DWT-AV-72

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Radio-Controlled Solar Aviation Light

- 2.4GHz worldwide accepted radio control
- 128bit security encryption
- Switchable between visual & tactical IR mode
- 3-step intensity adjustment
- High capacity replaceable battery pack
- Made from tough, durable LEXAN® polycarbonate
- Dual internal solar panels for enhanced charging

Typical Application

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Taxiway Lighting
FAA Construction & Baricade Lighting

The AV-72-RF is a self-contained solar powered omni-directional aviation light with tactical IR mode, 128bit encryption and encrypted 2.4 GHz radio control. The AV-72-RF solar powered LED airfield light has an internal RF module and antenna to receive encrypted command messages from the handheld radio controller.

The units provide NVG compatible visible and infrared LED outputs for portable, permanent or sustained operations. Lights can be controlled from a secure world-wide compatible 2.4 GHz RF link from the ATC tower from the aircraft (via ALSCU with a VHF radio link) or set for dusk-dawn automatic operation.
The radio system uses a mesh network to expand the working range indefinitely.
Lights can be assigned to a light group (up to 15 distinct groups) to allow individual control of separate light groups (runways, helipads, taxiways, obstruction) within an airfield or for multi faceted covert and overt operations.
The AV-72-RF has 3 radio-controlled intensity settings, and can be set from dusk-till-dawn, medium intensity, or temporary-high mode for tactical operations. When set to temporary-high the light complies with L861T photometrics.
The AV-72-RF offers enormous benefits over traditional battery and hard-wired airfield lights including low maintenance and no underground cabling. The unit has twin high-performance solar modules mounted within the lens, which maximize solar collection and provide reliable operation in a range of environmental conditions.

Fittings / Options:

- ✓ Pilot Activated Lighting Control
- ✓ IR LEDs
- ✓ External ON/OFF Switch
- ✓ External Battery Charging Port
- ✓ Manual Operation
- ✓ Sectored Combinations

Compliant to:

- ✓ ICAO Annex 14

MECHANICAL CHARACTERISTICS

Material	
Body	LEXAN® Polycarbonate – UV stabilized
Lens	LEXAN® Polycarbonate – UV stabilized
Body Colour	According to light color
Dimensions	
Width	231 mm
Height	240 mm
Lens Diameter	140 mm (External optics with interior flute design)
Weight	1.1 kg
Mounting	6 x 17mm holes on 200mm PCD
Protection Class	IP68
Temperature Range	-40 to 80°C
Wind Speed	Up to 160 kph

OPTICAL CHARACTERISTICS

Light Source	12 visible ultra-high intensity LEDs and 6 infrared LEDs
Light Colour	Red | Green | White | Yellow | Amber | Blue | Sectored Combinations
Light Intensities (steady-on | flashing)	
Blue	2.8 cd | 5.5 cd
Red	6.8 cd | 18.2 cd
Green	9.0 cd | 21.9cd
White	7.0 cd | 19.1 cd
Yellow	6.5 cd | 15.1 cd
Intensity Adjustments	0%, 25%, 50%, 75%, 100%
Available Flash Characteristics	>250 including steady-on (user-adjustable)
Life Expectancy	
of LED	>100,000 hours
of Unit	Up to 12 years
Horizontal Divergence	360° (Omnidirectional 360° LED Reflector)
Vertical Divergence	0° to +7°

ELECTRICAL CHARACTERISTICS

Operating Voltage	3.6 V
Battery Capacity	16 Ah, High grade NiMH – Environmentally friendly
Solar Module	
Type	Multicrystalline
Output	2.5 W (2 x 1.25 W)
Efficiency	14 %
Charging Regulation	Microprocessor controlled
Radio Control	
Frequency	2.4 GHz ISM Band
Range	Up to 1.4 km relayed
Autonomy	(Low intensity, dusk-till-dawn mode)
Steady-on	> 20 nights

Intensity setting subject to solar availability

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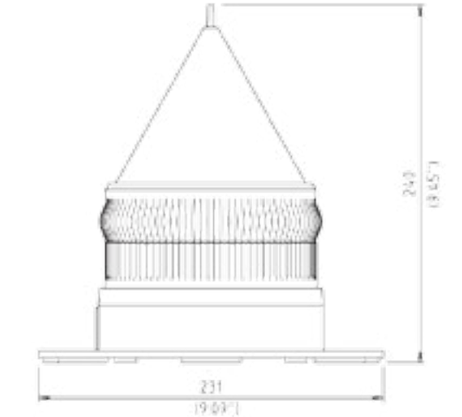
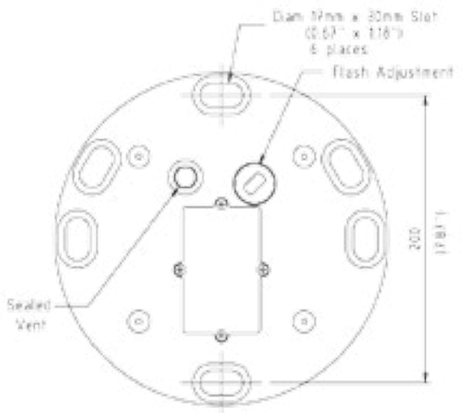
DIMENSIONS



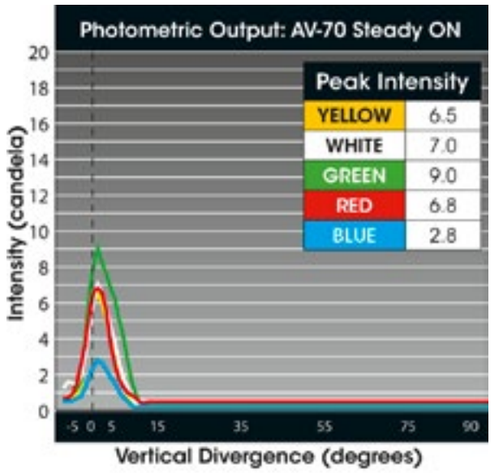


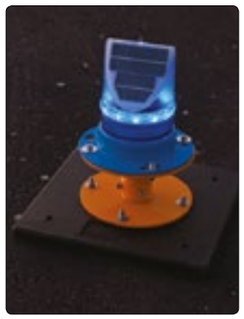
DWT-AV 72: The integrated AvMesh® technology is self-realizing, meaning once deployed the airfield lights will undertake a period of network mapping, whereby the system automatically determines an efficient path to relay command messages through the airfield.

AvMesh® has redundancy. Once the system has mapped an efficient relay of command messages, a secondary sub-network is mapped for added redundancy.

The DWT-AV-72 has three selectable modes; always on, dusk-till-dawn and standby. When set to dusk-till-dawn mode, integrated sensors in the light are able to detect when the ambient light threshold drops sufficiently and the light will begin operation automatically.

PHOTOMETRY





DWT-AV-72: Integrated Radio Control