO300	MJ-SSO400
Lamp Body Material	Die-casting aluminium	Die-casting aluminium	Die-casting aluminium	Die-casting aluminium
Lens Material	Teijin PC	Teijin PC	Teijin PC	Teijin PC
Lamp Size	932*365*160mm	1122*365*160mm	1342*365*160mm	1672*365*160mm
LED Chip	45 PCS SMD5050	90 PCS SMD5050	135 PCS SMD5050	180 PCS SMD5050
Battery	LiFePO4 60Ah	LiFePO4 70Ah	LiFePO4 95Ah	LiFePO4 140Ah
Solar panel	4 V/ 60W (860*350mm)	4 V/ 75W (1050*350mm)	4 V/ 90W (1270*350mm)	4 V/ 110W (1600*350mm)
CCT	6000-6500K	6000-6500K	6000-6500K	6000-6500K
Charging Time	Effective sunshine 4-6H	Effective sunshine 4-6H	Effective sunshine 4-6H	Effective sunshine 4-6H
Discharge Time	3-5 rainy & cloudy days	3-5 rainy & cloudy days	3-5 rainy & cloudy days	3-5 rainy & cloudy days
Discharge Current	7.8A	11A	14A	18.75A
Radar Sensor	YES	YES	YES	YES
Product Features	Optical + Remote Control	Optical + Remote Control	Optical + Remote Control	Optical + Remote Control
IP Rank	IP65	IP65	IP65	IP65
Luminous Flux	4500lm	6500lm	8500lm	12000lm

## 2)Premium Version (Optional)

Model	MJ-SSO100C	MJ-SSO200C	MJ-SSO300C	MJ-SSO400C
Lamp Body Material	Die-casting aluminium	Die-casting aluminium	Die-casting aluminium	Die-casting aluminium
Lens Material	Teijin PC	Teijin PC	Teijin PC	Teijin PC
Lamp Size	932*365*160mm	1122*365*160mm	1342*365*160mm	1672*365*160mm
LED Chip	45 PCS SMD5050	90 PCS SMD5050	135 PCS SMD5050	180 PCS SMD5050
Battery	LiFePO4 70Ah	LiFePO4 80Ah	LiFePO4 105Ah	LiFePO4 150Ah
Solar panel	4 V/ 60W (860*350mm)	4 V/ 75W (1050*350mm)	4 V/ 90W (1270*350mm)	4 V/ 110W (1600*350mm)
CCT	6000-6500K	6000-6500K	6000-6500K	6000-6500K
Charging Time	Effective sunshine 4-6H	Effective sunshine 4-6H	Effective sunshine 4-6H	Effective sunshine 4-6H
Discharge Time	3-5 rainy & cloudy days	3-5 rainy & cloudy days	3-5 rainy & cloudy days	3-5 rainy & cloudy days
Discharge Current	7.8A	11A	14A	18.75A
Radar Sensor	YES	YES	YES	YES
Product Features	Optical + Remote Control	Optical + Remote Control	Optical + Remote Control	Optical + Remote Control
IP Rank	IP65	IP65	IP65	IP65
Luminous Flux	4500lm	6500lm	8500lm	12000lm
Camera Resolution	1440P day and night full-color;400M Pixel			
Camera Lens	Focal length:4MM;350 degree from horizontal;90 degree from vertical			
Version	WiFi or 4G			
Decoding	H.265			
TF card	16G to 256G for optional			
Platform	APP or PC			
CCTV Working Mode	24 hours working or Induction			

## 4. Monitoring Function

### 4.1 Low power consumption monitoring program

The ultra-low power monitoring program independently developed by our company, which consumes 60% power less than the normal ones in the market. Maximally reduce the camera demands for solar panels and batteries, which means more competitive price for our solar CCTV lights. Meanwhile, it also provides a good effect during rainy & cloudy days. 24 hours working & induction mode switch, ensure 365 days lighting & monitoring.

### 4.2 HD camera

Equipped with 400M Pixel (1080P) HD chip and lens ensure the high definition video and pictures. Meanwhile, with day and night full-color function, also cause an excellent monitoring effect during night (see Annex 1 for more details).

### 4.3 Signal Stability

During the early stage of researching on this product, considering the complicated outdoor conditions, we provide both WIFI & 4G version for optional, which can cover different application area. What's more, with special design on enhanced signal, ensure the strong signal penetration which never will be dropped. If signal get disconnected due to the bad network, the camera can be automatically connected after recovering. (where the signal is covered, camera can be connected!)

