

# PRODUCT CATALOGUE 2015

TECHNOLOGY / PRODUCTS / APPLICATIONS



**LEADSUN<sup>®</sup>**

"Bright Ideas For An Even Brighter Future"

# ABOUT US

## LEADSUN IS THE WORLDS LEADING DEVELOPER OF SOLAR POWERED LED LIGHTING & POWER SOLUTIONS.

Leadsun manufactures the worlds most technically innovative range of solar-powered LED lighting & power solutions and is renowned for its diverse product range which suit a wide range of applications. Our Green Friendly products has revolutionised the industry by offering unrivalled build quality and leading technology that has been proven to perform reliably in the world's harshest conditions.

Established in 1993, Leadsun is now a vibrant and fast growing international company with worldwide sales & distribution. Within the past five years, service centers have been established in Australia, United States, and Israel.

The company now has a global representation and consists of a strong and proactive management structure coupled with a skilled team of technical professionals who have expertise in both solar power energy and LED illumination systems.

Leadsun is one of only few companies worldwide that fully develops and manufactures the complete solar powered system ensuring total control over product development, quality & testing.

We are leading the way with solar powered technology and the company has patents for its 'All In One' technology world wide.

### WHY LEADSUN?

We offer our customers a 'Total Solution' approach not yet seen before that is tried, tested and exceeds their needs.

We work exclusively with all types of government bodies, developers, architects and consultants to deliver the most practical and cost-effective solar powered solution possible.

### SUSTAINABLE LIGHTING

Leadsun recognises the importance of providing solar powered lighting solutions that will assist our planet in striving for ongoing reductions in Co2 emissions.

Our entire product range is powered by the clean, limitless energy of the sun and utilise a combination of the highest quality & efficient solar panels as well as intelligent technology such as MPPT (Multi Position Point Tracking) for even greater efficiency.

### WORLD CLASS INNOVATION

Leadsun is continually striving to provide our customers with the most intelligent and easy to install solar powered products, Its our constant focus on innovation and quality that makes Leadsun distinct from any other solar lighting company.

From developing the worlds first and original 'All-In-One' solar light, Leadsun will always be at the forefront of innovative design features for solar powered lighting & power solutions.

