

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-till-dawn & 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-till-dawn 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
Available colors
Peak Intensity (cd)†
Operation Mode Adjustment
Horizontal Output (degrees)
Vertical Divergence (degrees)
LED Life Expectancy (hours)

As tested; FAA: AV-OL-FL810-12-R LED
Red as standard. Other colors available on request, including IR
Complies with FAA L-810 obstruction lights
User-adjustable between dusk-till-dawn & 24 hour operation
360
As per FAA L-810 obstruction light specification
>100,000

Electrical Characteristics

Current Draw (mA)
Power (W)
Circuit Protection
Temperature Range

FAA L-810 @ 32.5cd Steady-on with relay energised & IR: I_{max} = 135
FAA L-810 @ 32.5cd Steady-on with relay energised & IR: P_{max} = 1.75
Integrated
-40 to 80°C

Solar Characteristics

Solar Module Type
Output (watts)

Multi Crystalline
AV-PS-36-20-01 Power Supply: 20
AV-PS-100-40-01 Power Supply: 40
AV-PS-36-40-01 Power Supply: 40
AV-PS-100-60-01 Power Supply: 60

Solar Module Efficiency (%)
Charging Regulation

Microprocessor controlled

Power Supply

Battery Type
Battery Capacity (Ah)

SLA (Sealed Lead Acid)
AV-PS-36-20-01 Power Supply: 36
AV-PS-100-40-01 Power Supply: 100
AV-PS-36-40-01 Power Supply: 36
AV-PS-100-60-01 Power Supply: 100

Nominal Voltage (V)
Autonomy (nights)
Battery Service Life

12
>7 nights as per EB 76
>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
100 / 3⁷/₈

Lens Material
Lens Diameter (mm/inches)
Lens Design

Single LED Optic
Single Fixture: 137 / 5¹/₂
Dual Fixture: 245 / 9³/₄
Single Fixture: 121 / 4⁷/₈
Dual Fixture: 354 / 14
Single Fixture: 0.4 / ⁷/₈
Dual Fixture: 2.3 / 5
¾ inch pipe thread

Height (mm/inches)
Width (mm/inches)
Mass (kg/lbs)
Mounting

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
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
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
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

Width (mm/inches)

Depth (mm/inches)

Mass (kg/lbs)

Mounting

Battery Enclosure:

Material
Height (mm/inches)
Width (mm/inches)
Depth (mm/inches)
Mass (kg/lbs)
Mounting
Product Life Expectancy

Compression molded fiberglass reinforced polyester
506 / 20
455 / 18
308 / 12³/₄
8.2 / 18 excluding battery
Pole mounting kit to suit up to 15 inches
Up to 12 years

Certifications

CE
Quality Assurance
FAA
Waterproof

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

Intellectual Property

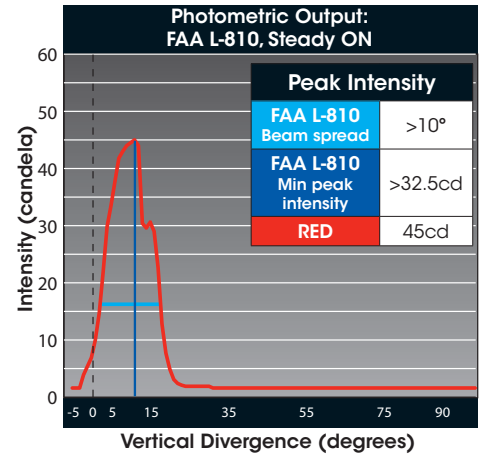
Trademarks

Warranty *

Options Available

AVLITE® is a registered trademark of Avlite Systems
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