

# 200W-F4-L

## 200W-F4-L Solar Powered LED Flood Light

7950 Lumens

195Wp Polycrystalline Panel

50W Power Consumption

Mounting Hight 4m to 9m

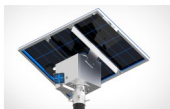
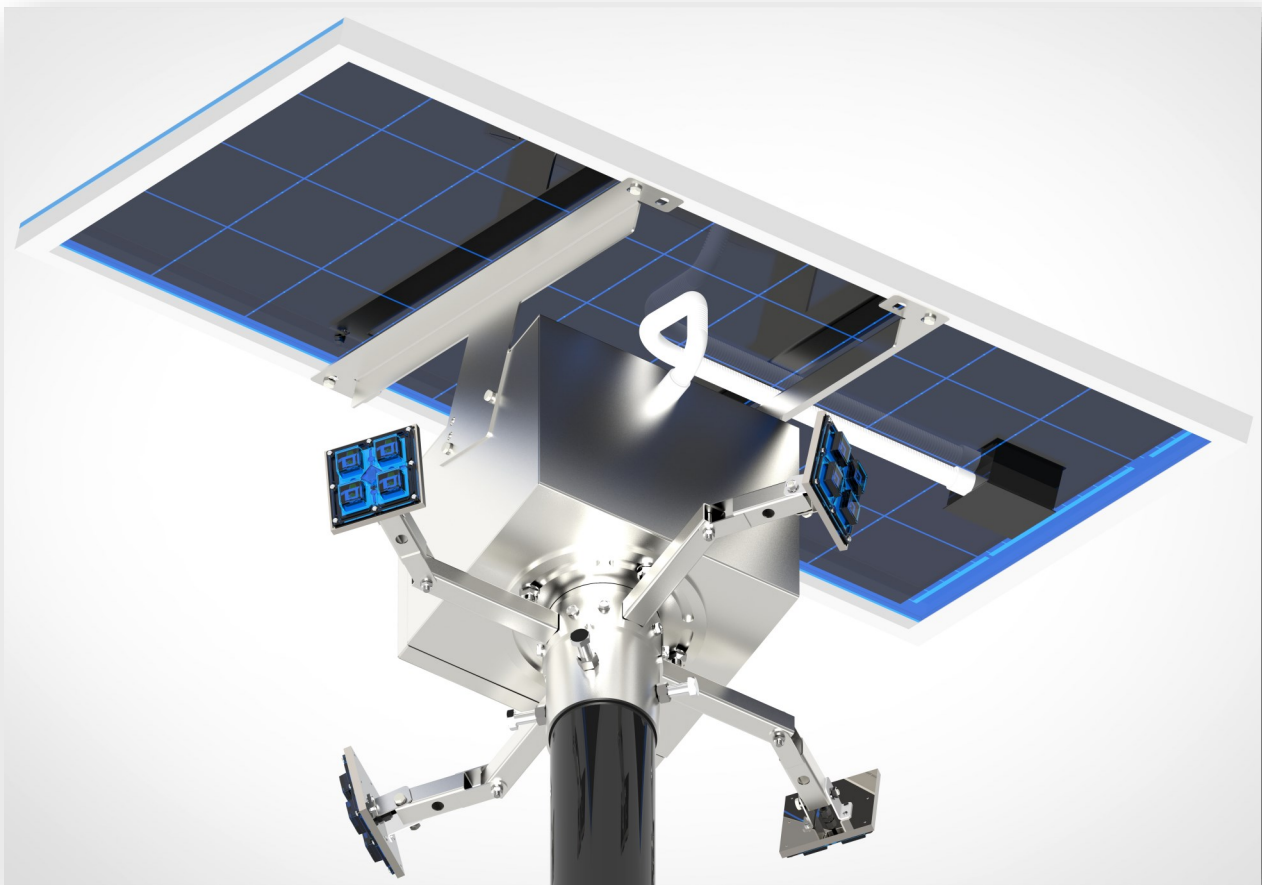
Mounting Pole Diameter 101mm

Wide Area Flood

4 x LED Light Source

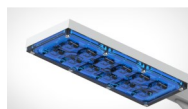
50Ah 12V Lithium

>4500 Batter Cycles



### MECHANICAL

Fully Adjustable Solar Panel Design  
Adjustable orientation for LED light  
IP Rated 52  
Powder Coated Dove Gray



### LED CONFIGURATION

LUMILEDS V2  
4 x (4) High Power CHIPS  
Nominal CCT/Color 5650K Cool White  
Typical CRI 70  
Typical Luminous Flux @350mA  
159lm per Watt  
Combination Spot and Flood



### BATTERY

Ritar  
12.8V  
50Ah (0.2C Discharge)  
Weight 3.9kg  
>4500 Cycles (0.2C Charge / 0.2C Discharge)

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### Designed System Performance

Power Consumption per Hour	50W
Total Available Lumens	7950 Lumens
Operation Dusk to Dawn (Designed for 14 hours during Winter)	Dip Switch Selectable Factory Set Dusk to Dawn
Mapped Current output to LED	4166mA
Used amps during the night (10 Hours)	41.66A
50Ah Lithium Iron Phosphate Ritar	50Ah
Depth of discharge of battery per night	83.33%
Working Redundancy no Sun	2 Hours
Number of Cycles	>4500
Battery Replacement	>8 Years
Operation Temperature	-20°C—50° C
Recharge Time	5 Hours
MPPT Charge Algorithm	YES
Undervoltage Cut Out	YES
Overvoltage Cut Out	YES
LED Protection	YES
Short Circuit Protection	YES

