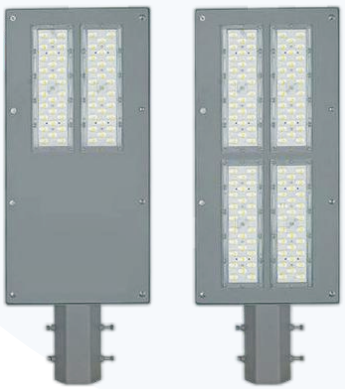
NELSON SOLAR®

3 YEARS WARRANTY

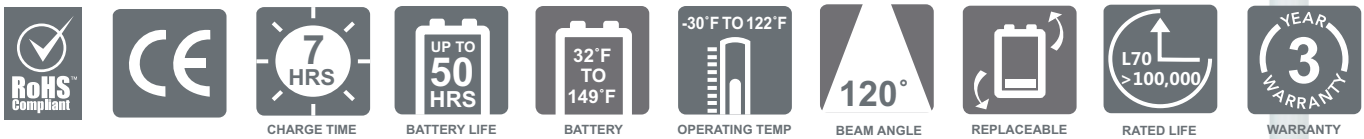
OFF-GRID
SOLAR STREET LIGHT
90W/180W

The features of this solar street light is a semi-split design.
The light engine and battery are built right into the LED fixture.
the lamp body is separated from the solar panel. No need for
a power source which eliminates the need for wiring and trenching.

- High Brightness Solar Light
  This street light has high-brightness energy-saving LED beads, suitable for outdoor places such as courtyards, gardens, patios, parking lots, etc.



- High Quality Solar Panels
  Fast energy storage, 20% higher photoelectric conversion rate, and with a built-in lithium battery, it only takes 6-8 hours to fully charge.
- Easy To Installation
  The solar street light is easy to install, and can be mounted on a wall or a pole, it can saving installation costs and maintenance costs, electricity bills as well.



NELSON SOLAR®

OFF-GRID SOLAR STREET LIGHT

90W/180W

PRODUCT DETAILS

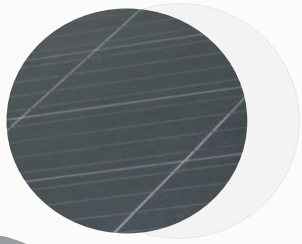
1. High photoelectric conversion rate of solar panel
2. High lumens LED chip
3. Large capacity battery
4. Die-casting Aluminum lamp housing

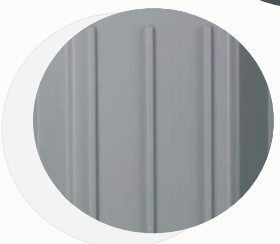
LED Chip

Moisture-proof and waterproof, high quality LED chip has a wide lighting range.

