

50W-3.2V-STREETLIGHT

50W-3.2V lithium Powered Street Light

AUTO Power Output

Mounting Hight 4m+

24 x High Power Chips

50Wp Poly Panel

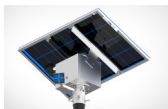
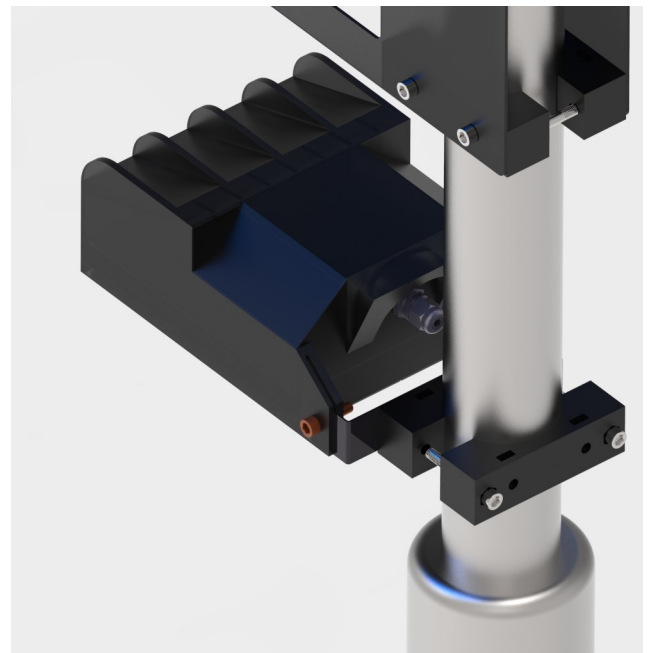
Brackets to mount on 63mm Pole

3.2V Lithium Ion 160Wh

24W LED output Power

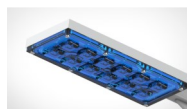
Street Light

>10,000 Battery Cycles



MECHANICAL

FIX mounting Design
Adjustable LED light (UP-Down)
High Strength Plastic Housing
ASA—Brackets for LED panel
UV Resistant



LED CONFIGURATION

SEOUL Z5 Industrial
24 x Power CHIPS
Nominal CCT/Color 5650K Cool White
Typical CRI 80
Typical Luminous Flux
206lm per Watt



BATTERY

Phasor
3.2V
160Wh (1C Discharge)
50Ah Battery
4 x 40Wh 3.2V LiFePO4 Cells
>10000 Cycles (0.2C Charge / 0.2C Discharge)

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Designed System Performance

Power Consumption per Hour	24W
Total Available Lumens	5000 Lumens
Operation Dusk to Dawn (Designed for 14 hours during Winter)	Dip Switch Selectable Factory Set Dusk to Dawn
Mapped Current output to LED	1500mA
Used amps during the night (10 Hours)	10A
Size of Internal Battery	50Ah
Depth of discharge of battery per night	80%
Working Redundancy no Sun	2 Day
Number of Cycles	>10,000
Battery Replacement	>5 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	66
Finishing	Black—Matt. ASA UV resistant plastic
Solar Panel Orientation	Fully Adjustable
Solar Degrees Adjustment	Adjustable from 15° - 37° Degrees
Weight	Of Complete Unit 2.6Kg
Dimension	250mmx450mmx250mm
Wall Mount	Yes

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Enclosure

Fixing on Pole	Brackets Supplied
Fixing on Pole or Wall mount	Bracket + Solar Panel Brackets provided
Recommended Mounting Hight	2—5 Meters
External IP65 Controller	MPPT Charger and CC LED driver
Weight	Complete solution 2Kg

LED USED

Manufacturer	SEOUL Z5
Quantity	24 x LED Light Source
Nominal CCT/Colour	5650K Cool White
Typical CRI	80
Typical Luminous Flux(lm) @350mA Forward Current +_1W	204lm per Watt
Cooling Solid Aluminium 12mm Block	Machined Profile
Lens Type Used	USER defined—FLOOD or SPOT STREET light

Battery

Manufacturer	PHASOR
Capacity	160Wh (0.2C) Discharge (2 x 40Wh Cells)
Weight	0.8kg
Type	Lithium (Lithium Iron Phosphate)
Cycle Life in Relation to Depth of Discharge	>10,000 @ (0.2C Charge / 0.2 Discharge
Nominal Voltage	3.2V
Max Voltage	3.6V
Min Voltage	2.8V
Dimensions	65x76x170(mm)



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Solar Panel

General Characteristics MONOCRYSTALINE 10Wp

Cell	Polycrystalline solar cell 50Wp
Number of Cells (Connections)	45(4 x 9)
Panel Dimensions	350 x 250 x 17mm
Weight	.9 kg
Connectors and Cables	Two PIN Connector on Red/Black 1m Cable

Operating Parameters

Normal Operating Cell Temperature 1000W/m ² Irradiance,25°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	30V

Electrical Performance at STC

Maximum Power	50Wp
Power Tolerance	0/+5Wp
Maximum Power Voltage	17.8V
Maximum Power Current	1.5A
Open Circuit Voltage	21.36V
Short Circuit Current	0.63A

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

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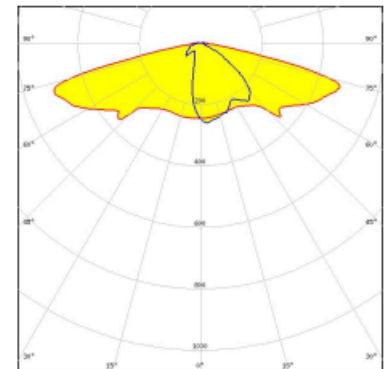
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Light Distribution Lenses OPTIONAL

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



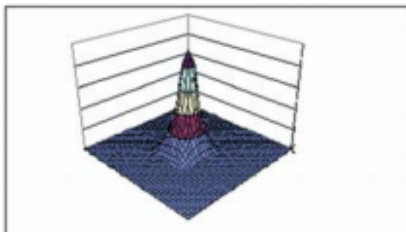
LED LUXEON V2
FWHM Asymmetric
Efficiency 94 %
Peak intensity 0.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:



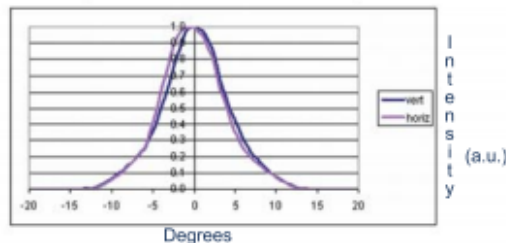
SPOT LENS Design

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		

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Dimensions