### Enclosure

IP Rating	52
Finishing	Powder Coated Dove Gray
Solar Panel Orientation	Fully Adjustable
Solar Degrees Adjustment	Adjustable from 15° - 37° Degrees
Weight	Of Complete Unit 36kg
Dimension	1480mmx670mmx500mm
Maximum Pole Diameter	101mm

## 200W-F4-L

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#### Enclosure

Fixing on Pole

Fixing on Pole

Recommended Mounting Hight

Internally hosted controller

Weight

Slide over collars

6 x 12mm Bolts (4 x Collar below Battery 2 x Arm)

6—9 Meters

Controller loose Item serviceable

Of Complete Unit 20kg

#### LED USED

Manufacturer

Quantity

Nominal CCT/Colour

Typical CRI

Typical Luminous Flux(lm) @350mA Forward Current +\_1W

Cooling Solid Aluminium 12mm Block

Lens Type Used

LUMILEDS—V2

4 x LED Light Source made up out of (4 x LED's)

5650K Cool White

70

159lm per Watt

Machined Profile

Combination of Spots and Wide Lenses

#### Battery

Manufacturer

Capacity

Weight

Type

Cycle Life in Relation to Depth of Discharge

Nominal Voltage

Max Voltage

Min Voltage

Dimensions

Ritar

50Ah (0.2C) Discharge

5.5kg

Lithium (Lithium Iron Phosphate)

>4500 @ (0.2C Charge / 0.2 Discharge

12.8V

14.6V +\_ 1.0V

10V +\_ 1.0V

230x127x191(mm)



# 200W-F4-L

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### Solar Panel

#### General Characteristics

Cell	Polycrystalline solar cell 156 x 156mm
Number of Cells (Connections)	72
Panel Dimensions	1580x808x35 mm
Weight	15.5 kg
Connectors and Cables	Connectors and 1m Cables

#### Thermal Conditions

Normal Operating Cell Temperature 800W/m <sup>2</sup> Irradiance, 20°C, AM=1.5	48°C+ <sub>-</sub> 2°C
Power Temperature Coefficient	-0.5%/K
Current Temperature Coefficient	0.035%/K
Voltage Temperature Coefficient	-0.37 MV/K

#### Limits

Operating Temperature	-40°C to 85°C
Maximum System Voltage	36V

#### Electrical Performance at STC

Maximum Power	195 Wp
Power Tolerance	0/+5Wp
Maximum Power Voltage	36.2 V
Maximum Power Current	4.48 A
Open Circuit Voltage	44.82 V
Short Circuit Current	5.79 A

Standard Test Conditions 1000W/m<sup>2</sup> irradiance, 25°C and AM = 1.5

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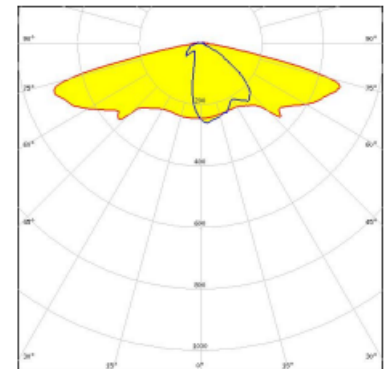
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### Light Distribution

Type II/III (long) beam for very wide pole to pole distances. Ideal for pedestrian walkways and residential road lighting.  
(EN13201 P-classes)



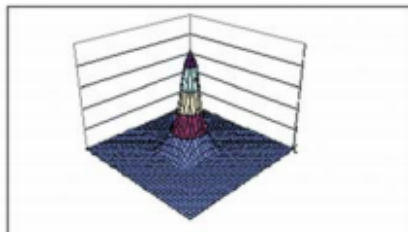
LED LUXEON V2  
FWHM Asymmetric  
Efficiency 94 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:



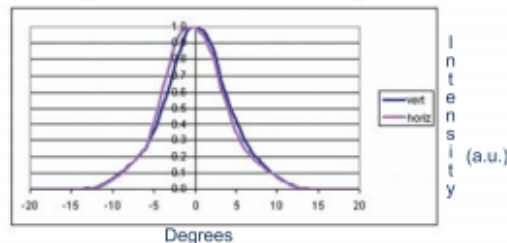
### SPOT LENS Design

### PHOTOMETRIC DATA FOR SPOT VERSION

3 D surface Plot based on simulation



Horizontal and vertical Scans (Lab Measurement)



IES files available at [www.dialight.com](http://www.dialight.com)

For photometric data on other models, please contact factory

### ORDERING INFORMATION

BASE LENSES		
Dialight P/N	Description	Degree*
OPC1-1-SPOT	Spot Base Module for LUXEON Rebel	5°
OPC1-1-SDIF	Diffused Base Module for LUXEON Rebel	7°
OPC1-1-MDIF	Medium Diffused Base Module for LUXEON Rebel	10°
OPC1-1-OVAL	Oval Base Module for LUXEON Rebel	8° X 25°
OPC1-1-WIDE	Wide Diffused Base Module For LUXEON Rebel	20°
*All angles refer to half divergence		