Solar Panel

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

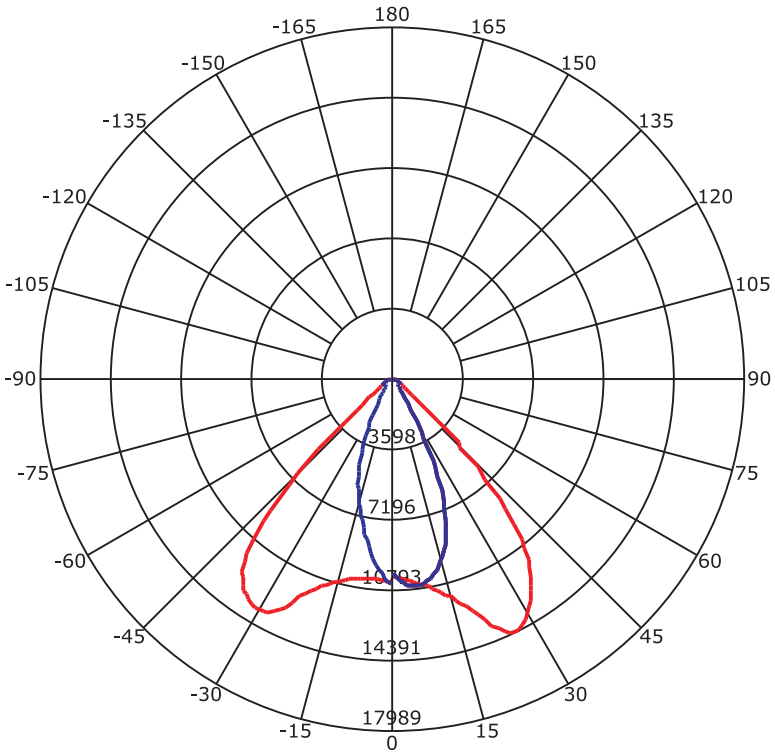


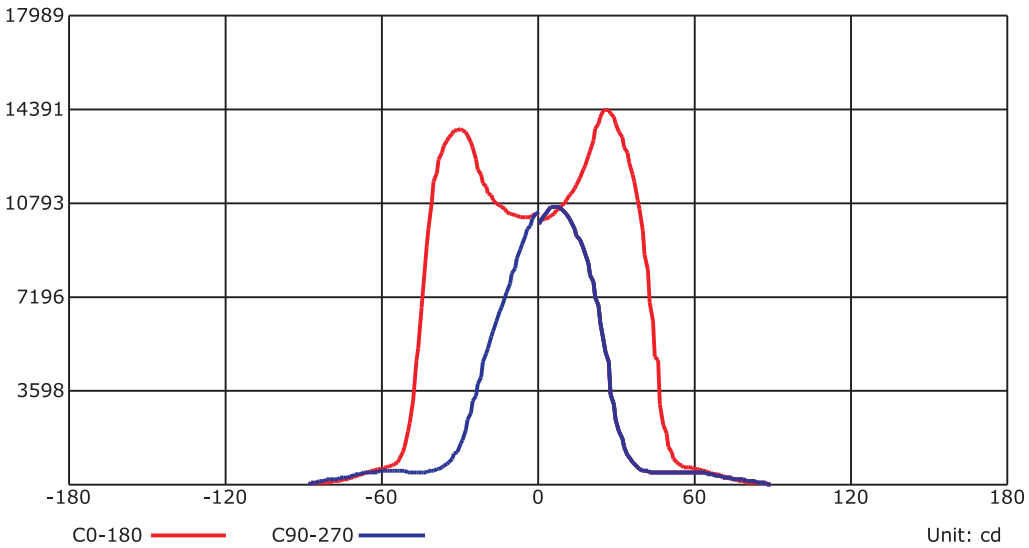


Die-casting Aluminum Lamp Housing

Stable and strong, waterproof and rustproof.

