All-in-One Solar Street Light





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# All-in-One Solar Street Light

# **User Manual**

Thank you for choosing the LAKE LITE series all-in-one solar street light.

Please refer to the actual products if the provided diagrams show slight differences.



# Before using the LAKE LITE solar street light, carefully read the following precautions to avoid damage or errors.



# **Operating Conditions & Limits:**

- This product is rated as IP65 protection grade.
  Do not exceed the stated operating limits.
- The operating temperature range is from -20°C to 60°C and the charging temperature limit is within 0°C to 60°C. If equipped with heating features, it may be used between -40°C and 60°C.
- The heavy-duty structure will survive up to a Category 12 typhoon or cyclone. (Storms above Category 12 may cause damages to the product).

#### **Transportation & Storage:**

- This product contains lithium batteries. Please follow air transport regulations when shipping. It should be regarded as potentially flammable and explosive, and be isolated from other goods when stored, so as to avoid any damage.
- The solar panels of this product should be considered as fragile. There should never be more than 4 layers of boxes when stacked. To avoid damage to the panels, make sure no heavy pressure is applied to the boxes.
- Please store the product in temperature between  $0^{\circ}$ C to  $45^{\circ}$ C.
- If stored for a long period, the product should be recharged every 6 months. Please only use the special charger (purchased from manufacturer) to avoid damage to the battery or device.
- When repackaging the product after inspection or charging, set the light into sleep mode by holding the on/off button for 5 sec. The light will flash three times to signal that it has properly entered sleep mode. You may now repackage the product into its box. To exit sleep mode, either press the on/off button one more time, or wait an hour for the light to reboot automatically through contact with sunlight.

#### **Product Maintenance:**

- To ensure effective solar light absorbance, clean the surface of the panels regularly with water and a soft cloth. Do not use chemical solutions or abrasives.
- This Solar Street Light operates on a low voltage DC current. Unless customized otherwise, do not connect components or ports to an AC current or any higher rated DC voltage.
- The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
- Using the third party components to replace the original ones without authorization is forbidden.
   The product will lose warranty if the users disassemble the product by himself.
- To order replacement parts or to have them fitted, please contact your local distributor.

### **Product Recycling:**

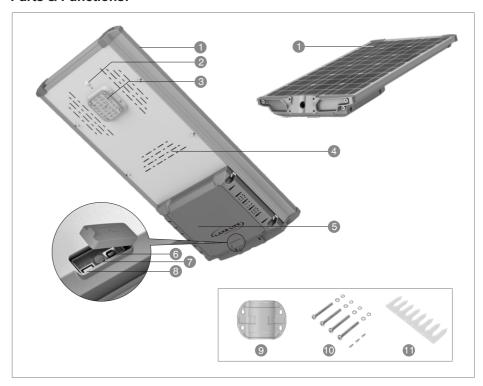
- This product is made from recyclable, highperformance materials. All materials are compliant to the ROHS standard. Do not dispose of this product with other household waste.
- Please check your local regulations on collection and disposal of electronic items. Proper disposal of used product helps prevent negative impacts on the environment.



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#### **Product Manual:**

#### Parts & Functions:

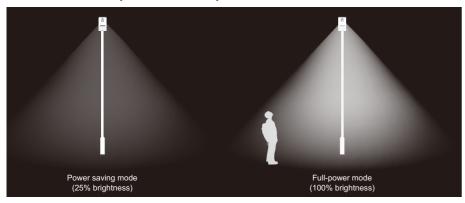


No.	Parts	Functions
1	Solar panel	Absorbs and converts solar energy into electricity
2	Motion sensor	Detects human movement
3	LED light	Lights the area
4	Vents	Heat dissipation
5	Control box	Battery (charge / discharge) management
6	Type B USB connector female	For program input
7	On / Off button	Turn on/off the light, or enter/exit the Transportation mode
8	Type A USB connector female/ Parameter Configuration Interface	For battery charging via a 14VDC 1.5A power supply/ Parameter Configuration Interface
9	Bracket	Fixes the solar engine
10	M8 hexagon headed screws 4pcs / M8 lock washers 4pcs / M8 flat washer 4pcs / self-tapping screw 3pcs	Fix the solar light and bird spike in place
11	Bird spike	Prevents solar panel contamination from bird droppings

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### Factory settings and motion detection functions:

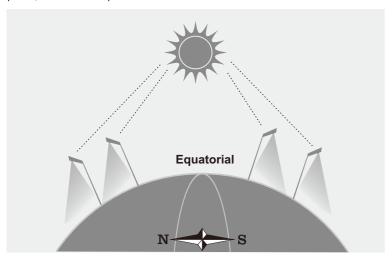
The factory setting of the solar street light switch is light-controlled (at a threshold of 30 Lux). The lamp automatically lights up when it is dark and turns off when there is light or at dawn. At night, when no one is around, it operates under power saving mode. When anyone approaches, its brightness increases by a factor of four. If the air temperature is close to human temperature, the motion detection may reduce in sensitivity.



