SunMaster Elite Ⅱ-Bot

Features

- **High Efficient components, Authentic materials**
  - Patented self-cleaning function
  - $LiFePO_4$ battery with 2000 lifecycles, safe and reliable
  - High quality monocrystalline solar panel
  - Aluminum housing, robust and durable
  - Protection grade is IP65 / IK08 (Solar panel: IK07)
- **Professional light distribution, Full nominal**
  - Highly efficient with 180-200lm/W
  - Lumen packages from 5400lm to 14400lm
  - ±70° luminaire mounting angles adjustable
- **Intelligent dimming, High brightness and long battery life**
  - Intelligent charge and discharge management, 365 day light, 2-3 overcast days autonomy
  - Coupled with motion sensor for longer working hours
  - 3 years warranty

Solar Street Light Specification

Unilumin

Product Parameters:

Product Model	UNI-SL02-1-030	UNI-SL02-1-050	UNI-SL02-1-080
System Voltage	12V	24V	
Monocrystalline Solar Panel	50W/18V	80W/36V	120W/36V
$LiFePO_4$ Battery	12.8V/24AH	25.6V/18AH	25.6V/30AH
Charge Time (H)	6.2	5.8	6.4
Full Power Working Time (H)	10.2	9.2	9.6
System Power (W)	30	50	80
Sensor Distance	Infrared Induction: Height=6m,Width=7m Microwave Induction: Height=8m,Width=10m		
LED Life Time	>100,000 Hrs (L70@Ta=25℃)		
Luminaire Efficacy (Tq=25℃)	180lm/W		
Luminous Flux (lm)	5400	9000	14400
Default Lighting Mode*	When people approach: 2H*100%+3H*50%+6H*20%+1H*30%, When nobody: 20% with motion sensor;		
Overcast Days	2-3 Days		
CCT	3000K/3500K/4000K/5000K/5700K/6500K		
SDCM	≤5		
CRI	Ra>70		
Light Distribution	Type II S , Type II M		
Charge Temperature	0℃ ~ 55 ℃		
Discharge Temperature	-20℃ ~ 60 ℃		
Storage Temperature	0℃~ 70℃		
Warranty	3 years		
Housing Materials	Aluminum Housing + Extruded Aluminum Frame + PC		
Finish	Dark Grey		
IP/IK	IP65 / IK08 (Solar panel: IK07)		
Insulation Class	Class III		
Spigot Diameter (mm)	Φ48/Φ60		
Installation Height (m)	4-6	6-7	6-8
Maximum projected area (m^2)	0.43	0.63	0.86
Wind-Resistance (km/h)	130		
Luminaire Dimension (mm)	801×506×125	1208×506×125	1660×506×125
Luminaire Packing Dimension (mm)	935×575×225	1345×575×225	1795×575×225
Net Weight (±0.2kg)	18	23	28
Gross Weight (±0.2kg)	21	26	31

*Factory default value, the lighting mode can be customized as per specific requirements.

