

# AE3 Series

3rd Generation

## All-In-One (AIO) Solar Lighting Systems



All-In-One

Split

- Sleek and compact design
- Adaptive lighting with Smart-Eye motion control increases battery autonomy
- Available in 55W & 80W solar modules & variable LED output power
- Ultra-Efficient “CREE” Module (150lm/w) powerful LED output
- 5 Year Warranty on ALL components



Powered by  
Lithium-Ion  
Batteries



Easy  
Installation



Infrared Motion  
Sensor



IP65



High Efficient  
Controller



Battery Management  
System



CREE LED  
150lm/w



Plug &  
Play Wiring

**LEADSUN**<sup>®</sup>  
Off-Grid Intelligent Lighting Systems



# Our Models

Leadsun's AE3 series is the world's original and most compact self-contained solar lighting system that blends seamlessly within all landscapes. Its patented design incorporates the latest solar power, lithium battery, LED and adaptive lighting technology all into one modular system providing many years of outstanding performance and operational reliability.

Our two models (AIO & SPLIT) provide the ultimate in installation flexibility for every type of application & environment promising uncompromised performance that optimises both solar charging of the batteries and lighting distribution ensuring that light is delivered exactly where you want it to be.

## All-In-One (AIO) Model

## Split Model

- Sleek one-piece body
- No wiring required
- Fast & easy installation



*The AIO's sleek design integrates all components into one compact module for fast & easy installation. For optimal performance, it requires the solar panel to be orientated facing the midday sun whilst having the LED & Motion sensor modules aiming to the target area.*

- Optimal solar panel orientation
- Plug & Play wiring
- Directional lighting



*The SPLIT system allows optimal and uncompromised performance as the detached light head directs light exactly where it's needed, while the solar panel faces the afternoon sun. Plug & Play wiring supplied with the system is all that's required to easily install the system.*



## THE LEADSUN DIFFERENCE

# All-In-One Construction

### Ultra-Compact

Leadsun is the pioneer of All-In-One solar lighting technology and our AE3 series capitalises on 3rd-Generation advanced patented modular design technology that fully integrates a highly efficient solar panel, compact and powerful Lithium-ion LiFeP04 batteries and a smart power management system featuring intelligent adaptive lighting control. All this feature-packed technology is built-in to a slim-line and easy to install module.



#### 1 PIR Sensor

“Smart Eye” Motion Sensor built-in Passive Infrared Motion Sensor automatically regulates light output.

#### 2 LED Lamp

Choice of either “Asymmetrical” or Symmetrical” lighting distribution.

#### 3 Lithium Ion Battery

New generation LFP batteries offer 3 times more storage and power capacity versus traditional Lead Acid batteries.

#### 4 Adjustable Bracket

3 position adjustment to maximise solar exposure and easy installation.

## High Tensile Aluminium Frame Structure

Built Tough to withstand the harshest and most extreme environments Australia has to offer; From blistering heat to driving rain, whatever the environment is the AE3 series rugged construction is up for the challenge. Its internal components offer IP65 weather protection and the external construction of our main frame now uses extra light weight aluminium alloy with stainless steel 316 grade fastening parts, all in a serviceable friendly body. Our build quality guarantees IP65 weather resistance and IK08 impact protection to all key components.



Complete  
aluminium frame  
structure



Anti-corrosion



IP65 Waterproof



# THE LEADSUN DIFFERENCE

## Lithium-Ion Battery System



Leadsun uses new-generation Lithium  $\text{LiFePO}_4$  batteries which offers 3 times more storage and power capacity versus conventional Lead Acid batteries. Our battery design uniquely features many 'small' lithium iron batteries packed into a 'dual' battery assembly that minimises stress and heat during both discharging and charging cycles ensuring long term reliability.

Lithium  $\text{LiFePO}_4$  batteries are also able to discharge to an incredible 90% without any damage to them before the under voltage battery protection 'cut out' any further operation. The batteries can also operate in temperatures from  $-20^\circ\text{C}$  to  $+60^\circ\text{C}$  and have an expected serviceable life in excess of 8 years!

## Battery Management System

Leadsun's in-house R&D team have developed a highly efficient Smart-Controller that continually regulates & adjusts the charging power in real-time to efficiently optimise charging in varying weather conditions.