LUMINOUS INTENSITY DISTRIBUTION CURVE

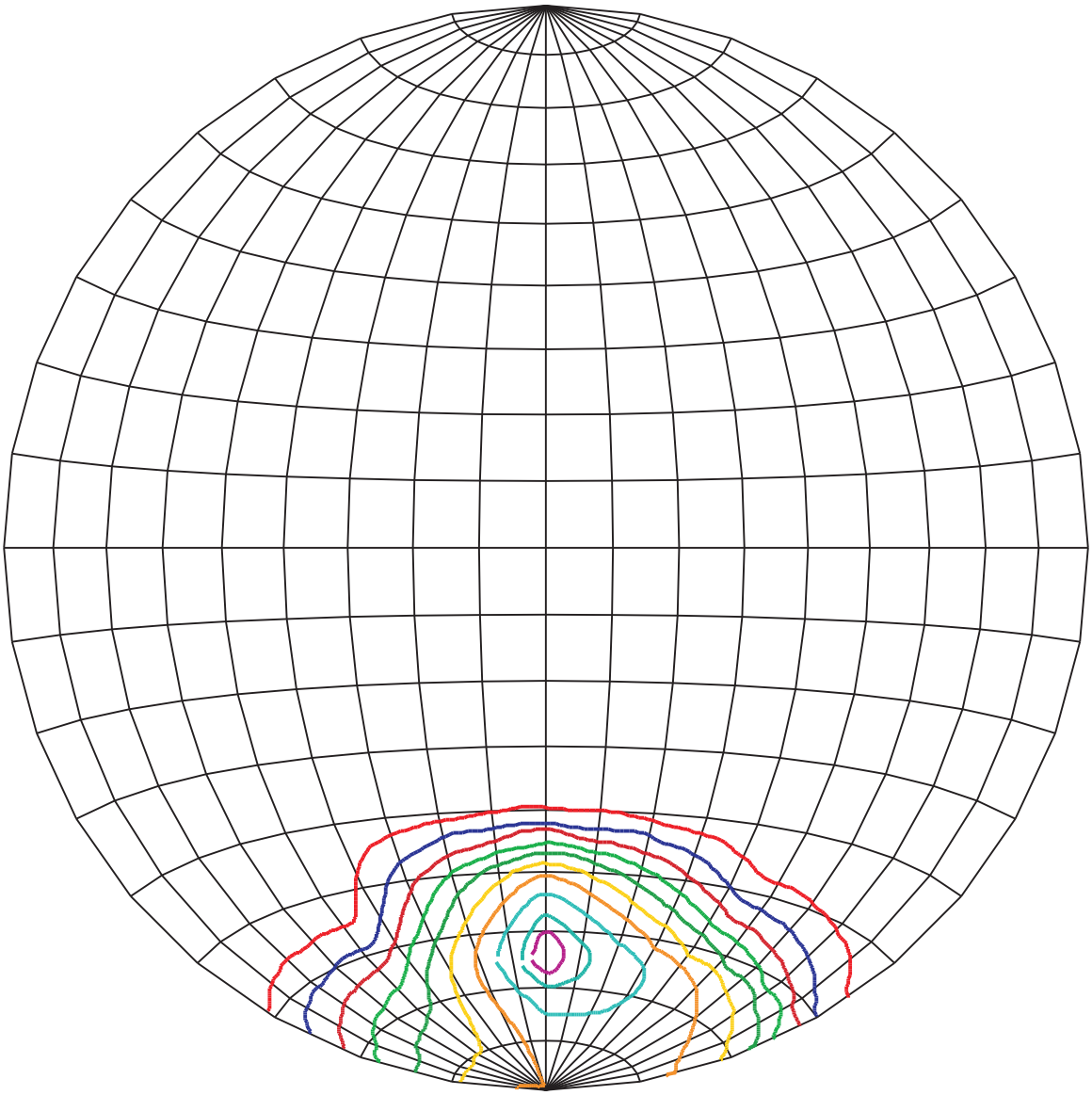




C Range: 0 - 360 Deg
C Interval: 45.0 Deg
Test Speed: High
Temperature:
Operators:
Test Date: 2019/12/4 15:41:45

G Range: 0 - 90 Deg
G Interval: 1.0 Deg
Test System: Huipu CPM-1800B Goniophotometer
Humidity:
Test Distance: 5.95 m
Remarks:

ISOCANDELA DIAGRAM (SPHERE)



Unit of intensity:cd Imax(100%): 14391.12 cd

- 13671.56(95%Imax)
- 12952.01(90%Imax)
- 11512.9(80%Imax)
- 10073.78(70%Imax)
- 8634.673(60%Imax)
- 7195.56(50%Imax)
- 5756.448(40%Imax)
- 4317.336(30%Imax)
- 2878.224(20%Imax)
- 1439.112(10%Imax)

