



# Big Dipper Series Integrated Solar LED Street Light

Quality is in Control

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BD-X3



BD-X4 ▼



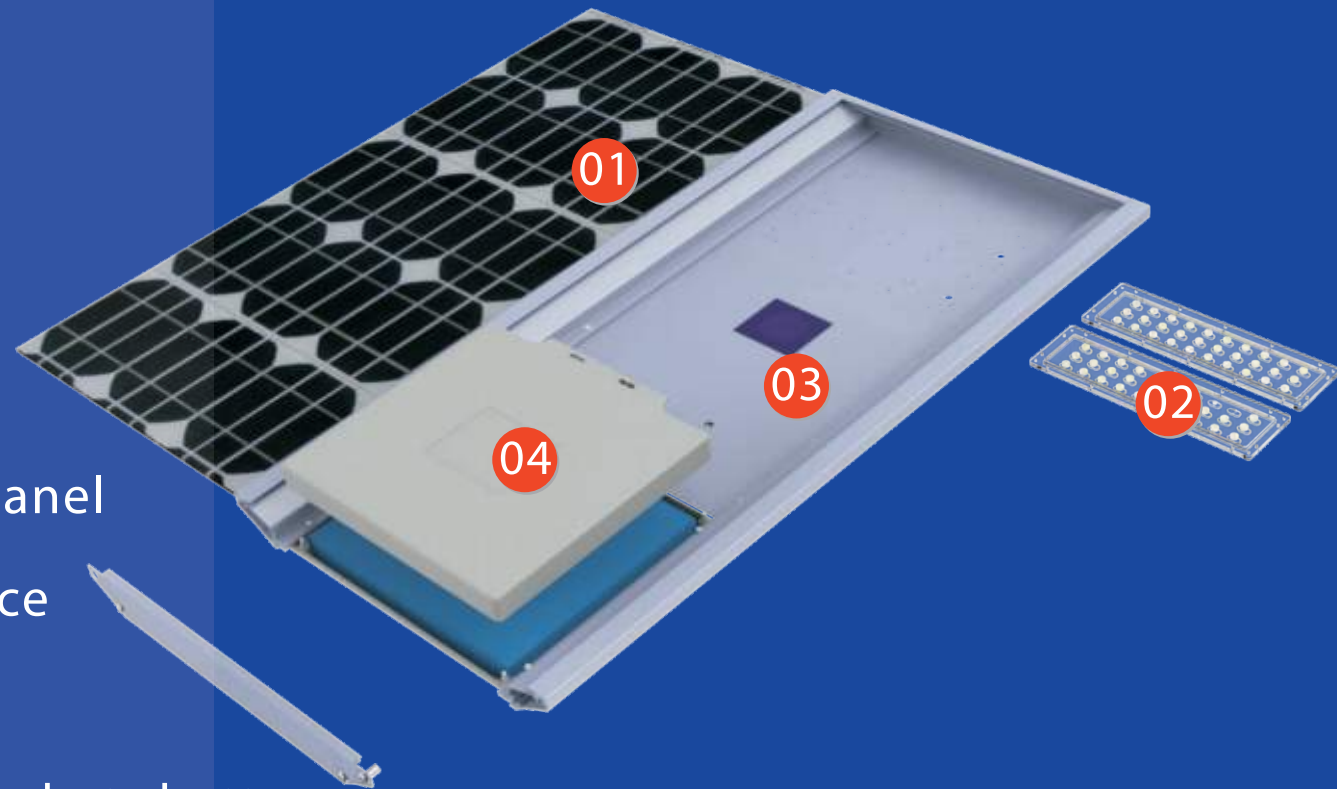
BD-X6



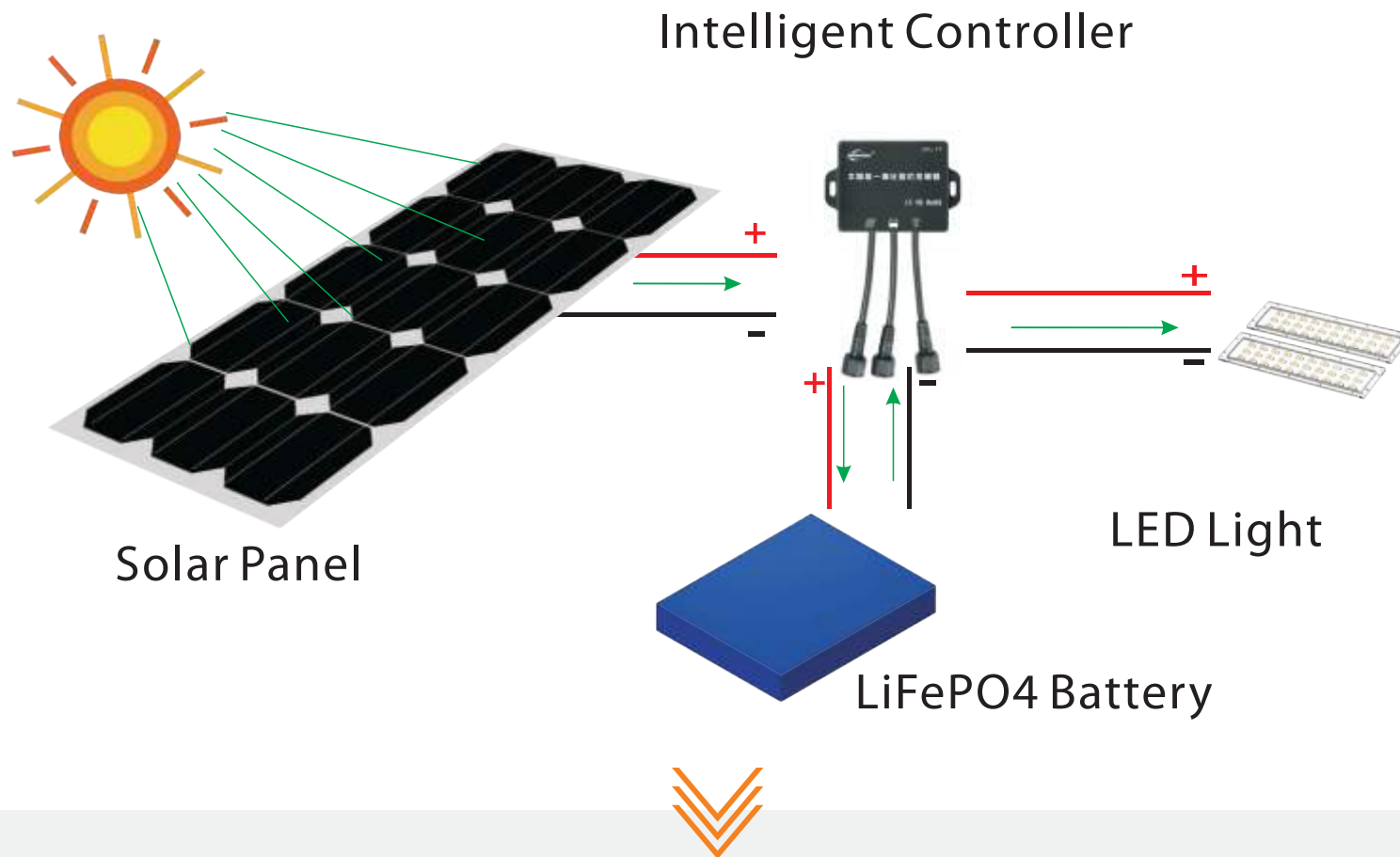
# BRIEF INTRODUCTION

## 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.