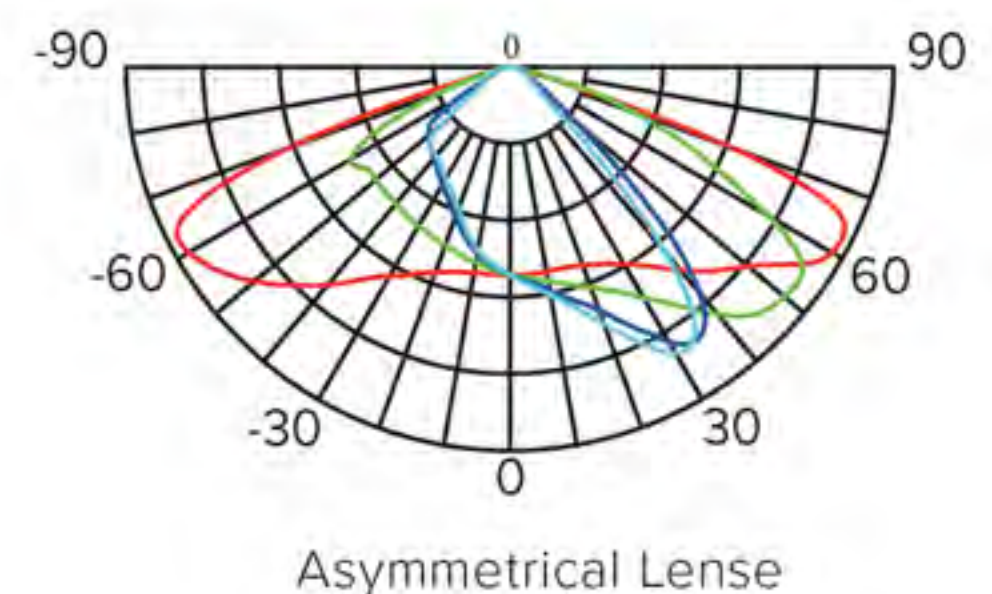
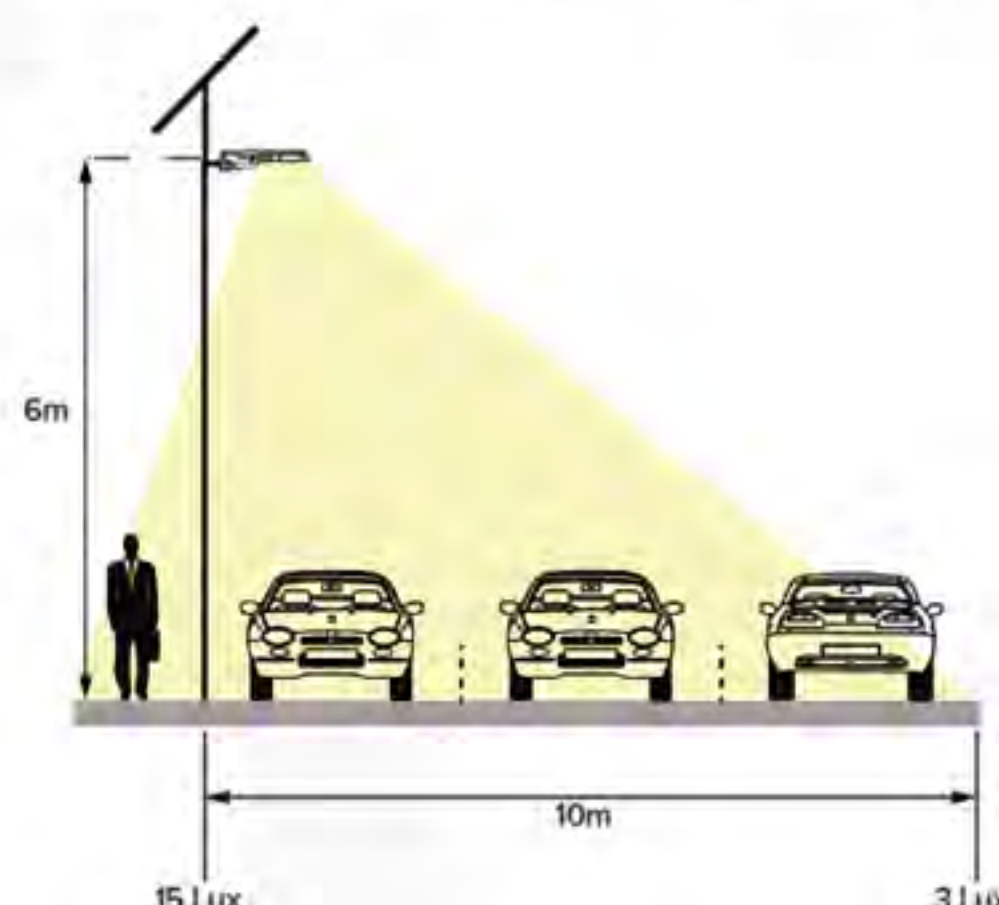


