

ALL-IN-ONE Solar Street Light

200W/300W

LED solar street lights are composed of photovoltaic power generation system, energy storage system, and light control system. The 18%+ conversion rate solar panel converts solar energy into electricity and stores it in battery, which provides power to the lighting control system at night, realizing 100% energy saving.



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ADVANTAGES



Wide range of installation and application

The installation of solar street lights is almost not subject to geographical restrictions. Whether it is mountainous areas, grasslands, or fields, solar street lights can be installed wherever there is sunlight. Embellishment, industrial development zone, industrial and mining enterprise street lights, outdoor lighting of various colleges and universities.

Energy-saving and environmentally-friendly

The solar street light converts the sunlight into electricity without electricity consumption. It produces no pollution and no radiation, which conforms to the present environmental protection concept.

Safe and durable

The traditional street light may have hidden safety hazards due to construction quality, material aging and power supply disorder; while the solar street light does not utilize the alternating current so that it will not have hidden safety hazards. Nowadays, most solar modules in the market have stable performance for at least ten years due to the mature manufacturing technology. They can generate electricity for twenty-five years or even longer.

High technology and low maintenance costs

Regulated by solar charge controller, the solar street light can adjust the light intensity according to the natural brightness and people's demand. In the remote regions, the maintenance cost for traditional street light is high. However, the solar street light only needs cyclical inspection, thus the maintenance cost is relatively low.



PRODUCT DETAILS



Battery

Using LiFePO4 battery, the battery has undergone strict safety testing, and the charging speed is fast, high temperature resistant, green environmental protection, non-toxic and pollution-free. Long service life, can be cycled more than 2000 times.

Die-casting Aluminum Lamp Housing

The lamp housing is made of aluminum alloy, anodizing treatment on surface, and no fade. which is strong and stable, waterproof and rust-proof.

Anti-UV Optical lens

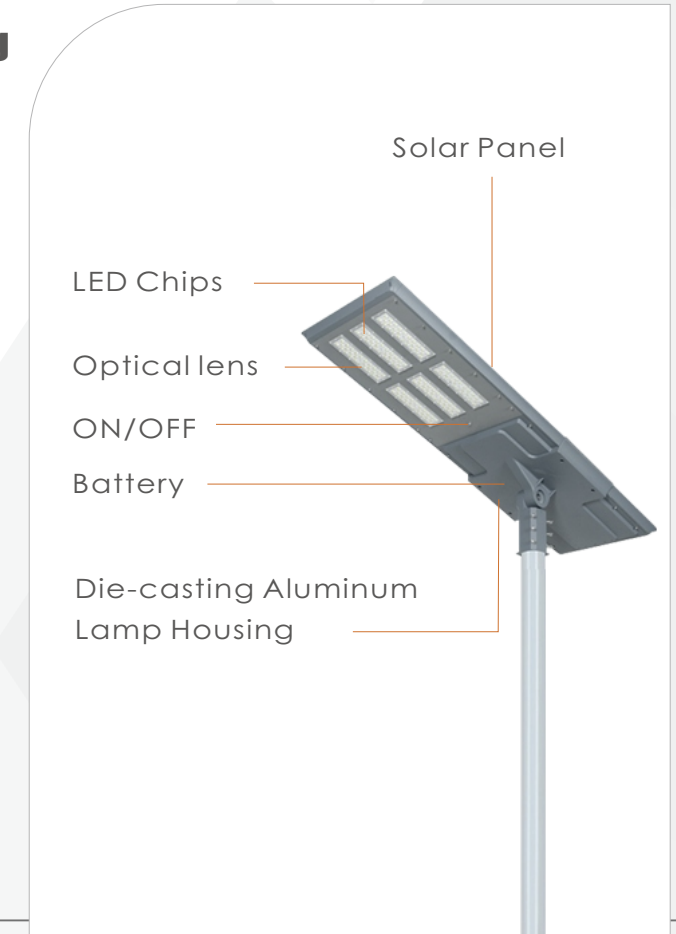
The Lens makes the light spot is uniform, there is no astigmatism, no shadow, and the transmittance is very high, which maximizes the utilization of LED light.