Leadsun production facility

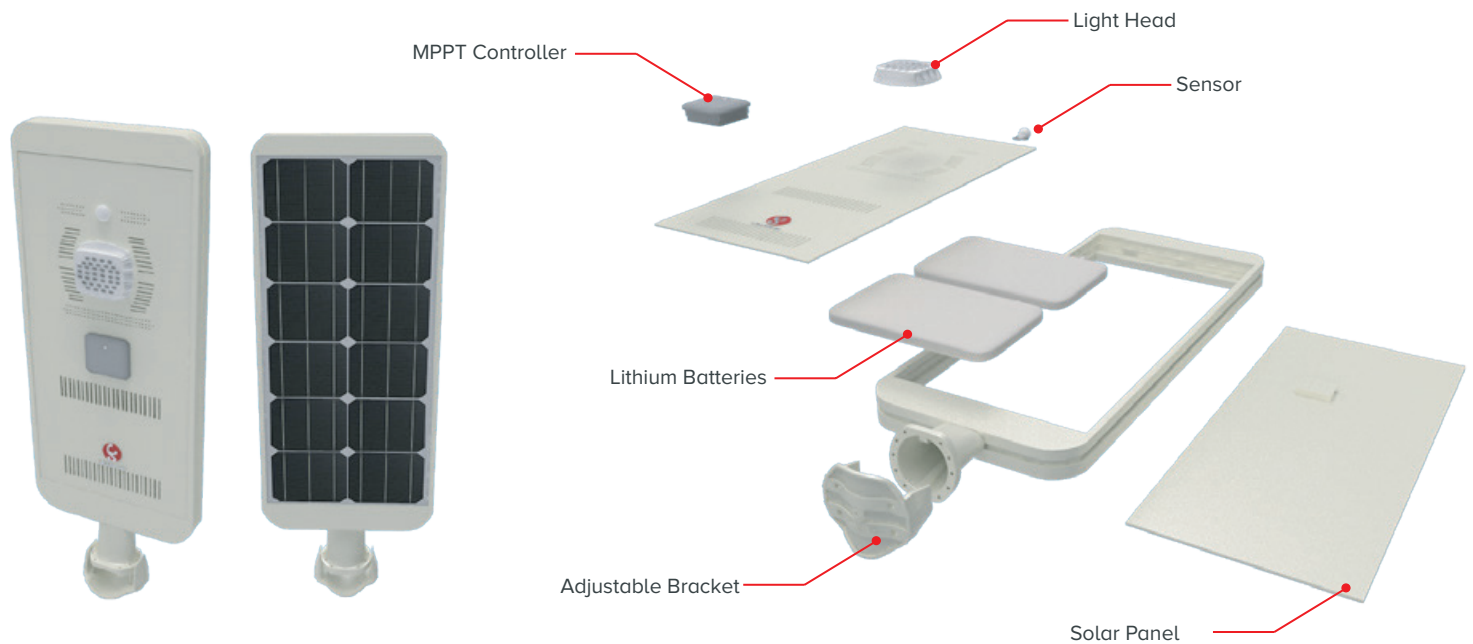




# THE LEADSUN 'ALL-IN-ONE' ADVANTAGE

Leadsun's world patented 'All-In-One' solar lighting technology boasts a new level of versatility & adaptability for a wide range of exterior lighting applications. Our systems seamlessly integrate a highly efficient Mono-Crystalline solar panel, durable and long lasting Lithium LiFePo4 batteries and other intelligent features all built into the one compact system.

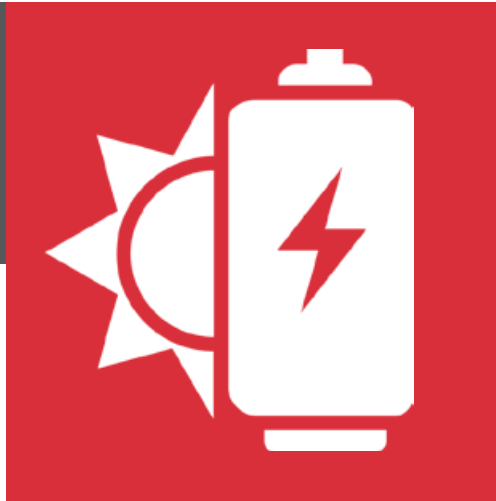
Importantly, not only are our systems easy to install with its 'plug & play' wiring, but our diverse product range also offer our customers greater flexibility in selecting the most suitable sized system to ensure greater operating performance and affordability in illuminating a wide range of areas.



## LIGHTING THE WAY

Trusted by municipal, government and commercial corporations, Leadsun's range of 'All-In-One' solar lighting delivers unrivalled performance and feature packed technology, making our products the ideal solution for car parks, minor roads, pedestrian pathways and various other applications.

It offers total freedom from electrical 'mains power' without need for trenching cabling or expensive work crews; This also means that our systems are immune to grid power fluctuations and blackouts, ensuring flawless performance and continuity of service, safety and security all year round.



# Lithium Battery & Charging Unit

Leadsun uses new-generation Lithium LiFePO<sub>4</sub> batteries which offers 3 times more storage and power capacity versus conventional Lead Acid batteries. Our battery design uniquely features many 'small' lithium iron battery's packed into a 'dual' battery assembly that minimises stress and heat during both discharging and charging cycles ensuring long term reliability. Lithium Iron batteries are also able to discharge to an incredible 90% without any damage to them before the under voltage battery protection 'cuts out' any further operation.

## MPPT Controller (Maximum Power Point Tracking)

Leadsun has adopted new MPPT technology to further ensure the maximum amount of charge is delivered to the Lithium Iron batteries, the charge efficiency can be increased by up to 30% whilst the solar panel is exposed to direct sunlight.



Mono-Crystalline solar panel collects the sun's radiation & converts to D.C voltage



MPPT (Maximum Power Point Tracking) Controller



Lower power consumption during conversion phase



Increase battery charging efficiency

## Battery Protection

Built tough to withstand the harshest and most extreme environments, from blistering heat to freezing conditions. What ever the environment is, Leadsun's lithium battery's and smart protection features are up for the challenge; Our lithium battery's are able to work in extreme heat of up to 60°C (140°F). Optional thermal heating module is available to keep the lights operating in sub freezing conditions as low as -40°C (-40°F).

Additionally, Our newly designed battery packs offer multi-protection technology that allows the 'individual' battery's to work normally even in the unlikely event that some battery's become damaged.



# Wireless Connectivity

Leadsun's entire range now offers a break-through and valuable function in 'remotely' operating and monitoring the performance of each system; It uses a range of wireless connection technology's such as Bluetooth or WiFi to securely 'log-on' to each solar light. Additionally, Leadsun has incorporated the latest in 'mesh' networking to provide our systems with 'linkable' communication between each solar light system that can be accessed remotely via GPRS or 433 technology.



