

# AV125 Series LED Obstruction Light

## Features

- LED technology
- Made from tough, durable polycarbonate
- Solar powered option available
- GSM monitoring available
- GPS flash synchronisation available
- RF control available

## Compliance

- ICAO Annex 14 Volume 1, 'Aerodrome Design and Operations', Forth edition July 2004, Table 6.3



**The AV125 has a minimum 32cd between 6 and 10 degrees, and can be used for marking obstacles with heights under 45 meters, in accordance with ICAO Annex 14, Chapter 6.**

The AV125 is available as a self-contained solar-powered assembly, including solar array, sealed battery and charge controller, all housed in a weatherproof enclosure. Different sized solar arrays are matches to the available sunlight at your location to ensure the unit runs reliably all year round.

The light is one of the most advanced LED aviation lights on the market. Utilizing the latest software and micro-circuitry developments, the light boasts a huge number of features including flash-memory and the most efficient power conversion available.

The tough polycarbonate lens is specifically designed for use with LEDs. The unit is sealed using polycarbonate bonding compounds similar to those used by major automobile manufacturing companies. This also enables a waterproof rating of IP68 – unmatched by other manufacturers.

The LEDs utilize the omnidirectional LED Reflector (US Pat. No. 6,667,582. AU Pat. No. 778,918) to increase the intensity and uniformity of the horizontal output.

Remote monitoring and control capabilities are available from the AV125 light allowing the performance of the units to be monitored from remote sites.

Systems status including battery condition and operational confirmation may be monitored through GSM, radio or satellite communications.

Once installed, the AV125 requires no operator intervention.



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# AV125 Series

LED Obstruction Light

The AV125 is also available with the following optional features:

## GPS Synchronization

Avlite has utilized the latest advancements in GPS technology to develop an internal synchronization system that can be incorporated into the lights. Using overhead satellites, multiple obstruction lights set to the same flash pattern will flash in unison.

## RF Synchronization

The AV125 Series of lights are also available with the option of RF Synchronization allowing the user to set lights to the same flash pattern. The lights are fitted with an internal RF module, which operates at a 2.4GHz frequency and has an operational range of 1.5 - 2km between two lights.

Synchronization is achieved via short-range RF communication between the lights, and relies on line-of-sight operation.

## RF Control & Synchronization

The AV125 obstruction light is also available with RF control, whereby lights can be operated by a wireless handheld controller, which enables personnel to remotely activate and set specific characteristics of the AV125. Lights can be set to flash in synchronization, turn OFF, or adjust to steady-burn.



## GSM Monitoring



Avlite Systems AV125 Series of products are available with optional GSM Monitoring, enabling operators to remotely monitor the status of their aviation installations, any time, any where. The system can also be configured to send out warning SMS text messages to designated cellular telephone numbers.

The GSM Monitoring System is a completely integrated module (housed internally within the light), designed to allow convenient monitoring of Avlite lanterns using a cellular telephone and web access from remote locations that have GSM network coverage. The unit has no external aerials - providing convenient installation and retaining the IP68 waterproof rating of the light.

To access the lantern diagnostics, the user simply sends the lantern and SMS text message command, and then receives an auto-reply SMS text message outlining the details. In addition, this information is accessible via the web - simply login at any Avlite website and access immediate information about your aviation installation. Historical data is also available from the website.

## Major Benefits

- Access lantern diagnostics remotely - any time, any where via SMS text message!
- All functions can be programmed/pre-programmed remotely
- Flexibility of user-setup
- Web server setup enables ease of access to lantern diagnostics and historical data via the web
- Pre-programmed alarm conditions automatically reported to designated cell phone numbers

## Available Data from Remote Lantern:

- Battery Voltage
- Solar module charging current
- Lantern current draw
- Lantern position - Latitude and Longitude (if GPS fitted)
- Day/night on status
- Current flash setting
- Internal lantern PCB temperature: Normal/High