Solar Panel

High quality monocrystalline silicon material, high charging efficiency, long lifespan

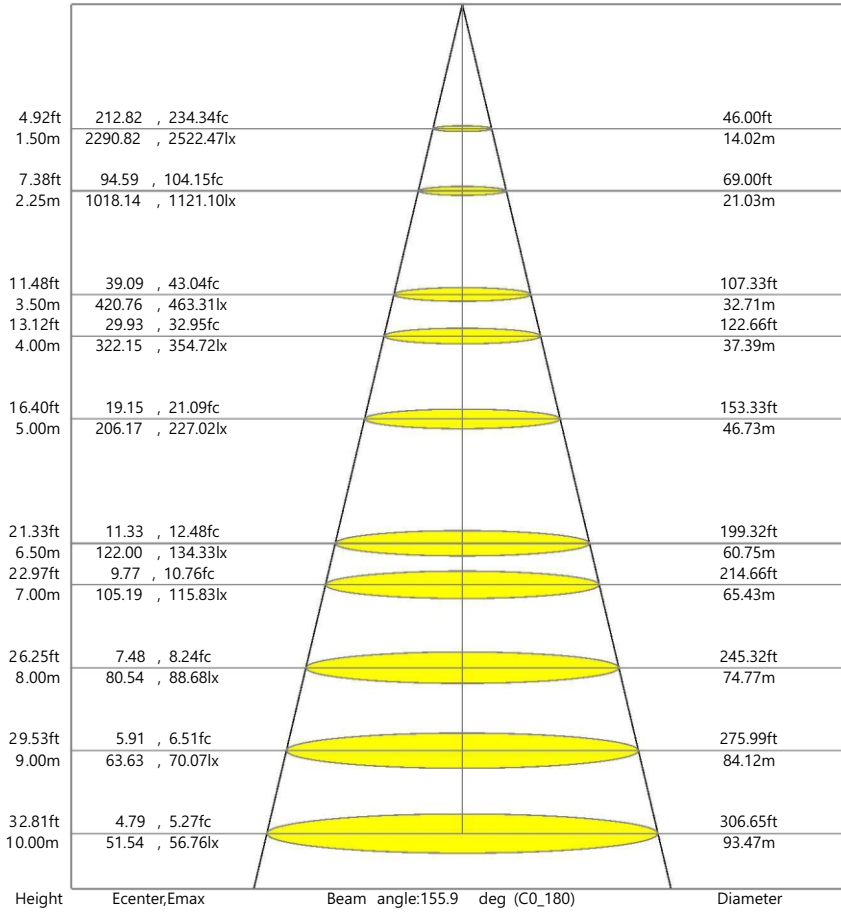
LED Chip

Built-in LED chip, enable solar street lights to emit high brightness with low heat even after long time usage.