### 4.4 Convenient Visual Platform

- 1). Both APP & PC platform, which can meet the requirements for multi device monitoring at the same time.
- 2). Platform support different language as your wish, which can be set up according to the language settings of your smart phone. More stable, safety, reliable, convenient.
- 3). 350 degree from horizontal; 90 degree from vertical, no worry on the installation angle, convenient installation.

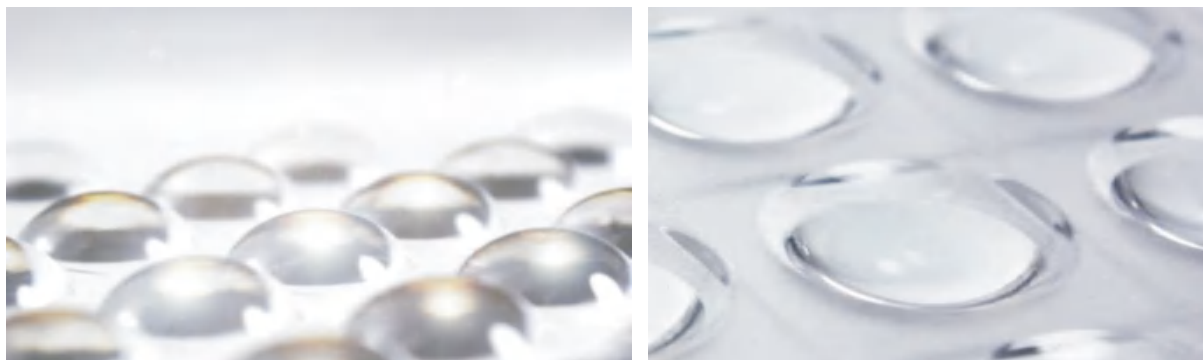
### 4.5 Various Function

The lamp could be remotely turned ON/OFF through APP, also with the function of multiple people watch online at the same time, monitor motion alert, etc... bring the newest IOT intelligent technology experience to the customers: such as taking photos, recording, play back, timer on lamps... fully meet the requirements on lamp & camera from end users. (check Annex 2 for more details).

## 5.Product Advantage

### 5.1 High lumen: brightness increased by 30%

This product adopts LED optical lens design, the lens can effectively gather the light of the light source to improve the brightness and reduce the light loss. The light efficiency of the traditional reflective cup is increased by more than 20%. At the same time, the lens of this product is made of PC (Teijin Brand from Japan) material, and the transmittance after processing is as high as 91%, It is much higher than 80% of the glass transmittance; the whole lighting efficiency is increased by 30%, and the irradiation area is increased by more than 25%.

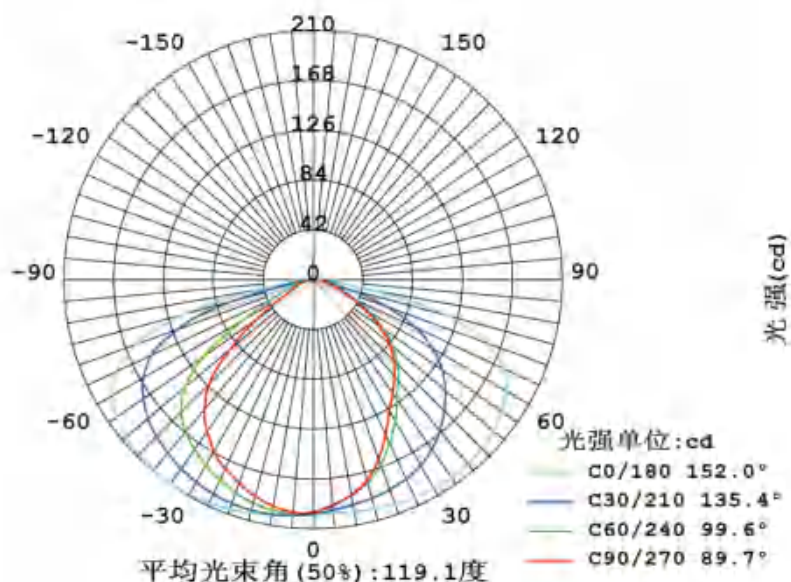


Note: the lens of this product can be used normally in the high temperature range of 125℃ and the low temperature of - 40 ℃ . The lens will not yellowing and brittle within 5 years. The material has approved many international certification.

### 5.2 Large luminous angle, 30% increase in irradiation area

Through professional optical design, this product is equipped with an optical lens of 150 \* 70, and the luminous angle is at the same installation height, 30% larger than the traditional 120 degree irradiation area.

