**Purchase Specifications for a   
2-3+ Nautical Mile Range Solar Marine Lantern**

**Overview**

This specification is for a 2-3nm+ marine lantern.

Each light shall be entirely self-contained with 1 x 1.4 watt solar panel, 4Ah NiMH battery and ultra-high intensity LEDs.

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 lanterns light source will be one (1) LED.

The lantern output shall be available in red, green, white, yellow, blue.

The lantern shall have a maximum available intensity (dependent on model) of up to:

- Red lantern output 24.7cd

- Green lantern output 26.6cd

- White lantern output 29.2cd

- Yellow lantern output 18.8cd

The lantern shall have a visible range of 2-3nm+.

The lantern shall have a horizontal output of 360 degrees.

The lantern shall have a vertical divergence of 7 degrees.

The lantern shall have up to 256 IALA recommended flash characteristics.

The lantern shall have intensity settings in adjustable in 25% increments.

**2.0 Electrical Characteristics**

The lantern shall have integrated circuit protection.

The lantern shall have a nominal voltage of 3.6v.

The battery type shall be Nickel Metal Hydride (NiMH).

The battery shall have a capacity of 4Ah.

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

**3.0 Physical Characteristics**

The body of the lantern shall be manufactured from UV stabilised polycarbonate.

The lantern lens shall be UV stabilised polycarbonate or equivalent.

The lantern shall have a mounting pattern using 4 x 4.5mm mounting holes.

The lantern shall have a height of up to 205mm (8⅛ inches).

The lantern shall have a width of 177mm (7 inches).

The lend design shall be single LED optic.

The lantern shall have a mass up to 0.9kg (2 1/8 lbs) dependent on model.

The lantern shall have a life expectancy of up to 12 years.

**4.0 Options**

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

* 16Ah battery
* 8Ah battery
* 200mm OD base
* 50mm pole mount adapter plate
* IR Programmer
* GPS Synchronisation

**5.0 Certifications**

The lantern shall be IP68 waterproof.

The manufacturer shall be ISO9001:2008 certified.

The lantern shall meet the following certifications EN61000-6-3:1997. EN61000-6-1:1997.

The lantern shall meet IALA recommendation E-200-1 Signal colours

**6.0 Warranty**

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