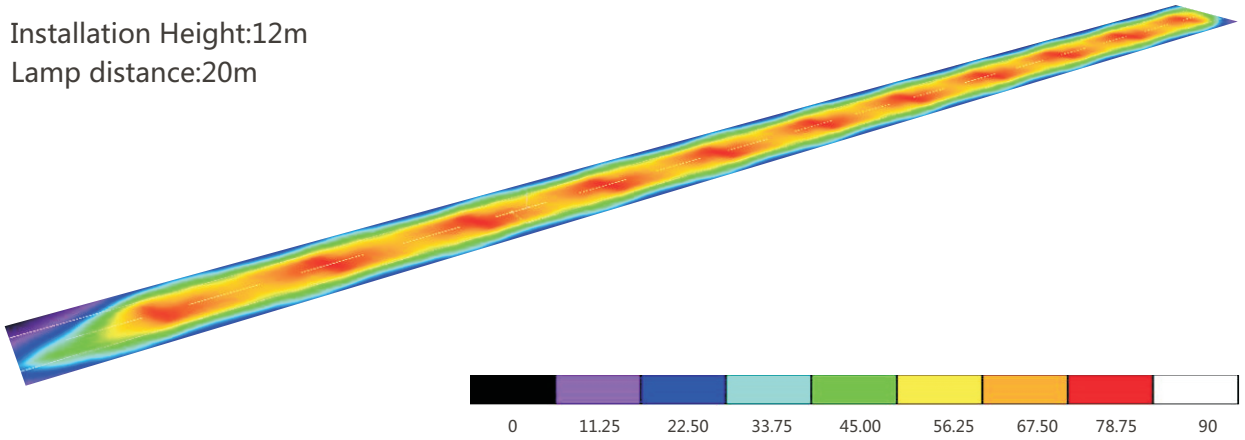
NELSON SOLAR®

OFF-GRID SOLAR STREET LIGHT

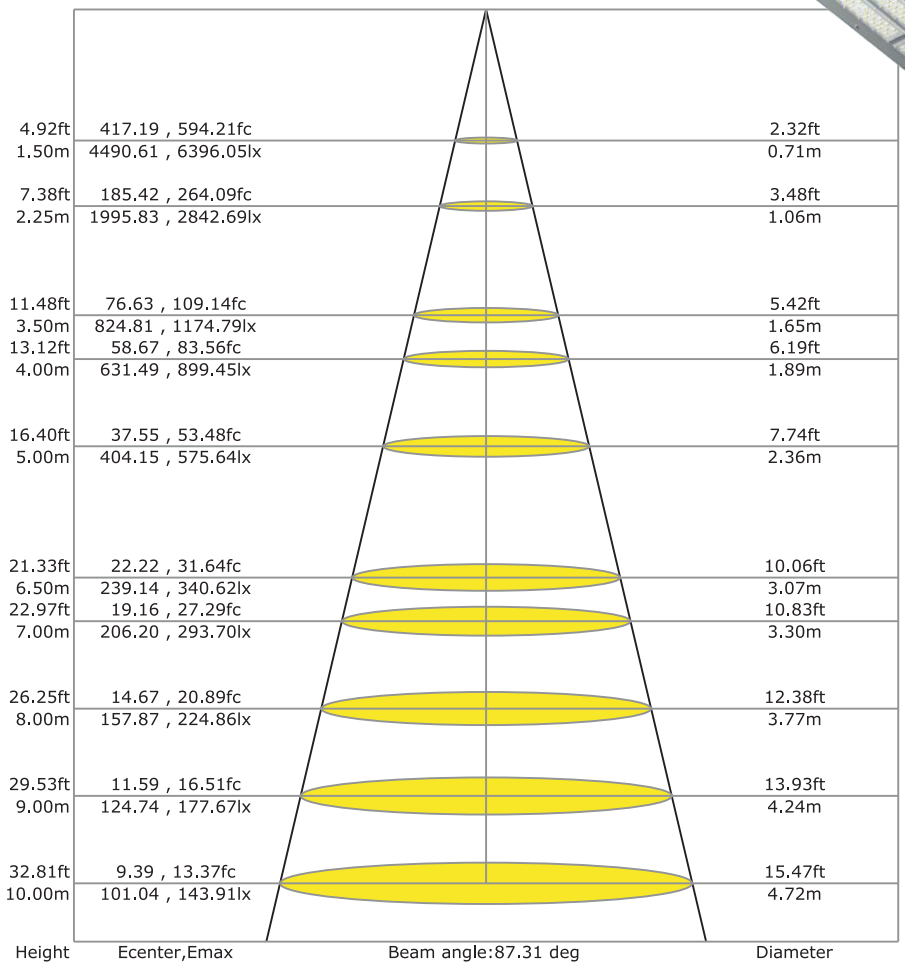
90W/180W

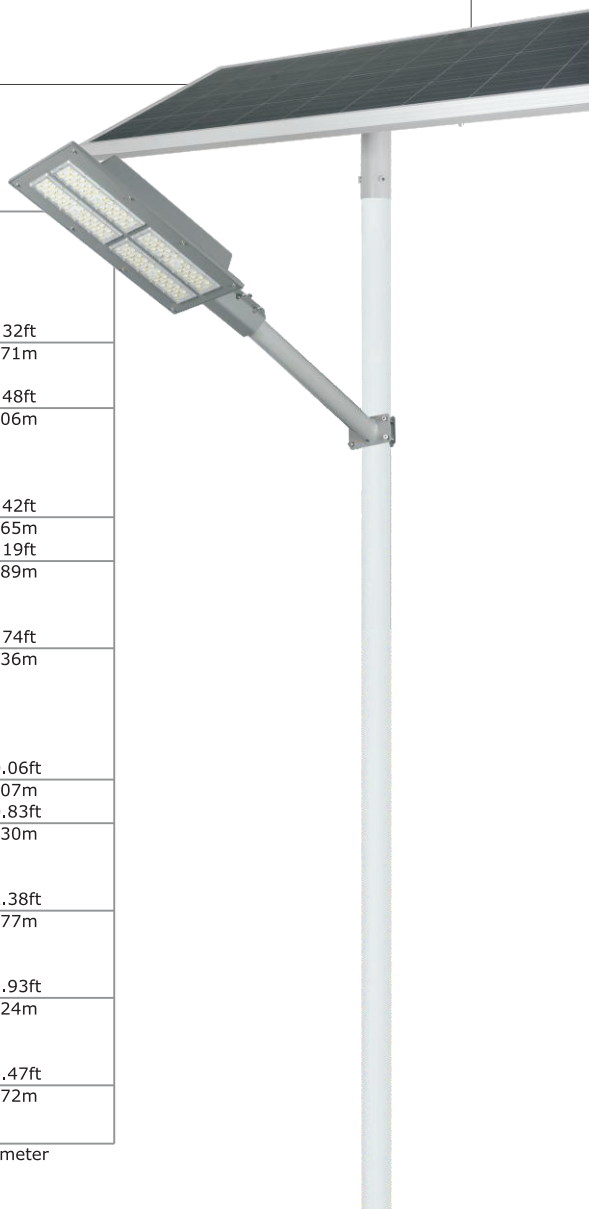
180W DIALUX SIMULATION EFFECT

Installation Height:12m
Lamp distance:20m



LX-DISTANCE DIAGRAM



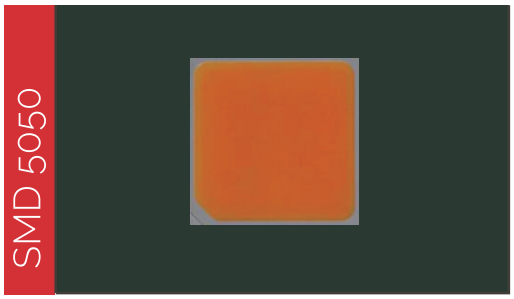


NELSON SOLAR®

OFF-GRID
SOLAR STREET LIGHT
90W/180W

INTRODUCTION SMD 5050

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 85C 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 s a drop-in replacement for emitters with an industry standard 50mm x 5.0mm footprint.



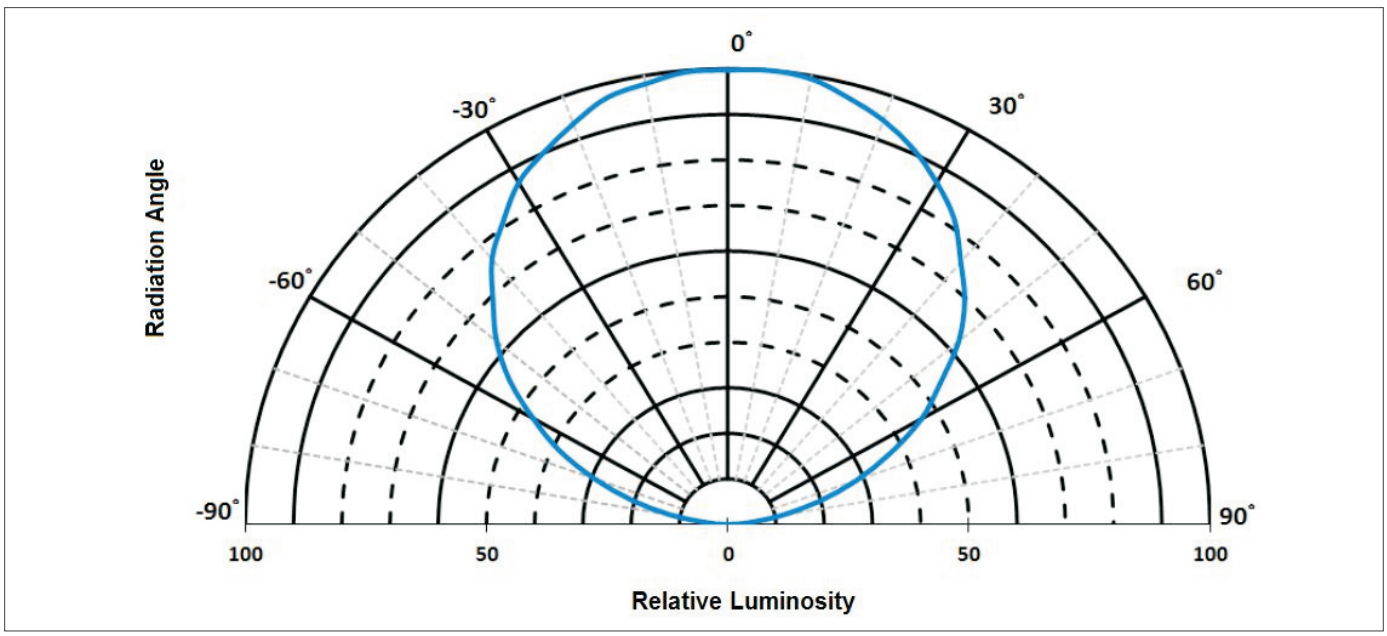
Benefits

- 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

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 85C
- 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

Typical Polar Radiation Pattern at 45mA, T_{sp}=25°C



NELSON SOLAR®

OFF-GRID SOLAR STREET LIGHT

90W/180W

BATTERY SPECIFICATION

DesignLife	6-8 years	
Nominal Voltage	12.8V	
Nominal Capacity	48AH	60AH
Self-Discharge		
3% of capacity declined per month at 20 ℃(average)		
Operation Temperature Range		
Discharge	-20~60℃	
Charge	-10~60℃	
Storage	-20~60℃	
Max.Discharge Current 77°F(25℃)	1200A(5s)	
Short Circuit Current	3000A	

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.

