

200W-S2-D-L

200W-S2-D-L Solar Powered LED Street Light

8000 Lumens

200Wp Polycrystalline Panel

40W Power Consumption

Mounting Hight 4m-9m

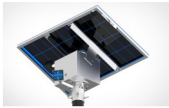
Mounting Pole Diameter 101mm

Street Light Lens

2 x LED Light Source

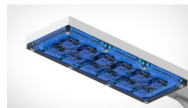
50Ah 12.8V Lithium

>5000 Battery Cycles



MECHANICAL

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



LED CONFIGURATION

LUMILEDS V2
1 x (24) High Power CHIPS
Nominal CCT/Color 5650K Cool White
Typical CRI 70
Typical Luminous Flux @350mA
200lm per Watt
Combination Spot and Flood



BATTERY

Phasor
12.8V
50Ah (0.2C Discharge)
Weight 1kg
>5000 Cycles (0.2C Charge / 0.2C Discharge)

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Designed System Performance

| | |
|--|--|
| Power Consumption per Hour | 40W |
| Total Available Lumens | 8000 Lumens |
| Operation Dusk to Dawn (Designed for 14 hours during Winter) | Dip Switch Selectable Factory Set Dusk to Dawn |
| Mapped Current output to LED | 3215mA |
| Used amps during the night (10 Hours) | 32A |
| Size of Internal Battery | 50A |
| Depth of discharge of battery per night | 65% |
| Working Redundancy no Sun | 2 Day |
| Number of Cycles | >5000 |
| Battery Replacement | >3 Years |
| Operation Temperature | -20°C—50° C |
| Recharge Time | 4 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 20kg |
| Dimension | 1480mmx670mmx500mm |
| Maximum Pole Diameter | 101mm |

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Enclosure

| | |
|------------------------------|---|
| Fixing on Pole | Slide over collars |
| Fixing on Pole | 6 x 12mm Bolts (4 x Collar below Battery 2 x Arm) |
| Recommended Mounting Hight | 6—9 Meters |
| Internally hosted controller | Controller loose Item serviceable |
| Weight | Of Complete Unit 20kg |

LED USED

| | |
|---|--|
| Manufacturer | LUMILEDS—V2 |
| Quantity | 2 x LED Light Source made up out of (24 x LED's) |
| Nominal CCT/Colour | 5650K Cool White |
| Typical CRI | 70 |
| Typical Luminous Flux(lm) @350mA Forward Current +_1W | 200lm per Watt |
| Cooling Solid Aluminium 12mm Block | Machined Profile |
| Lens Type Used | Combination of Spots and Wide Lenses |

Battery

| | |
|--|--------------------------------------|
| Manufacturer | PHASOR |
| Capacity | 50Ah (0.2C) Discharge |
| Weight | 5kg |
| Type | Lithium (Lithium Iron Phosphate) |
| Cycle Life in Relation to Depth of Discharge | >5000 @ (0.2C Charge / 0.2 Discharge |
| Nominal Voltage | 12.8V |
| Max Voltage | 14.6V +_ 1.0V |
| Min Voltage | 10V +_ 1.0V |
| Dimensions | 181x76x170(mm) |



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Solar Panel

General Characteristics

| | |
|-------------------------------|--|
| Cell | Polycrystalline solar cell 156 x 156mm |
| Number of Cells (Connections) | 36(4x9) |
| Panel Dimensions | 1005 x 670 x 35mm |
| Weight | 8.0 kg |
| Connectors and Cables | Connectors and 1m Cables |

Thermal Conditions

| | |
|--|------------------------|
| Normal Operating Cell Temperature 800W/m ² Irradiance, 20°C, AM=1.5 | 48°C+ ₋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 | 200Wp |
| Power Tolerance | 0/+5Wp |
| Maximum Power Voltage | 18V |
| Maximum Power Current | 9.56A |
| Open Circuit Voltage | 22.2V |
| Short Circuit Current | 10.06A |

Standard Test Conditions 1000W/m² irradiance, 25°C and AM = 1.5

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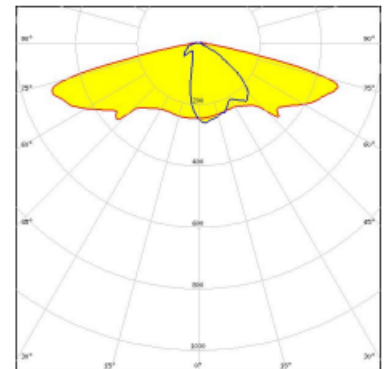
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Light Distribution

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



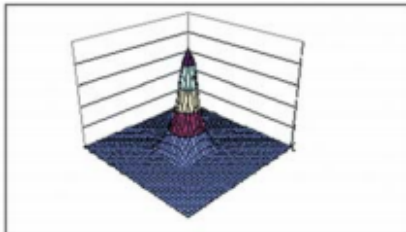
LED LUXEON V2
 FWHM Asymmetric
 Efficiency 94 %
 Peak intensity 0.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



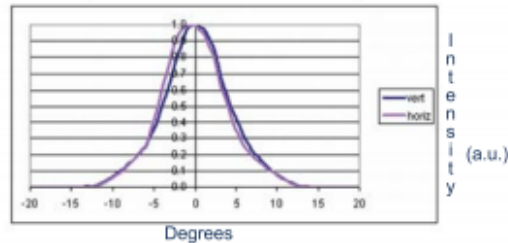
SPOT LENS Design

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

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