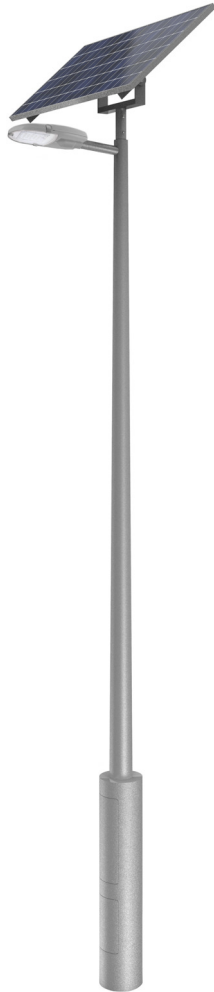


Vertex Solar Lighting System

Stand-Alone High Output LED Lighting System



Product Overview

Mission critical lighting for discerning organisations that value reliability & performance.

The Vertex® solar lighting system comprises the StreetLED luminaire mounted on an enlarged base fixed solar pole with the solar panel array attached at the top.

The batteries, Charge controller and Vertex® EMS (energy management systems) are securely housed in the enlarged base of the pole (above ground) behind a sturdy steel locked door fastened using the Rivlok™ security system.

Performance Summary

Designed and Assembled in Australia

Autonomy: Up to 5 Days

Lumen Output: Up to 3,500 Lumens

Colour Rendering Index: Minimum 70 CRI

Colour Temperature: 4000K

Warranty: 5 Year Limited Warranty with Performance Guarantee

Specification Criteria

Product	Arrangement	Power	Autonomy	Optic	CCT	Height	Finish	Footing	Power Profile
Vertex®	Single	14W	3 Days	Standard	40K	4m	Galvanised	Cage	Dusk-Dawn
		(17w)	4 Days	Aeroscreen	30K	6m	Steel	Block	4-Hour / Off
		37W	5 Days				Powdercoat	Custom	4-Hour / Dim
		(42w)	6 Days				Steel		6-Off-2
			7 Days						8-Off-2
								Other / Custom	

Power Profiles:

Dusk -Dawn – Runs the luminaire at static power level from dusk through to dawn

4 Hour / Off – Runs luminaire from dusk for a total time of 4 hours and then completely switches off the luminaire

4 Hour / Off – Runs luminaire from dusk for a total time of 4 hours and then dims the luminaire to a pre-set level for the rest of the night

6-Off-2 – Runs Luminaire from dusk for a total time of 6 Hours, switches off and runs again for 2 hours prior to dawn

8-Off-2 – Runs Luminaire from dusk for a total time of 8 Hours, switches off and runs again for 2 hours prior to dawn

Other / Custom – Orca Solar can program systems for dimming level and or running time according to project requirements.

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Standard Visor



Aeroscreen Visor



PRODUCT / PERFORMANCE SUMMARY

- High performance street luminaire
- Designed specifically to meet Australian/New Zealand road lighting standards
- The optics and LED light source are optimised to provide the maximum spacings complying with AS1158-3.1 Category P
- Available with self-cleaning Standard or Aeroscreen visor
- The self-cleaning visor minimises light loss due to dirt accumulation, resulting in a highly energy efficient and low maintenance luminaire
- Optical chamber sealed to IP66 ingress protection
- Minimum 70 CRI
- CCT 4000K (standard)

Mechanical Characteristics:

- Pressure die-cast aluminium body (marine grade)
- Weight: 6.1kg
- Self-cleaning acrylic visor (Standard visor)
- IP66 optical chamber
- Stainless 304 steel access clips
- Easy to replace visor hinged with quick access clips
- 27mm to 34mm Spigot Entry
- Hinged driver compartment cover with quick access clips