**Avlite**  
www.avlite.com



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### USA Customers

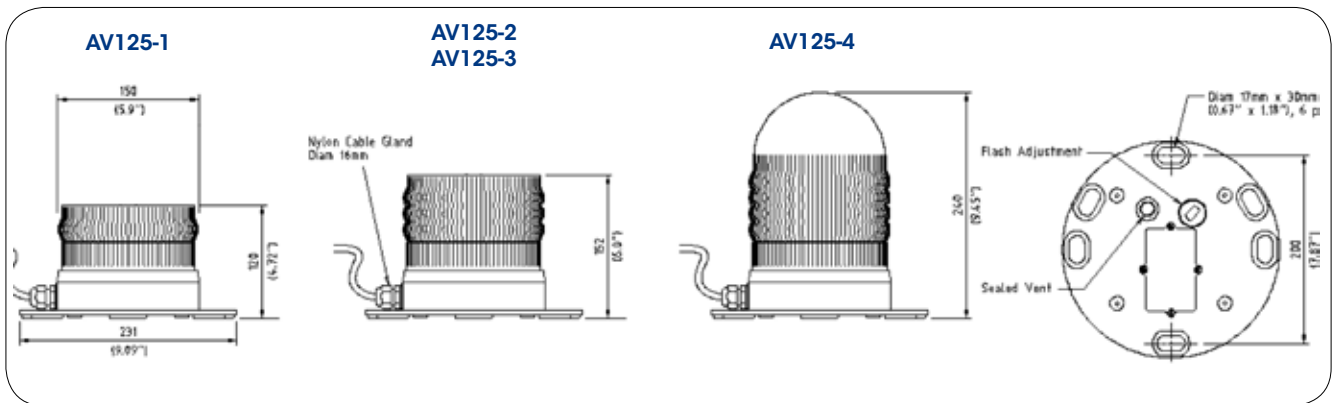
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# AV125 Series

LED Obstruction Light



## SPECIFICATIONS •

### Light Characteristics

Light Source	36 ultra-high intensity LEDs (standard AV125-1)
Available Colors	Red (other colors available)
Peak Intensity (cd)	AV125-1 = 96cd
Visible Range (nm)	7
Horizontal Output (degrees)	360
Vertical Divergence (degrees)	Complies with ICAO spec for LIOL between 6° and 10°
Reflector Type	Omnidirectional 360° LED Reflector (US Pat. No. 6,667,582. AU Pat. No. 778,918)
Available Flash Characteristics	>250 including fixed-on (user-adjustable)
Intensity Adjustments	Adjustable in 25% increments
LED Life Expectancy (hours)	>100,000

### Electrical Characteristics

Current Draw (mA)	1 tier = 300mA
Circuit Protection	Integrated
Operating Voltage (V)	12
Temperature Range	-40 to 80°C

### Physical Characteristics

Body Material	LEXAN® Polycarbonate - UV stabilized
Lens Material	LEXAN® Polycarbonate - UV stabilized
Lens Diameter (mm/inches)	150 / 5 7/8
Lens Design	External optics with interior flute design
Mounting	6 x 17mm holes on 200mm PCD
Height (mm/inches)	120 / 4 3/4 (AV125-1)
Width (mm/inches)	231 / 9 1/8
Mass (kg/lbs)	1.1 / 2 1/3
Product Life Expectancy	Up to 12 years

### Certifications

CE	EN61000-6-3:1997. EN61000-6-1:1997
Quality Assurance	ISO9001:2000
Waterproof	IP68

### Intellectual Property

Patents	US Pat. No. 6,667,582. AU Pat. No. 778,918
Trademarks	AVLITE® is a registered trademark of Avlite Systems

