

S O L A R G A R D E N L I G H T

# SUNSTAR

| IP65 | IK08 |















# OUTDOOR GARDEN LIGHT





# SUNSTAR

## Solar Garden Light

The appearance and modeling are more simple, beautiful and advanced, which can be integrated into various environments;

High-pressure die-cast aluminum lamp body, with solid structure and good seismic resistance, is sprayed with outdoor professional plastic powder on the surface to ensure that the lamp can work in severe outdoor environment;

PC lampshade with high intensity and high transmittance, resistant to high temperature, aging and yellowing;

The main light source adopts international brand multi-chip packaging LED, with high power, high quality, high luminous efficiency, high color rendering, no radiation pollution and long service life.







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# Solar Garden Light

The overall shape design takes the disc as the design concept, and the shape is round and beautiful. Use simple lines to outline the exterior outline of the whole lamp, and integrate the combination of point, line and surface elements in aesthetics.

Introducing the Phantom star solar post top light, offering a new and futuristic design. Developed for our environment to protect native animals from blue- light harm and the unwanted glare of led lights. With a UWLR of <1% of the lighting distribution, the ftting provides an even lighting performance without light pollution. Simply put, Phantom star creates wildlife friendly lighting for our environment.











## **PRODUCT PARAMETERS**

#### Lighting Performance

| Item number    | Sunstar                              |
|----------------|--------------------------------------|
| Luminous flux  | 2,800lm max                          |
| Peak LED power | 18W                                  |
| CRI            | >80                                  |
| LED type       | SMD3030                              |
| CCT range      | Dual color 3000K+4000K / 3000K+6000K |
| LED Lifetime   | >100,000 hours                       |

#### LifePO4 Battery

| Battery type     | Brand new LifePO4 32700 6000mA 3.2V          |  |  |
|------------------|--|--|--|
| Battery capacity | 6.4V / 18AH 6.4V / 24AH                      |  |  |
| Battery lifetime | 6000 cycles @ D.O.D 80%                      |  |  |
| Charge Time      | 4 hours                                      |  |  |
| Discharge time   | >24 hours                                    |  |  |
| Working temp.    | -15°C~70°C                                   |  |  |
| Battery autonomy | 2- 3 days, 3~5 days in motion detection mode |  |  |

#### Solar Panel

| Peak Power          | 30W                      |
|---------------------|--------------------------|
| Rated Voltage       | 9V                       |
| Cell Type           | MONO crystallinesilicion |
| Cell Efficiency (%) | >22.5%                   |
| Lifetime            | >20 years                |
| Waranty             | 5 years                  |

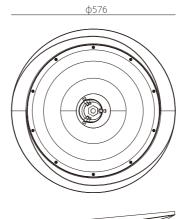
#### Control System

| Control method          | Automatic dusk to dawn |
|-------------------------|------------------------|
| Solar charge controller | MPPT controller        |
| Charging efficiency     | >97%                   |
| Remote type             | 2.4G radio             |
| Operation distance      | <30 meters             |
| Sensor type             | PIR motion sensor      |
| Grouping function       | Yes                    |
| CCT changeable          | Yes                    |
| LED power changeable    | Yes                    |
| Time changeable         | Yes                    |
| Working mode changeable | Yes                    |
|                         |                        |

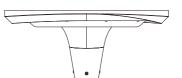
#### Fixture & Packing

| Light dimension      | ф576 * H240mm                            |
|----------------------|--|
| Materials            | Aluminium die casting + Tempered Glass   |
| IP & IK Rate         | IP65 IK08                                |
| Fixture color        | Black RAL9011 / Anthracite grey RAL 7016 |
| Pole diameter to fit | 76mm                                     |
| Package size         | /cm                                      |
| N.W/Light            | /KG                                      |
| G.W/Light            | /KG                                      |
| Certificates         | /  |
| Warranty             | 5 years                                  |

#### **PRODUCT SIZE**







单位: mm

800

### **SLOPE DESIGN**

The 5 degree slope design not only makes the appearance beautiful and unique;
Inclined Sunrise can obtain higher charging efficiency, which is at least 15% higher than the level;
At the same time, the slope design of the solar panel is not easy to accumulate dust, which can be washed away by rain, It not only has higher power generation but also is easier to maintain.





# MULTI-COLOR LIGHT AVAILABLE

The multi-color light can be selected, and the white light, warm light and 16 million color RGB color light can be switched freely according to the customer's preferences.