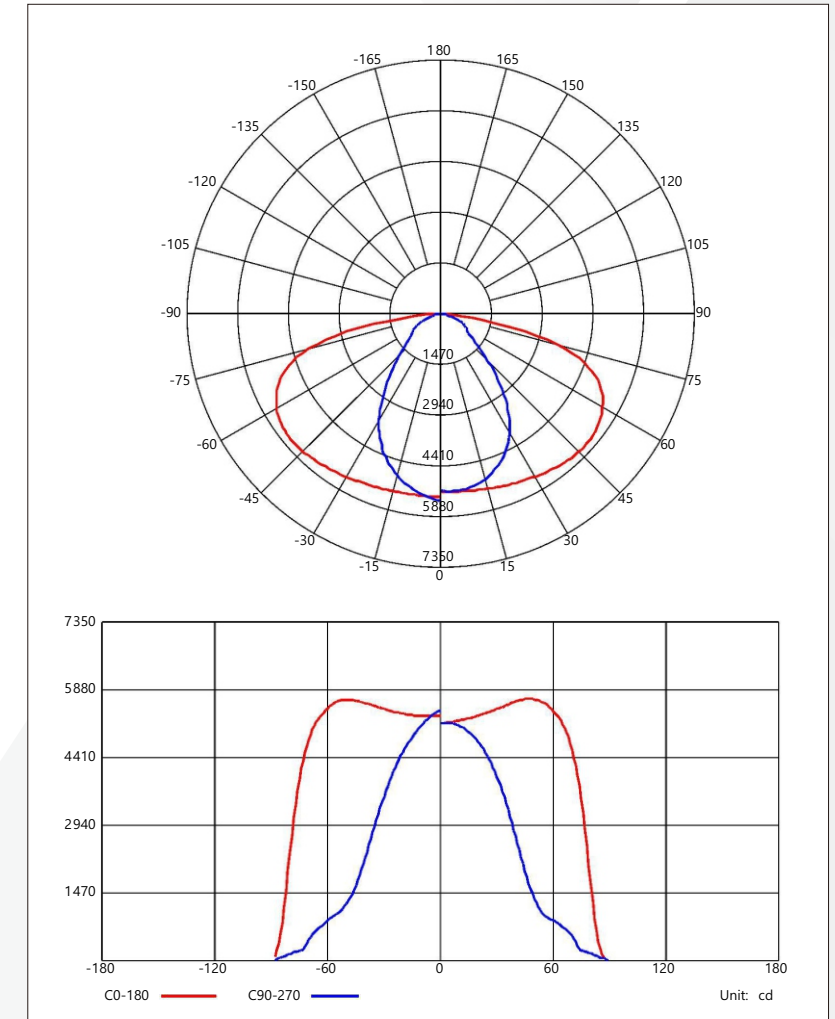




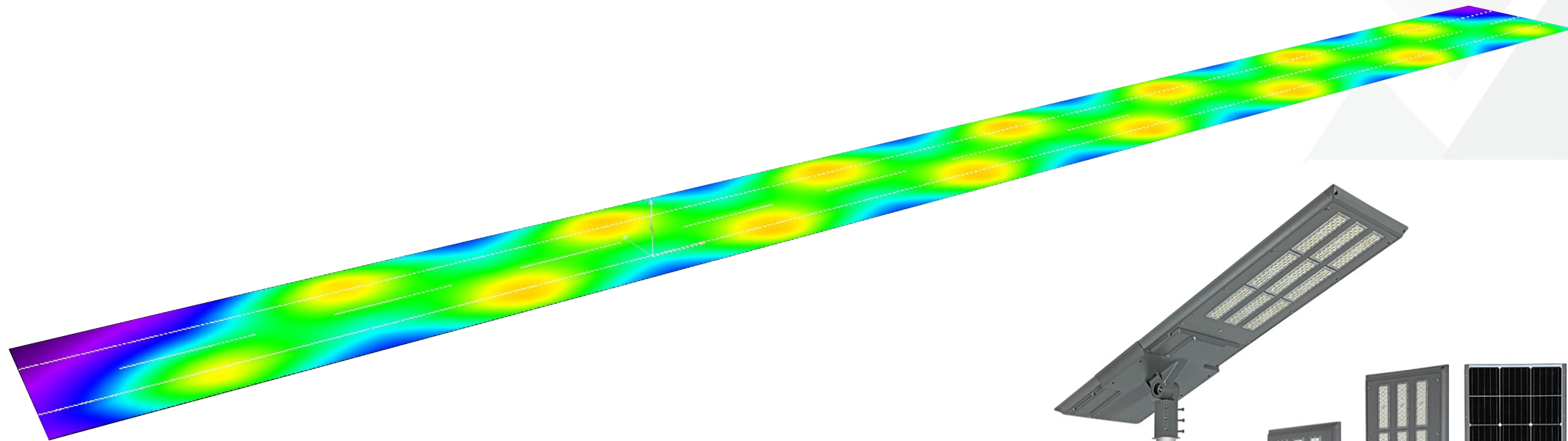
LX-DISTANCE DIAGRAM



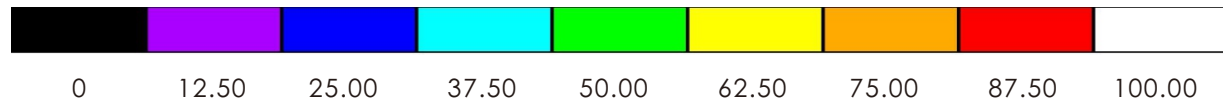
LUMINOUS INTENSITY DISTRIBUTION CURVE



200W DIALUX SIMULATION EFFECT



Installation Height:8m
Lamp distance:20m



Unit:1x



BATTERY SPECIFICATION

DesignLife	6-8 years	
Nominal Voltage	12.8V	
Nominal Capacity	90AH	108AH
Self-Discharge		
Operation Temperature Range		
Discharge	-20~60°C	
Charge	-10~60°C	
Storage	-20~60°C	
Max.Discharge Current 77°F(25°C)	50A(5s)	
Short Circuit Current	100A	

**Precision Welding Machine**

Fully automatic precision welding machine can ensure that every battery can be welded firmly to prevent the danger of short circuit or power failure.

Aging Test Machine

every battery pack need to thorough charging and discharging test by the aging test machine to keep 100% qualified.

BATTERY GUARANTEE OF QUALITY**Battery Cells**

High-end battery cells keep every cell's voltage, resistance, capacity, discharging always in sync.

Battery Protector