## Advanced LED Lighting System

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.



Newly engineered lighthead features a recessed LED module surface area to limit any upward spill light. Also, a new polycarbonate polished LED optical lens (same as which is used in prestigious car manufacturers head lamps) accurately distributes the light exactly where it needs to go and improves uniformity levels.





# THE LEADSUN DIFFERENCE

## Programmable Smart Controller

### Ultra-Intelligent

Leadsun's SMART Controller offers flexible accessibility, as the intelligent power adjustment function automatically modifies power discharge according to the remaining energy, allowing it to prolong the lighting time. This in turn provides a more effective method of lighting control, which minimises energy consumption and provides greater battery autonomy and operational reliability.

With a sleek, modular design, the convenient 'plug and play' design of the SMART Controller is easy to change over, if ever required. With smart mode control and intelligent power adjustment, the power supply can be configured using a high precision DAC custom dimming profile, which can be fully customised to various levels depending upon the user's requirements.



### Wireless Networking Option

LEADSUN's wireless networking option makes the outdoor light smarter with ease of control, monitoring and management remotely.

Modular plug & play design makes for easy maintenance or replacement

External USB programming port provides easy configuration for the working modes

### Adaptive Intelligent Lighting Control

Featuring the 'Smart-Eye' PIR motion sensor, a new wave in adaptive intelligent lighting control, Leadsun uses the latest Panasonic passive-infrared motion sensor technology to detect movement within several feet of the unit. When the sensor is tripped, the unit automatically regulates the output of the LED lamp, shifting it from 'dim mode' to 'full-brightness' until the motion is no longer detected.

This smart feature not only preserves battery power, but is the cornerstone of the security system, enhancing visibility at night and allowing passive security within the area of the lights.