### Warranty \*

3 years

### Options Available

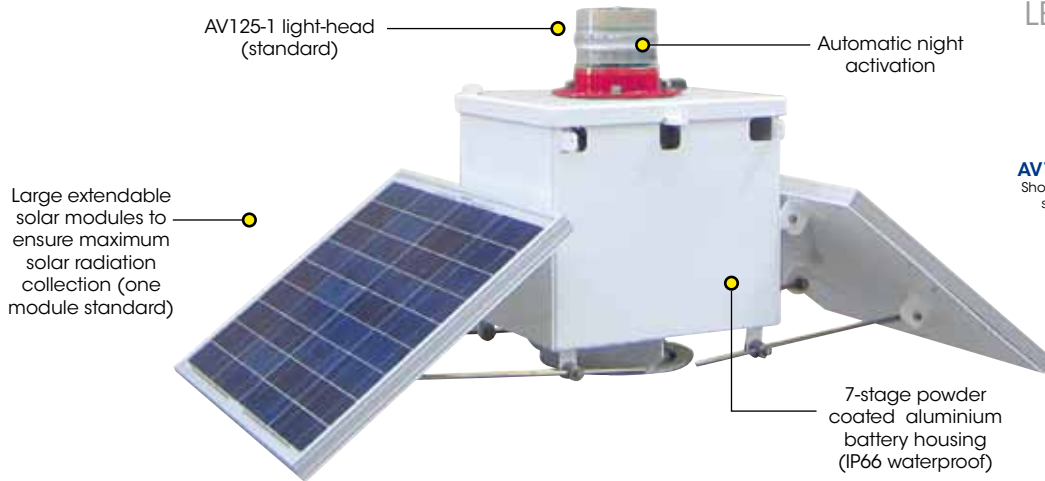
- GPS, GSM, Radio remote monitoring
- Other LED colours to suit different applications
- Variety of solar/battery configurations (AV125-C)
- IR



• Specifications subject to change or variation without notice  
\* Subject to standard terms and conditions

# AV125 Series

## LED Obstruction Light



**AV125C Type 2**  
Shown with optional second panel

**Avlite's AV125 complete lantern assembly provides a total solution for all obstruction, hazard, perimeter and general lighting needs.**

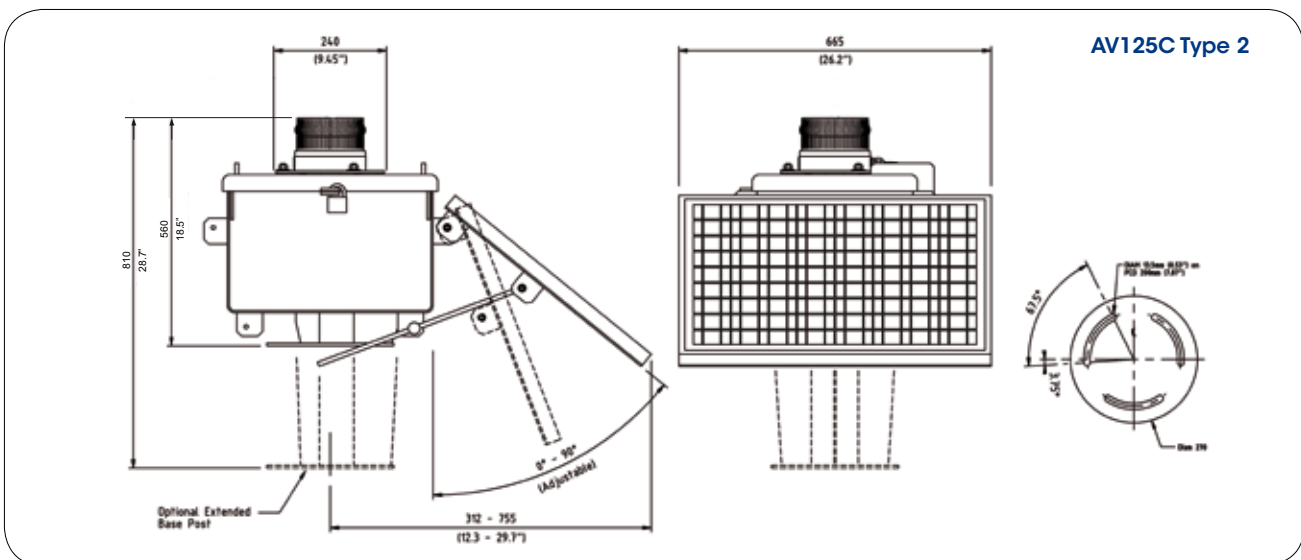
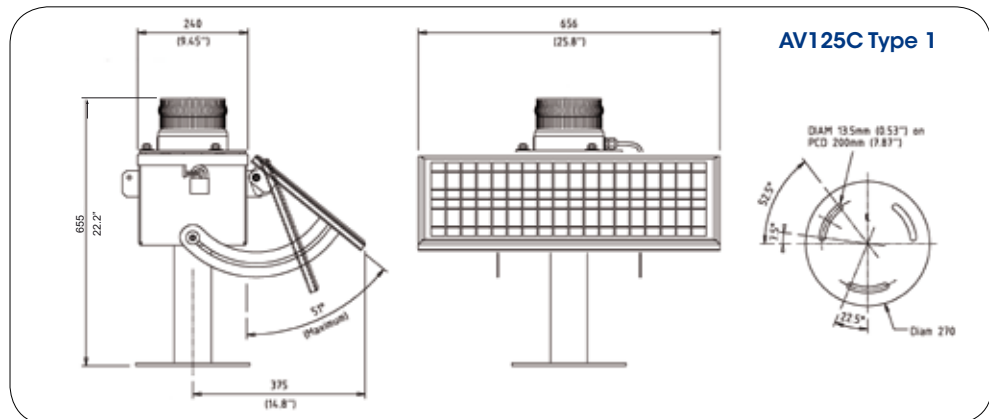
The unit is equipped with a standard AV125 light-head, and uses 36 ultra-high intensity LEDs as a light source. The solar modules charge the battery during daylight hours, and the light automatically begins operation at dusk - once the ambient light threshold drops sufficiently.