High precision IC keep performance more stable protect over load, over charge, over discharge, short circuit, over voltage, over current keep battery pack always safe and long life span.

SMD 5050 INTRODUCTION



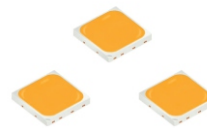
The SMD 5050 high power LED is hot-color targeted, which ensures that the LEDs fall within their specified color bin at the typical application conditions of 85°C. With its broad lumen coverage and wide range of CCT options, the SMD 5050 provides unparalleled design-in flexibility for indoor and outdoor lighting applications. The SMD 5050 is ideal as a drop-in replacement for emitters with an industry standard 5.0mm x 5.0mm footprint.

Features

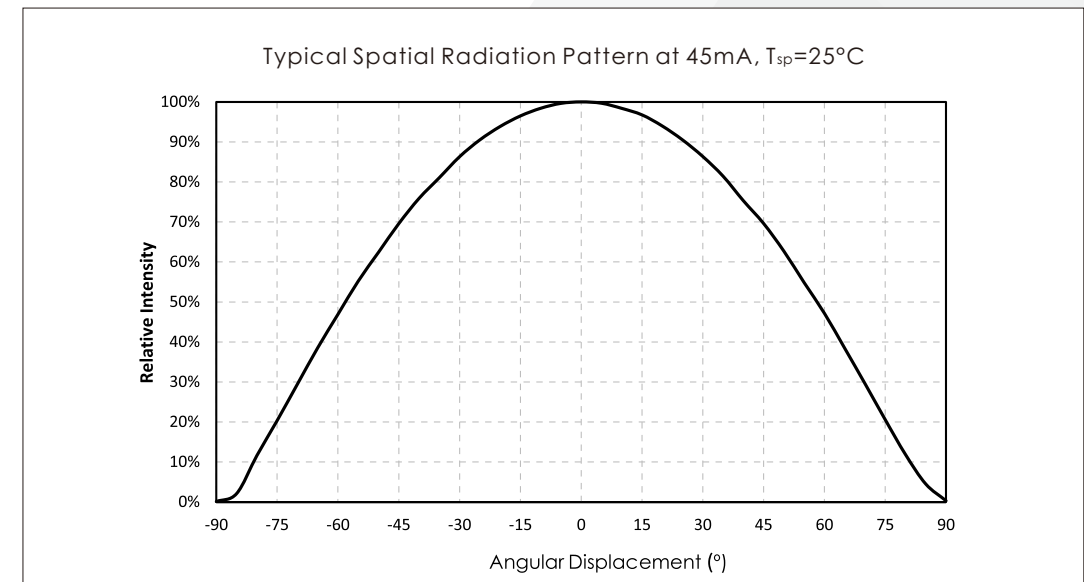
- Industry-standard 5050 footprint
- 3 bin color control enables tight color control
- Hot-color targeting ensures that color is within the ANSI bin at the typical application conditions of 85°C
- Enables 3- and 5-step MacAdam ellipse custom binning kits
- RoHS compliant and lead free
- Multiple CCT configurations for a wide range of lighting applications