**SMART EYE**  
MOTION SENSOR



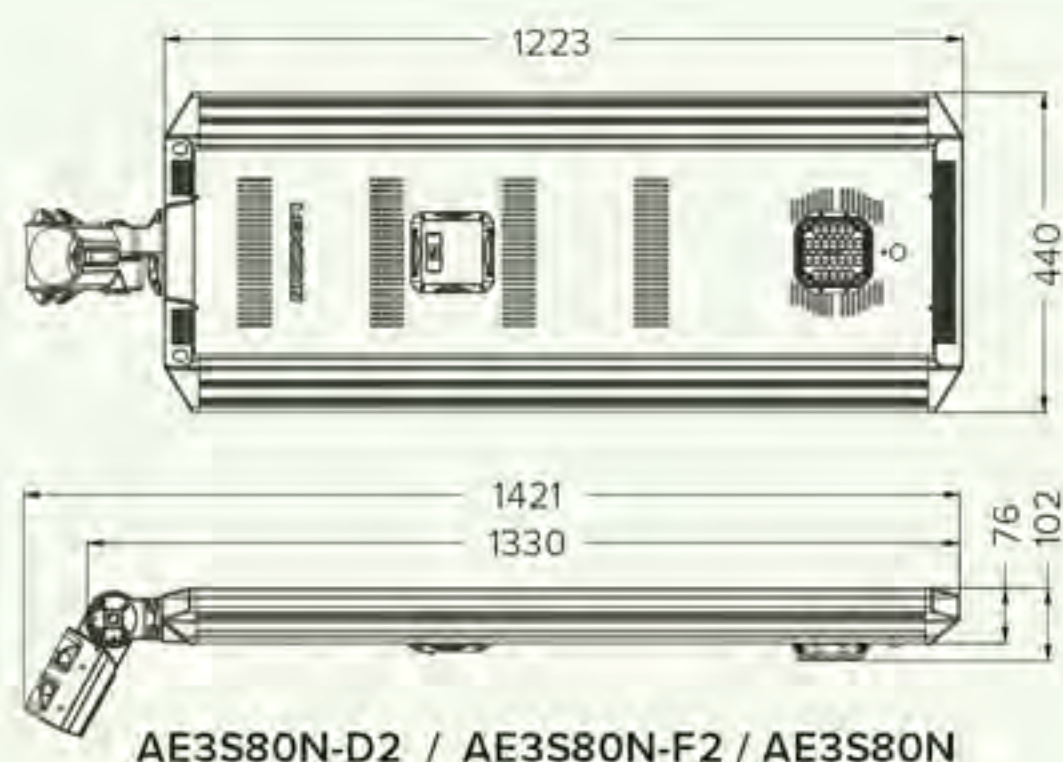
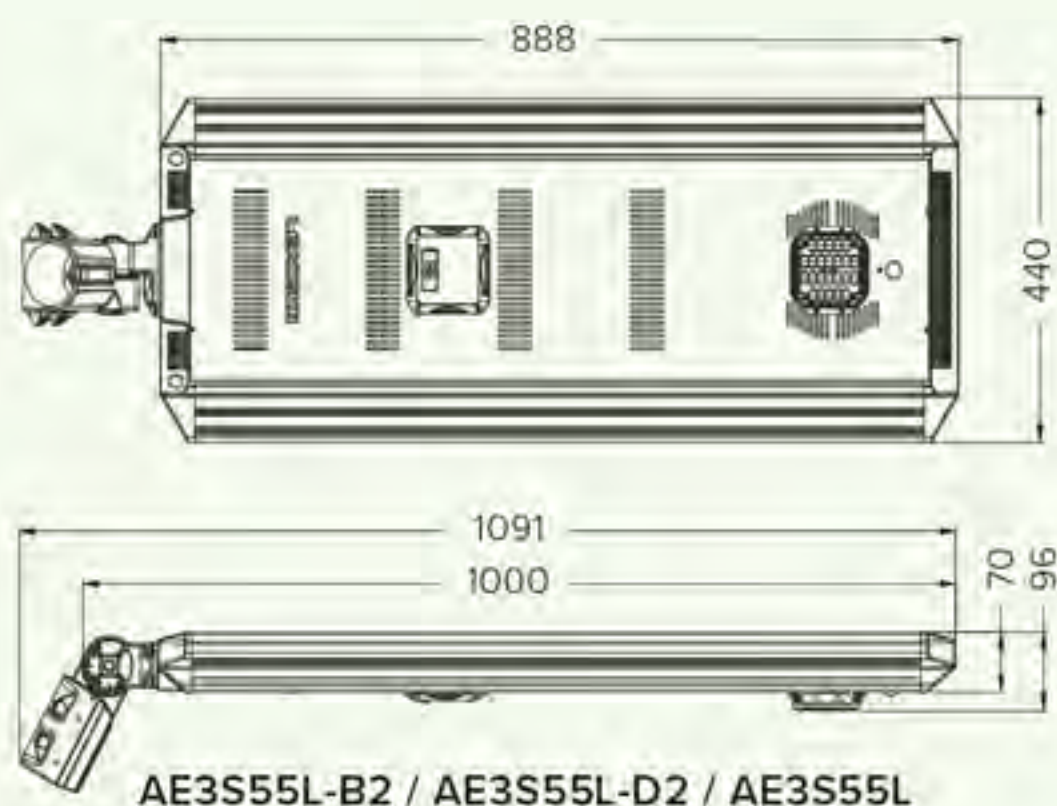
Powered by **Panasonic**