## System Health

- Battery Voltage Status
- Solar Panel Charging Output
- Temperature
- Battery Autonomy (Amp Hours)
- Historical Performance Data

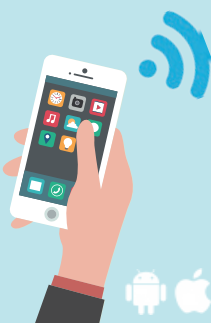


## Operating Modes

- Synchronise All Lights To Operate Identically
- Change The 'Built-In' User Defined Operation Modes
- Time Switch 'On/Off' Programming
- Dusk To Dawn Operation Via Photo Electric
- Cell 'On/Off'

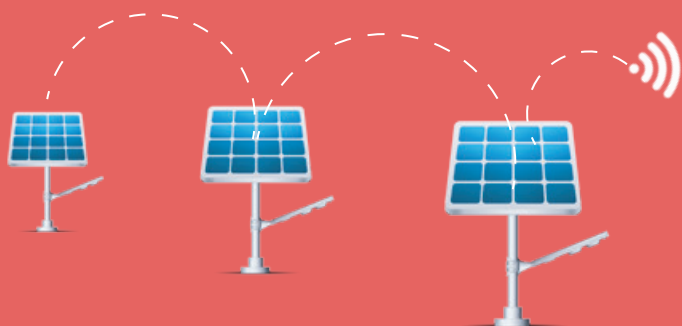
## Bluetooth

Leadsun has developed its own smartphone 'end user' App available to download from either the iPhone or Android app stores that will provide our customers with the ability to individually communicate with each solar light. Once the smartphone and Leadsun solar light are 'paired', the user is able to check the real time and historical system performance as well as alter the LED brightness, or change the 'built-in' lighting operation modes to suit specific applications.



## GPRS/433

Leadsun utilizes a world leading 'mesh' networking technology which allows all the solar lights within a single installation to wirelessly communicate with each other via a daisy chain sequence over long distances; For a low monthly fee which includes a GPRS cellular network connection, we are able to remotely offer our customers historical and real time performance monitoring as well as the flexibility to change the lighting operating profiles or LED brightness of the solar lights. AIR-LINK can also be accessed on-site via a laptop computer and a wireless communication device.



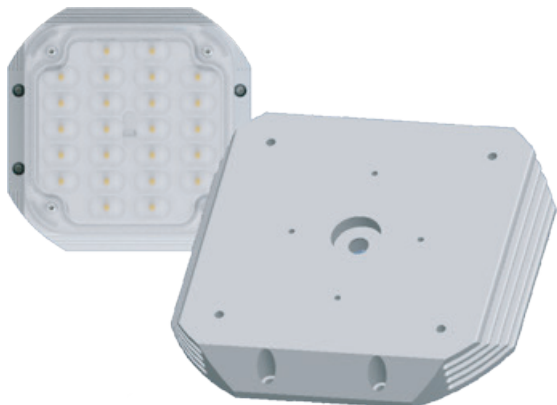
# LED Light Head

Leadsun offers a versatile range of LED light heads that have the flexibility to be used across our entire range of solar engines; All light heads incorporate 'plug & play' IP65 cable connections and operate on either 12V or 24V D.C.

The light heads feature a robust construction and offer flexible installation options from a 'wrap around pole bracket' 'spigot installation' to being able to fix directly onto a flat surface. Additionally, Leadsun can offer our lights as a 240V option.

## SMART-EYE motion sensor

Smart-Eye is a important safety enhancing feature that adopts the latest Panasonic passive-Infrared motion sensor technology, it detects movement within several metres of the unit and automatically regulates the output of the LED lamp from a 'dim mode' to 'full-brightness' depending upon whether motion is detected, this smart feature preserves battery power as well as increases passive security around the lights.



Improved thermal dissipation by 115%

## LED Module

Our updated design utilises a new CNC production technique and is fabricated from aluminium extrusion which significantly improves LED thermal heat dissipation by up to 115%, this in turn improves the longevity of the LED's promising more long term system reliability.



**CREE**

Lumen output efficiency improved  
by up to 15%

## CREE Technology

Our range of LED light heads adopt 'CREE' LED chips which provide industry leading 'bright & crisp' illumination for 50,000 hours and beyond.