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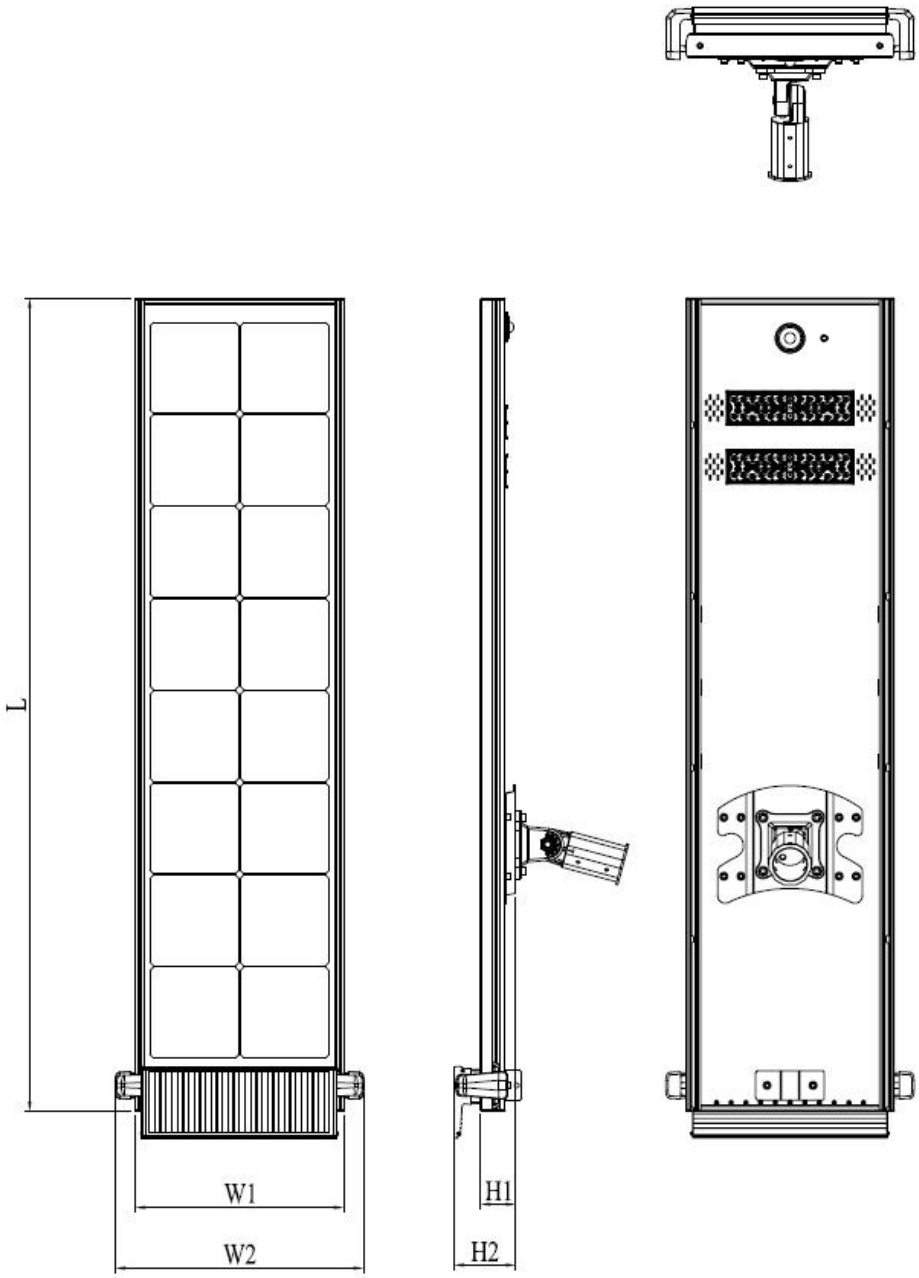
Luminaire Dimension:



Model No.	Dimension（mm）				
	L	W1	W2	H1	H2
UNI-SL01-1-030	801	425	506	71	125
UNI-SL01-1-050	1208	425	506	71	125
UNI-SL01-1-080	1660	425	506	71	125