# Solar Engine Technical Data

Model No.		All In One				Split Model	
		AE3S55L-B2	AE3S55L-D2	AE3S80N-D2	AE3S80N-F2	AE3S55L	AE3S80N
Physical Data							
Net Weight (kg)		15	15	17.8	17.8	15.5	17.4
Dimensions (mm)		1000(L)×440(W) ×70(D)	1000(L)×440(W) ×70(D)	1330(L)×440(W) ×76(D)	1330(L)×440(W) ×76(D)	1000(L)×440(W) ×70(D)	1330(L)×440(W) ×76(D)
System Data							
Power of PV Module (W)		55	55	80	80	55	80
Lithium Battery Capacity (12Vdc)		230 (18Ah)	230 (18Ah)	346 (27Ah)	346 (27Ah)	230 (18Ah)	346 (27Ah)
Smart Controller (√: Standard)							
Wireless Connectivity							
Lighting Data							
PIR (√: Standard)		√	√	√	√	X	X
LED Chip		CREE XT-E	CREE XT-E	CREE XT-E	CREE XT-E	X	X
LED Output (W) Asymmetrical		10	20	20	30	X	X
Luminous Efficacy (150lm/W)		1500	3000	3000	4500	X	X
Colour Temperature (K)		5000	5000	5000	5000	X	X
Dusk/Dawn Transitioning Level (lx)		30	30	30	30	X	X
Standard Lighting Program On PIR (Note: programming can be customised)		5hrs at 50%–100% (30sec) (5W–10W) 4hrs at 15%–50% (30sec) (1.5W–5W) Remainder at 15%–100% (1.5W–10W)	5hrs at 50%–100% (30sec) (10W–20W) 4hrs at 15%–50% (30sec) (3W–10W) Remainder at 15%–100% (3W–20W)	5hrs at 50%–100% (30sec) (10W–20W) 4hrs at 15%–50% (30sec) (3W–10W) Remainder at 15%–100% (3W–20W)	5hrs at 50%–100% (30sec) (15W–30W) 4hrs at 15%–50% (30sec) (4.5W–15W) Remainder at 15%–100% (4.5W–30W)	X	X
Maximum Battery Working Time (h)	Full Brightness	10	10	14	10	X	X
	30% Dim Mode	33	33	46	33	X	X
Battery Management Data							
Charge Temperature (°C)		0–60	0–60	0–60	0–60	0–60	0–60
Discharge Temperature (°C)		-20–60	-20–60	-20–60	-20–60	-20–60	-20–60
Storage Temperature (°C)		-20–45	-20–45	-20–45	-20–45	-20–45	-20–45
Mounting Recommendations							
Wind Load Rate (kph)		178	178	178	178	178	178
Top of Pole or Tenon OD (mm)		60–76	60–76	60–76	60–76	60–76	60–76
Height of Pole (m)		4–6	4–6	4–6	4–6	N/A	N/A
Pole Spacing (m)		25	25	25	25	N/A	N/A