Benefits

- Lower operating and manufacturing cost
- Ease of design and rapid go-to-market
- Uniform consistent white light
- Reliable and constant white point
- Environmentally friendly, complies with standards
- Design flexibility



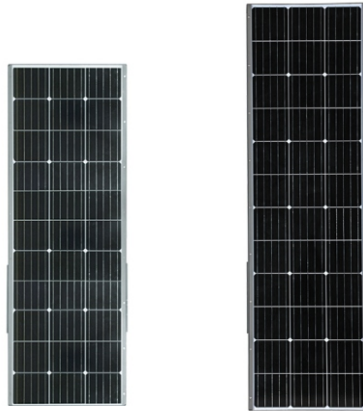
Typical Radiation Pattern



Notes:

1. Typical viewing angle is 116°.
2. The viewing angle is defined as the off axis angle from the centerline where luminous intensity (Iv) is ½ of the peak value

SOLAR PANEL SPECIFICATION



Specifications

Peak Power(Pmax)	180/200
Maximum Power Voltage(Vmp)	16.5/18
Maximum Power Current(Imp)	10.9/11.11
Open Circuit Voltage(Voc)	20.68/22.18
Short Circuit Current(Isc)	11.07/11.28
Cells Efficiency(°C)	18.09
Module Efficiency(°C)	13.93
Power Tolerance	0~+3%
Pmax Temperature Coefficients(W/°C)	-0.400%
Voc Temperature Coefficients(V/°C)	-0.300%
Isc Temperature Coefficients(A/°C)	+0.060%
NOCT Nominal Operating Cell Temperature(°C)	45±2
Operating and Storage Temperature(°C)	-40~+85
Standard Test Condition(STC)	1.000W/m ² ;AM 1.5;25+/-2°C

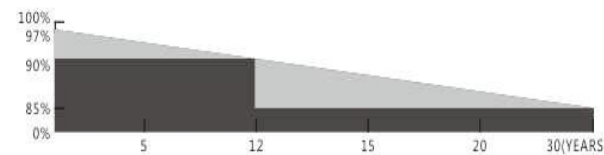
Mechanical characteristics

Front Glass	3.2mm high transmission,low iron,tempered glass
Junction box	IP65 Rated

Product Standard

Product Performance	IEC61215
Product Safety	IEC61730

Linear Performance Warranty



12
YEARS

Guarantee on product material and workmanship

30
YEARS

Linear Power output warranty

Key Features



5 Busbar Cell:

5 Busbar Solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance making it perfect for rooftop installation and application



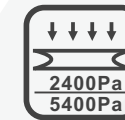
High Efficiency

High Module conversion efficiency, through innovative manufacturing technology



Low-Light Performance

Advanced glass and solar cell surface texturing allow for excellent performance in low-light environments



Serve Weather Resilience

Certified to withstand wind load(2400Pa) and snow load (5400Pa)



