

6M 30w solar wind hybrid street light



The weakness for solar is cloudy or rainy weather, which would decrease electricity generation by sun. The loss in power would affect battery storage, the worst results is power supply will cut off due to shortage of charging. Wind turbine will be a best compensation for area full of wind sources, it would provide sufficient charge plus power from solar panel for solar street lights. But the disadvantage is electricity generation of wind turbine is subjected to wind speed, for those area with less wind sources, wind and solar solution is not recommended.

Applications:

Street Lighting, Roadway Lighting, Pathway Lighting, Ramp Lighting, Sidewalk Lighting, Private Road Lighting, Farm & Ranch Lighting, Wildlife Area Lighting, Perimeter Security Lighting, Park Lighting, Gate Lighting, Yard Lighting, Fence Lighting, Campus Lighting, Boat Dock Lighting, Remote Area Lighting, Military Base Lighting, Jogging and Bike Path Lighting

General Specifications:

LED Lamp	5~200W (can be customized)
Lighting Pole	2~12Meters(can be customized)
Working Time	can be customized
Rainy Days Backup	can be customized
Working Condition	-30- 70°C Working Temperature, >160km/h Wind Resistance
Certifications	CE,GMC,TUV,CCC, ISO9001,SGS,ROHS,IEC61215,SASO,BV



We recommend wind & solar hybrid street light in places with abundant wind energy

1. Wind Turbines

Max. Power Output	200W	400W
Start-up Wind Speed	2.1 m/s (4.7 mph)	2.1 m/s (4.7 mph)
Rated Power	150W at 12.5 m/s (27.96 mph)	250W at 12.5 m/s (27.96 mph)
Voltage	12/ 24 V	12/ 24 V
Rotor Diameter	2.953 feet (0.92 m)	3.675 feet (1.12 m)
Body	Die cast aluminum	Die cast aluminum
Blades	6-Carbon reinforced fiberglass	6-Carbon reinforced fiberglass
Survival Wind Speed	40 m/s (90 mph)	40 m/s (90 mph)
Mount	1.89-2.01 inch (48-51mm) O.D. pipe	1.89-2.01 inch (48-51mm) O.D. pipe
Net weight	17.64 lb (8 kg)	22.05 lb (10 kg)
Packaging Size	2 cartons: 13*13*9.85 inch, 18.52*11.82*3.55 inch	2 cartons: 13*13*9.85 inch, 22.07*13*3.55 inch
Warranty	Two-year limited warranty	Two-year limited warranty

2. A GRADE high efficient solar panel:

Because of anti-reflective hydrophobic layer, which is with higher light absorption and minimal surface dust, and our solar panel is with higher conversion rate.

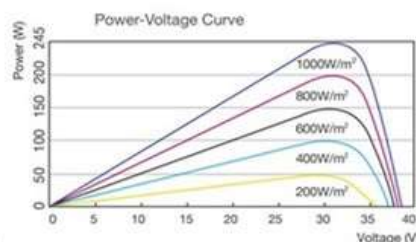
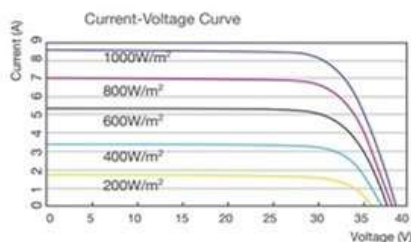
Mono: 18% conversion rate, Poly: 17% conversion rate, 25 years power output warranty.



Polycrystalline Solar Panel



Monocrystalline Solar Panel



3. 100,000 HOURS LIFESPAN LED LAMP with First Class LED Chips

American brand LEDs: Epistar/ BRIDGELUX/CREE for our solar street lighting products

Long life time: more than 100,000 hours long life time

Color temperature: 3000K-6500K ultra bright LEDs that last up to 50,000 hours

Illumination: 100-130lumen/W

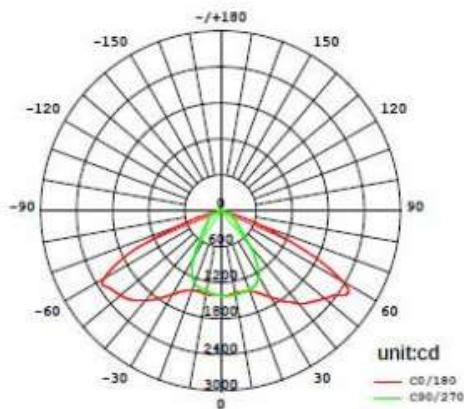
Light fixture: We recommend different light fixtures according to different applications and working environment.