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

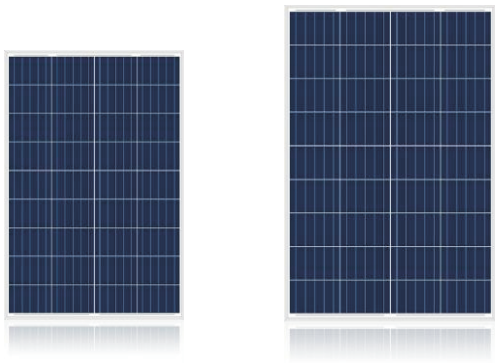
every battery pack need to thorough charging and discharging test by the aging test machine to keep 100% qualified

NELSON SOLAR®

OFF-GRID SOLAR STREET LIGHT

90W/180W

SOLAR PANEL SPECIFICATION



Mechanical characterisrtics

Dimensions	920*670*30mm
	1480*680*35mm
Front Glass	3.2mm high transmission,low iron,tempered glass
Frame	Anodized Aluminium Alloy
Junction box	IP65 Rated
Output cables	Without cables and connector

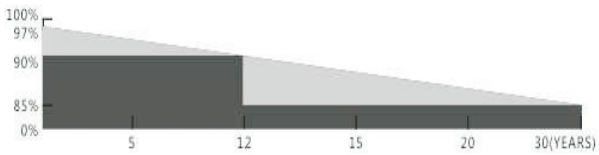
Specifications

Peak Power(Pmax)	90/180
Maximum Power Voltage(Vmp)	18
Maximum Power Current(Imp)	5/10
Open Circuit Voltage(Voc)	22.4
Short Circuit Current(Isc)	5.24/10.24
Cells Efficiency(%)	20.35
Module Efficiency(%)	17.27/18.14
Maximum System Voltage(V)	1000
Maximum Series Fuse Rating(A)	10
Power Tolerance	0~+3%
Pmax Temperature Coefficients(W/℃)	-0.400%
Voc Temperature Coefficients(V/℃)	-0.300%
Isc Temperature Coefficients(A/℃)	+0.060%
NOCT Nominal Operating Cell Temperature(℃)	45±2
Operating and Storage Temperature(℃)	-40~+85
Standard Test Condition(STC)	1.000W/m²;AM 1.5;25+/-2℃

Product Standard

Product Performance	IEC61215
Product Safety	IEC61730

Linear Performance Warranty



12 YEARS Guarantee on product materail and workmanship

30 YEARS Linear Power output warranty

Key Features

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

Serve Weather Resilience
Certified to withstand : wind load(2400Pa) and snow load (5400Pa)

High Efficiency
High Module conversion efficiency, through innovative manufactureing technology

Durability against extreme enviromental conditions
High salt mist and ammonia resistance certified by TUV

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

0-+5W Positive Tolerance
Detailed information in Electrical Specifications

NELSON SOLAR®

OFF-GRID SOLAR STREET LIGHT

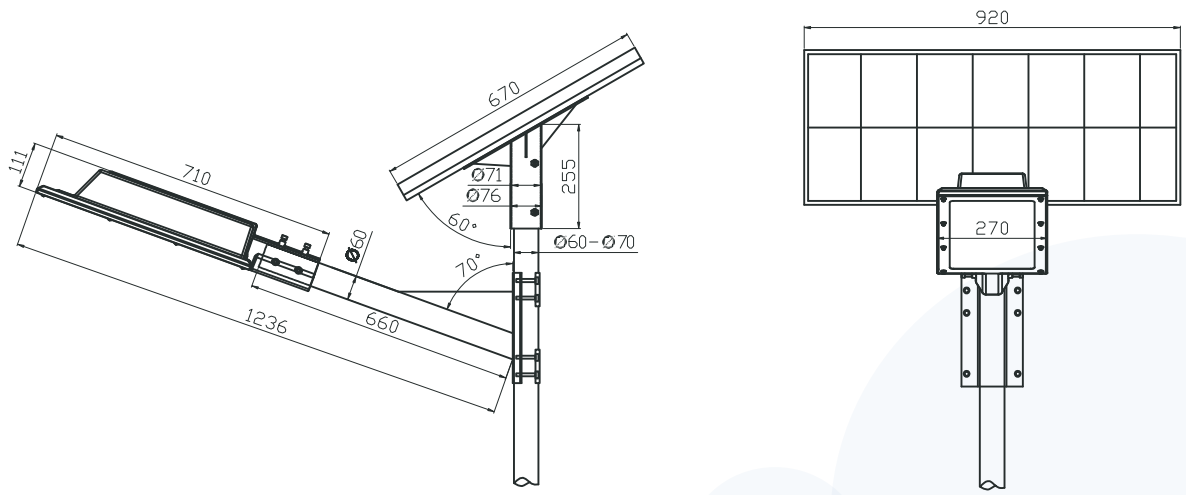
90W/180W

PRODUCT SPECIFICATION 90W

Model	0865A90-02
LED Lamp	5050LED 56PCS 6000K
Solar Panel	18V 90W,Polycrystalline
Battery Type	LiFePO4 12.8V 48AH
Charging Time	6-8 hours
Discharging Time	30-36 hours
LED	160lm/w
Material	Die-Casting Aluminum
Product Size	711*269*111mm
Install Height	7-9m
Warranty	3 Years