Solar Street Light Specification

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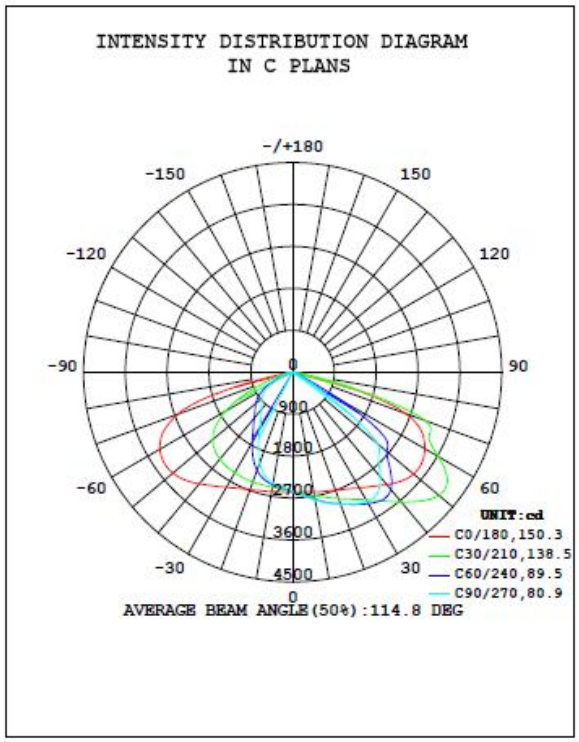
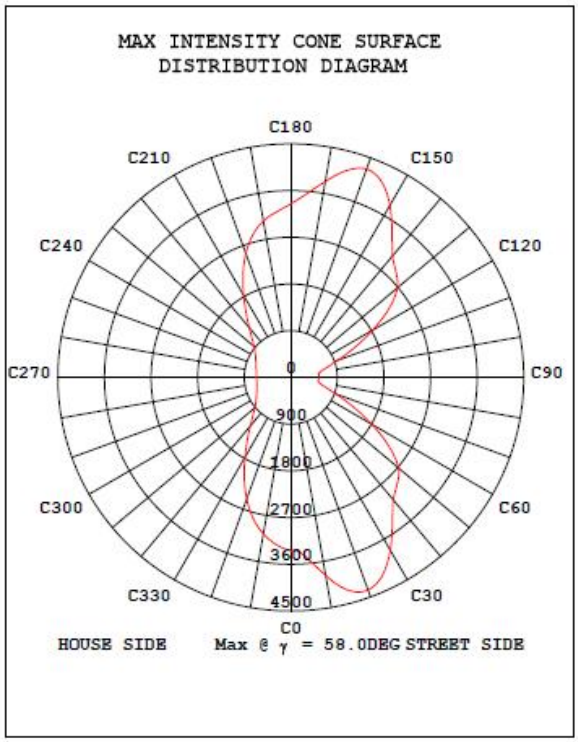
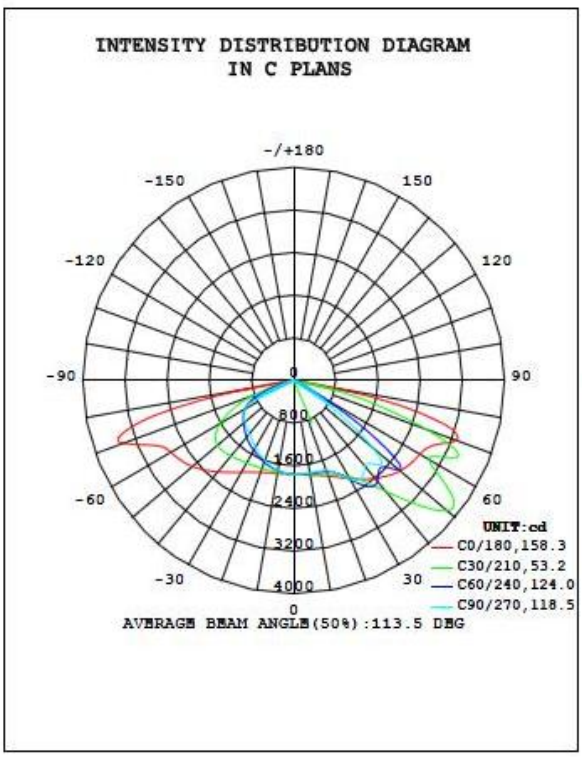
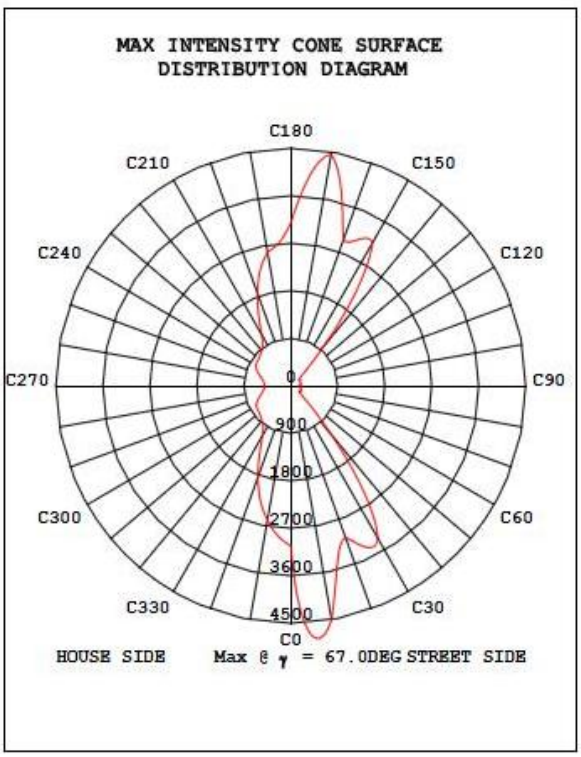
Light Distributions:





Type II S (5050)

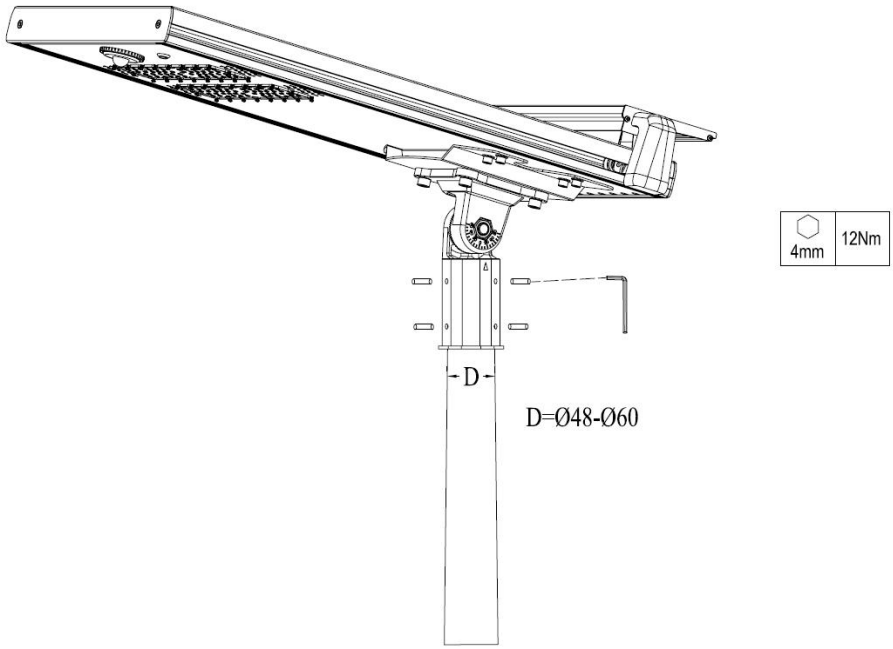




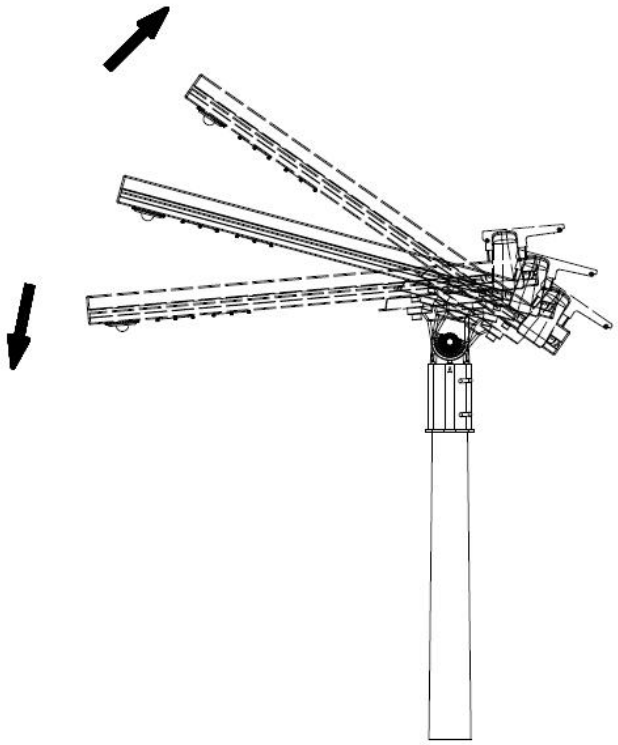
Type II M (5050)

Note: The pictures are only the references of typical light distribution type, and the specific parameters shall be subject to the actual IES of the product.

