

Integrated Solar **LED** Street Light

Quality is in Control

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CR-X3



★ Specifications are subject to change without prior notice

CR-X4



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CR-X6-40W

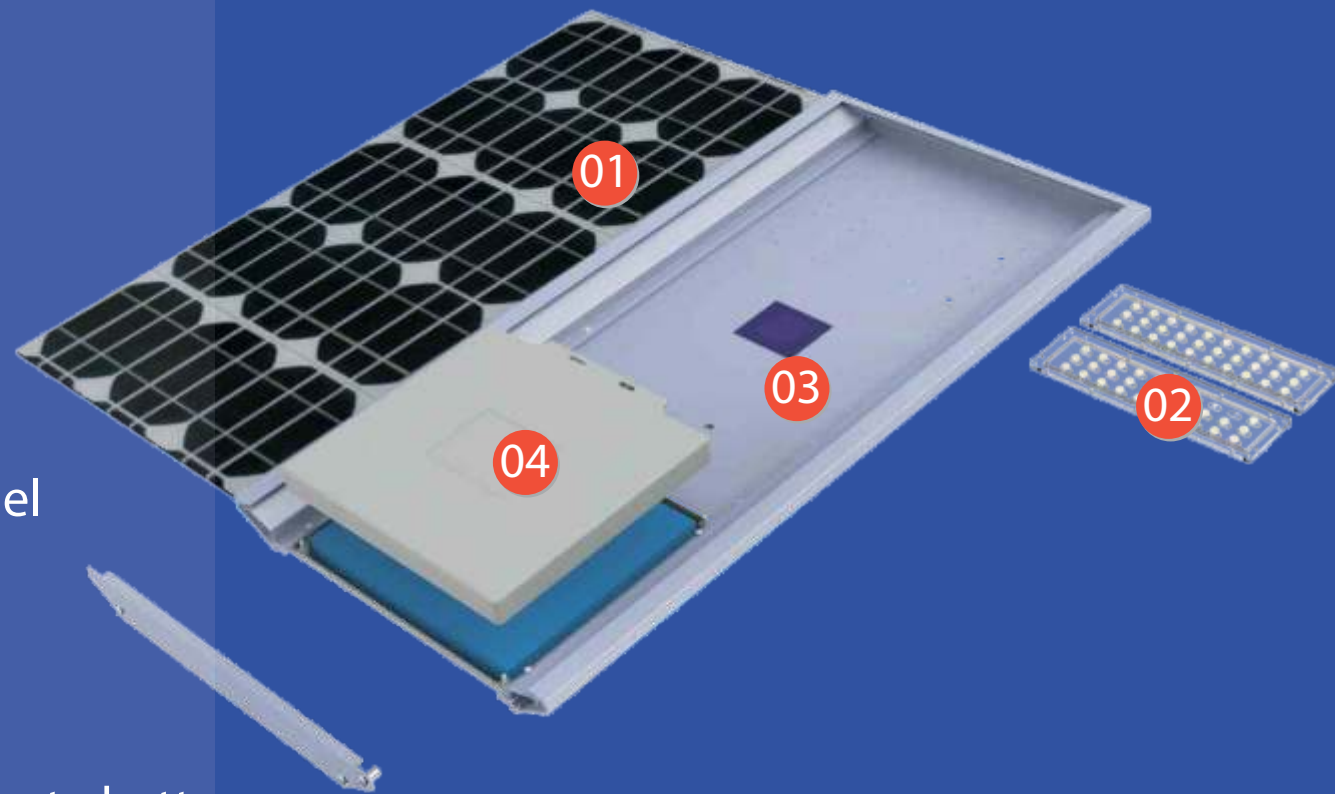


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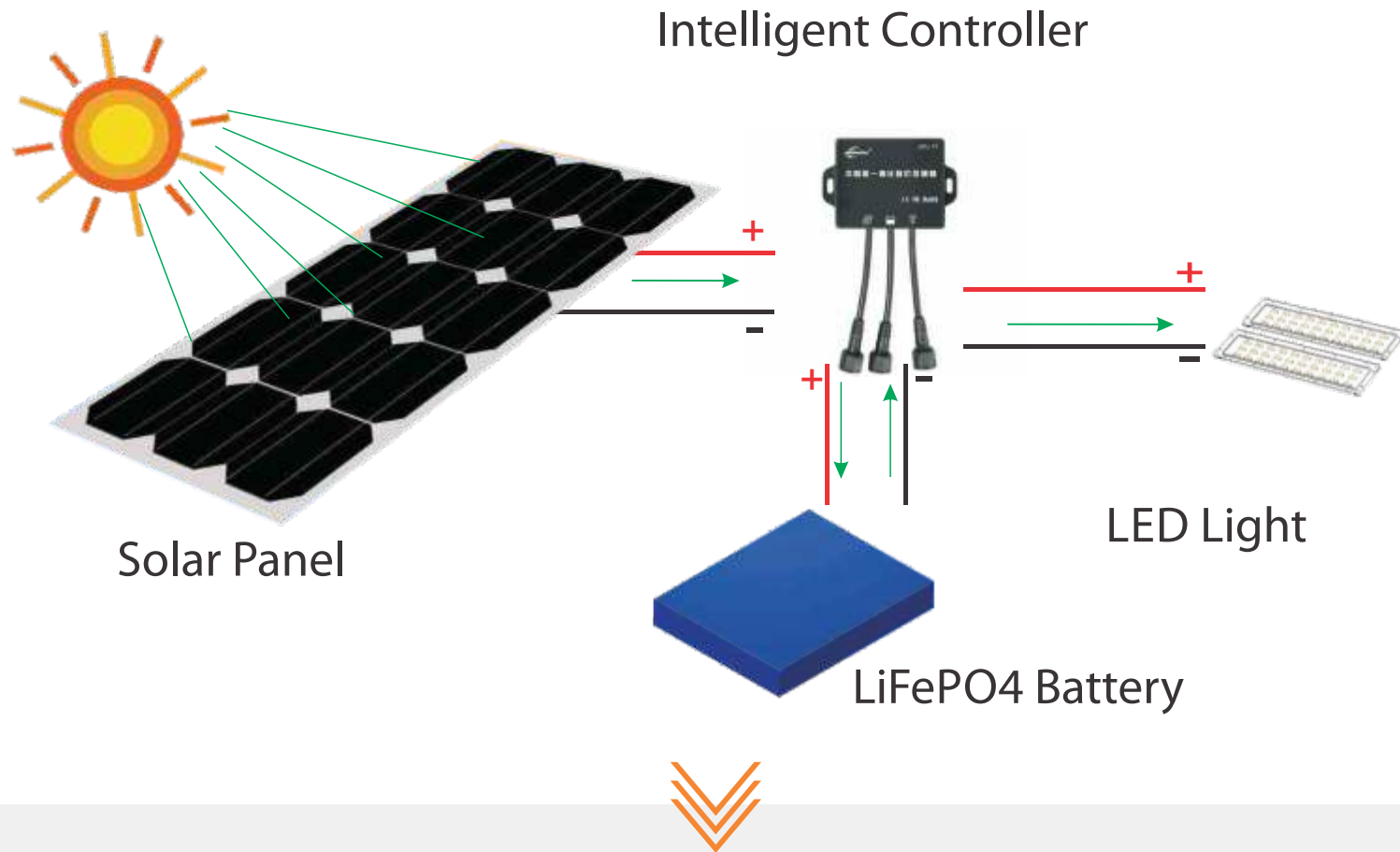
BRIEF INTRODUCTION

MAIN COMPONENTS

- 01 Monocrystalline silicon solar panel
- 02 High Efficiency LED Light Source
- 03 Intelligent controller
- 04 High Quality Lithium Iron Phosphate battery




WORKING PRINCIPLE



In day, Solar panel absorbs sun radiation and adopted MPPT charge technology to convert power to charge lifepo4 battery; At night, intelligent controller auto turn on LED light intelligently control LED light working in different periodstime with dimmer .