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

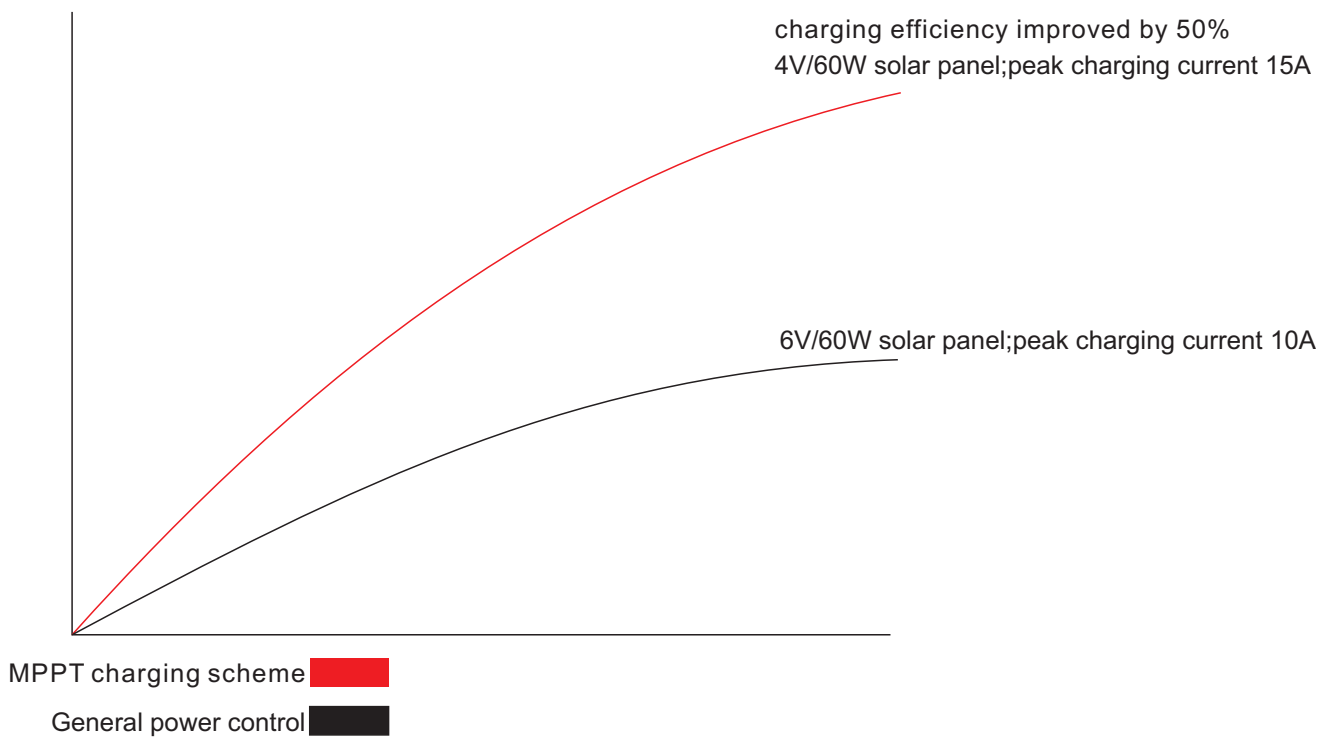


### 5.3 Convenient installation

All-in-one solar light means the solar panel is embedded into the lamp body. This design eliminates complex installation accessories such as brackets, no need to install lamp and solar panel separately, which is very convenient for outdoor installation.

### 5.4 High-efficiency fast charging solution, charging efficiency improved by 50%

The solar controller simulates the MPPT charging scheme, a unique charging and discharging management system with more efficient charging and discharging efficiency. For example, the market routinely uses 6V/60W photovoltaic panels with a peak charging current of 10A; but our product uses 4V/60W photovoltaic panels with a peak charging current of 15A. The charging efficiency is improved by 50%.



### 5.5 Multiple Functional Mode

Our product has three brightness mode: radar mode for all night, constant lighting mode for all night, and switch to radar mode after constant light mode.

### 5.6 Smart power management system, extra-long battery lifespan

We are committed to meet the needs of customers "365 days, daily brightness", our company has developed an smart power management system in cooperation with the University of Electronic Science and Technology to make sure our product not only has higher charging efficiency, but also can actively identify the amount of charging per day, so as to independently adjust the capacity to achieve a better rainy day efficiency.