Durability against extreme environmental conditions

High salt mist and ammonia resistance certified by TUV

0 to
+5W

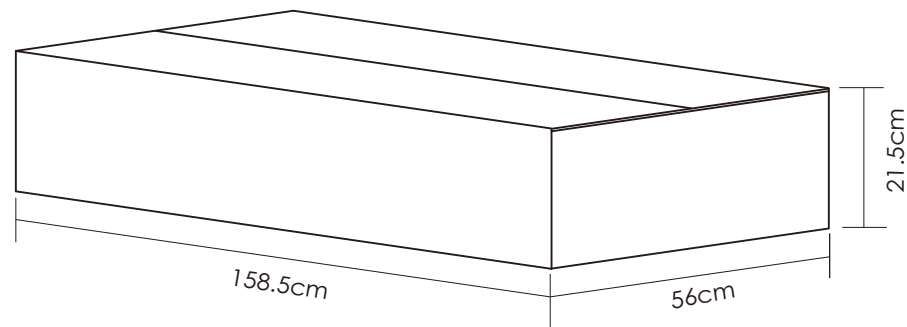
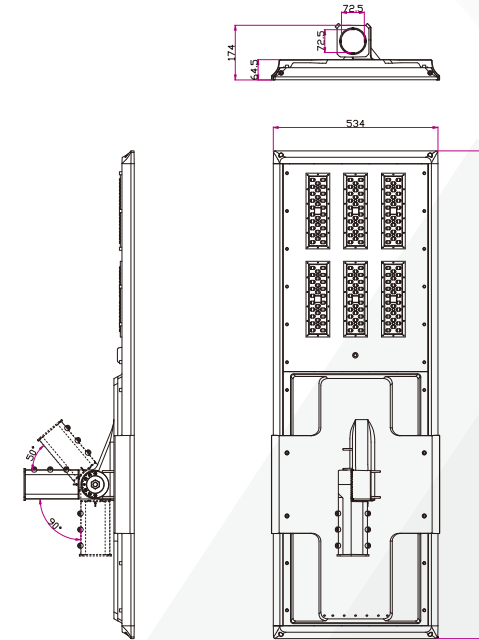
0- +5W Positive Tolerance

Detailed information in Electrical Specifications

PRODUCT SPECIFICATION

A1-UG-200W 200W

Model	A1-UG-200W
LED Chip	5050 LED 168PCS
Luminous Efficiency	160lm/w
Color Temperature	3000~6000K for options
Solar Panel	16.5V 180W, Mono-Crystalline
Battery Type	LiFePO4 12.8V 90AH
Charging Time	6-8 hours
Discharging Time	30-36 Hours
IP Rate	IP65
Material	Die-casting Aluminium
Product Size	1550*534*174mm
Install Height	8-10m
Warranty	3 Years



PACKAGING SPECIFICATION

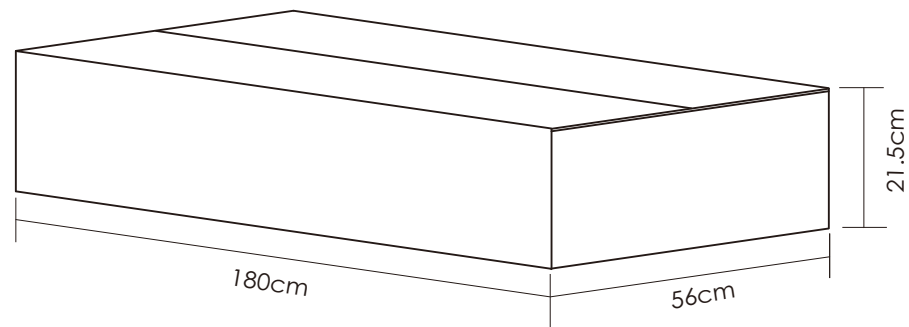
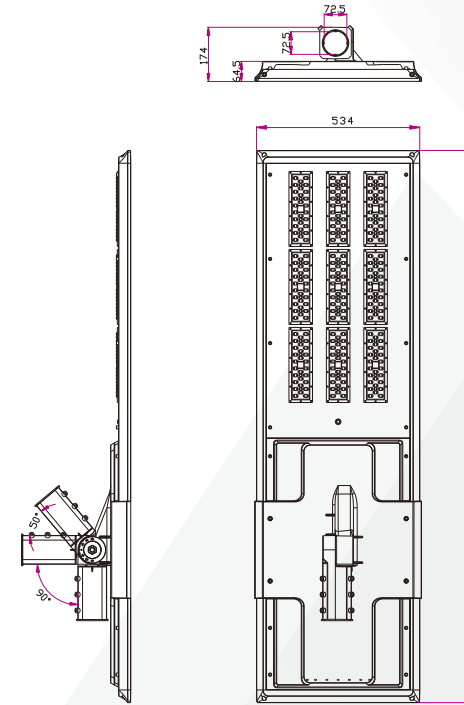
P/N	Power	Packing Size(CM)			PCS/CTN	CBM/CTN	G.W/CTN (KGS)
		L	W	H			
A1-UG-200W	200W	158.50	56.00	21.50	1	0.1908	42.20



