Patria

Patria LDG Light

Modern LED landing light for NH90 Helicopter

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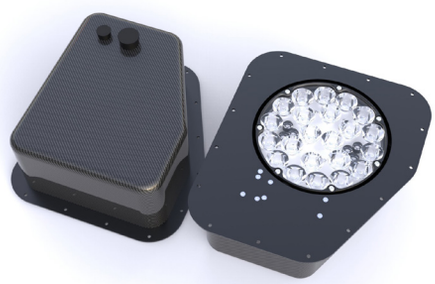
Patria LDG Light is a modern landing light solution, optimal for the NH90 helicopters' requirements. Designed to provide improved performance and maintainability to the original equipment manufacturer, the landing light is a single configuration solution with improved white light power and IR power, turn rate and reduced power consumption.

Patria's knowledge and competence has already been put to practice by providing Finland national maintenance capability for current legacy LDG lights. Patria has been able to deliver a turnaround time of 70 days per light compared to over 300 days that is a typical turnaround time for the legacy LDG light.

Patria aims to achieve an exclusive distributor position to modern landing light solutions by providing cost-effective, certified NH90 landing lights with superior performance for all NH90 operators globally.



Patria LDG Light exceeds current NH90 operating and performance characteristics providing LED life of at least 10,000 hours. Certification basis is FAR29 Amendment 31, which is acknowledged by the product Certification Program.

Requirement type	Legacy LDG Light	Patria LDG Light
Air worthiness	FAR 29 Amendment 31	FAR 29 Amendment 31
Military Airworthiness	NHI Type Certificate	Patria TC
Luminance (visible)	---	Minimum 3 x legacy LDG Light cd
Luminance (IR)	---	Up to 10 x legacy LDG light NRI
Opening angle (visible and IR) for light lobe/beam	10 -18 deg	12 - 16 deg (adjustable)
Airspeed range	NH90 operating envelope	NH90 operating envelope without limitations
Installation to NH90	On 3-4 different part numbers (right-front left-aft and left-front right-aft)	Reduced housing size for easier maintainability. Internal parts exchangeable for every position. Form Fit Function.
Light operating angles (envelope)	Same as current TFIA NH90 LDG/SRCH LT	Extended manoeuvrability
Drive motor speed (lamp angular velocity)	Full rotation (360 deg) in 15 to 20 seconds	Full rotation (360 deg) in 13 seconds
IR detectability on visible spectrum (with naked eye)	700 meters, average human as spectator	Negligible
Electrical interface	Shall be operated via the existing controls and interfaces. Advisory panel indications shall match with the current logic.	Shall be operated via the existing controls and interfaces. Advisory panel indications shall match with the current logic.
IR dimming operation	Dimming range 0-100%, and the light intensity starts at 100% when switching to IR	Dimming range 0-100%, and the light intensity starts at 100% when switching to IR
Time to reach max light intensity	5 seconds	1 second
Electrical consumption	25A@28VDC	Approximately half of the legacy LDG light
Expected bulb life	50 hours	Minimum 10 000+ hours
Heat dissipation	600 degrees Celsius @ 20cm distance	Approximately 60 degrees Celsius at 20cm distance
MTBF (base)	< 100 hours (experience)	20 000 hours
Position sensors	Relays, microswitches	Contactless Hall effect sensors
Drive Motors	Brushed	Brushless
Sealing	Non-hermetic	Hermetic according to DO-160

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