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

Part No.	Solar Array	Battery
AV125	n/a	n/a
AV125/C-1	1 x 20watt	26Ah
AV125/C-2	2 x 20watt	26Ah
AV125/C-1.T2	1 x 40watt	55Ah
AV125/C-2.T2	2 x 40watt	55Ah



**AV125C Type 1**  
Shown with optional second panel



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# AV125 Series

LED Obstruction Light

## SPECIFICATIONS •

### Type 1

### Type 2

#### Light Characteristics

Light Source  
Available Colors  
Peak Intensity (cd)  
Visible Range (nm)  
Horizontal Output (degrees)  
Vertical Divergence (degrees)  
Reflector Type

AV125 Series LED lantern  
Red (other colors available)  
96  
5-7  
360  
9  
Omnidirectional 360° LED Reflector (US Pat. No. 6,667,582, AU Pat. No. 778,918)  
>250 including fixed-on (user-adjustable)  
Adjustable in 25% increments  
>100,000

AV125 Series LED lantern  
Red (other colors available)  
96  
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Omnidirectional 360° LED Reflector (US Pat. No. 6,667,582, AU Pat. No. 778,918)  
>250 including fixed-on (user-adjustable)  
Adjustable in 25% increments  
>100,000

Available Flash Characteristics  
Intensity Adjustments  
LED Life Expectancy (hours)

#### Electrical Characteristics

Current Draw (mA)  
Circuit Protection  
Operating Voltage (v)  
Autonomy (nights)  
Temperature Range

1 tier = 300mA  
Reverse polarity  
12  
>20 (14 hour darkness, 12.5% duty cycle)  
-40 to 80°C

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Reverse polarity  
12  
>20 (14 hour darkness, 12.5% duty cycle)  
-40 to 80°C

#### Solar Characteristics

Solar Module Type  
Output (watts)  
Solar Module Efficiency (%)  
Charging Regulation

Multicrystalline  
20 (AV125-1 and AV125-2 configurations)  
40 (AV125-3 and AV125-4 configurations)  
14  
Microprocessor controlled

Multicrystalline  
40 or 80  
14  
Microprocessor controlled

#### Power Supply

Battery Type  
Battery Capacity (Ah)  
Nominal Voltage (v)  
Battery Service Life

SLA (Sealed Lead Acid)  
26  
12  
Average 5 years

SLA (Sealed Lead Acid)  
55  
12  
Average 5 years

#### Physical Characteristics

Body Material  
Lens Material  
Lens Diameter (mm/inches)  
Lens Design  
Mounting  
Height (mm/inches)  
Width (mm/inches)  
Mass (kg/lbs)  
Product Life Expectancy

7 stage powder coated aluminium  
LEXAN® Polycarbonate - UV stabilized  
150 / 5<sup>7</sup>/<sub>8</sub>  
External optics with interior flute design  
200mm OD base pattern  
From 655 / 22<sup>1</sup>/<sub>4</sub>  
656 / 25<sup>3</sup>/<sub>4</sub>  
From 18 / 39<sup>5</sup>/<sub>8</sub>  
Up to 12 years

