

# SOLARLIGHT.CO.ZA

## SPECIFICATION SHEET - Products

Phasor Electronics CC T/A SolarLight.co.za reserve the right to change or amend this specification sheet without prior notice. Date of Publication 22/06/2018



**SOLARLIGHT.CO.ZA** utilizes the latest technology in solar power generation, to ensure very bright light at night. The power for the light is harnessed during sufficient daylight conditions and stored in an internal battery. The stored energy is used to power an extremely effective and efficient light source at night. The new improved MPPT algorithm allows the system to use a smaller sized photo voltaic solar panel. The LED's used our products are the latest technology from LUMILEDS, capable to produce 135+ lumens per watt. The solar powered LED redundancy is determined by the model selected. The lockable battery box consists of a collar to allow it to be mounted on any pole up to a maximum of 100mm. The design allows complete angle adjustments for best solar panel positioning.

## 30W/675-X\* System Performance

### Designed System Performance

Power usage during Night	5W
Total Available Lumens	675 lm
Operation Dusk to Dawn – Desgined for 14 hours during Winter	Dip switch selectable – Factory set Dusk to Dawn
Mapped Current output	420mA
Used Watts (14 hours)	70W
AvailableTotal Watts (Battery)	213.6W
Depth of Discharge out of battery per Night	32%
Working Redundency no Sun	3 days
Number of Cycles	>1400
Battery Replacement	>3.5 years
Operating Temperature	-20°C – 60°C
Recharge Time	3.5 Hours per Day
MPPT Charge Algorithm	YES
Undervoltage Cut Out	YES
Overvoltgae Cut Out	YES
LED Protection	YES
Short Circuit Protected	YES

PO Box 151  
Wierdapark  
Centurion

## 30W/675-X\* \*number of LED's

### Enclosure

IP Rating	52
Finishing	Powder Coated Dove Gray
Solar Degrees	Fixed 30°
Adjustable Light Output Direction	Fixed LED's (1,2,3 or 4) 30W/675-replace" X with amount of lights" <b>30W/675-1 = 1LED etc.</b> LED's can be adjusted up and down
Weight	13kg
Dimensions	550mm x 338mm x 300mm
Maximum Pole Diameter	63mm
Pole Fixing	2 x 8mm lock Nuts
Mounting Height	2.5m – 5m
External Cutouts on enclosure	On-Off Switch, Dip Switch Selector, 5 x Fault LED's

### LED's used on 30W/675-X Lights

LUMILEDS	LXML-PWC2
Quantity	<b>X 3 per LED light Source</b> 20W/675-1 = 1 Light Source 3 LEDS 20W/675-2 = 2 Light Source 6 LEDS 20W/675-3 = 3 Light Source 9 LEDS 20W/675-4 = 4 Light Source 12 LEDS
Nominal CCT/Color	5650K Cool White
Typical CRI	70
Typical Luminous Flux (lm) @ 350mA Forward Current _+(1W)	135 lm per Watt

### Battery Used inside 30W/675-X Lights

Capacity	18Ap@20hr-rate to 1.75V per Cell @ 25°C
Weight	6 kg
Type – EV	Frequently deep cycle applications
Cells per Unit	6
Voltage	12
<b>Cylce Life in Relation to Depth of Discharge</b>	
50%	>1200 Cycles
30%	>1400 Cycles

## 30W/675-X\* \*number of LED's

### Solar Panel

#### Electrical Performance at STC\*

Maximum Power	30Wp
Power Tolerance	0/+5Wp
Maximum Power Voltage	18V
Maximum Power Current	1.11A
Open Circuit Voltage	21.6V
Short Circuit Current	1.28A

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

#### Thermal Conditions

Normal Operating Cell Temperature	48°C + -2°C
800W/m <sup>2</sup> irradiance, 20°C and AM = 1.5	
Power Temperature Coefficient	-0.5%/K
Current Temperature Coefficient	0.0035%/K
Voltage Temperature Coefficient	-0.37MV/K

#### Limits

Operating Temperature	-40°C to 85°C
Maximum System Voltage	1000V DC

#### General Characteristics

Cell	Polycrystalline Solar Cell (78 x 52)mm
No Cells	36 (6x6)
Panel Dimensions	550 x 338 x 25 mm
Weight	2.5 kg