## Solar Engine Physical Dimensions (mm)

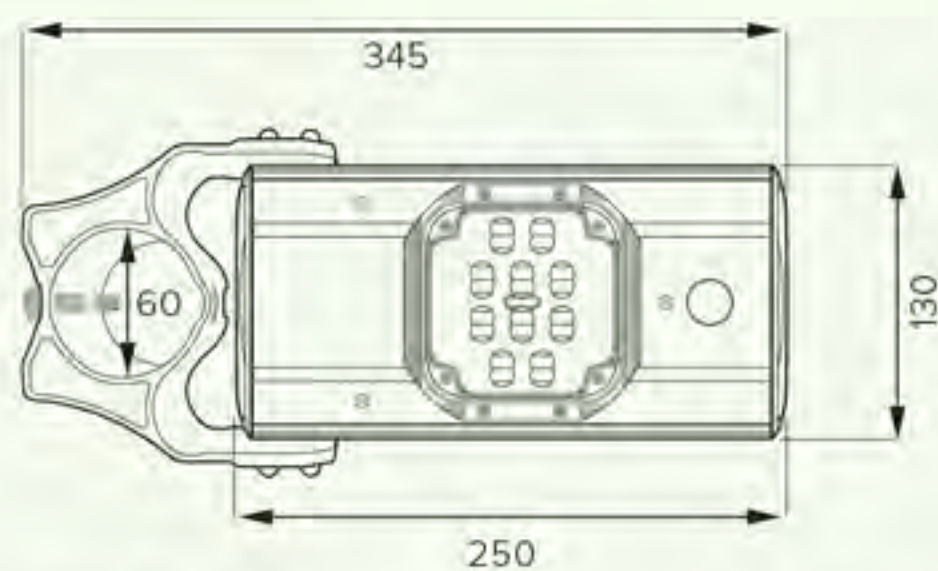




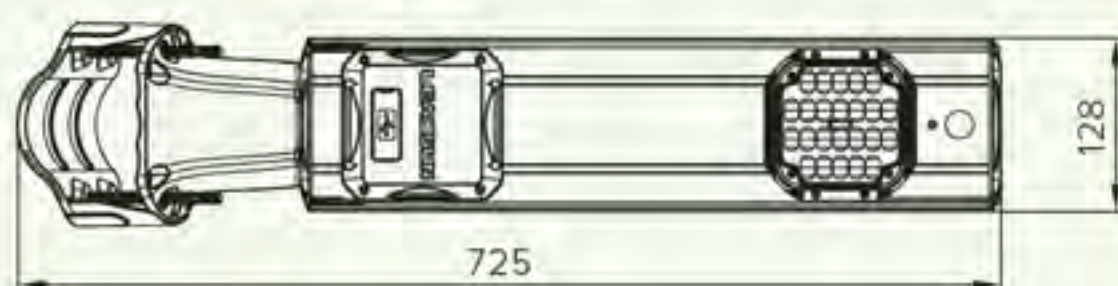
# Lighthouse Technical Data

Model No.	LSRM12-LL2-A2	LSRM12-B2	LSRM12-C2	LSRM12-D2
Physical Data				
Net Weight of Product (kg)	1.9kg	3.6Kg	3.8Kg	3.8Kg
Dimensions (mm)	255(L) x 128(W) x 56(D)mm	720(L) x 306(W) x 48(D)mm	720(L) x 306(W) x 48(D)mm	720(L) x 306(W) x 48(D)mm
Lighting Data				
PIR Sensor (✓: Standard)	✓	✓	✓	✓
LED Chip	CREE XT-E	CREE XT-E	CREE XT-E	CREE XT-E
LED Output (W) Asymmetrical	4W	10W	16W	30W
Luminous Efficacy	600lm	1500lm	2400lm	4500lm
Color Temperature	5000K	5000K	5000K	5000K
Dusk/Dawn Transitioning Level (lx)	30	30	30	30
Standard Lighting Program On PIR (Note: programming can be customised)	30%-100% (30sec) (1.5W-5W)	5hrs at 50%-100% (30sec) (5W-10W) 4hrs at 15%-50% (30sec) (1.5W-5W) Remainder at 15%-100% (1.5W-10W)	5hrs at 50%-100% (30sec) (8W-16W) 4hrs at 15%-50% (30sec) (2.4W-8W) Remainder at 15%-100% (2.4W-16W)	5hrs at 50%-100% (30sec) (10W-20W) 4hrs at 15%-50% (30sec) (3W-10W) Remainder at 15%-100% (3W-20W)
Environmental Requirements				
Storage Temperature (°C)	-20-45	-20-45	-20-45	-20-45
Installation Suggestion				
Recommended Installation Height (m)	N/A	3-6	5-8	5-8
Recommended Pole Spacing (m)	N/A	12-22	20-35	20-35
Recommended Light Pole Diameter (mm)	N/A	60-90	60-90	60-90