** Bridgelux LED chip with 160lm/w



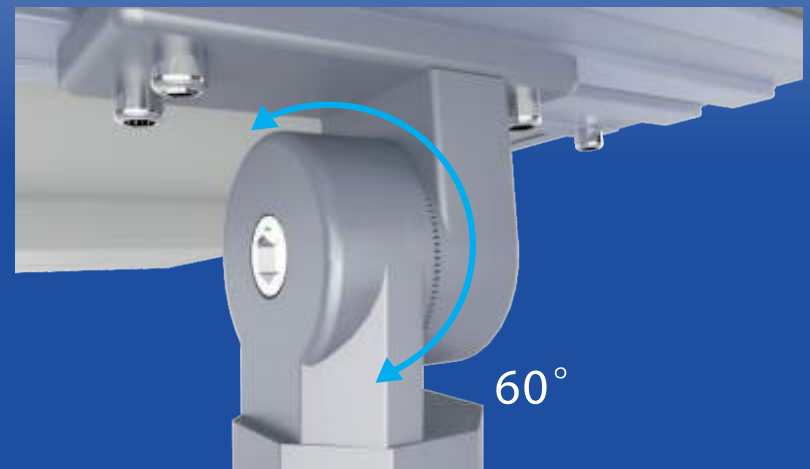
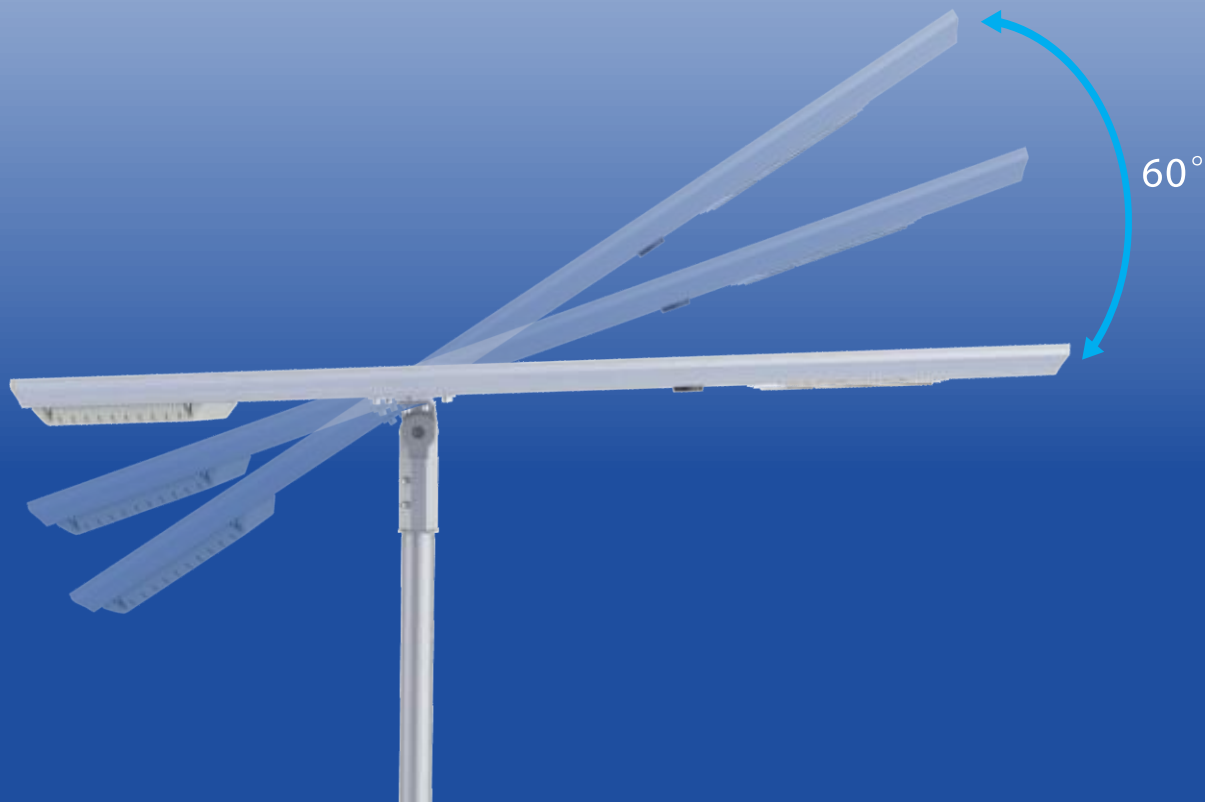
ANTI-WIND LEVEL:70M/SEC



