**Purchase Specifications for a
4-5+ Nautical Mile Range Marine Lantern**

**Overview**

This specification is for a 4-5nm+ marine lantern.

**1.0 Light Characteristics**

The lantern’s light source will be 36 ultra-high intensity LEDs.

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

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

- Red lantern output 142cd

- Green lantern output 125cd

- White lantern output 119cd

- Yellow lantern output 102cd

The lantern shall have a visible range of 4-5NM+ (AT @ 0.74).

The lantern shall have a horizontal output of 360 degrees.

The lantern shall have a vertical divergence of 9 degrees.

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

The lantern shall have intensity settings in 25% increments.

**2.0 Electrical Characteristics**

The lantern shall have integrated circuit protection.

The lantern shall have an operating voltage of 12V DC.

The lantern shall have an autonomy of at least 15 nights.

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

**3.0 Solar Characteristics**

The lantern shall have four (4) multicrystalline solar modules.

Each module shall be 5 watts (20 watts in total).

**4.0 Power Supply**

The battery type shall be Gel Sealed Lead Acid (SLA).

The battery shall have a capacity of 24 Ah.

The battery shall be user-replaceable.

**5.0 Physical Characteristics**

The body of the lantern shall be manufactured from 7 Stage powder coated aluminium chassis with UV-Stabilised rubber corners and gaskets.

The lantern lens shall be UV-stabilised polycarbonate.

The lantern shall have a lens diameter of 150mm (5⅞ inches).

The lantern shall have a mounting pattern using 3 x 4 hole 200mm bolt pattern.

The lantern shall have a height of up to 570mm (22⅖inches).

The lantern shall have a width of 233mm (9⅕inches).

The lantern shall have a mass of 13.9kg (30⅝lbs).

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:

* GPS Synchronisation
* RF Synchronisation
* GSM Monitoring and Control System
* Radio Control System
* 50mm pole mount adapter plate

**5.0 Certifications**

The lantern shall be IP68 waterproof.

The manufacturer shall be ISO9001:2008 certified.

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

The lantern shall meet IALA E-200-1 Signal Colours.

**6.0 Warranty**

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