LED LAMP FRONT VIEW

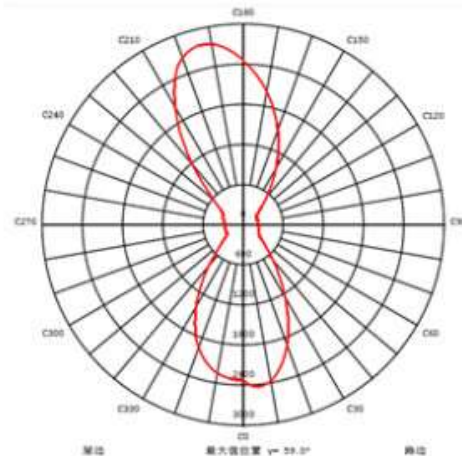


LED LAMP BACK VIEW

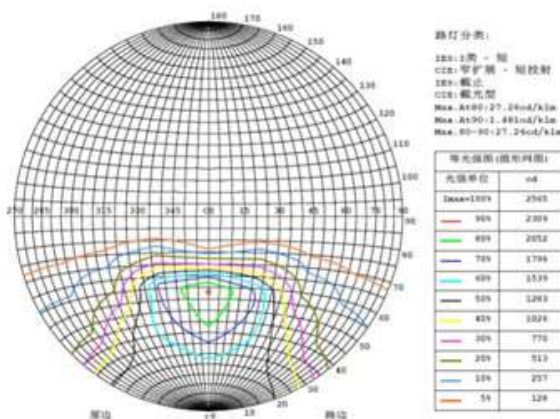


AVERAGE BEAM ANGLE(50%):104.1 DEG

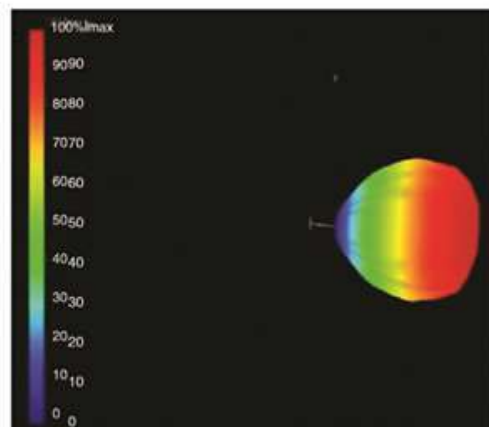
INTENSITY DISTRIBUTION DIAGRAM MAX



INTENSITY CONE SURFACE DISTRIBUTION DIAGRAM



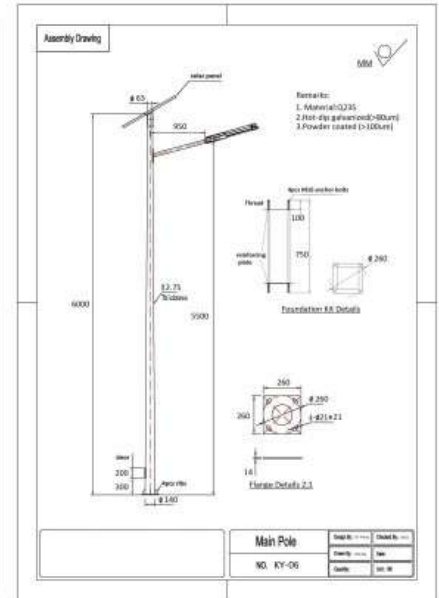
STREET LIGHT ISOCANDELA DIAGRAM



3D-Distribution

4. Hot dip galvanized Q235 steel pole

Hot dip galvanized together with powder spray, realizing antirust and anticorrosion

