**Purchase Specifications for a
Self-Contained, Solar Powered LED
ICAO LIOL Type A Obstruction Light**

**Overview**

This specification is for a self-contained, solar powered LED, ICAO LIOL Type A obstruction light.

Each light shall be entirely self-contained with 4 x 5watt solar panels, 12V 24Ah SLA (Sealed Lead Acid) battery, microprocessor-controlled electronics and high intensity LED.

The lights shall be delivered ready to install. The only assembly required will be activation of each individual light and optional mounting accessories.

**1.0 Light Characteristics**

The light shall use 1 visible LED.

The light output shall be available in red. Green, white, yellow, blue shall also be available on request.

The light shall have a peak intensity which complies with ICAO LIOL Type A.

The light shall have a horizontal output of 360 degrees.

The light shall have a vertical divergence of +4 to +13.

The light shall have >250 user-adjustable flash characteristics.

The intensity of the light shall be adjustable in 25% increments.

**2.0 Electrical Characteristics**

The light shall have a current draw of 39mA steady-on.

The light shall have integrated circuit protection.

The light shall have an operating voltage of 12v.

The light shall have an operating temperature range between -40 to 80°C.

**3.0 Solar Characteristics**

The light shall use four (4) multi-crystalline solar modules.

The total output of the solar module shall be 20watts.

The solar module efficiency shall be 14%.

Charging regulation shall be microprocessor controlled.

**4.0 Power Supply**

The light shall use a SLA (Sealed Lead Acid) battery.

The battery capacity shall be 24Ah.

The nominal voltage shall be 12v.

The light shall have an autonomy of at least 40 hours steady-on.

**5.0 Physical Characteristics**

The body of the light shall be manufactured from 7-stage powder-coated aluminium.

The light lens shall be manufactured from UV-stabilised LEXAN® polycarbonate.

The light shall have a lens diameter of 107mm (4¼ inches).

The light shall have a single LED optic.

The light shall have a mounting pattern using 4 x 17mm holes on 200mm PCD.

The light shall have a height of 470mm (18½ inches).

The light shall have a width of 233mm (9¼ inches).

The light shall have a mass of 13.9kg (30½lbs).

**6.0 Options**

The light shall be offered with the following options available from the manufacturer:

* IR Controller
* GPS Synchronisation
* IR LED
* GSM Cell-Phone Monitoring & Control
* External ON/OFF switch
* External battery charging port
* Solar Booster

**7.0 Environmental Factors**

The light shall meet the following environmental factors:

Humidity: 0 to 100%, MIL-STD-810F

Icing: 22kg per square inch

Wind Speed: up to 160kph

Shock: MIL-STD-202G, Test Condition G, Method 213B

Vibration: MIL-STD202G, Test Condition B, Method 204

**8.0 Certifications**

The light shall meet the requirements for ICAO Low Intensity Obstruction Light Type A.

The light shall be IP68 waterproof.

The light shall meet CE EN61000-6-3:1997. EN61000-6-1:1997

The manufacturer shall be ISO9001:2008 certified.

**9.0 Compliance**

The light shall be supplied with an optic to meet:

* Photometrics for Low Intensity Type A Obstruction Light, ICAO Annex 14 Volume 1, ‘Aerodrome Design and Operations’, table 6.3.

**10.0 Warranty**

The light shall have a three (3) year warranty , excluding battery which will have a warranty of one (1) year.