

LED IR

ELECTRONICS DIVISION

LED IR-VISIBLE LANDING & SEARCH LIGHT

LED IR-Visible Landing & Search Light is a steerable helicopter light featuring a 'dual-mode' capability, including both visible LED and covert InfraRed LED modes, in a ready-to-use configuration, providing excellent and uncompromised performance in all operational environments.

Situational awareness and target identification are crucial elements for any mission and nighttime is a further challenge for helicopters engaged in NVIS mode operations and requiring illumination. Light Emitting Diode (LED) technology is the most reliable and delivers much better light intensity. However, using a bright, visible light for landing and search operations is not suitable for covert operations where a helicopter is aiming to remain undetected.

For covert operations, Leonardo has designed a landing and search light that, in addition to providing a standard visible light beam, uses InfraRed LEDs to create a beam of IR energy.

This is invisible to the naked eye but can be picked up by a helicopter crew's night vision equipment, allowing the aircraft to maintain a low profile while conducting operations. The Search Light is low power and is embedded into the Light main equipment for short/medium range SAR-CSAR operations.

LED IR-Visible Landing & Search Light features an IR mode with dimming capability in order to easily adapt

to different distances of area to be illuminated, avoiding to reduce the NVIS goggle capabilities in case of close proximity target illumination with high intensity of IR energy.

Using the LED IR-Visible Landing & Search Light customers can benefit not only from unparalleled performance in each mode, customers can, most importantly, switch from visible mode to IR mode without any set-up, thus increasing mission readiness, flexibility and safety for the crew.

Installation is easy as the light fully compliant with standard helicopter landing light fixtures for easy installation.

Our solution exceeds the performance limits of existing halogen lamp and HID technology, and ensures long life of the product together with whole life reduced maintenance costs for the operators.

Its characteristics, based on the ease of installation and compliance with standard fixing systems make it suitable for those customers looking for a convenient, effective and cost-effective solution.

Designed in accordance with the utmost challenging operational environments, the LED IR-Visible Landing & Search Light is now available worldwide following the successful provisioning of more than two thousands items in 2016.

KEY FEATURES

- › Switch from Visible to IR Mode while in-operation with no set-up requirement
- › LED-based technology ensuring long life and reduced maintenance costs for operators
- › High reliability with MTBF exceeding 10,000 flight hours
- › Low power consumption



TECHNICAL SPECIFICATION

- › Full LED Dual Mode technology -Visible and IR module, with dimming capabilities
- › Qualified and certified in accordance with RTCA DO-160F and MIL-STD-810G requirements
- › Patents: US8807803 B2, EP2450279 B1, CA2756971 A1
- › Custom I/O interfacing connector i.a.w.

DIMENSIONS AND WEIGHT

- › Dimensions: 10.84" x 5.23"
- › Weight: 3,5 Kg
- › Completely sealed body

ANGLES AND SPEED

- › Azimuth Angle: continuous rotation of 360 deg.
- › Extension Angle: from 0 to 120 deg.
- › Angular Speed: > 20 deg. / second
- › Extension/Retraction Speed: > 20 deg. / second

BEAM ANGLE (10%)

- › Typical 13 deg. +/- 2 deg

POWER CONSUMPTION

- › Operating voltage: 28Vdc
- › Visible + IR at 28 Vdc: 95 Watts
- › IR at 28 Vdc: 15 Watts
- › Motors (worst case): 40 Watts

LIGHT OUTPUT

- › Visible light output: > 250.000 cd
- › Infrared light output: > 20 W/sr
- › More than 5 lux of illumination at more than 200 m in visible mode and more than 400 m target illumination in IR mode

MAXIMUM AIRSPEED

- › During extension: 150 Knots
- › When extended in a stationary position: 165 Knots

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