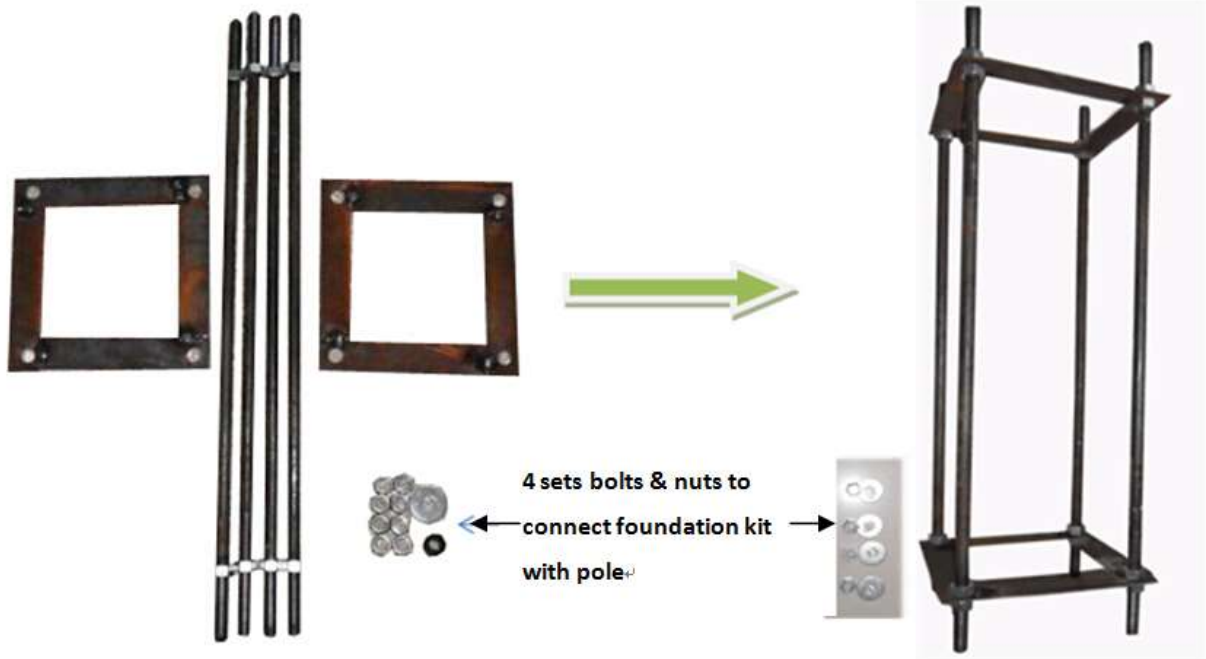


5. Detachable Solar Panel Bracket

Material: Q235 Steel

Features: Hot dip galvanized together with powder spray, realizing antirust and anticorrosion

Detachable design, saving transportation cost and realizing easy installation on site



The moment you received

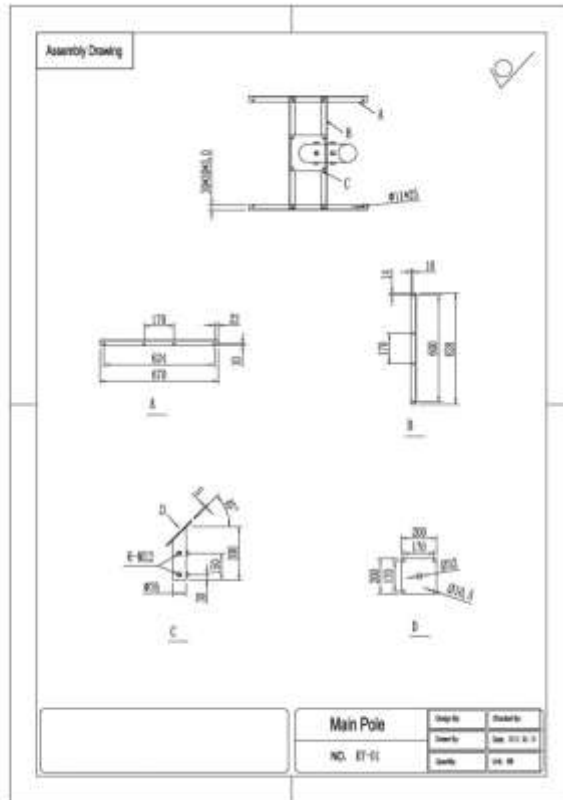
After assembling

6. Detachable Foundation Kit

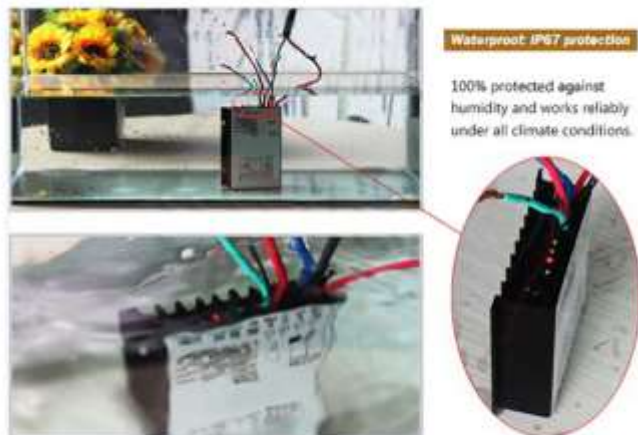
Material: Q235 Steel

Features: Hot dip galvanized together with powder spray, realizing antirust and anticorrosion

