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

**Overview**

This specification is for a 2-3NM+ 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 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 0-360 degrees.

The lantern shall have a vertical divergence of 7 degrees.

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

The lantern shall have multiple intensity settings.

**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 >30 days.

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

**3.0 Solar Characteristics**

The lantern shall have two (2) monocrystalline solar modules.

Each module shall be 1.75watts.

**4.0 Power Supply**

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

The battery shall have a capacity of 8Ah.

**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 150mm (5⅞ inches).

The lens design shall be single LED optic.

The lantern shall have a 200mm bolt pattern.

The lantern shall have a height of up to 240mm (9½ inches).

The lantern shall have a width of 231mm (7⅛ inches).

The lantern shall have a mass from 1.4kg (3⅛lbs) dependent on model.

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:

* 16Ah Battery
* IR programmer
* GPS Synchronisation
* 50mm pole mount adapter plate

**7.0 Certifications**

The lantern shall be IP68 waterproof.

The manufacturer shall be ISO9001:2015 certified.

The lantern shall meet the following certifications ANSI C63.4-2009. EN61000-6-3:2007. EN61000-6-1:2007. IEC61000-4-6:2008. IEC61000-4-3:2010. IEC61000-4-6:2008. IEC61000-4-2:2008. MIL-STD-810F. MIL-STD-202G

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.