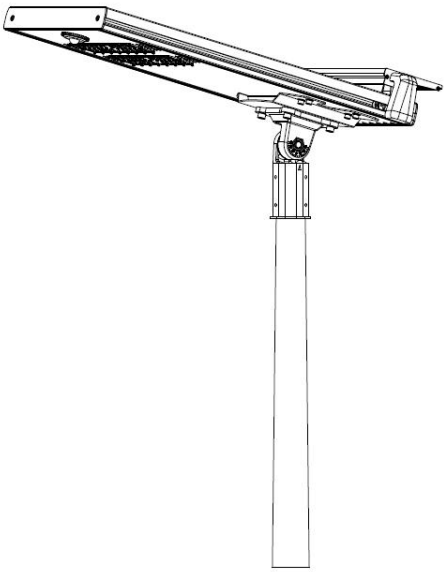
Installation Diagram:



1. Install the solar luminaire onto the light pole by tightening the bolts with 12Nm torque.



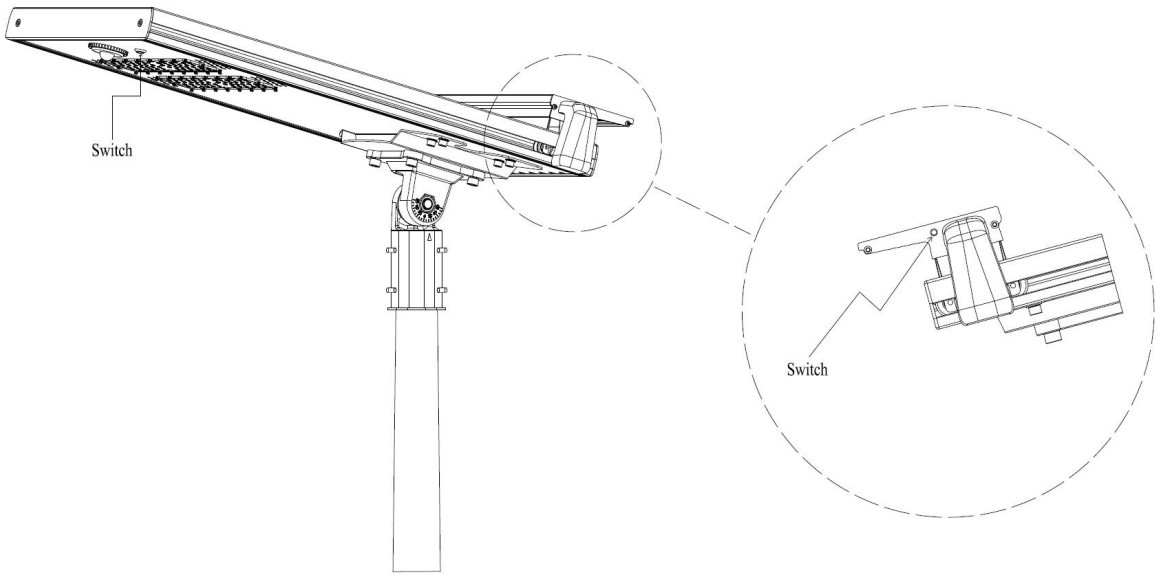
2. Adjust the mounting angle of solar luminaire when necessary, then make sure the luminaire is fixed in place.