The 360-degree optical design has no dead angle lighting, and the light is uniform and soft, which is more in line with the lighting requirements of different scenes.



# SIMPLE ASSEMBLY

The integrated design of light source and solar panel can be directly installed and used on the lamp pole, which is convenient for installation.

The product sleeve adopts removable "movable" design, which reduces the packaging volume, facilitates packaging and reduces the transportation cost.



#### **MULTIPLE INTERCONNECTION**



#### Infrared induction design

When someone enters the sensing range, the special sensor detects the change of the infrared spectrum of the human body and automatically switches on the load:

People come to light up, people leave light weak, friendly and convenient, safe and energy-saving, and show humanistic care.

#### **APP intelligent control**

This product is equipped with bluetooth function.

Users can realize intelligent control of LED through mobile phone APP, and can realize cooperation and linkage of multiple devices.







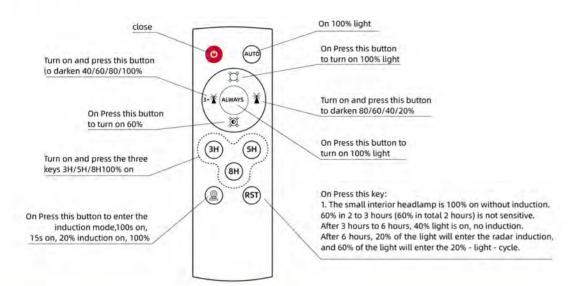
#### With remote control

It is equipped with a remote control device to prevent overcharge and overcharge of the battery and prolong its service life. Check the battery status, check the charging history settings, and diagnose different running time problems.





# **ABOUT CONTROL**



| Power reduction in  | Startup time |        |        |        |     |     |
|---------------------|--------------|--------|--------|--------|-----|-----|
| different modes     | 1H           | 2Н     | 3Н     | 4Н     | SH  | 6Н  |
| Constant light mode | 100-80%      | 80-60% | 60-50% | 50-40% | 20% | 40% |

# CHARGE LIGHTING POWER SUPPLY CONTROL SYSTEM

The charge and discharge efficiency of photovoltaic MPPT power supply controller is improved by adopting the circuit design of high-speed MOSFET pre-drive.

#### Product characteristics:

- 1. Low-voltage self-activation of the battery to ensure that the battery-fed conditions of normal charging;
- It can automatically adjust the output power according to the remaining capacity of the battery to extend the use time.
- 3. Constant voltage output to load can be set to normal/timing/optical control output mode:
- 4. With dormancy function, can effectively reduce their own losses;
- Multi-protection function, timely and effective protection of products from damage, while the LED indicator to prompt;
- 6. Have real-time data, day data, historical data and other parameters to view;



## **PRODUCT FEATURES**



PV is at 4-degree slope for better rain cleaning



Lights can be grouped by remote control



2.4G remote signals is more strong and sensitive



4H / 6H / 12H option changeable by remote



LED power is changeable at 5 levels to save power



Dual CCT is changeable between 3000K and 4000K



6000 cycles brand new LiFePO4 battery pack



Equipped PIR motion sensor can be ON/OFF



Dusk to Dawn auto ON/OFF



The dust tightness can completely prevent the invasion of foreign objects, and can completely prevent the invasion of dust; Protection against water jetting.



The degree of protection of the enclosure against harmful mechanical impact. Impact of 5kg impact hammer at a height of 40cm Impact energy is 20J.

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Solar panels

Light source aluminum substrate



#### High-efficiency solar panels

Strict selection of materials, after many

tests,
Sort and select qualified cells.
Using a special laminating process,
Guarantee EVA and tempered glass,
The adhesive strength of the backplane.
Make the performance of solar panels good, Long life and high power generation efficiency.



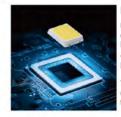
#### Lithium iron phosphate battery

The cycle life is more than 1000 times, Safe to use, no fire and no explosion; High temperature resistance, large capacity, Green and environmentally friendly, non-toxic, non-polluting.



#### Infrared induction design

When someone enters the sensing range, the special sensor detects the change of the infrared spectrum of the human body and automatically switches on the load; People will be connected continuously without leaving the sensing range; After people leave, the load will be reduced automatically after a delay.



#### High efficiency LED

Using high-efficiency LED, the luminous efficiency is up to 170lm/W. The light sealing lens is made of anti ultraviolet PC, which has anti-aging and impact resistance erformance, realizing long-term use.

hrough the unique optical lens cut-off design, we can eliminate the pollution of lighting to the environment.