PRODUCT FEATURE

1. All-in-one design: solar panel, lifepo4 battery, led light, intelligent controller and aluminum case all in one, easy installing, convenient shipping.
2. Science and patent design, ultra-thin shape to anti-wind level 70m/sec
3. Adopt brand lifepo4 battery cell and combined with intelligent software BMS, which is the same working principle with Tesla battery management system, to extend battery lifespan to be more than 10 years
4. Intelligent controller with MPPT charge technology and microwave sensor/PIR sensor (Zigbee controller and GPRS/3G/4G communication system for option)
5. Different to tradition all-in-one solar lights, the battery pack is easily replaced.
6. Adopt monocrystalline silicon solar panel, higher charging efficiency
7.   LED chip with 180lm/w

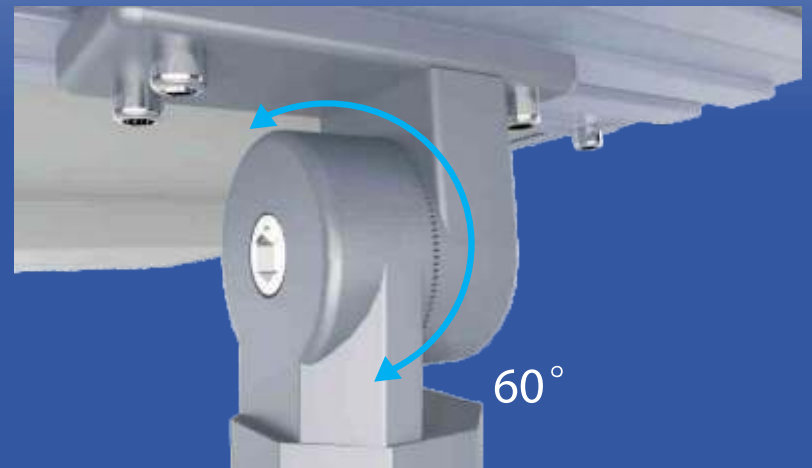
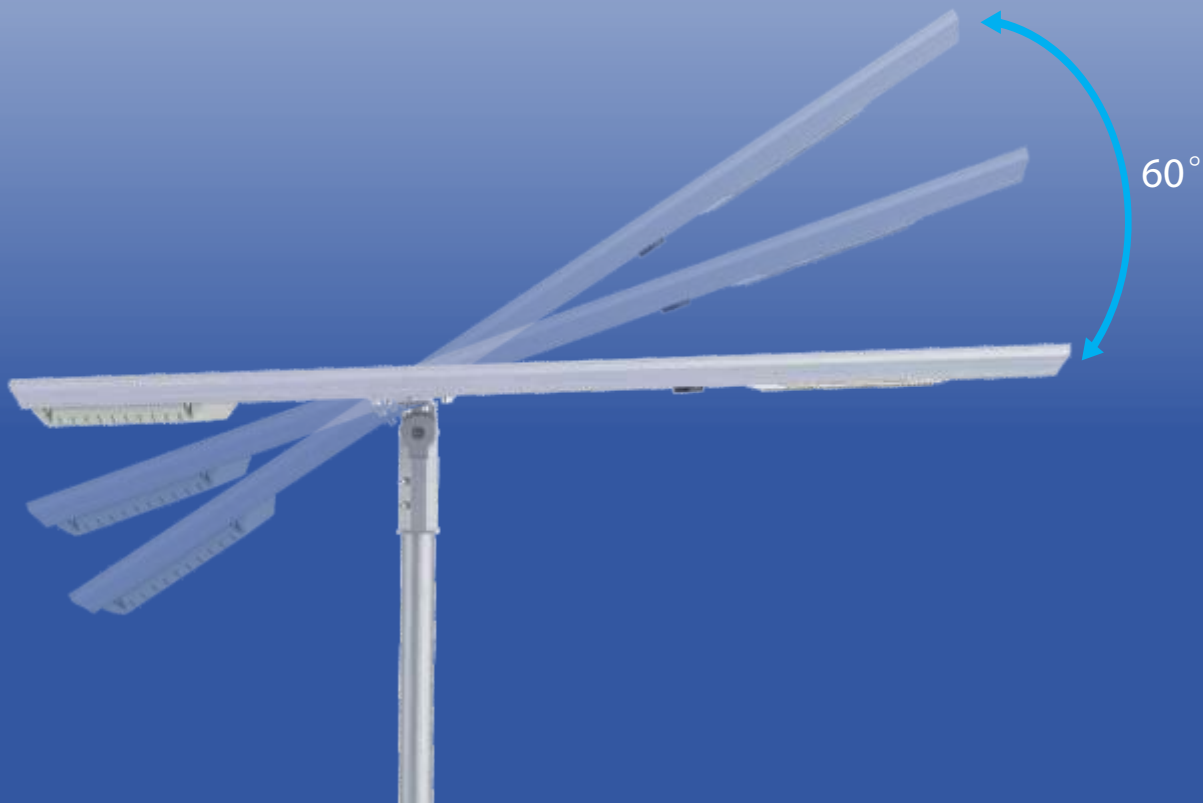
ANTI-WIND LEVEL: 70M/SEC



