

SunMaster ELite III



Features

- **High Efficient components, Authentic materials**
 - LiFePO₄ battery with 2000 lifecycles, safe and reliable
 - Highly quality monocrystalline solar panel
 - High Quality aluminum housing, robust and durable
 - Easy access to battery compartment
 - Protection grade is IP66 / IK08 (Solar panel: IK07)
- **Professional light distribution, Full nominal**
 - Highly efficient with 210lm/w efficacy
 - Lumen from 4200lm to 21000lm
 - Adjustable LED module quantity is optional
 - Optical Module mounting $\pm 60^\circ$ angles adjustable
- **Intelligent dimming, High brightness and long battery life**
 - Intelligent charge and discharge management, 365 day light, 1~2 overcast days autonomy
 - Equipped with microwave or infrared (IR) sensors as standard
 - Optional intelligent 4G/Lora remote control solution
 - 3/5 years warranty

Solar Street Light Specification

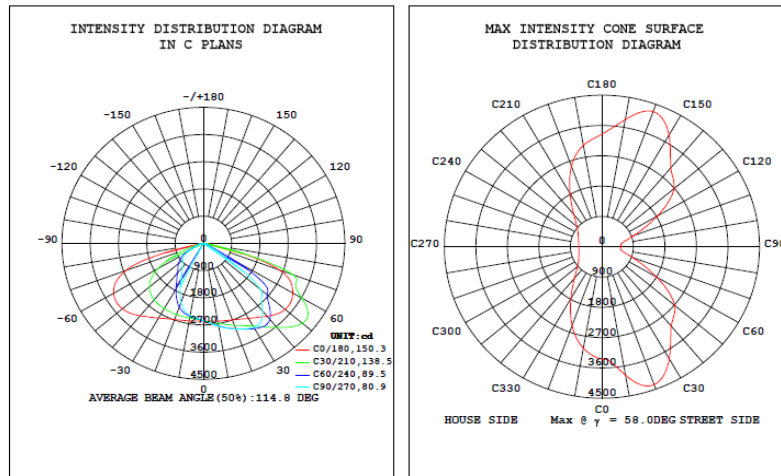


Product Parameters:

Product Model	UNI-SL05-1-20	UNI-SL05-2-30	UNI-SL05-3-40	UNI-SL05-4-50	UNI-SL05-5-60	UNI-SL05-6-80	UNI-SL05-7-100
System Voltage	12V						24V
Monocrystalline Solar Panel	40W/18V	40W/18V	60W/18V	60W/18V	80W/18V	100W/18V	120W/36V
LiFePO ₄ Battery	12.8V/15AH	12.8V/15AH	12.8V/30AH	12.8V/30AH	12.8V/45AH	12.8V/60AH	25.6V/30AH
Charge Time (H)	6	6	8	7	8	8.5	7
Full Power Working Time (H)	9.6	6.4	9.6	7.7	9.6	9.6	7.7
System Power (W)	20W	30W	40W	50W	60W	80W	100W
Sensor Distance	IR sensor: Height =6m, Width = 7m Microwave sensor: Height =8m, Width = 10m Photo sensor + Timer Dimming						
Hybrid	Battery						
Luminaire Efficacy (Tq=25°C)	210lm/W@4000K						
Luminous Flux (lm)	4200	6300	8400	10500	12600	16800	21000
Default Lighting Mode*	Busy: 2H100%, 3H 50%, 6H20% , 1H30%; Idle: 20%. (Designed for 40-50% busy time per hour)						
Overcast Days	1-2 Overcast Days + Intelligent battery life. (Reference sunshine hours 5 KWH/m²/day)						
CCT	4000K (3000K/4000K/5000K/6500K)						
CRI	Ra>70						
Light Distribution	Type II S						
Charge Temperature	0°C ~ 50 °C						
Discharge Temperature	-10°C ~ 55 °C						
Storage Temperature	0°C ~ 45 °C						
Warranty	3 years						
Housing Materials	SPCC Housing + Extruded Aluminum Frame + PC						
Finishing	Black RAL9004						
IP/IK	IP66/IK08 (Solar panel: IK07)						
Insulation Class	Class III						
Spigot Diameter (mm)	Φ60						
Installation Height (m)	4~6	4~6	4~6	4~6	5~7	6~8	6~8
Wind-Resistance (km/h)	130						
Luminaire Dimension (mm)	600*400*325	600*400*325	786*400*325	786*400*325	1065*400*355	880*586*355	1080*586*355