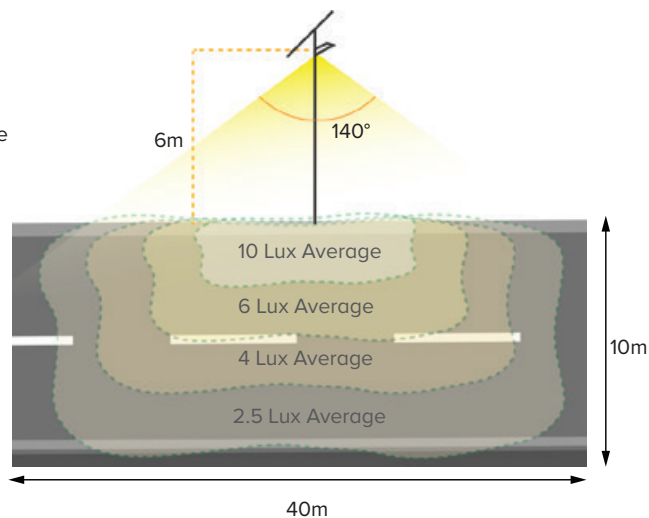
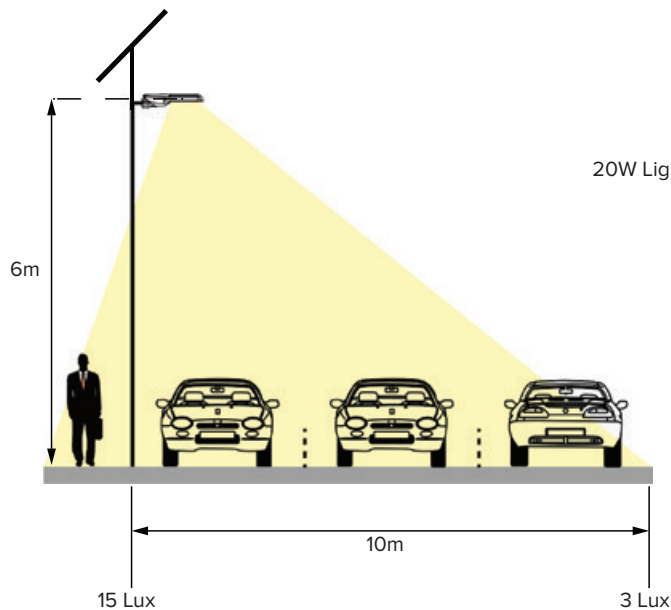
The chips are highly efficient and powerful enough to meet the most demanding design requirements while offering superior illumination for a wide range of applications.





# Light Distribution

Leadsun in development with Cree have created a new LED lens that provides greater luminous uniformity and offers the ultimate in design flexibility. The beam pattern is perfect for laneways, pedestrian promenades, bicycle paths as well as minor roads and car parks.



# AE2 SERIES

The AE2 series is Leadsun's flagship model range of compact 'All In One' solar lights and has been designed to offer simple and extremely cost effective illumination for a wide range of small to medium sized applications. The AE2 range is the world's first 'All In One' LED solar lighting product to have all of its key components integrated into a compact and easy to install product.



## AE2 (ALL-IN-ONE)

The original and world's first 'All-In-One' solar light with all components fully integrated within a easy to install panel.