7 stage powder coated aluminium  
LEXAN® Polycarbonate - UV stabilized  
150 / 5<sup>7</sup>/<sub>8</sub>  
External optics with interior flute design  
200mm OD base pattern  
From 560 / 18<sup>1</sup>/<sub>2</sub>  
665 / 26<sup>1</sup>/<sub>4</sub>  
From 18 / 39<sup>5</sup>/<sub>8</sub>  
Up to 12 years

#### Certifications

CE

EN61000-6-3:2001. EN61000-6-1:2000. EN55022.  
EN61000-4-2:1995. EN61000-4-3:2002  
USCG specification HSCG23-05-R-E43013, including  
Change 1.  
ISO9001:2000  
IP68 light-head. IP66 battery compartment

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IP68 light-head. IP66 battery compartment

Quality Assurance  
Waterproof

#### Intellectual Property

Patents  
Trademarks

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#### Warranty \*

3 years

3 years

#### Options Available

- Single or dual solar module(s)
- Hard-wire or GPS synchronisation
- Remote monitoring (via AIS, or GSM cell-phone - AV125/C.T1-GSM) or control (via radio - AV125/C.T1-RC) capabilities
- *Note* - remote monitoring/control will reduce visible range of lantern due to increased power consumption

- Single or dual solar module(s)
- 80Ah battery (AV125/C.T2/80Ah)
- 60watt solar module (single or dual configurations)
- Hard-wire or GPS synchronisation
- Remote monitoring (via AIS, or GSM cell-phone - AV125/C.T2-GSM) or control (via radio - AV125/C.T2-RC) capabilities
- Extended base post
- *Note* - remote monitoring/control will reduce visible range of lantern due to increased power consumption

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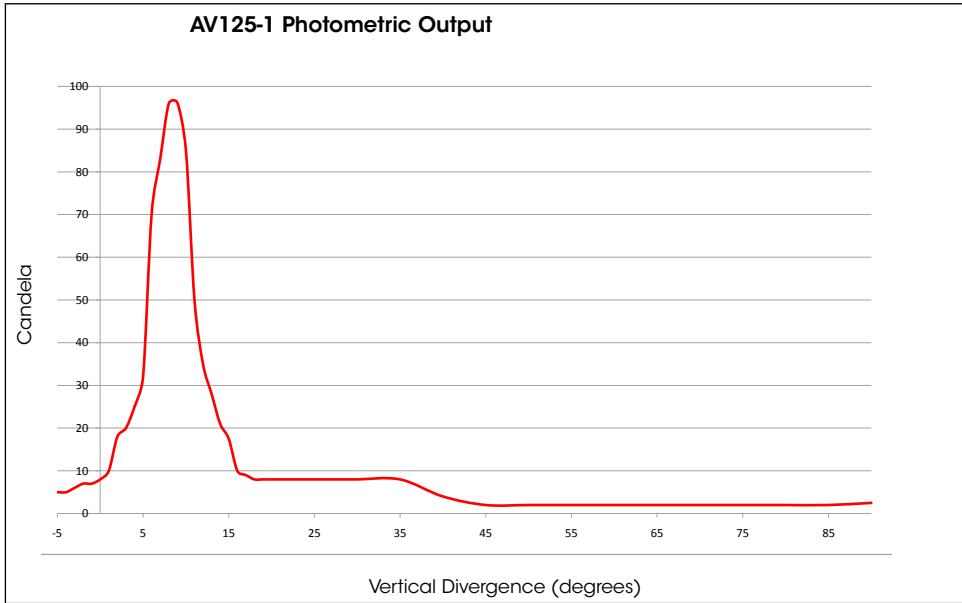
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## Photometrics



Peak Intensity  
(High Intensity)

RED	96
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## Testimonial

[Re: Afghanistan RF Controlled Obstruction Lights]

"I have just got back to Afghanistan and picked up your lights and radio controller from Kandahar. They are exactly what we wanted and should do a great job out here."

**Kandahar, Afghanistan**

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