

# Nightsun<sup>®</sup> XP IR LED

[www.spectrolab.com](http://www.spectrolab.com)

## Product Highlights

## In Flight Change Over – IR LED

### Key Specifications & Characteristics:

- Instant change from white light to LED infrared light
- Visible Light -
  - 40 Million Candlepower Peak Beam Intensity, typical
  - 30 Million Candlepower, minimum
- NVG Gen II and Gen III Compatible
- 21 individual 10 Watt High Power Dimmable infrared LED's,
  - 14° (narrow) / 40° (wide)
- 3,280 ft (1 km) Typical Range (Visible Light)
- 32 Lux (2.9 ft-cd) Peak Illuminance
- Diameter of Beam at 10% Peak Illuminance
  - 230 ft (70m) wide @ 3,280 ft (1km)
- Link ready for Camera and Moving Map Systems using RS232 and RS422
- Azimuth Rotation 344°



## Applications

Nightsun<sup>®</sup> XP IR LED Searchlight has been installed on multiple aircraft that require a high power, mobile light source that provides In Flight Change Over capability from white light to Infrared light. Capable of linking to EO turrets or moving maps.

## System Description:

The Nightsun<sup>®</sup> XP IR LED Searchlight system builds upon our heritage 1600 Watt line while introducing infrared High Power LED. Slew rate up to 90° per second in both Azimuth and Elevation. Can be programmed with user specified slew rate via programming cable. An elevation range of +2° to -74° can also be programmed with soft stops. User can program keep-out zones so that Searchlight beam does not land on any part of the aircraft or in any location where light may not be needed. System is link-ready and can be linked to systems that use either RS232 or RS422 interfaces. The lightweight Hand Controller receives pilot's input through a force controller, Link Button along with Lamp on/off, LED Control Switch, Stow/Lock, and bi-directional focus switches. The Nightsun<sup>®</sup> XP IR LED system is offered in a variety of off the shelf color options with custom colors available upon request.

# Nightsun® XP IR LED



## Mechanical Configuration: Junction Box

Dimensions	<ul style="list-style-type: none"> <li>• 6"W x 7"L x 5"D</li> <li>• 15.2 x 17.8 x 12.7 cm</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• 6.1 lbs (2.8kg)</li> </ul>

## Mechanical Configuration: Controller

Dimensions	<ul style="list-style-type: none"> <li>• 4"W x 9"L x 4"D</li> <li>• 10.2 x 22.9 x 10.2 cm</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• 1.5 lbs (0.7 kg)</li> </ul>

## Electrical System

Input Voltage	28 Volts DC, Nominal
Input Current	65 Amp (85 A max)
Start Time	3-5 Second, typical
Recycle Time	None Required
Total System Weight	72-78 lbs (32-35 kg)

## Options / Accessories

### Input/Output Kit for Dual Control Capability

Sidecar Controller available. Can be used standalone or secured to most imaging system Controllers



## Mechanical Configuration: Searchlight / Gimbal

Maximum Height	30.15" (76.6 cm) – Lookdown
Minimum Height	21.1" (53.6 cm) – horizontal
Gimbal Diameter	12.2" (30.9cm)
Weight	64.6 lbs (30.4 kg)
Cable Weight	10-25 lbs (based on length)
Adjustable Hard Stops	15° increments in AZ 6.5° increments in EL

The Spectrolab Nightsun® XP IR LED complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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