30W、50W

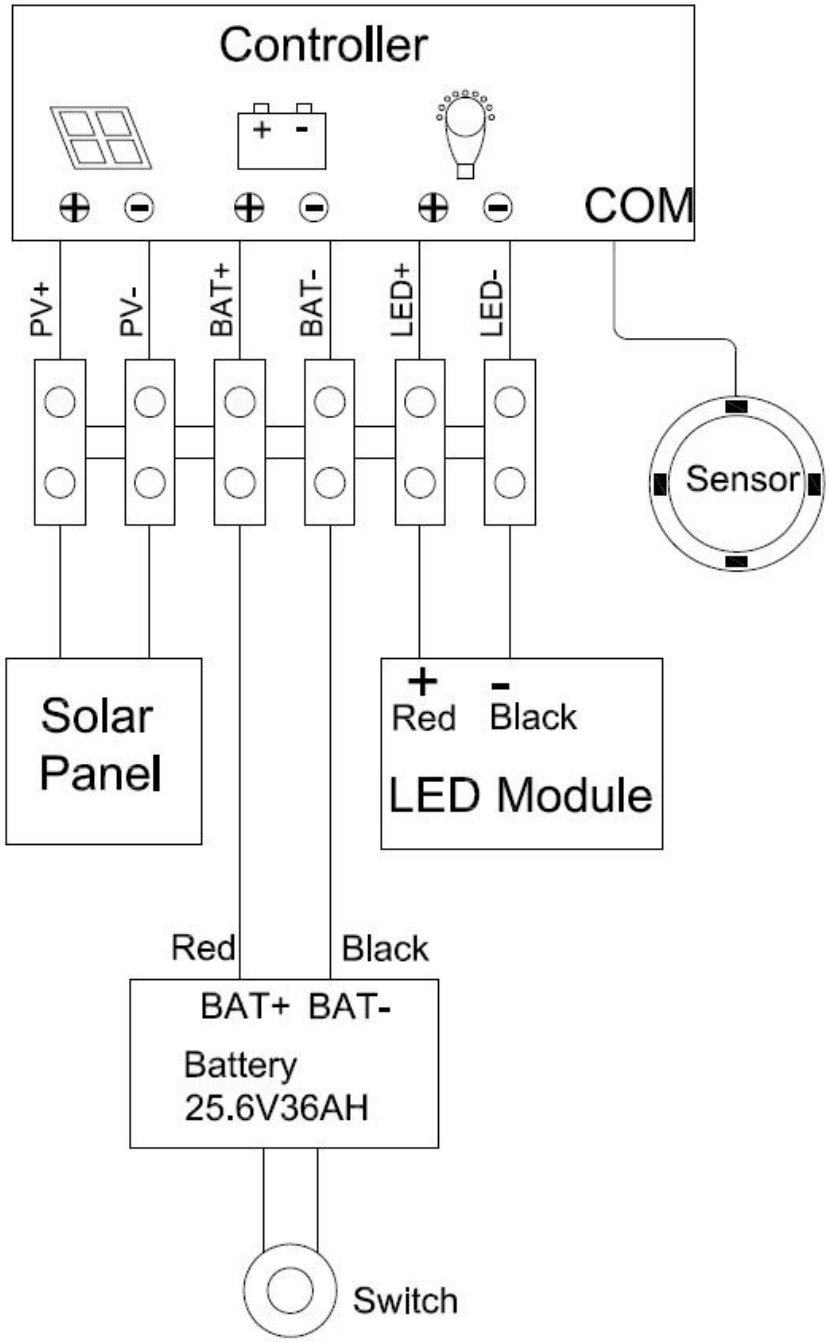
80W

3. Install the support rod by connecting the lamp and the lamp pole.



4. Turn on the light switch and the cleaning bot switch to put the light into working mode. Now it is ready to shine and to self-cleaning.

Wiring Diagram:



Note: The default setting of cleaning cycle is three times a day, and the work is automatically started by sensing the charging voltage and timing control of the solar panel. After the work is completed, it returns to the starting position. (The first time the solar panel reaches the voltage and starts cleaning function at dawn; the second time is after the first hour control; the third time is when the sunlight drops to the solar panel voltage to start the cleaning function)

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Maintenance:

- To ensure the solar panels can receive light effectively, please clean the surface of the solar panels with a soft cloth and water regularly. Do not use chemicals and abrasives that containing strong solubility such as ammonia.
- Recommended storage time shall be less than 3 months as the battery will be affected by self-discharge. If it has been transported or stored for a long time, please check, charge and make record regularly, otherwise it will affect the capacity and service life of the battery.
- Make sure installing the solar panel face to the direction where has most sunlight, so that it can effectively absorb the sunlight energy. Avoid tall buildings or trees that may block the sunlight, and places with heavy dust need to be cleaned up in time.
- All screws shall be tightened evenly according to the standard, and should not be loosened and shaken.