PRODUCT DIMENSIONS

(Unit:mm)



0865A90-02 90W

NELSON SOLAR®

OFF-GRID SOLAR STREET LIGHT

90W/180W

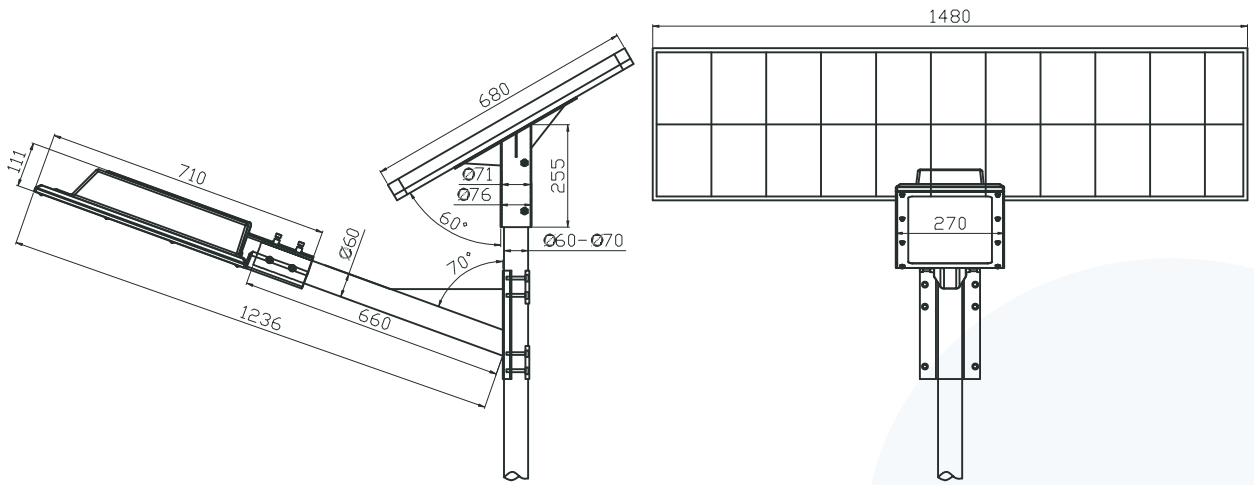
PRODUCT SPECIFICATION

180W

Model	0865A180-02
LED Lamp	5050LED 112PCS 6000K
Solar Panel	18V 180W,Polycrystalline
Battery Type	LiFePO4 12.8V 60AH
Charging Time	6-8 hours
Discharging Time	30-36 hours
LED	160lm/w
Material	Die-Casting Aluminum
Product Size	711*269*111mm
Install Height	10-12m
Warranty	3 Years

PRODUCT DIMENSIONS

(Unit:mm)



0865A180-02 180W

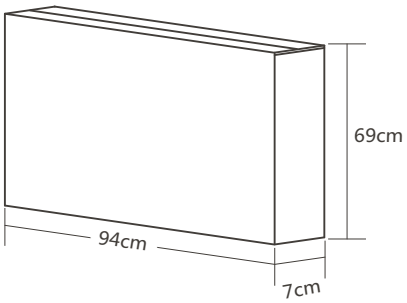
NELSON SOLAR®

OFF-GRID SOLAR STREET LIGHT

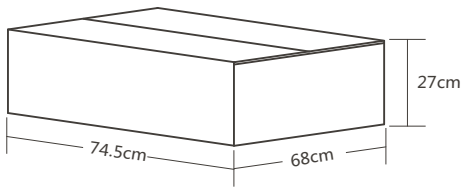
90W/180W

PACKAGING SPECIFICATION

P/N	Power	Packing Size(CM)			PCS/CTN	CBM/CTN	G.W/CTN(KGS)	
		L	W	H				
0865A90-02	90W	94.00	7.00	69.00	1	0.0454	13.5	solar panel
		74.50	68.00	27.00	1	0.1368	16.5	lamp body and bracket
0865A180-02	180W	150.00	9.50	70.00	1	0.0998	17.20	solar panel
		78.00	52.00	19.00	1	0.0771	12.50	lamp body
		36.50	26.50	24.50	1	0.0237	4.50	bracket