#### Reflector design

Nano-polymer reflective materials can enhance the light reflectivity, thus improving the overall lighting efficiency and achieving the purpose of energy conservation.



#### High transmittance PC cover

Customized high transparency and ultra-white crystal PC cover can meet the requirements of beautiful lamps and ensure the light efficiency and anti-glare of lamps and lanterns.



#### φ 76 Socket

The sleeve adopts the national standard ADC12 die-cast aluminum, which ensures the heat dissipation performance at the same time and has an ultra-high cost performance.

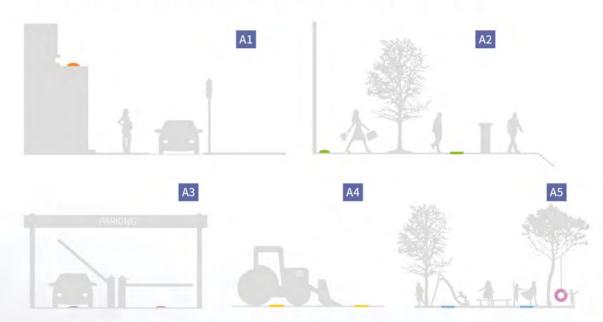


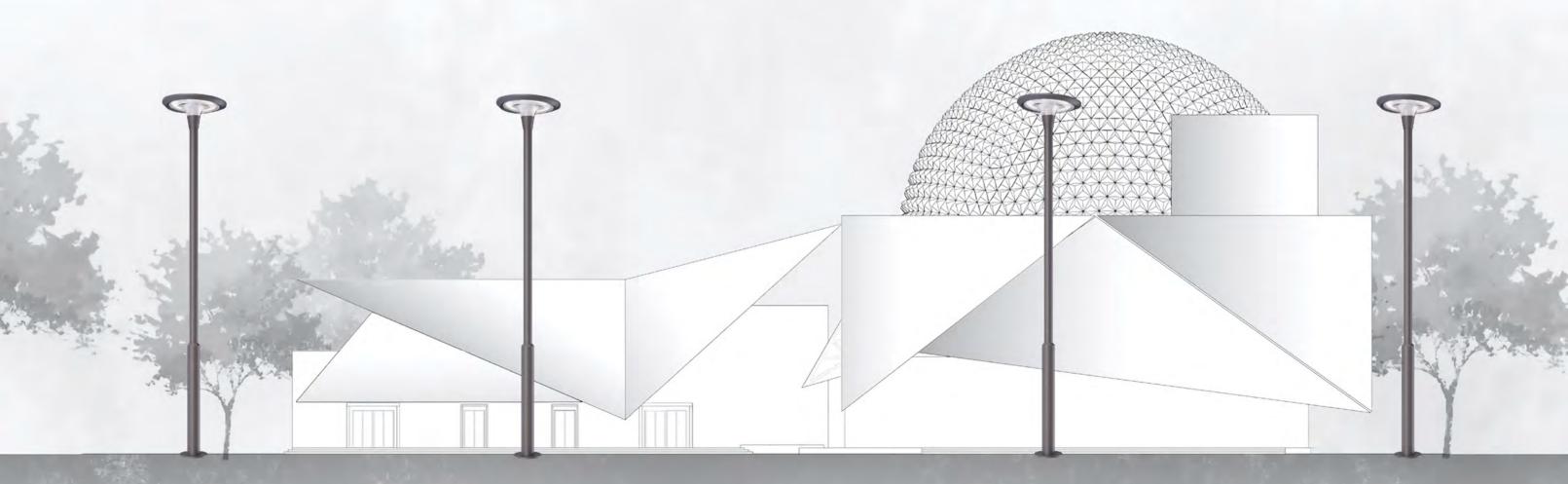
# **LIGHT DISTRIBUTION CURVE**

# The lamps are installed in the asymmetric lighting of low height residential areas. Note: This optic is not dedicated to this application only. It can also be used for other configurations. Lighting of bicycle lanes or narrow roads. Circulation track and narrow road. Note: This optic is not dedicated to this application only. It can also be used for other configurations. Symetric light distribution. Note: This optic is not dedicated to this application only. It can also be used for other configurations.

# **APPLICATION SCENARIOS**

It is widely used in any outdoor lighting places such as roads, squares, scenic spots, etc.





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