Ultra-thin: 45mm
Anti-wind Level: 70m/sec

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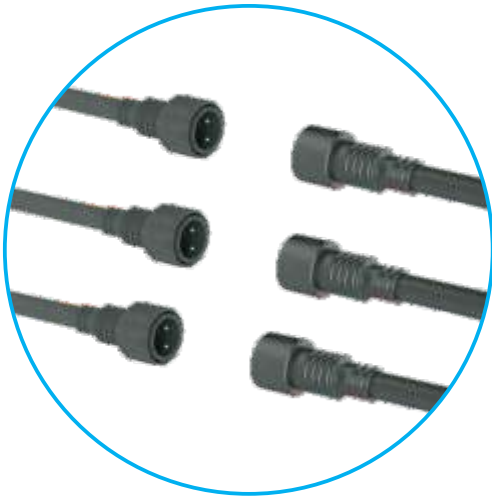
180 ° ADJUSTABLE



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PROTECTION LEVEL IP66

Adopt silicon for waterproof, which can reach protection grade of Ip66.



All components are made of water proofing, including the cable connectors, to make sure the whole solar street light to be IP66



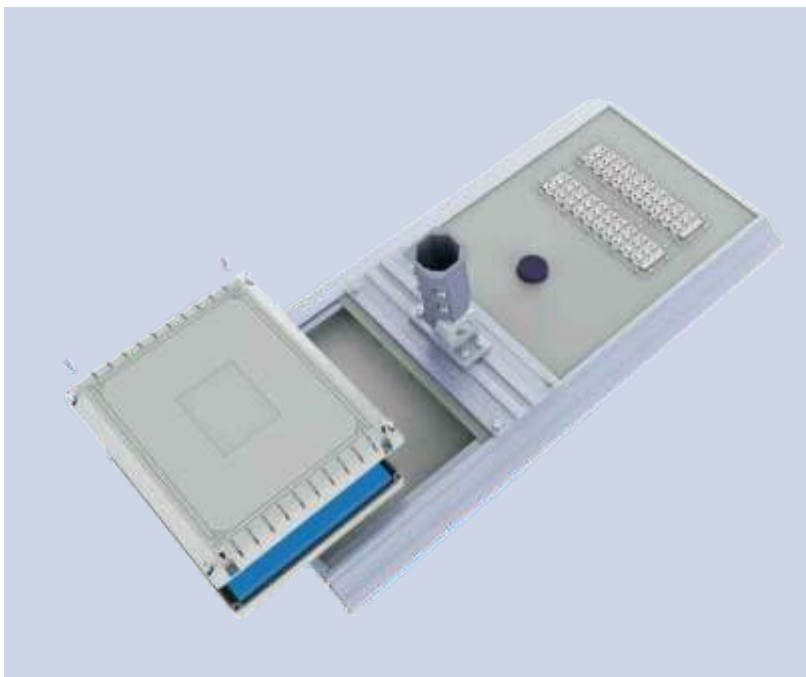
POWDER COATING SHELL SURFACE

The whole aluminum shell surface is processed with powder coating, even under taking 500 hours of salt spray, the surface is not oxidized or damage, to adapt to inclement external environment.



EASY AND CONVENIENT TO REPLACE INTERNAL COMPONENTS COMPARED TO OTHER SIMILAR PRODUCTS

CR-X3 from **Crest**



No glue, independent battery box, led module to easily replaced.

Other similar products



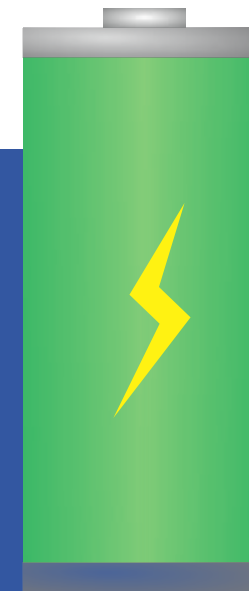
Glue required, hard to assemble and disassemble, easily deformed

LITHIUM IRON PHOSPHATE BATTERY

Utilized the high capacity and high efficiency lithium ion phosphate (LifePO4) batteries, compared to traditional lead acid batteries, offers 4 times more higher discharge depth, 3 times higher cycle