SYLVANIA

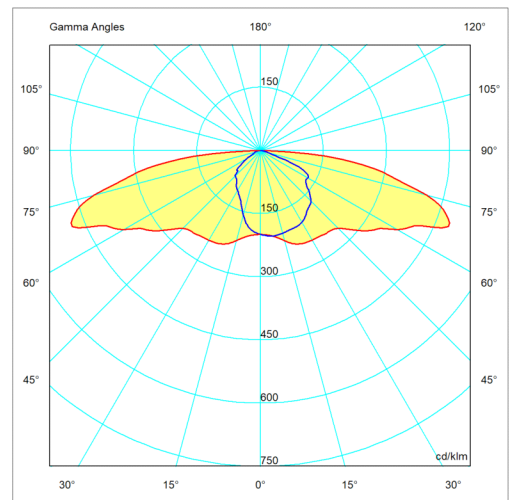
PRODUCT DESCRIPTION

The StreetLED MKII is a high-performance luminaire designed specifically to meet Australian/New Zealand minor road lighting requirements.

The optical system with LED light source is optimised to provide the maximum spacing complying with AS1158-3.1 Category P.

The optical chamber sealed to IP66 ingress protection and the self-cleaning visor minimises light loss due to dirt accumulation, reducing the maintenance and resulting in a highly energy efficient luminaire.

Power (System Power)	4000K
	Initial Lumens*
14W (17W)	2146
37W (42W)	3481



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System design

Autonomy: Vertex® solar lighting systems are scaled to suit applications using NASA solar radiation data based on conditions recorded at location of installation.

Solar Panel: Photovoltaic panel(s) scaled sufficiently to match power load and Vertex® system requirements with 25 Year performance guarantee.

Panel systems are sized specific to location conditions and autonomy requirements

Batteries: Long life batteries VRLA Gel batteries designed specifically for solar cycling applications with 5 year + 5 year pro-rata warranty

Battery systems are sized and quantified specific to location conditions and autonomy requirements

Charge Controller: Advanced MPPT (maximum power point tracking) with short circuit and over current protection. Minimum efficiency of 99.5% and automatic limit function of maximum PV input power, ensuring no overload under any circumstance.

LED Driver: Wide input voltage and high precision constant current control with linear PWM duty cycle dimming control. Minimum 92% efficiency under -40-65° ambient conditions

LED Drive Controller: Four function drive control with pre-set dimming level and timeframe programming including autonomous power adjustment synced to battery voltage and ambient temperature conditions.

Solar Pole: Specifically designed for the Vertex® solar lighting systems, six metre fixed solar pole with battery box to securely house the Vertex® EMS and batteries behind a secure steel door and provide ventilation as per AS4509.

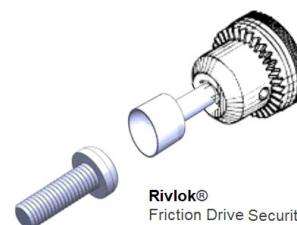
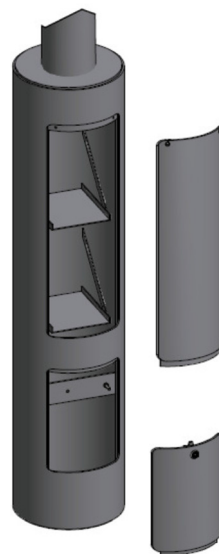
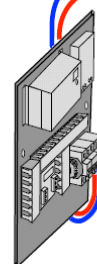
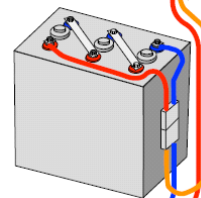
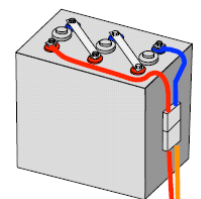
Batteries are securely placed on shelves above the Vertex® EMS which is fixed to a purpose built mounting bracket positioned for easy access during installation and maintenance.

Compliance

Vertex® solar lighting systems provide a minimum of 30% solar panel oversupply co efficient as an extra reliability measure in accordance with AS4509.2 (Australian standards for standalone power systems),

HDG (Hot Dipped Galvanised) steel poles and cage footings designed in accordance with AS4100, AS3679, AS1163 and AS1154

The Vertex® Energy Management System houses the lighting controller, LED driver and safety switches, mounted on fire retardant board. Designed and assembled in Australia, conforming to AS 3000 electrical safety standards and AS 4509.2 standalone power systems



Rivlok®
Friction Drive Security Fixing