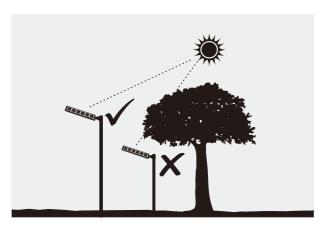
# **Installation:**

#### 1. Environment:

a Please select the appropriate product according to the installation site's sunlight intensity and required operating time. If you are in the northern hemisphere, face the solar panels towards the south as far as possible when installing the solar street light; if you are in the southern hemisphere, face the solar panels towards the north.



(b) For maximum operation efficiency of the solar panels, make sure the sunlight is not blocked by buildings or trees.



# 2. Altitude and distance parameters:

Install according to the height and distance (between the lamps) restrictions as set by each respective product type. Consult our product specialists for special lighting requirements.

Power	Bat wing light source		
rowei	Height of posts	Distance between posts	
15W	4~6m	15~25m	
20W	4~6m	15~25m	
30W	5~8m	20~30m	
50W	7~10m	25~40m	

# **Activation and installation:**

#### **Activation test:**

Daytime activation: after installation.

**Night-time activation:** after installation, press and hold the ON/OFF button to activate by hand.

#### Functions of ON/OFF button:

- 1. When the system is switched off, press and hold the button to activate until the lamp is on;
- 2. When the system is working normally, press and hold the button for 5 seconds to enter the transportation mode, until the lamp flashes for three seconds and turn off;
- 3. When the system is in transportation mode, press and hold the button for 5 seconds to switch off the system, until the lamp flash for one second and turn off;
- 4. When the system is working normally, press the button without holding to turn the lamp on/off.



Press and

hold for 5S

Transportation mode

ON/OFF button

Switch-off

Possandhold

Switch



When the USB is not in use, close it properly with the cap in order to avoid damaging the controller through dampness or water.

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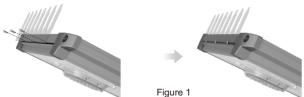
#### Installation:



#### A licensed electrician is required to install the unit with AC power supply.

Please have a licensed electrician install this unit to avoid risk of shock damage to luminaries. Pay close attention to the cable polarity. Tie up with waterproof rubberized fabric after completing wiring.

Bird spike: Use 3 self-tapping screws to fix the bird spike along the rim of the top of the light.
 (See Figure 1)



- Install bracket. Use M8 spring washers, flat washers and M8 screws to connect them, leave enough space to ensure the bracket can fit onto the pole.
- Set solar light onto pole and make sure it is securely fastened with M8 screws. (See Figure 2). The maximum torque for those M8 bolts is 14Nm. Do not surpass this torque specification.



# **Troubleshooting:**

No.	Symptoms	Troubleshooting steps	Process
1	No light at night	Check that the lamp can be manually activated.	Refer to "Activation and Installation" section on this user guide and run activation tests.
		Check if the solar panel is blocked from the sunlight by houses, trees and other obstacles.	Clear obstructions or change installation location.
		Check if there is any artificial light source(s) shining on the solar panel during the night.	Remove the artificial light source(s) of interference or change the installation location.
		Examine status of each component based on the repair guide.	Replace the damaged component(s).
2	A serious shortage of working time	Check if the solar panel is blocked from the sunlight by houses, trees and other obstacles.	Clear obstructions or change installation location.
		Check if the surface of the solar panel is dusty or covered.	Clean the surface of solar panels as detailed above.
		Examine if the battery pack is damaged as per the repair guide instructions.	Replace damaged battery.
3	Lighting does not follow the normal operating mode of turning on and off		Reprogram.
4	Lights fail to turn on properly when humans approach	Check if the air temperature close to human body temperature.	When the air temperature is close to human temperature, motion detection may slow down. It will return to normal after the air temperature changes.
		Check if the installation height is too high.	It is out of motion detection range when installation height exceeds 8m. It is recommended to reduce the height or use other operating modes.
			Replace damaged motion sensor or controllers.

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