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

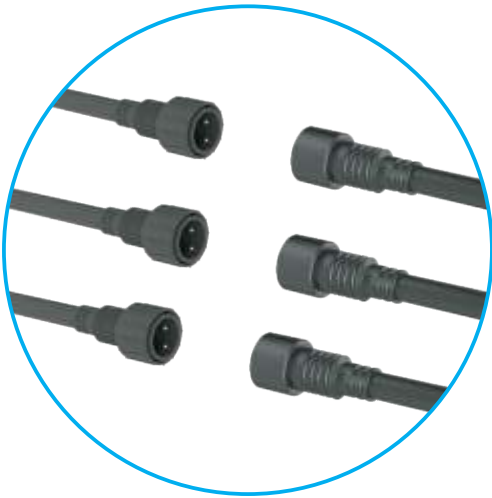


180 ° ADJUSTABLE

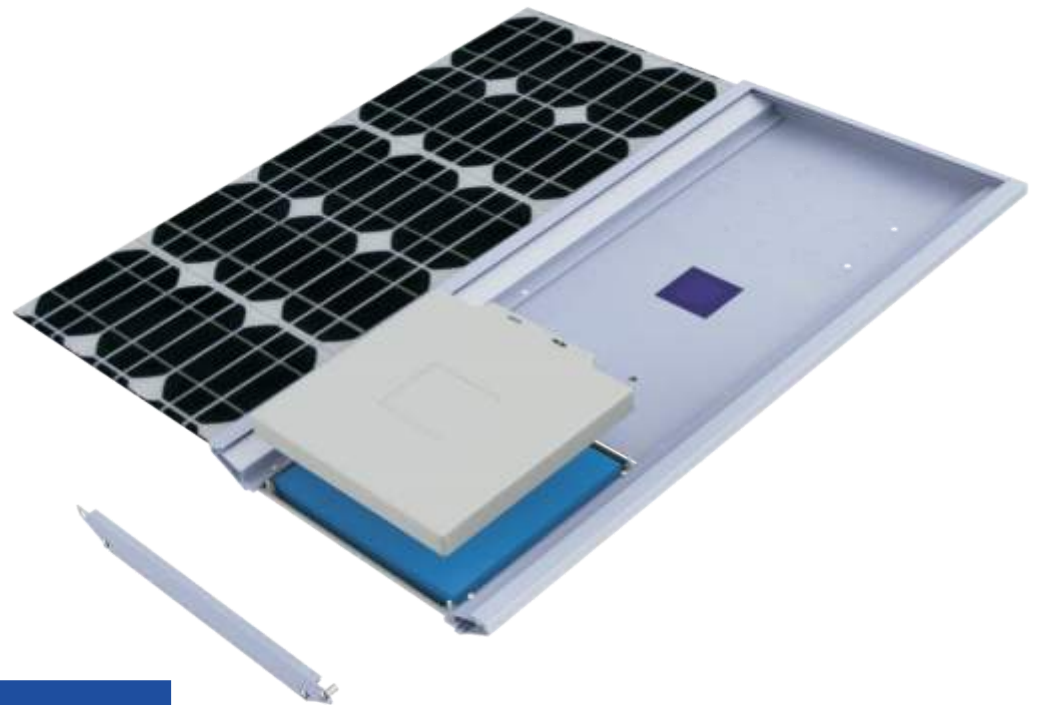


## PROTECTION LEVEL IP66

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



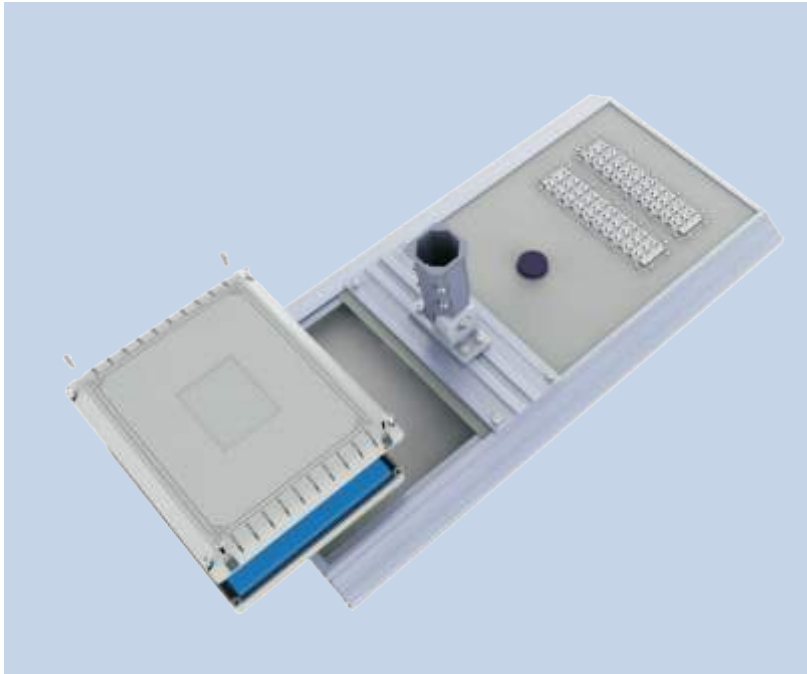
## POWDER COATING SHELL SURFACE

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

BD-X3 from JINSDON



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

Other similar products



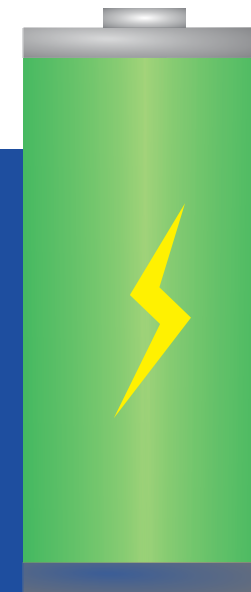
Glue required, hard to assemble and disassemble, easily deformed

