MIRAGE SERIES
Solar area lights

Product information

The Mirage series is the latest generation of high powered solar area lights from M-Elec. With up to 100% brighter output and an impressive 200lm/W efficacy across the range, the Mirage series features true LiFePO4 battery technology and advanced PWM solar charging to deliver continuous shining performance from dusk till dawn. The smart remote allows effortless set up of motion and dimming operation modes to maximise performance. Mirage solar area lights also include a fully adjustable 80 x 150 degree beam and slip fit pole mount bracket making installation fast and final adjustments easy.

- 200lm/W efficacy
- LifePO4 battery technology
- Built in solar panel with advanced PWM solar charging
- Adjustable light module & mounting bracket
- Intergrated motion sensor

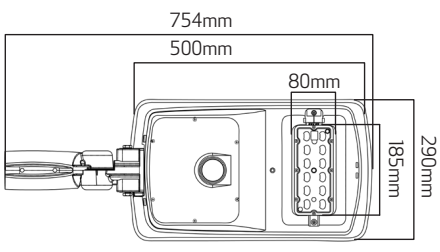
5 year warranty

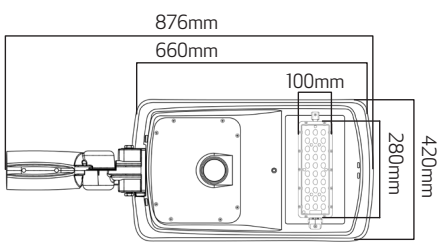
*1 year for battery

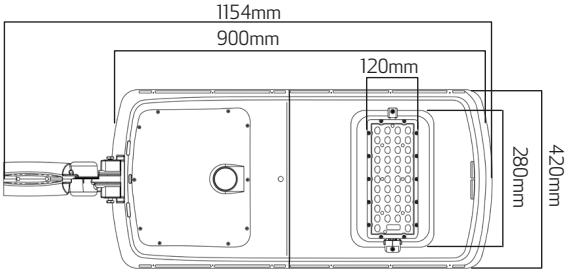
TECHNICAL INFORMATION

Data subject to change, please visit our website for up to date specifications: melec.com.au

	ML-MSL8-W	ML-MSL20-W	ML-MSL30-W
Total power consumed	8W	20W	30W
Power supply	17W Solar panel, 5.8AH LiFePO4 battery	36W Solar panel, 17.4AH LiFePO4 battery	54W Solar panel, 29AH LiFePO4 battery
Run time (full power)	13 hrs	11 hrs	11 . 5 hrs
Lumen Output	1600LM	4000LM	6000LM
Efficacy	200LM/W		
Color Temperature	5000K		
CRI	70+		
Beam angle	80X150 (H X V)		
Light module tilt	±40°		
Charge time	7hrs		
Dimmable	Yes, via remote		
Average life	50 , 000hrs** (LED up to 2000 cycles) (battery)		
LED Chip brand	Lumileds 5050		
LED Test	LM80		
Temperature range	0 - 66°C		
IP rating	IP65		
Mounting method	45 - 64mm slip fit adjusatble mount		
Compliance	CISPR15 (EMC), UN38.3, Level 12 wind test, EN 60598-2-3:2003 + A1:2011		
Construction	Cast aluminium body , PC lens , stainless fittings		
Kit includes	Solar light , instructions , remote control , slip - fit adjustable bracket		
Net weight	6 . 6kg	11kg	14 . 8kg
Dimensions (LxWxH)	500 x 290 x 80	660 x 420 x 94mm	900 x 420 x 94mm
Warranty	5 years (1 year for battery)		







INSTALLATION GUIDE

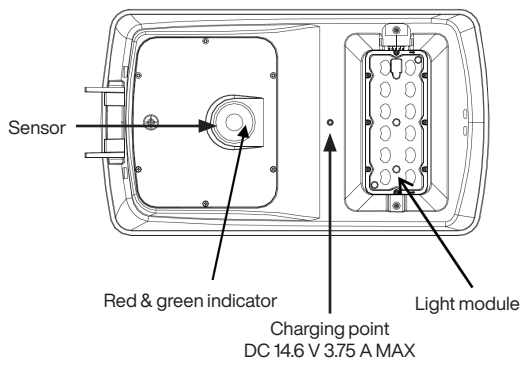
Pre-installation notes:

- The average full sun exposure period in the installation location should be above 3.5 hrs per day in order to ensure a normal battery function
- Always install the solar light in a position with the solar panel facing the equator for charging optimisation (north in southern hemisphere).
- For best results, adjust tilt to at least 15 degrees for northern states and up to 35 degrees for southern states. This helps with charging optimisation and self cleaning.
- Ensure the angle of the solar panel is adjusted to capture the most sun and is away from shade where possible.

