**Purchase Specifications for a   
1-2+ Nautical Mile Range Marine Lantern**

**Overview**

This specification is for a 1-2NM+ marine lantern.

**1.0 Light Characteristics**

The lanterns light source will be one (1) LED.

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

The lantern shall have a typical maximum available intensity of up to:

- Red lantern output 6.2cd

- Green lantern output 7.6cd

- White lantern output 6.8cd

- Yellow lantern output 5.9cd

The lantern shall have a visible range of 1-2NM+.

The lantern shall have a horizontal output of 0-360 degrees.

The lantern shall have a vertical divergence of 7 degrees.

The lantern shall have 16 user-adjustable IALA flash characteristics with other flash patterns available on request.

The lantern shall have 32 automatic step-down settings based on power demand of flash code selection.

**2.0 Electrical Characteristics**

The lantern shall have integrated circuit protection.

The lantern shall have a nominal voltage of 3.6V DC.

The lantern shall have an autonomy >50 days.

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

**3.0 Solar Characteristics**

The lantern shall have one (1) multicrystalline solar module.

The solar module shall be 0.45 watts.

**4.0 Power Supply**

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

The battery shall have a capacity of 1.6Ah.

**5.0 Physical Characteristics**

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

The lantern lens shall be manufactured from UV-stabilised polycarbonate or equivalent.

The lantern shall have a lens diameter of 98mm (3⅞ inches).

The lens design shall be single LED optic.

The lantern shall have 4 x 6mm mounting holes.

The lantern shall have a height of up to 141mm (5½ inches).

The lantern shall have a width of 136mm (5⅜ inches).

The lantern shall have a mass of 0.5kg (1⅛lbs).

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

**6.0 Options**

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

* ON/OFF switch
* Custom flash patterns
* 50mm pole mount adapter plate

**7.0 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

**8.0 Warranty**

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