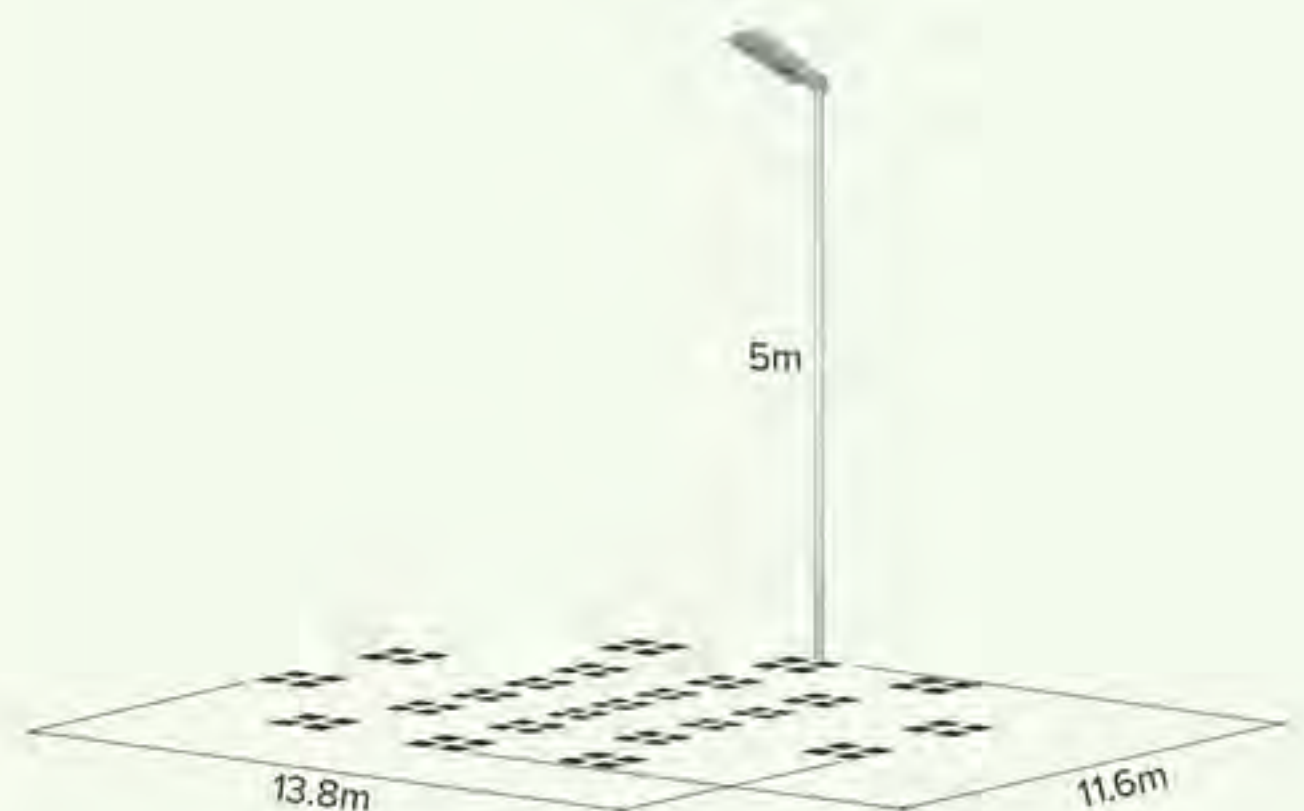
## Dimensions (mm)