# LITHIUM IRON PHOSPHATE BATTERY

Utilized the high capacity and high efficiency lithium ion phosphate ( $\text{LiFePO}_4$ ) 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.

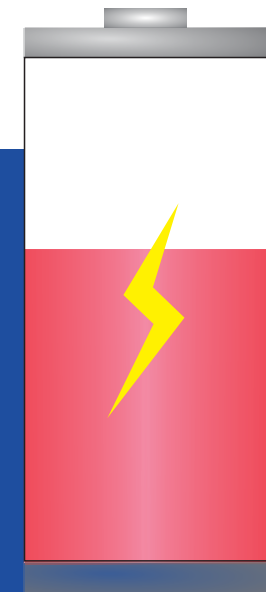
The other Ternary lithium battery, can not bear large current discharge, bad performance even exploding in high temperature environment, life cycles is just 500-1000 times

over 2000  
times



Lifespan of  
Lithium Iron  
Phosphate  
Battery

500-1000  
times



Lifespan of  
Ternary Lithium  
Battery

# LIFEPO4 BATTERY BMS=ELECTRIC VEHICLES BMS

Lifespan  $\geq$



Different to other Lifepo4 battery, Jinsdon 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



Big Dipper series 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

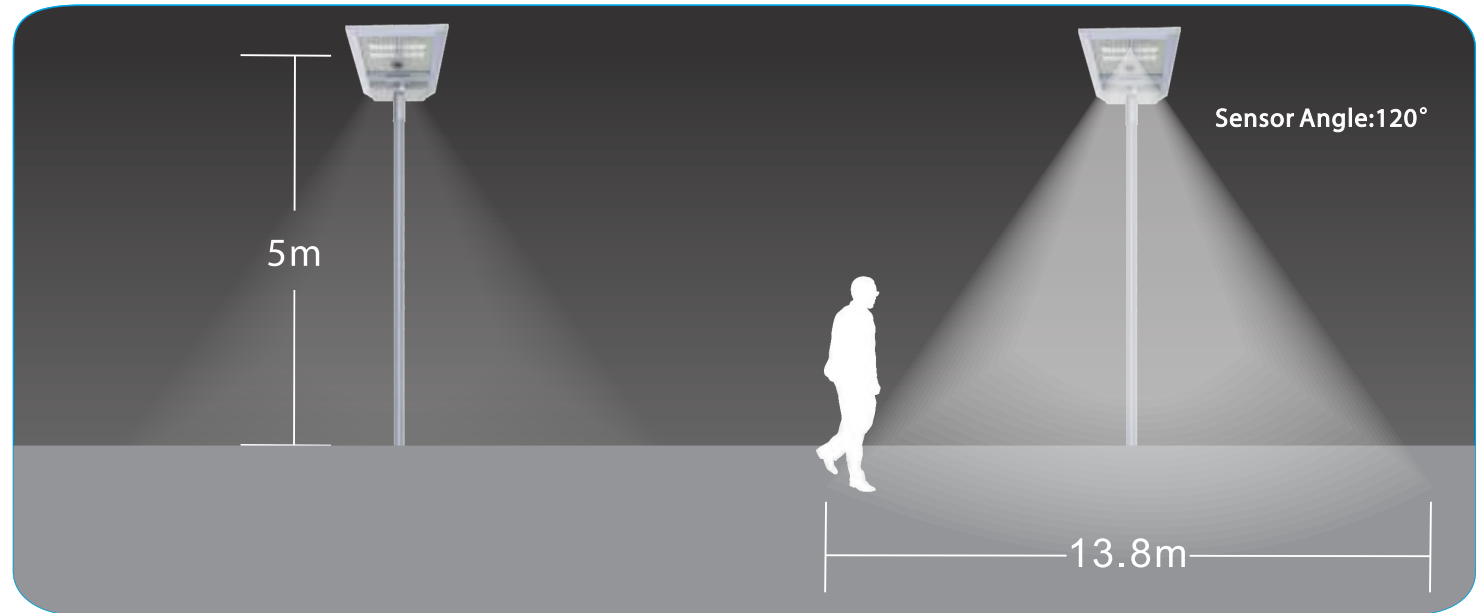
Intelligent controller is with PIR sensor or Microwave sensor, to ensure effective lighting and 365 days lighting