PRODUCT SPECIFICATION

A1-UG-300W 300W

Model	A1-UG-300W
LED Chip	5050 LED 252PCS
Luminous Efficiency	160lm/w
Color Temperature	3000~6000K for options
Solar Panel	18V 200W, Mono-Crystalline
Battery Type	LiFePO4 12.8V 108AH
Charging Time	6-8 hours
Discharging Time	30-36 Hours
Control Way	Timer Control
Material	Die-casting Aluminium
Product Size	1767*534*174mm
Install Height	8-10m
Warranty	3 Years

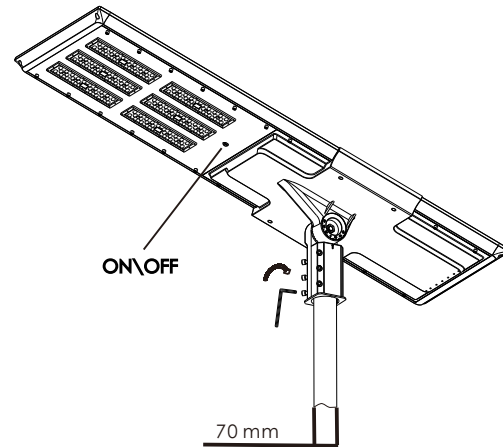


PACKAGING SPECIFICATION

P/N	Power	Packing Size(CM)			PCS/CTN	CBM/CTN	G.W/CTN (KGS)
		L	W	H			
A1-UG-300W	300W	180.00	56.00	21.50	1	0.2167	44.10

INSTALLATION GUIDE

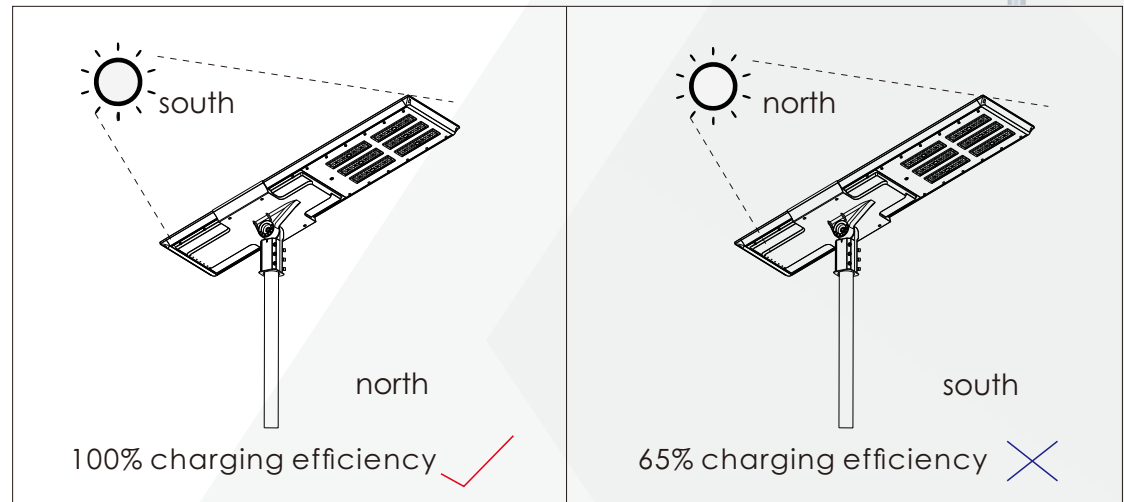
Install the lamp head on the configured (or optional) light pole and tighten the screws, as shown in the figure below.



WARNING

- Please avoid looking directly at the light.
- Dismantling process must be carried out in a safe place.
- Do not short-circuit, disassemble; do not put in the water and near the fire.
- Without the guidance of experts, users are forbidden to repair or dismantle the lights; The supplier shall not be responsible for any consequences owing to incorrect operation or wrong maintained by users.

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 light; if you are in the southern hemisphere, face the solar panels towards the north.



(A diagram for how the orientation impacts on power generation efficiency)

APPLICATIONS