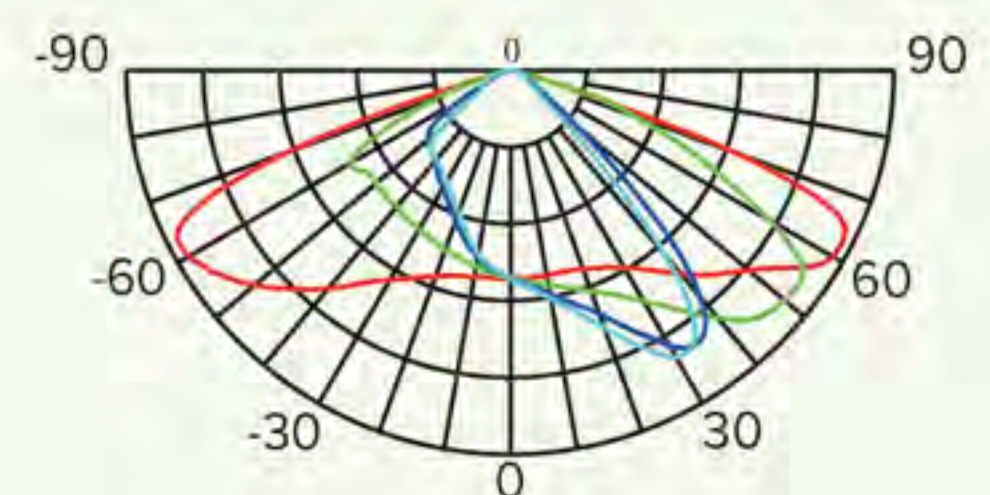
LSRM12-A2



LSRM12-B2 / LSRM12-C2 / LSRM12-F2



Infrared motion sensor detection area

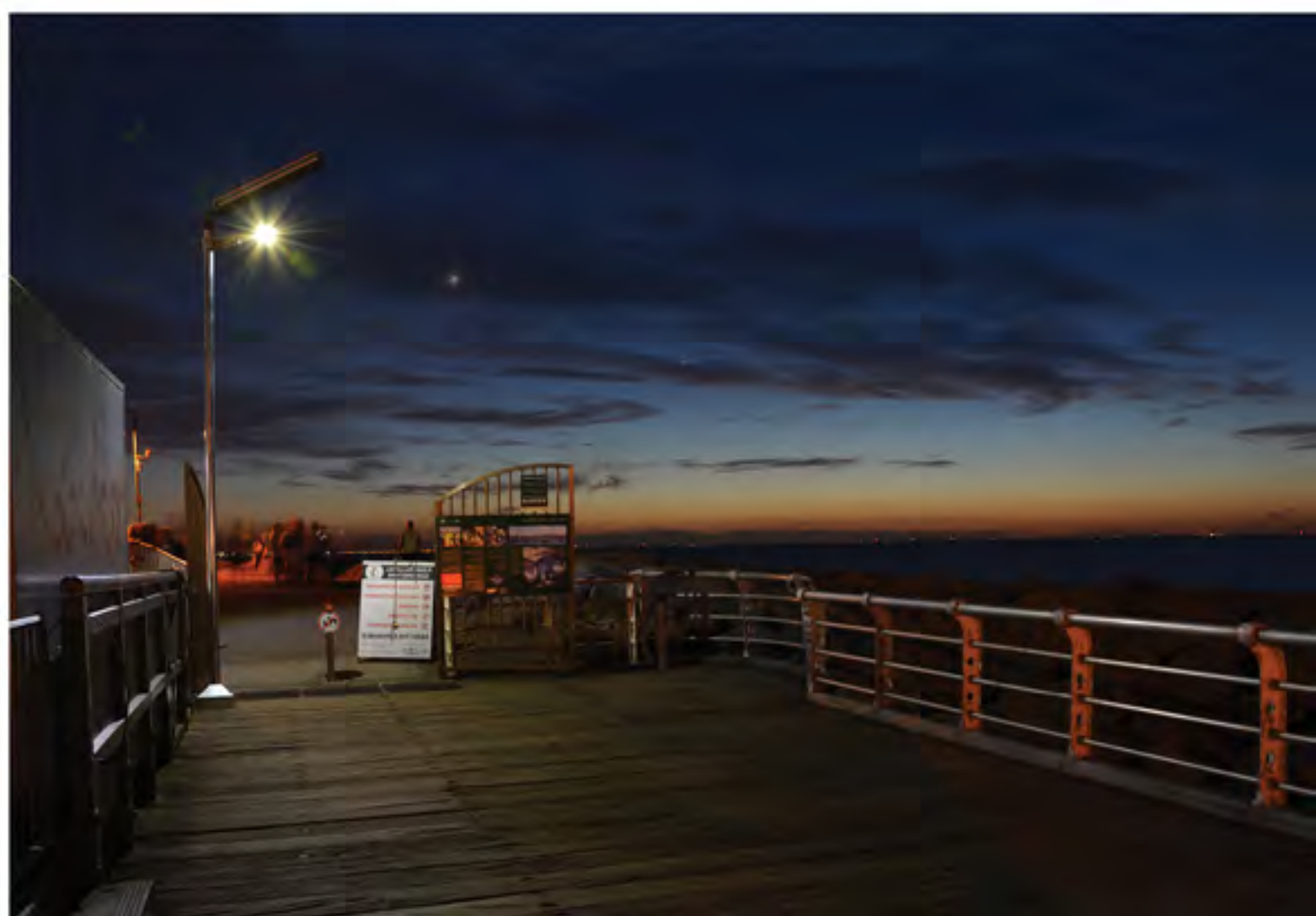


Asymmetrical Lens



# LEADSUN<sup>®</sup>

Off-Grid Intelligent Lighting Systems



Leadsun Australia Pty Ltd  
**1300 532 378 (1300 Leadsun)**

42 Greens Rd, Dandenong Sth, VIC 3175  
E: [sales@leadsun.com.au](mailto:sales@leadsun.com.au)  
W: [leadsun.com.au](http://leadsun.com.au)