BD-X3/BD-X4/BD-X6  
PIR Sensor/Microwave sensor  
Sensor distance 6-8m



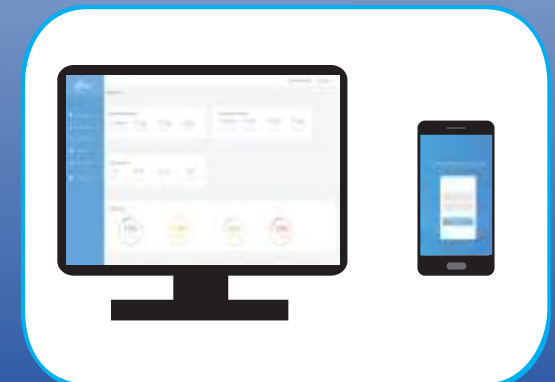
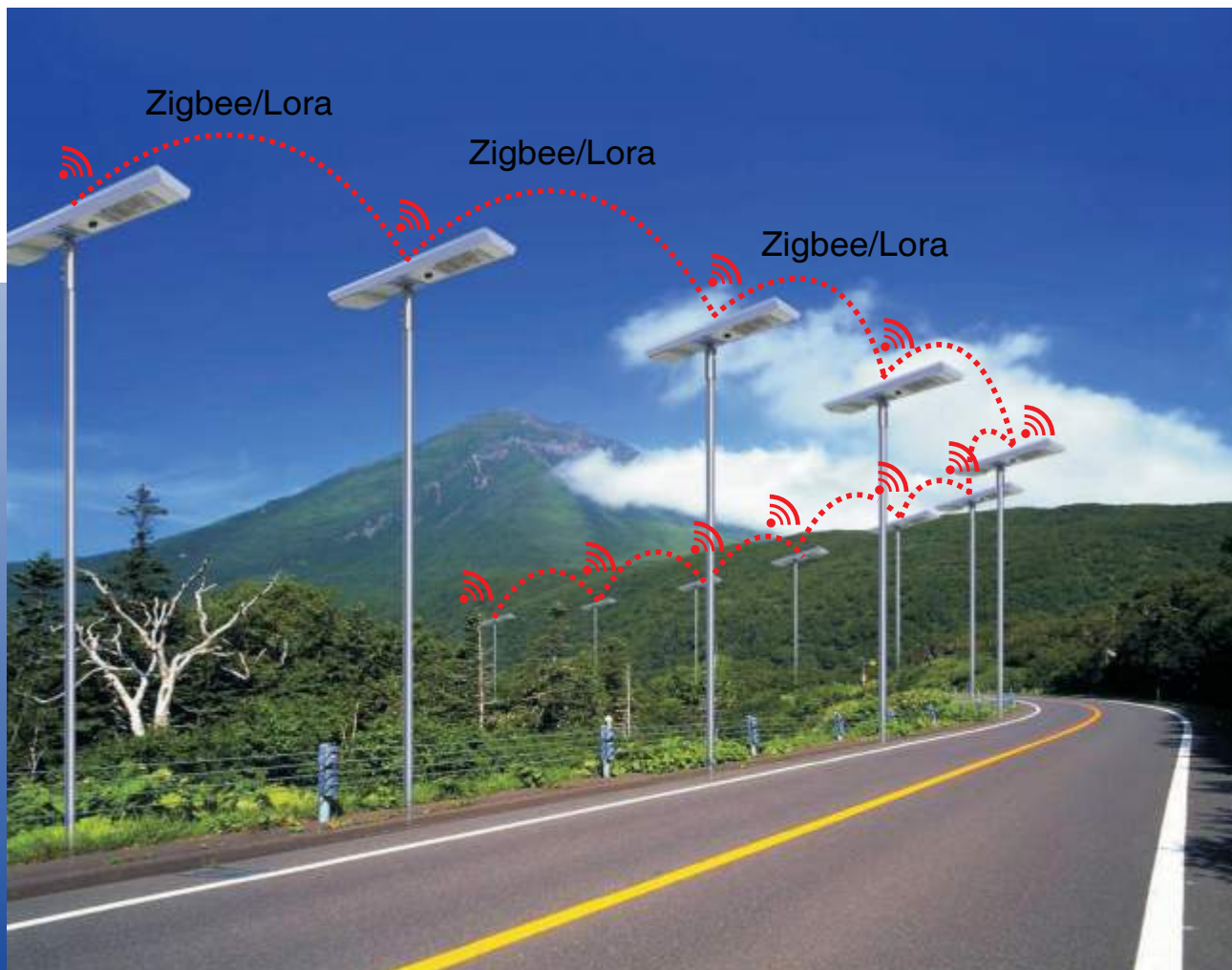
# INTELLIGENT CONTROLLER SYSTEM



