

# FAA L-810 Obstruction Light with Solar Power System

AV-OL Series Single or Dual Light Fixture

## Features

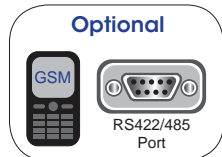
- Cost effective, energy efficient obstruction lighting solution
- Power supplies available in various sizes to suit visual or IR light fixtures
- Angle of the solar module can be adjusted to maximise solar collection
- User-replaceable battery in weatherproof housing
- Single or dual light fixture
- User-adjustable operation mode to toggle between dusk-fill-down & 24hr operation
- Alarm contact for remote monitoring
- Light sensor for day/night operation
- LED technology reduces maintenance time and costs
- Easy to service
- Optional combined visual/IR for pilots using NVG
- Available with optional GSM monitoring
- Optional RS422/485 communications port for monitoring
- Custom built systems are also available

## Applications

- Obstruction lighting

## Compliance

- Certified to FAA AC150/5345-43G for L-810 Steady-burning Red Obstruction Light
- FAA Engineering Brief No. 67D
- FAA Engineering Brief No. 76



Solar panel & pole mounting kit included

Adjustable solar module angled to maximise solar collection

Solar power systems available to suit various locations. Custom systems are also available on request.

**This Avlite light fixture is a steady burning, low intensity, solar powered, LED obstruction light designed to comply with FAA L-810 requirements including Engineering Brief 76 - Using solar power for airport obstruction lighting. The model can be used for marking obstacles which pose a threat to aircraft, such as towers, airport perimeter fencing, wind turbines, buildings and other tall structures.**

Avlite's LED obstruction lights offer an ultra bright, energy efficient and cost effective solar powered lighting solution. The solar module has an adjustable mount which can be angled to maximise solar collection.

The solar modules charge the battery during daylight hours, and the light automatically begins operation at dusk once the ambient light threshold drops sufficiently.

The complete assembly is available in a variety of solar/battery configurations to suit a range of installations and ensures years of maintenance-free reliable service.

Please contact Avlite for solar calculations to determine which model will operate effectively in your location.

The obstruction light also has an adjustable operation mode setting to allow the user to easily toggle between dusk-fill-down and 24 hour operation modes.

**The obstruction light is also available with combined visual and infrared (IR) for visibility to pilots using night vision.**

LED Optic

Combined visual & infrared for visibility to pilots using night vision (optional)

Also available with single light fixture

User-replaceable battery in weatherproof & corrosion resistant housing



Angle of the solar panel can be adjusted to maximise solar collection



Mounting kit ensures the system is easy to install



FAA L-810 single light fixture

# FAA L-810 Obstruction Light with Solar Power System

AV-OL Series Single or Dual Light Fixture

## SPECIFICATIONS \* \*

### Light Characteristics

Light Source As tested; FAA: AV-OL-FL810-12-R LED  
 Available colors Red as standard. Other colors available on request, including IR  
 Peak Intensity (cd)† Complies with FAA L-810 obstruction lights  
 Operation Mode Adjustment User-adjustable between dusk-till-dawn & 24 hour operation  
 Horizontal Output (degrees) 360  
 Vertical Divergence (degrees) As per FAA L-810 obstruction light specification  
 LED Life Expectancy (hours) >100,000

### Electrical Characteristics

Current Draw (mA) FAA L-810 @ 32.5cd Steady-on with relay energised & IR: I<sub>max</sub> = 135  
 Power (W) FAA L-810 @ 32.5cd Steady-on with relay energised & IR: P<sub>max</sub> = 1.75  
 Circuit Protection Integrated  
 Temperature Range -40 to 80°C

### Solar Characteristics

Solar Module Type Multi Crystalline  
 Output (watts) AV-PS-36-20-01 Power Supply: 20 AV-PS-36-40-01 Power Supply: 40  
 AV-PS-100-40-01 Power Supply: 40 AV-PS-100-60-01 Power Supply: 65  
 Solar Module Efficiency (%) 14  
 Charging Regulation Microprocessor controlled

### Power Supply

Battery Type SLA (Sealed Lead Acid)  
 Battery Capacity (Ah) AV-PS-36-20-01 Power Supply: 36 AV-PS-36-40-01 Power Supply: 36  
 AV-PS-100-40-01 Power Supply: 100 AV-PS-100-60-01 Power Supply: 100  
 Nominal Voltage (V) 12  
 Autonomy (nights) >7 nights as per EB 76  
 Battery Service Life >5 years

### Physical Characteristics

Light Head:  
 Body Material Single Fixture: LEXAN® Polycarbonate - UV stabilized  
 Dual Fixture: 7-stage powder-coated aluminium  
 LEXAN® Polycarbonate - UV stabilized  
 Lens Material 100 / 3<sup>7</sup>/<sub>8</sub>  
 Lens Diameter (mm/inches)  
 Lens Design Single LED Optic  
 Height (mm/inches) Single Fixture: 137 / 5<sup>1</sup>/<sub>2</sub> Dual Fixture: 245 / 9<sup>3</sup>/<sub>4</sub>  
 Width (mm/inches) Single Fixture: 121 / 4<sup>7</sup>/<sub>8</sub> Dual Fixture: 354 / 14  
 Mass (kg/lbs) Single Fixture: 0.4 / <sup>7</sup>/<sub>8</sub> Dual Fixture: 2.3 / 5  
 Mounting <sup>3</sup>/<sub>4</sub> inch pipe thread