Pre-installation checks & tests:

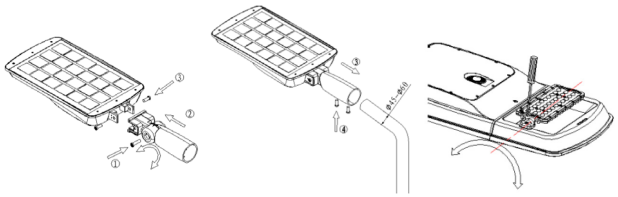
- Please make sure you conduct these tests and checks before mounting the solar light.
- Remove the security plug from the remote control.
- Press the ON/OFF button on the remote control.
- Check that the red indicator light within the sensor is illuminated.
- If the red indicator light within the sensor is illuminated, cover the panel and check if the solar light turns on (normally within 1 minute).
- If the green indicator light within the sensor is illuminated instead of the red, use a charger to charge the inbuilt battery. Chargers are not included in each box but are available upon request. It may require a few hours to charge the inbuilt battery.
- Before installation ensure battery is charged. Reference diagram below.
- We highly recommend charging all solar lights before installation for a minimum of 4 hours before installation to ensure maximum operation, particularly in times of minimal sunlight or areas of limited sunlight. (Lights need to be ON to enable solar charging)
- To ensure battery life, the solar lights should be charged every 3 months when unused.
- Ensure the pole or mounting surface you are installing the solar light on is suitable for mounting the weight and wind effects on the solar light.

Red light		**Greenlight**	
Slow blinking	Charging	Lit	Battery >10%
Lit	Fully charged	Slow blinking	Battery <10%
Fast blinking	Error		

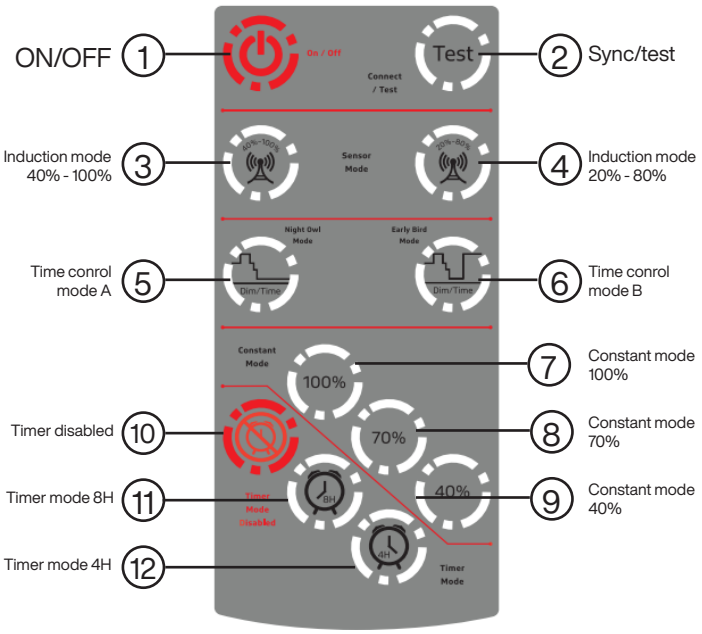


Installation:

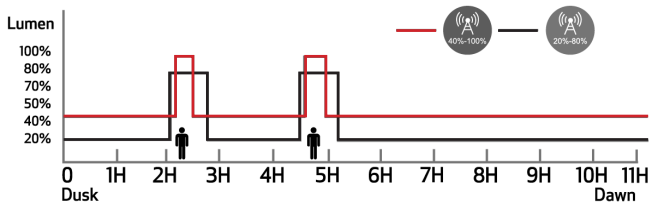
1. Remove the light and bracket from the box.
2. Install the bracket onto the light and adjust the angle to suit the installation (15-35 degrees recommended in instructions above).
3. Use the remote control to set the operation mode. The light module will flash twice when receiving signal from the remote control. The default setting is induction mode 40%-100%.
4. Mount the solar light to the pole securely and adjust the LED module angle to suit the installation.