life, more storage and power capacity and will not pollute the environment. Lithium Iron batteries are also able to discharge to an incredible 90% without any damage to them before the under voltage battery protection 'cuts out' any further operation.

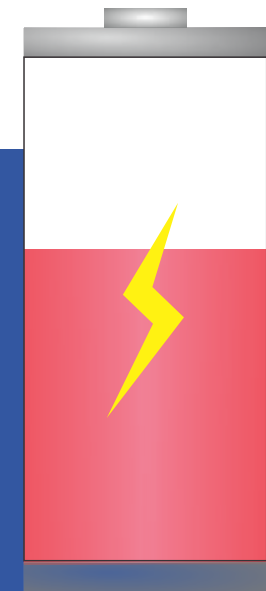
The other Ternary lithium battery, can not bear large current discharge, bad performance even exploding in high temperature environment, life cycles is just 500-1000 times

over 2000
times



Lifespan of
Lithium Iron
Phosphate
Battery

500-1000
times



Lifespan of
Ternary Lithium
Battery

LIFEPO4 BATTERY BM S=ELECTRIC VEHICLES BMS

Lifespan \geq



Different to other Lifepo4 battery, **Crest** Lighting adopts the Electric Vehicles Battery Management Working Principle (Technical Security), to make sure battery lifespan is more than 10 years.

MONOCRYSTALLINE SILICON SOLAR PANEL



Integrated solar street lights adopt monocrystalline silicon solar panel, which widely applied to space station and satellite, ect, 20%-30% higher conversion efficiency compare with polysilicon solar panel

The monocrystalline silicon solar panel is produced from one-batch forming material, not leftover material, with high conversion rate and fast charging.