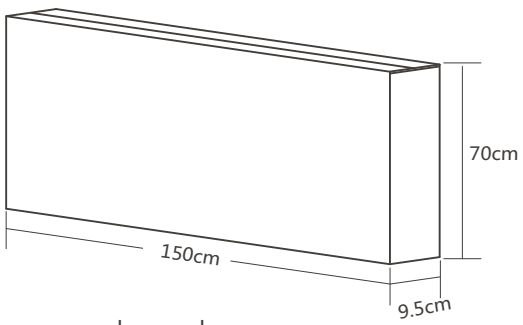


solar panel

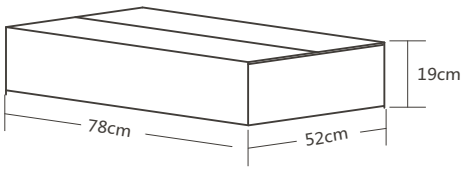


lamp body and bracket

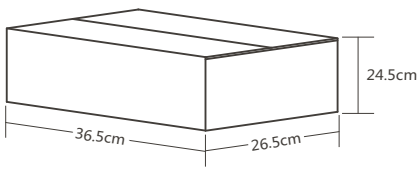
0865A90-02



solar panel



lamp body



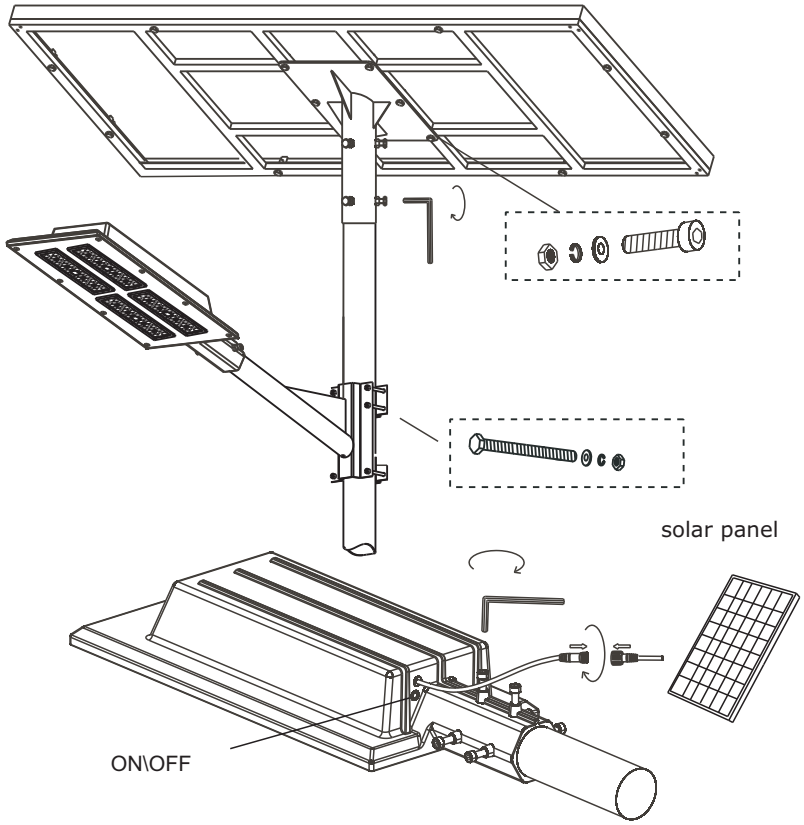
bracket

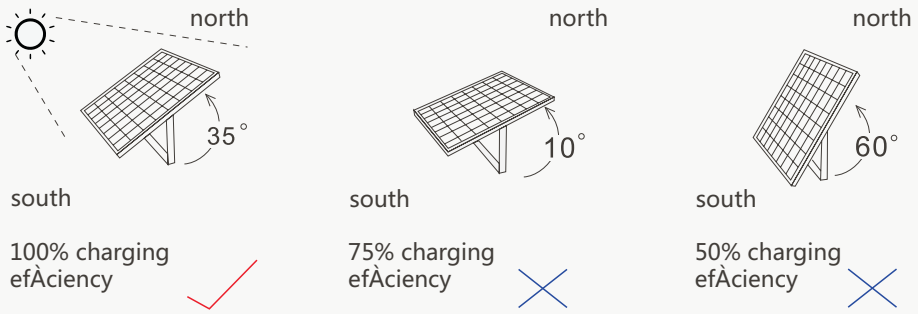
0865A180-02

NELSON SOLAR®

OFF-GRID
SOLAR STREET LIGHT
90W/180W

USER GUIDE





Tips:
1.Installation direction of the solar panel is 5-10 degrees south to west,an angle of 35 degrees with the horizontal place.
2.Please install the solar panel in the sun direction to avoid affecting the power generation efÀciency.
3.Please ensure the installation is stable.