## AE2 (Split Type)

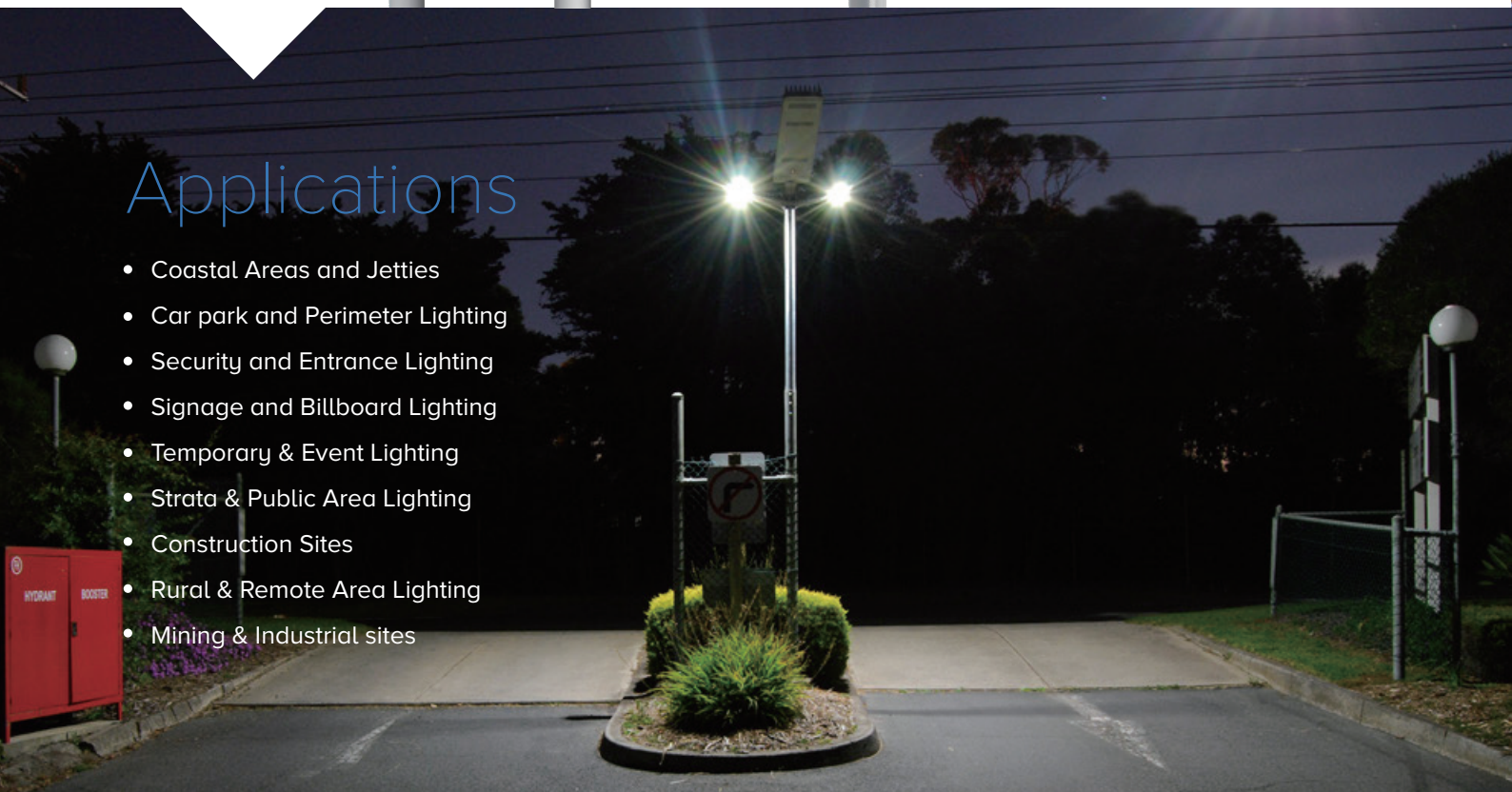
The AE2 'Split' model has flexibility to fix both the solar engine & light head in their optimum positions.

## AE2 (Swivel Type)

With its adjustable light head and solar panel, the AE2 'Swivel' is the newest model in the Livesun range.

## Applications

- Coastal Areas and Jetties
- Car park and Perimeter Lighting
- Security and Entrance Lighting
- Signage and Billboard Lighting
- Temporary & Event Lighting
- Strata & Public Area Lighting
- Construction Sites
- Rural & Remote Area Lighting
- Mining & Industrial sites





# AE3C SERIES

New  
Product

Introducing the new AE3C series which retains the 'All In One' features of the AE2 range but on a larger scale, the new 70W sized solar engine is a cost effective and versatile solution for medium sized applications. Its available in a traditional 'All In One' design as well as a swivel type system where the solar panel and light head can be adjusted to it's optimised position to provide greater lighting distribution.

## Applications

- Coastal Areas and Jetties
- Car park and Perimeter Lighting
- Security and Entrance Lighting
- Signage and Billboard Lighting
- Temporary & Event Lighting
- Strata & Public Area Lighting
- Construction Sites
- Rural & Remote Area Lighting
- Mining & Industrial sites



### AE3C (All-In-One)

A more powerful version of the AE2 series including a far more robust design and mounting options.

### AE3C (Swivel Type)

With its adjustable light head and solar panel, the AE3 'Swivel' is extremely versatile without the need for any additional wiring.



### AE3C (Split Type)

Offers total installation flexibility to position both the solar engine and light head in their optimum positions.