INTELLIGENT CHARGE CONTROLLER

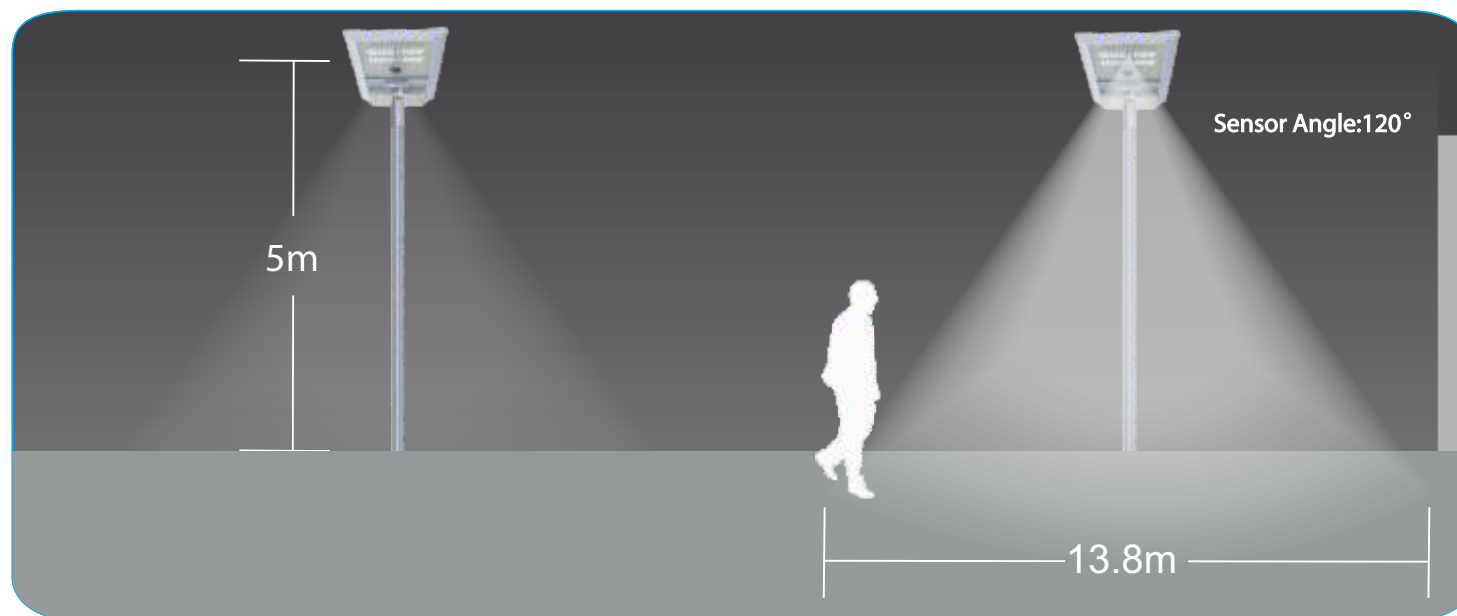
Intelligent controller is with PIR sensor or Microwave sensor, to ensure effective lighting and 365 days lighting