Detachable design, saving transportation cost and realizing easy installation on site



7. Intelligent Controller

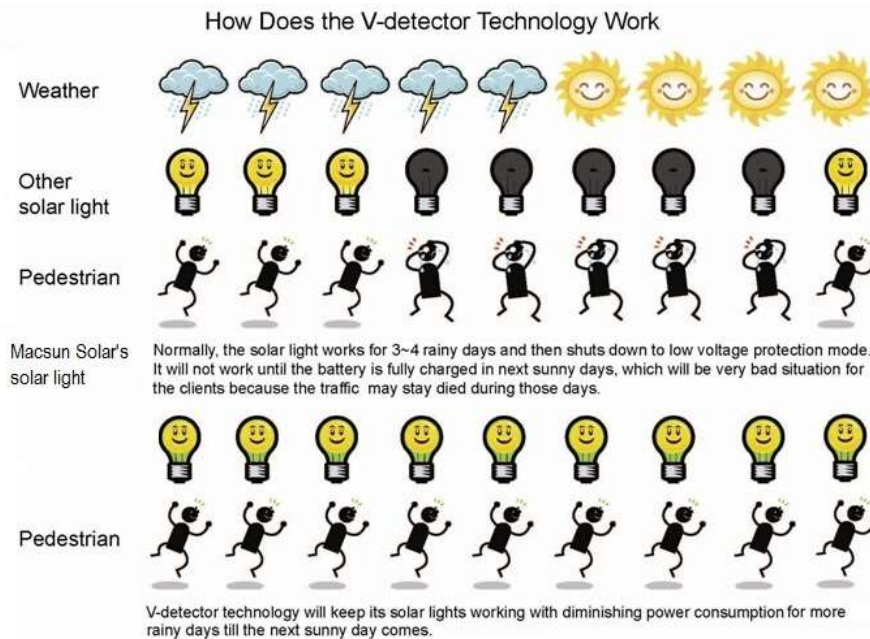


Combination: It combines the controller and LED driver as one, easy to maintain.

IP67 Protection Grade: 100% protected against humidity and works reliably under all climate conditions.

Protection Functions: Short-circuit Protection, Reverse Discharging Protection, Polarity Protection, Low Voltage load cut-off protection, Over-charge Protection.

Vdetector Technology: By calculating the ratio between stored electricity and output electricity, the controller automatically adjusts the working current of LED lamp accordingly so as to prolong the working time of the solar street light.

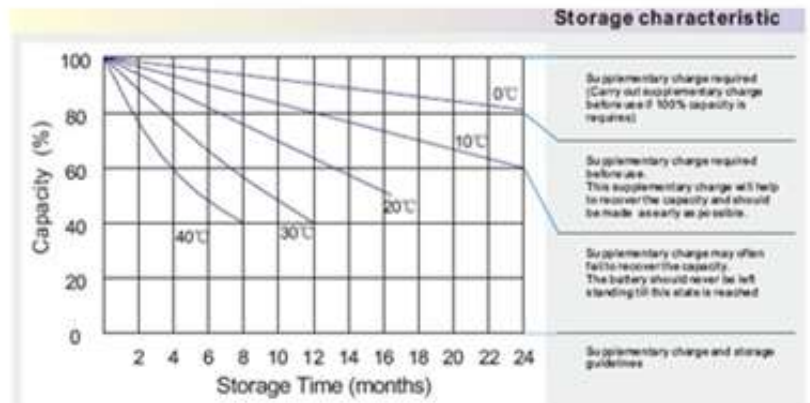
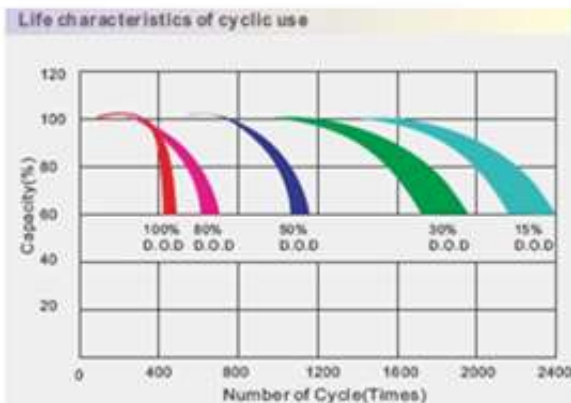


Easy Maintenance with wireless Remote Controller: We can use the remote controller to change the Working time and output power of the solar street lighting system.



