

# SX-16 Enhanced Nightsun® IFCO

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## Product Highlights

## In Flight Change Over to Infrared

### Key Features:

- White light to Filtered Light in flight
- 50 Million Candlepower Peak Beam Intensity, typical
  - 40 Million Candlepower, minimum
- 60,000 Lumens Lamp Output
- 3,280 ft. (1 km) Typical Range
- 32 Lux (2.9 ft-cd) Peak Illuminance
- 1 Mile Useful Range for Target ID
- NVG Gen II and Gen III Compatible
- Beam Width: 4° to 20° w/bi-directional focus
- Diameter of Beam at 10% Peak Illuminance
  - 230 ft. (70m) wide @ 3,280 ft. (1km)
- Brushless Cooling Blower



## Applications

Infrared capable variant of our SX-16 Nightsun® Searchlight that has been installed on multiple role aircraft that may require either white light or infrared light on target.

## System Description:

The Enhanced configuration of our SX-16 Nightsun® IFCO Searchlight has several upgrades from our standard IFCO Searchlight. We now offer an Enhanced Reflector Coating that garners 20% more light output than previous models. We offer bi-directional focusing mechanism that can be stopped at any point in the cycle. A brushless Cooling Blower rated for 10,000 hours is also standard on this model. The Enhanced IFCO also offers high speed IR to white light transition, a major improvement over the standard configuration. A Hobbs Hour-meter, for Lamp On time tracking, comes standard on the Enhanced configuration. The Control Box now has a separate Lamp Off switch so that the Lamp can further be cooled after use. Gimbal Assembly on the Enhanced is now a one piece configuration that is an “on condition” Arm and is not Service Life Limited.

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## Illumination Specifications

Visible Spectrum	
Lamp Type	1600 Watt Xenon Gas Arc Lamp
Peak Beam Intensity	50 Million Candle Power
Peak Illuminance	32 (2.9 ft.-cd) @ 1km
Lumens	1.9M
Beam Diameter 10% Peak Illuminance	230 ft. wide @ 3,280 ft. 70 m wide @ 1 km
Focus Range (beam width)	Variable 4° to 20°
Target ID Range	1 Mile (1.6 km) / 3,300 ft.
Non-visible (IR) Spectrum	
Lamp type	1600 Watt Xenon Gas Arc Lamp
Peak Illuminance	800 – 900nm 9E-8 W/cm2 @ 1000 m
Focus Modes	Variable 4° to 20°
Dimming	N/A
Target ID Range	1 Mile (1.6km)
Infrared Spectral Range	>810nm Compatible with Gen III NVG's

## Electrical / Interface Specifications

Input Voltage	28 Volts DC, Nominal
Input Current	57-65 Amperes < 3 Amperes in standby
System Control Interface	<ul style="list-style-type: none"> <li>• System Aux On/Off               <ul style="list-style-type: none"> <li>• Cooling</li> <li>• Directional Control</li> </ul> </li> <li>• Lamp on/off</li> <li>• Two-way focus (zoom +/-)</li> <li>• Variable Slew Rate</li> <li>• IFCO Hood Open/Close</li> </ul>
Start Time	3 – 5 seconds
Slew Rate	Variable Standard = 9° per sec max High Speed = 18°/sec max



## Mechanical Specifications

Gimbal Assembly:	
Type	2 Axis Remote Controlled
Weight	9 lbs. (4.1 kg) Aluminum 15 lbs. (6.8 kg) Steel
Slew Rate	High Speed = 18° p/sec
Max Airspeed	162 knots (Alum) 259 (Steel)
Junction Box Assembly	
Dimensions	8.5"L x 6.25"W x 5.1"H (21.6cm x 15.9cm x 12.95cm)
Weight:	7 lbs. (3.2 kg)
Control Box Assembly	
Dimensions	5"L x 2.25"W x 1.75"H (12.7cm x 5.7cm x 4.4cm)
Weight	13 Ounces (363 grams)
Total System Weight	
Components and cables	58-78 lbs. (26-36 kg)

## Electrical / Interface Specifications

Operating Temp.	-40°C to +70°C
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## Reference Documents

Document Title	Document Number
System Cabling Diagrams	034187 034187-3 (for SpectroLink)
Envelope Diagrams	032429 034030
Operation Manual	031734
Manual Manual	031734-1

**Optional configurations include SpectroLink**

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