CR-X3/CR-X4/CR-X6-40W
PIR Sensor/ Microwave sensor
Sensor distance 6-8m



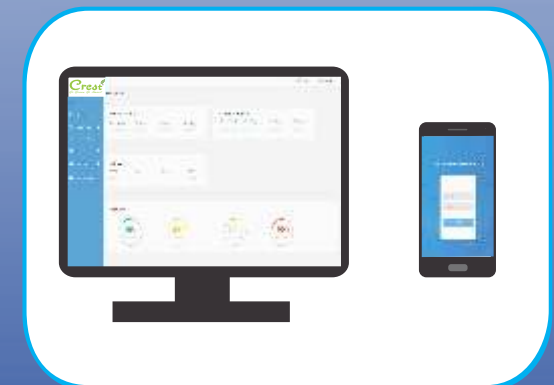
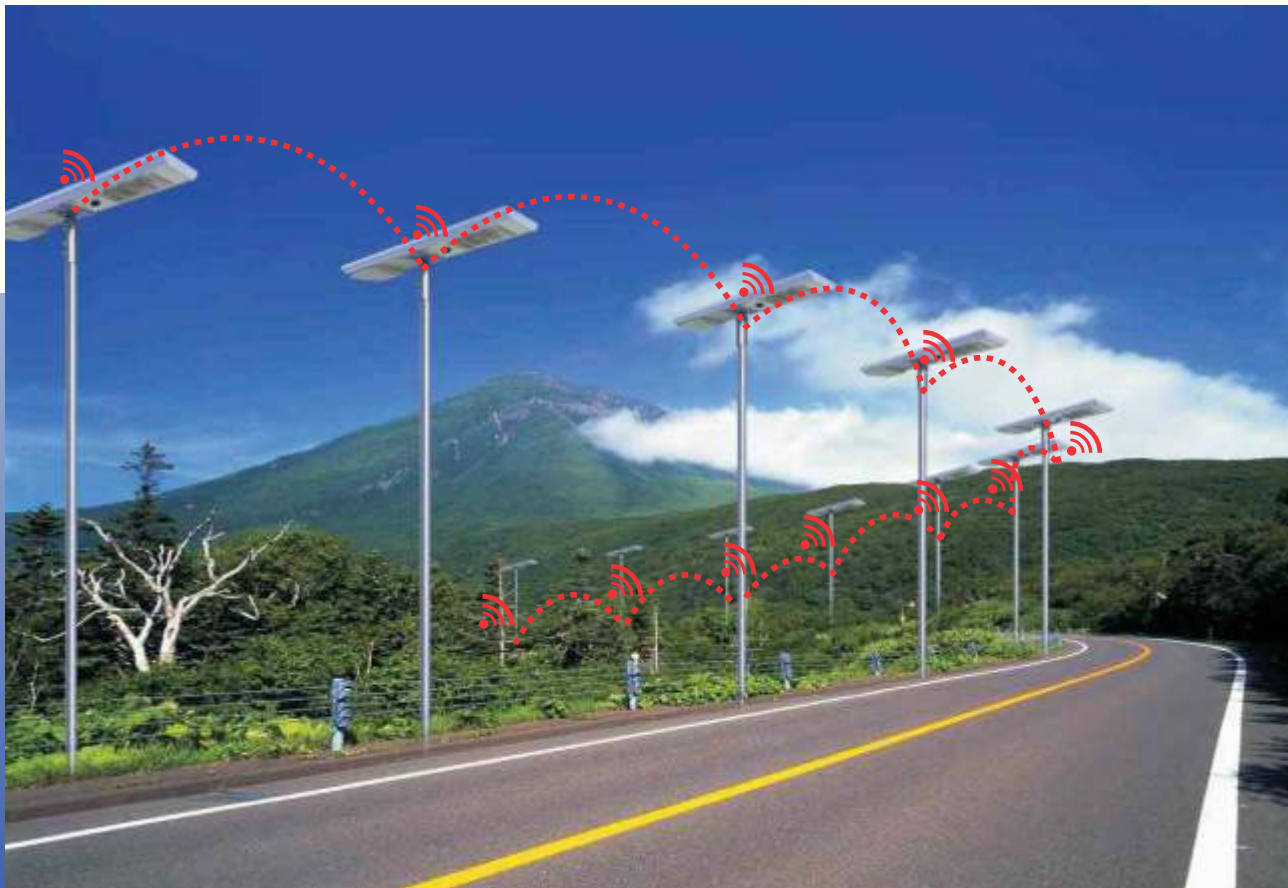
INTELLIGENT CONTROLLER SYSTEM



Night LED Light Working: Time + Smart Sensor	Sensor time	Someone passby	No one
	4hours	100%	50%
	2hours	60%	30%
	6hours	40%	20%
DAY	Automatic turn off		