Remote control operation & settings:

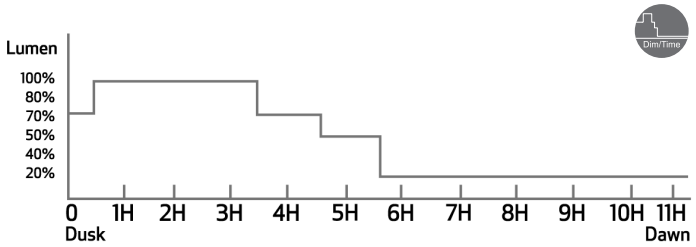


1. **ON/OFF**
   Turn the light ON or OFF (when turned OFF solar charging is disabled).
2. **Sync/test**
   To sync the remote control with the light, press and release the button. To test, press it once. After 10 seconds of test mode, the light goes back to the previous mode.
3. **Induction mode 40%-100%**
   This mode allows a constant 40% brightness (from dusk to dawn) unless motion is detected and then increases to 100% output for 120 seconds.
4. **Induction mode 20% - 80%**
   This mode allows a constant 20% brightness (from dusk to dawn) unless motion is detected and then increases to 80% brightness for 30 seconds. This mode increases the run time of the light and is very helpful for areas with decreased charging time frames.

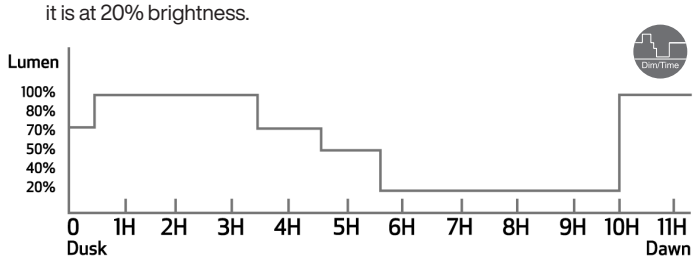


Remote control operation & settings continued

5. Time control mode A
This mode is a time based control mode. After dusk the first 0.5 hr is at 70% brightness, the following 3 hrs is at 100% brightness, the following 1 hr is at 70% brightness, the following 1hr is at 50% brightness, and then the final 5.5 hrs or until dawn it is at 20% brightness.



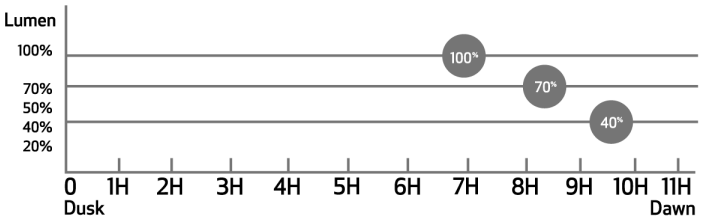
6. Time control mode B
This mode is a time based control mode. After dusk the first 0.5 hr is at 70% brightness, the following 3 hrs is at 100% brightness, the following 1 hr is at 50% brightness, then the final 5.5 hrs or until dawn it is at 20% brightness.



7. Constant mode 100%
This mode offers 100% brightness from dusk till dawn. Suitable for areas and seasons with sufficient sunlight charging during the day.

8. Constant mode 70%
This mode offers 70% brightness from dusk till dawn. Suitable for areas and seasons with sufficient sunlight charging during the day.

9. Constant mode 40%
This mode offers 40% brightness from dusk till dawn. Suitable for areas and seasons with sufficient sunlight charging during the day.



Model	Constant mode	Light lasts
MSL8	100%	13 Hrs
	70%	18.5 Hrs
	40%	32 Hrs
MSL20	100%	11 Hrs
	70%	15 Hrs
	40%	27 Hrs
MSL30	100%	11.5 Hrs
	70%	16 Hrs
	40%	28 Hrs

10. Timer disabled
This button is used to turn off "Timer mode". Settings default to the mode selected prior to timer activation.