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

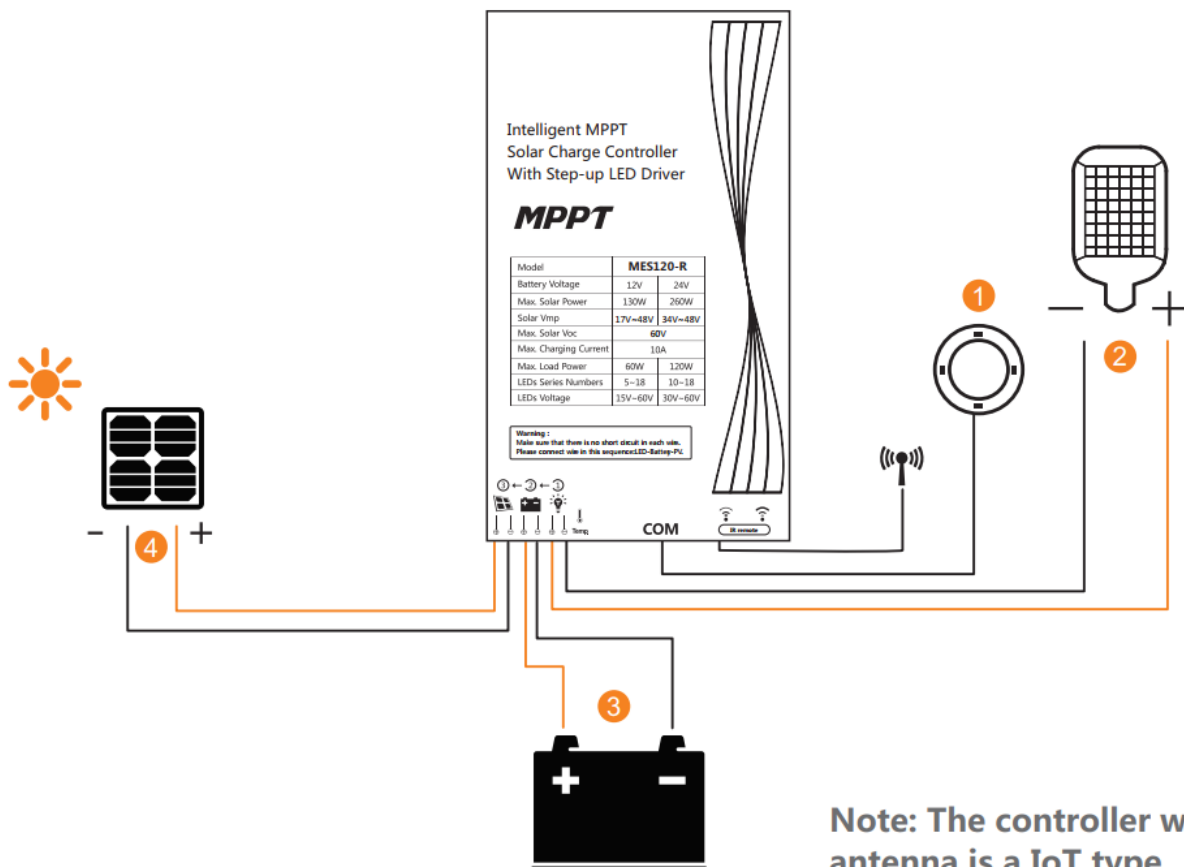
Light Distributions:



Type II S (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.

Wiring Diagram:



Note: The controller with antenna is a IoT type.

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, it is necessary to 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.
- 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.