Multi intelligent controllers for options

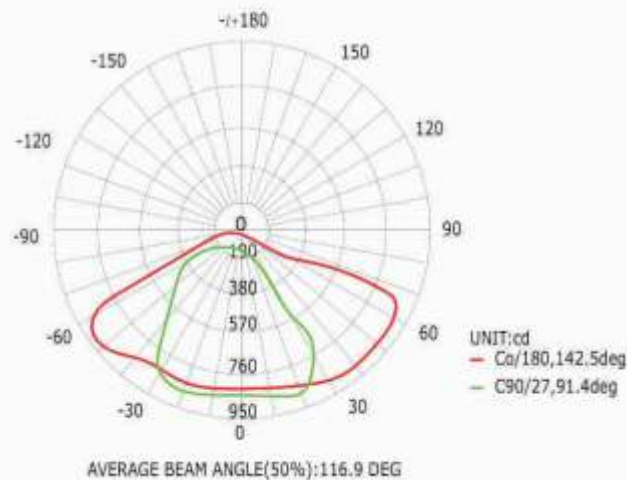
Own 8 years experience in R&D and producing solar charge controller, Except the common PIR sensor and microwave sensor controller, Integrated solar street lights can be produced with Zigbee solar controller, combined with solar wireless concentrator, which can remotely monitor all solar street lights by PC or Mobile.



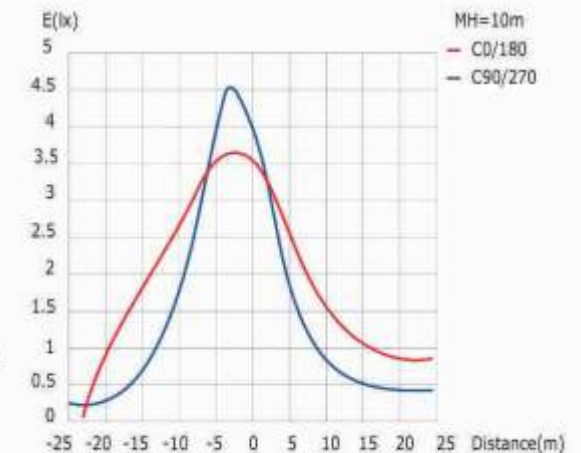
LED LIGHT DISTRIBUTION



INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS



PLANAR ILLUMINANCE CURVE



Bridgelux LED chip: 180lm/w
CR-X6-40W with 90pcs, enough LED quantity to ensure its brightness, but also to prevent LED from luminous attenuation, to ensure longer lifespan.

TECHNICAL PARAMETERS

Model		CR-X6-40W
Mono Solar Panel	Power	18V/120W
	Efficiency	>22%
	Life	25years
LED light	Power	40W
	Color Temp.	6000-6500K
	LED Chip	BRIDGELUX / CREE 
	LED Quantity	90pcs
	Life	≥50000hrs
Lifepo4 Battery	Capacity	448Wh
	Life Cycle	>2000cycles
Intelligent Controller		Light+time+smart
Working Time		12hrs/day
Charging Time		6hrs
Charging Temp.		0°C ~60°C
Discharging Temp.		-20 °C~60 °C
Storage Temp.		0°C ~45°C
Height of Pole		8-10M
Distance of Pole		<25m
Pole Diameter		50~60mm
Dimension(L *W*H)		1550 *432 *73mm
Packing(L *W*H)		1560 *475 *125mm
Gross Weight		19.6KG

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Solar Panel Cleaning Robot (Optional)



Product Features

Autonomous solar panel cleaning robot removes daily dust deposition

Robot moves horizontally & vertically on a row of solar panel

- Specially designed motorized nylon brush for cleaning during the downward cycle
- Low energy consumption optimized to achieve a complete cleaning cycle at night
- Battery Powered Robot – In built solar panel with charge controller for battery charging
- Electronic programmable controller for automatic cleaning sequence, manual control, limit switch sensing & wireless control from a remote station