11. Timer mode 4 hours
This mode turns the light completely off 4 hrs after dusk. For example: Press this button at any time: if the light turns on at 7pm, it will turn off at 11pm. The mode stays active until disabled with the "Timer disabled" button (10).

12. Timer mode 8 hours
This mode turns the light completely off 8hrs after dusk. For example: Press this button at any time: if the light turns on at 7pm, it will turn off at 3am. The mode stays active until disabled with the "Timer disabled" button (10).

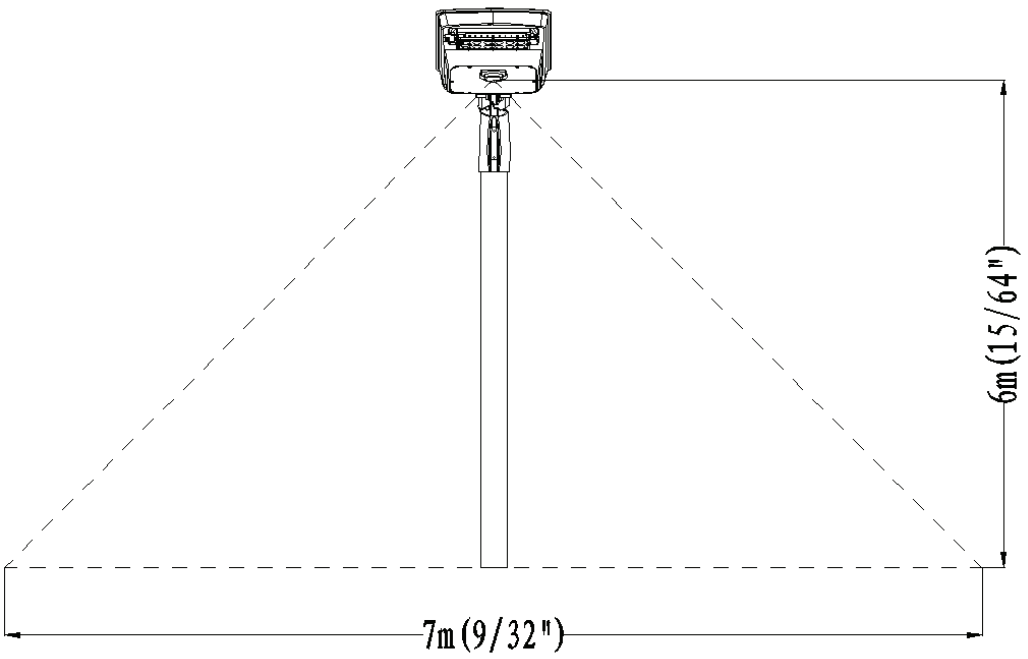
BATTERY AUTONOMY & OPERATING TIME

Operation times without charging the fitting battery will depend on the hours of sunlight, power output setting and the number of sensor activations of the Mirage solar light. An example of duration under such parameters can be examined in the chart below:

Model	Power Setting	Output Power Watts	Output Lumens	Operational Time Hours	Days of Autonomy (2hr at 100% 8hr at 20%)
MSL30	AUTO	30	6000	11.5	2.78
MSL20		20	4000	11	2.5
MSL8		8	1600	13	1.94

SENSE AREA DIAGRAM

Sensing technology: PIR sensor



PLEASE NOTE

- Read instructions carefully before attempting to install the fitting. Retain this guide for future reference
- Disconnect power before installing or servicing
- This fitting is for outdoor use and should not be used in areas with limited ventilation or high ambient temperatures
- Do not extend low voltage cables from the output of power supply
- All components must not be mechanically stressed
- Be careful not to damage or destroy conductive paths on the circuit board
- Follow all relevant electrical and safety standards (including AS3000)
- Correct electrical polarity must be observed as the wrong polarity may destroy the product and is not covered under warranty
- Damage by corrosion will not be honoured as a material defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture, condensation and other harmful elements

FREE ONSITE WARRANTY

EXCLUSIVE TO MEMBERS ONLY

M-WORLD

FREE ONSITE WARRANTY FOR 3 YEARS
INCLUDES PARTS & LABOUR

In conjunction with your standard product warranty

M-ELEC

Version 6