8. UL Listed Maintenance Free GEL Battery

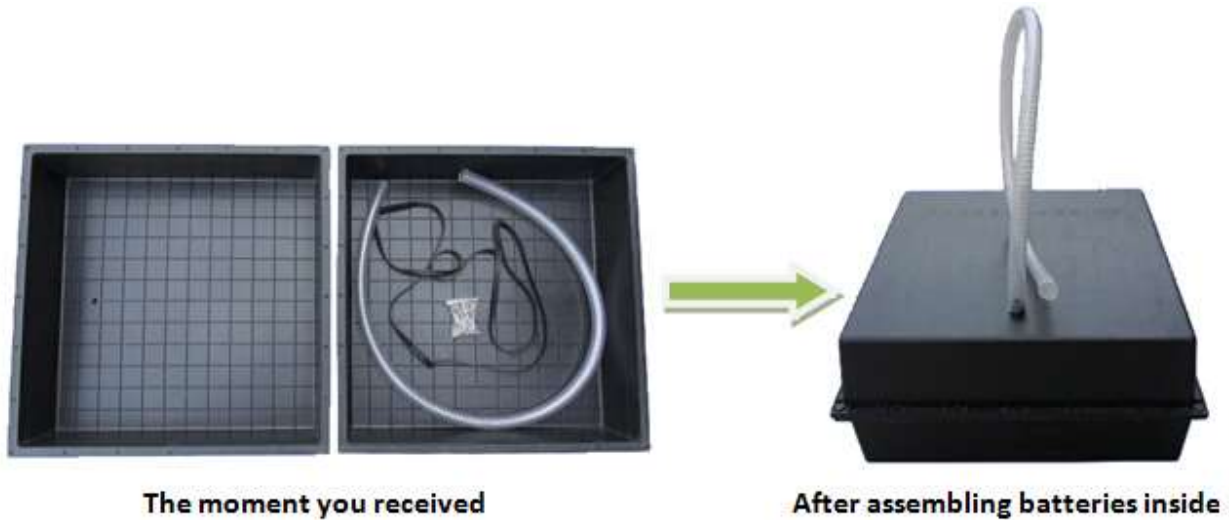
Type	GEL Free Maintenance Battery
Rated Working Voltage	12V
Interior Resistance (Completely Charge)	5.1mΩ (25°C)
Self-Discharge(25°C)	<2%/ month(20°C)
Case Material	Reinforced ABS polypropylene
Using Temperature	-40°C~60°C
Cycle life	80%DOD 600 cycles, 25%DOD 2000 cycles (25°C)
Capacity Affected by Temperature	105 % @ 40°C, 85 % @ 0°C, 60 % @ -20°C
Life Time	5~7 years



9. Mental Battery Box

Material: ABS Engineering Plastic

Features: Die-casting forming, fully sealed waterproof, good heat protection



Tests:

We have a strict quality control system; every single set of solar street light has to go through 48 tests before leaving factory.

1) Solar Panel



Solar Cells Performance Test



EL Test



Solar Panels Performance Test



Drop Hammer Test

2) LED Lamp



Integrating-sphere densitometer



Waterproof Performance Test



Dust & Sand Proof Test



Temperature Impact Test



Salt Water Rustproof Test



24 Hours Aging Test



Light Illumination Intensity Test



Luminous Flux Test

3) Lighting Pole



Thickness&Diameter Measurement



Hot-dip Galvanized Depth Test



Pole Curvature Measurement

4) Controller



Controller Inspection



Power Test



Waterproof Test



Aging Test

5) Battery



Raw Material Test



Raw Material Test



Cycle Life Test



Temperature Impact Test



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Customized Lighting Solutions

A wide variety of configurations and designs are available to meet your specific demand.

Specifications below are for your reference only. The system will be configured according to climatic conditions of the installation site together with your specific requirements.

For Customized Solar Street Lighting Solutions, please click inquiry.

Featured Project Cases

So far Macsun Solar has sold over 250,000 sets of solar street lights, among which 30,000 sets are for exportation.

During 2016, we have sold 70,000 sets altogether, among which 10,000 have been exported.

With reliable quality and competitive price, MACSUN SOLAR has won great market in America, Japan, EU, middle-east, South America and Africa. MACSUN SOLAR has built partnership with many famous companies like Marriott Hotel, Shangri-La Hotel, Huawei, ZTE, China Railway Construction Company, Green Solar Energy (USA) and etc.

For typical project cases, please click Typical Project Cases.