Cautions:

- Solar panels belongs to “fragile” product category. Please do not scratch or apply impact on panel during installation, as the scratches, dust, and occlusion on the surface will affect the efficiency of power generation of solar panels.
- Solar panels facing south for places in the northern hemisphere, and facing north in the southern hemisphere.
- Before installation and use, please refer to this manual for faster and more accurate use of this product.
- This product is a modular product, and the lighting and photovoltaic cleaning are two different systems that do not interfere with each other.
- This product must be equipped with 4 dedicated induction magnets in the dedicated position inside the lamp body to ensure normal operation
- This product should ensure the correct direction, and there should be a dedicated blank space on the photovoltaic panel for parking the cleaning machine
- Before installing and using this product, it is necessary to ensure that the lamp body and cleaning machine are intact and free from defects from the appearance

- The cleaning bot should be in a closed state before use, so as to ensure that it can work directly by pressing the switch after installation.
- When pushing the cleaning bot into the lamp track, it is necessary to apply uniform and parallel force, and unilateral violent installation is strictly prohibited.
- If there are any problems during installation, please contact professional technical personnel first before proceeding with normal operations.
- When you turn on the cleaning bot switch, it does not work. You may check:

  Scenario 1: The battery may have run down. After charging in sunlight, it will automatically operate and perform internal programming;

  Scenario 2: If the light control start voltage is low, the solar panel of the cleaning bot will automatically operate after being covered for several tens of seconds.
- The lamp body lighting operates independently, and automatically activates the built-in intelligent mode for operation when the switch is turned on.
- When the product is not in use, it shall be charged every 3 months. If long-term transportation or storage is required, it shall be checked, charged and recorded in time, otherwise battery life may be affected. Charging method: under a sufficient sunlight, turn on the lamp, turn the solar panel facing to the sun, charge continuously for 1-2 days, read the status with the remote control that display it is in charging.
- The installation of lamps should be away from WIFI, omnidirectional antennas for mobile communications, small base stations for telecommunications, and TV antennas. Signal sources that are too close may disable the dimming function.
- The lamp should not be installed on the vibrating surface, and the shaking of the lamp may cause the sensor to be triggered by mistake.
- The dimming function of the lamp may be affected by the presence of vibrating objects in its sensing area.
- The microwave sensor has a good penetration performance though plastic and wood. Please avoid metal shielding around, which will reflect and block microwaves, affecting the actual induction performance.
- Walls, glass, ceramics will bring microwave reflection and penetration attenuation, reduce the sensing distance of the sensor, the thicker the material, the more serious the attenuation.
- In the actual application environment, the sensing range of microwave sensors will be different due to the different reflectivity of obstacles.

- If there is a glass barrier between the infrared sensor and the detection object, and the far infrared ray passing through in it, while the heat source in the detection range is almost not moving or moving at high speed, sensor may not be triggered.
- The movement of animals and objects within the sensing range may cause false triggering, causing the light to turn on.
- Microwave sensor is not suitable for lakes, rivers, seaside and similar places.
- Turn on the switch of the lamp before use. Before installation, test whether the lamp is able to charge and discharge (the solar panel is charging under the sunlight and the lights are off. Solar panels is discharging when panel is fully blocked and lights are on).
- Do not put the lamp in water or fire, there may be a risk of explosion.
- This product can withstand hurricanes of Category 14, hurricanes higher than Category 14 may cause damage to the product.
- Maintenance/teardown shall be conducted by professional or technical personnel. For the lamps are no longer in service, the battery needs to be taken out by professionals too.
- If there is a need for change of light source in this lamp, it should be replaced by the manufacturer or its service agent or a similarly qualified person.
- The product contains lithium batteries, which is regarded as flammable and explosive materials. Please abide by the air transportation regulations during transportation: do not fall violently and lift the package gently during transportation. Storage should be separated from other items to avoid damage.
- When the continuous rainy days are longer than the design days, the battery power will be drained. Due to the extremely low charging efficiency in rainy days, you may see the working time is short, this is normal. The working time will improve when the sunny days is back.
- Product specifications are subject to change without notice, and the final interpretation right of this specification belongs to the manufacturer.

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