**Purchase Specifications for a
Radio Controlled Solar Helipad Light**

**Overview**

This specification is for a self-contained, solar powered LED, helipad light.

The light shall have a lens optic designed specifically for helipad operations.

No part of the light or solar assembly shall be taller than 250mm (9⅞ inches).

Each light shall be entirely self-contained with 1 x 10watt solar panel, 12V 16Ah High Grade NiMH battery, microprocessor-controlled electronics and high intensity LED.

The light shall be able to be operated via 2.4GHz encrypted RF radio control.

The light shall have 3-step intensity adjustment, including temporary high mode and dusk-till-dawn operation in low intensity mode.

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 green. Red, white, yellow, amber and blue shall also be available on request.

The light shall have photometrics which comply with ICAO Annex 14 Touchdown and Lift-off perimeter lights.

The light shall have a peak intensity @ temporary high of up to 60cd (green).

The light shall have a horizontal output of 360 degrees.

The light shall have a vertical divergence of: 20° - 90°: 3cd min

13° - 20°: 8cd min

10° - 13°: 15cd min

5° - 10°: 30cd min

2° - 5°: 15cd min

**2.0 Electrical Characteristics**

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 one (1) multi-crystalline solar module.

The total output of the solar module shall be 10watts.

The solar module efficiency shall be 14%.

Charging regulation shall be microprocessor controlled.

**4.0 Power Supply**

The light shall use a user-replaceable high grade NiMH battery.

The battery capacity shall be 16Ah.

The nominal voltage shall be 12v.

The light shall have an external battery charging port.

The light shall have an autonomy of:

Over 50hrs of continuous operation at ICAO Annex 14 (high intensity)

Over 150hrs of continuous operation (medium intensity)

Over 500hrs of continuous operation (low intensity)

**5.0 Radio Controlled**

The light shall be controlled by handheld radio controller.

The radio controller shall operate on a frequency of 2.4GHz ISM Band.

**6.0 Physical Characteristics**

The body of the light shall be manufactured from UV stabilised polymer.

The body of the light shall be aviation yellow in colour.

The light mount material 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 100mm (3 ⅞ inches).

The light shall have a single LED optic.

The light shall have a frangible mount. The light shall have one (1) frangible point.

The light shall have a height of 250mm (9⅞ inches). No part of the light or solar assembly shall be taller than 250mm (9⅞ inches).

The light shall have a length of 520mm (20½ inches).

The light shall have a width of 360mm (14⅛ inches).

The light shall have a mass of approximately 14kg (30⅞lbs).

The light shall have a hinged lid to access the battery.

**7.0 Options**

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

* IR LED
* Pilot Activated Lighting Control

**8.0 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

**8.0 Certifications**

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 designed to meet the requirements for ICAO Annex 14 Touchdown and Lift-off perimeter lights (green).

The light shall be designed to comply with the applicable requirements of Federal Aviation Administration, Memorandum Engineering Brief 87: Heliport Perimeter Light for Visual Meteorological Conditions Dated January 13, 2012.

**10.0 Warranty**

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