### Power Supply

Height (mm/inches) AV-PS-36-20-01 Power Supply: 306 / 14.17  
 AV-PS-36-40-01 Power Supply: 537 / 21.14  
 AV-PS-100-40-01 Power Supply: 537 / 21.14  
 AV-PS-100-60-01 Power Supply: 665 / 26.18  
 Width (mm/inches) AV-PS-36-20-01 Power Supply: 656 / 25.8  
 AV-PS-36-40-01 Power Supply: 665 / 26.57  
 AV-PS-100-40-01 Power Supply: 665 / 26.57  
 AV-PS-100-60-01 Power Supply: 771 / 30.35  
 Depth (mm/inches) AV-PS-36-20-01 Power Supply: 18 / 0.17  
 AV-PS-36-40-01 Power Supply: 30 / 1.38  
 AV-PS-100-40-01 Power Supply: 30 / 1.38  
 AV-PS-100-60-01 Power Supply: 30 / 1.38  
 Mass (kg/lbs) AV-PS-36-20-01 Power Supply: 2.38 / 5.25  
 AV-PS-36-40-01 Power Supply: 4.5 / 9.92  
 AV-PS-100-40-01 Power Supply: 4.5 / 9.92  
 AV-PS-100-60-01 Power Supply: 6 / 13.23  
 Mounting bracket to suit two in post

Mounting  
**Battery Enclosure:**  
 Material Compression molded fiberglass reinforced polyester  
 Height (mm/inches) 506 / 20  
 Width (mm/inches) 455 / 18  
 Depth (mm/inches) 308 / 12<sup>1</sup>/<sub>4</sub>  
 Mass (kg/lbs) 8.2 / 18 excluding battery  
 Mounting Pole mounting kit to suit up to 15 inches  
 Product Life Expectancy Up to 12 years

### Certifications

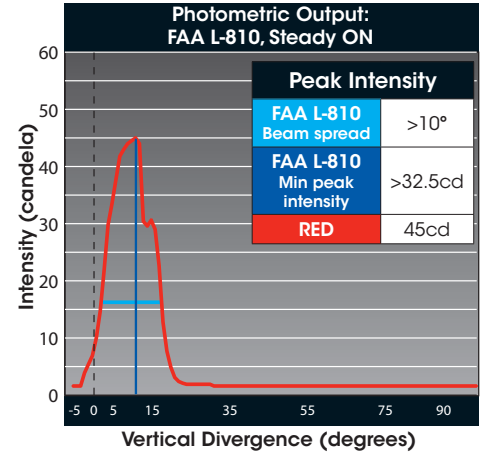
CE EN61000-6-3:1997. EN61000-6-1:1997  
 Quality Assurance ISO9001:2008  
 FAA L-810 Steady-burning Red Obstruction Light (Qualified by Intertek)  
 Waterproof Light head: IP67  
 Battery enclosure: NEMA 4X rated

### Intellectual Property

Trademarks AVLITE® is a registered trademark of Avlite Systems

### Warranty \*

Options Available 3 year warranty  
 • Variety of solar/battery configurations  
 • Dual visual/IR output  
 • IR LED  
 • RS422/485 communications port  
 • GSM Cell-Phone Monitoring  
 • Threaded adaptor for light head to fit one (1) inch pipe



## HOW TO ORDER

### FAA Compliant Light Fixture

AV-OL-FL810-12-[Color]-[?]-[?]-[?]

**Product No.:** \_\_\_\_\_  
**Model:** \_\_\_\_\_  
 12 = 12-48 VDC  
**Color:** \_\_\_\_\_  
 R = Red  
 IR = Infrared  
 RIR = Combined Red/IR  
**Single or Dual Fixture:** \_\_\_\_\_  
 [blank] = Single light fixture  
 [D] = Dual light fixture  
**Monitoring & Control:** \_\_\_\_\_  
 GSM = GSM  
 [blank] = No GSM  
**RS Communications Port:** \_\_\_\_\_  
 RS = RS communications port  
 [blank] = No RS communications port

## HOW TO ORDER

### Power Supply for single light fixture

AV-PS-36-[?]-01  
**Product No.:** \_\_\_\_\_  
**Battery Capacity:** \_\_\_\_\_  
 36 = 36 Ah  
**Solar Output:** \_\_\_\_\_  
 20 = 20 watts  
 40 = 40 watts  
**Mount Type:** \_\_\_\_\_  
 01 = post mount

## HOW TO ORDER

### Power Supply for dual light fixture

AV-PS-100-[?]-01  
**Product No.:** \_\_\_\_\_  
**Battery Capacity:** \_\_\_\_\_  
 100 = 100 Ah  
**Solar Output:** \_\_\_\_\_  
 40 = 40 watts  
 60 = 60 watts  
**Mount Type:** \_\_\_\_\_  
 01 = post mount