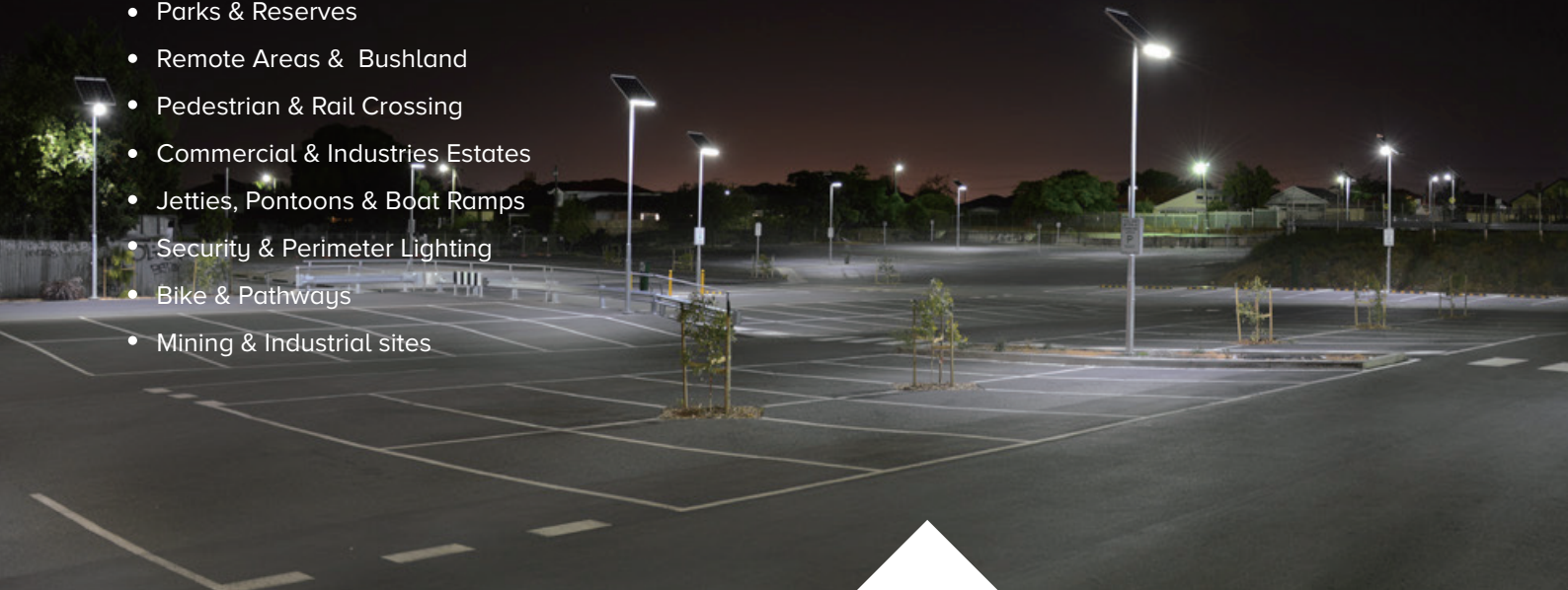


# AE5 SERIES

The AE5 series is a high powered 'All In One' solar lighting system that integrates Dual LED adjustable light sources at each end of the solar engine making it easy to install without the need for any wiring.

## Applications

- Road Lighting
- Parks & Reserves
- Remote Areas & Bushland
- Pedestrian & Rail Crossing
- Commercial & Industries Estates
- Jetties, Pontoons & Boat Ramps
- Security & Perimeter Lighting
- Bike & Pathways
- Mining & Industrial sites



### INSTALLATION

Easily installs on the top of pole without any drilling or wiring.



### SIZES

Available in choice of 120W or 200W solar engines with LED outputs ranging from 30W to 50W.



# AE6 SERIES

With its light weight and powerful Lithium Iron batteries conveniently located under the solar panel the AE6 series is extremely versatile for a wide range of lighting and power applications; It provides many years of outstanding performance and operational reliability.

## INSTALLATION

Easily installs on the top of a pole and incorporates simple 'plug and play' IP65 wiring connections between the solar panel and light head.

## SIZES

Available in choice of 120W or 200W solar engines with LED outputs ranging from 30W to 60W.



## Applications

- Coastal Areas & Jetties
- Car park & Perimeter Lighting
- Security & Entrance Lighting
- Signage & Billboard Lighting
- Temporary & Event Lighting
- Strata & Public Area Lighting
- Construction Sites
- Rural & Remote Area Lighting
- Mining & Industrial sites





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