## 5. Lighting Mode

Power reduction in different modes	Model-On Time					
	1H	2H	2H	1H	6H	30mins Before morning
Sensor mode	100%	75%	60%	40%	40%	50%
3+X/4+X	100%	75%	60%	40%	40%	50%
AUTO mode	100%	75%	60%	40%	25%	40%

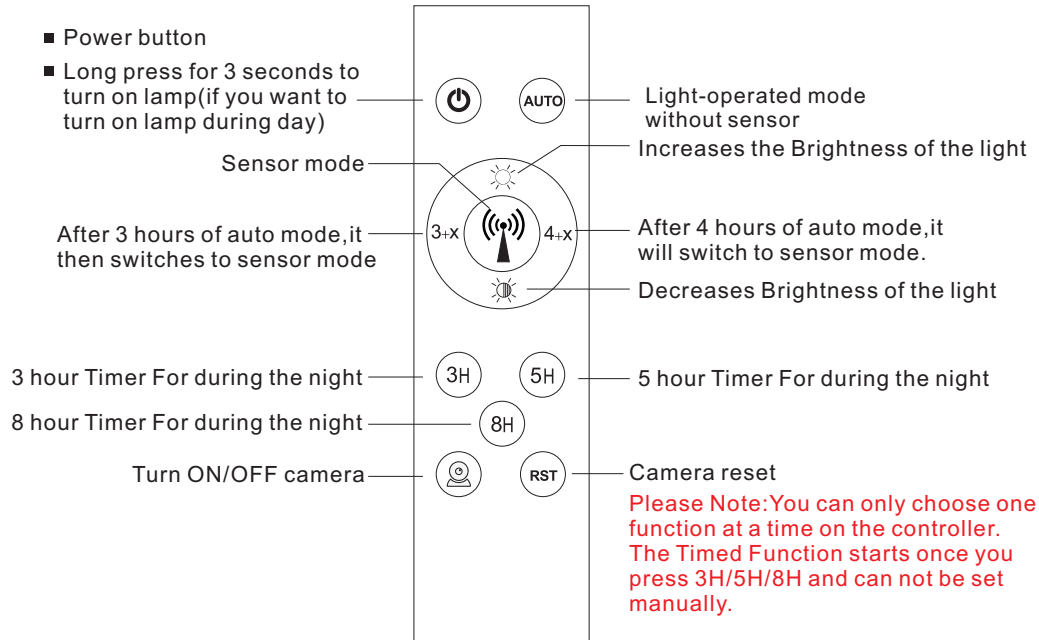
### Tips:

1. The brightness is 70% of radar mode during in 3+X/4+X mode.
2. In constant light(AUTO) mode, 3+X/4+X mode, when the power is lower than 20%, the system will automatically switch to radar mode.
3. Morning lit up function is based on the off time of the last day, power increased before 30 minutes. Thus this function is only activated from the second day since lamp installed.

## 6. Instructions of Remote Controller

### Three Brightness Mode

(The remote control has memory function, you can set only once.)



### Tips:

1. Pressing the key "AUTO" the light will automatically turn on in the dark and turn off to charge in the day.
2. Please never connect AC110V/220V AC to this unit as it will damage the lamp and very likely cause personal injury or electric shock.
3. Please ensure the installation is affixed firmly to solid/permanent fixture so as to avoid it falling & causing injury.
4. Disassembling the lamp, panel or any of its parts will void the warranty immediately.
5. Please clean the solar panels regularly of dust, debris and bird droppings, as this will keep the panels output as it's highest efficiency for charging the batteries.

## 7. Product packaging



Carton packing

Packing List

Model	Carton Size	Pcs/ctn	N.W(kg)	G.W(kg)
MJ-SSO100	96.5*18*41CM	1	8.0kg	9.2kg
MJ-SSO200	115.5*18*41CM	1	9.5kg	11.0kg
MJ-SSO300	137.5*18*41CM	1	11.7kg	13.6kg
MJ-SSO400	170.5*18*41CM	1	13.0kg	15.5kg

Packing List

Model	Carton Size	Pcs/ctn	N.W(kg)	G.W(kg)
MJ-SSO100C	96.5*20*42CM	1	8.3kg	9.5kg
MJ-SSO200C	115.5*20*42CM	1	9.8kg	11.3kg
MJ-SSO300C	137.5*20*42CM	1	12.0kg	13.9kg
MJ-SSO400C	170.5*20*42CM	1	13.3kg	15.8kg



## 8. Photos from Different Angle



# 9.Application