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

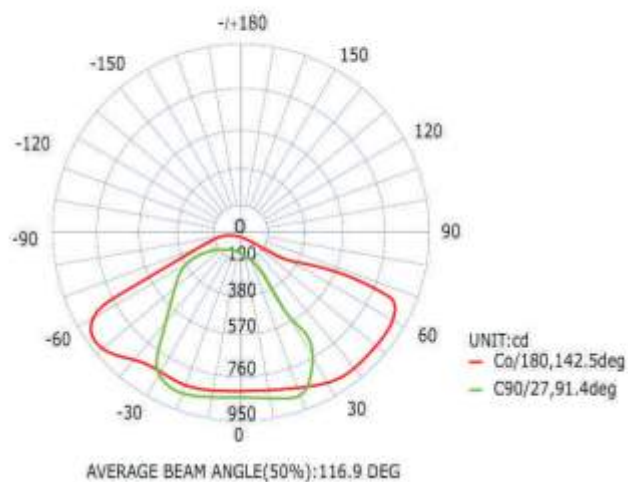
Own 8 years experience in R&D and producing solar charge controller, Except the common PIR sensor and microwave sensor controller, Big Dipper series solar street lights can be produced with Zigbee solar controller, combined with solar wireless concentrator, which can remotely monitor all solar street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



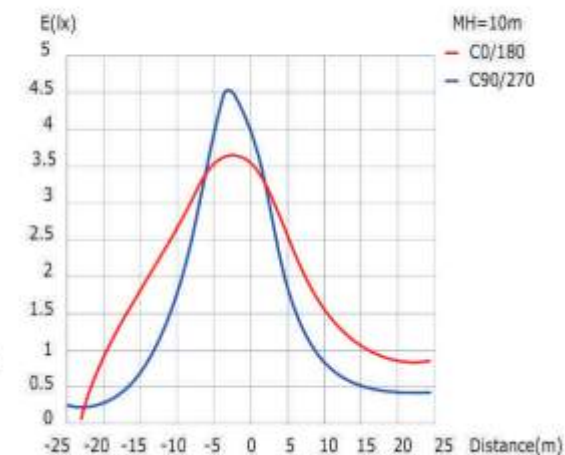
# LED LIGHT DISTRIBUTION



INTENSITY DISTRIBUTION DIAGRAM  
IN C PLANS



PLANAR ILLUMINANCE CURVE



Bridgelux LED chip: 160lm/w  
BD-X3-30W with 60pcs LEDs, BD-X4-40W with 60pcs,  
BD-X6-60W with 90pcs,enough LED quantity to ensure  
its brightness,but also to prevent LED from luminous  
attenuation, to ensure longer lifespan.

# TECHNICAL PARAMETERS

Model		BD-X3	BD-X4	BD-X6
Mono Solar Panel	Power	18V/60W	18V/80W	18V/100W
	Efficiency	>22%		
	Life	25years		
LED light	Power	30W	40W	60W
	Color Temp.	6000-6500K		
	LED Chip	Bridgelux		
	LED Quantity	60pcs	60pcs	90pcs
	Life	≥50000hrs		
Lifepo4 Battery	Capacity	256Wh	320Wh	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		5-6M	6-7M	8-10M
Distance of Pole		<20m	<25m	<25m
Pole Diameter		50~60mm		
Dimension(L*W*H)		890*432*73mm	1200*432*73mm	1550*432*73mm
Packing(L*W*H)		1065*475*125mm	1360*475*125mm	1560*475*125mm
Gross Weight		12.8KG	15.8KG	19.6KG

# Thanks Ip90K2

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