**Purchase Specifications for a
5-23NM+ LED High Intensity Range Light**

**Overview**

This specification is for a 5-23NM+ LED High Intensity range light

The range light shall have a PC or IR programmer for setup, diagnostic and testing.

The manufacturer will be able to provide the option of a solar powered assembly housed in a weatherproof enclosure including solar array and sealed battery.

**1.0 Light Characteristics**

The range light’s light source will be high efficiency LEDs.

The range light output shall be available in red, green, white.

The range light shall have a maximum luminous intensity (dependent on model) of up to:

- Red range light output 170,000cd

- Green range light output 150,000cd

- White range light output 424,000cd

The range light shall have a daytime visible range of 5NM+ and night time visible range of 23NM+.

The range light shall have a horizontal output of 3 degrees.

The range light shall have a vertical divergence of 3 degrees as standard.

The range light shall have up to 310 user-adjustable flash characters including 256 IALA recommended and 1 custom.

The intensity of the range light shall be user-adjustable.

**2.0 Electrical Characteristics**

The range light shall have a typical power draw variable up to 28.8 watts VDC or up to 38 watts VAC.

The range light shall have polarity protected circuit protection.

The range light shall have a nominal voltage of 10-30 VDC, or 110-240 VAC.

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

**3.0 Physical Characteristics**

The body of the range light shall be manufactured from 7-stage powder coated aluminium.

The range light lens shall be UV-stabilised acrylic.

The range light shall have a mounting pattern using 3 & 4 hole 200mm bolt pattern.

The range light shall have a height of up to 332mm.

The range light shall have a width of 226mm.

The range light shall have a mass up to 7.5kg dependent on model.

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

**4.0 Environmental Standards**

The range light shall meet the following environmental standards:

* Shock: MIL-STD-202G Test Condition H, Method 213B 30G vertical and 35G horizontal shock
* Vibration: MIL-STD-202G, Test Condition B, Method 204D 5G in all axes
* Ice Loading: Rated to withstand 22kg/m2
* Wind Exposure: Rated to withstand 140knots
* Hail Impact: Rated to withstand 25mm diameter ice ball impact at 20m/s
* Humidity: 0 – 100%, condensing

**5.0 Options**

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

* GPS synchronisation
* AIS Type 1 or Type 3
* GSM monitoring and control system
* RS232/422/485 port
* Variety of solar/battery configurations
* Hard-wire synchronisation

**6.0 Certifications**

The range light shall be IP68 waterproof.

The range light shall meet IALA E-200-1 Signal Colours.

The manufacturer shall be ISO9001:2008 certified.

The range light shall meet the following CE and electrical certifications:

* FCC Part 15 Rules & ICES-003.
* EN61000-6-1: 2007 (IEC61000-6-1:2005) Part 6-1 Immunity.
* EN61000-6-3: 2007 (IEC61000-6-3: 2006) Electromagnetic compatibility (EMC) - Part 6-3 Emission.
* IEC61000-4-2: 2008 Ed 2 Part 4-2 Electrostatic discharge immunity test Level 4.
* IEC61000-4-3: 2010 Ed 3.2 Part 4-3. Radiated, radio-frequency, electromagnetic field immunity.
* IEC61000-4-6: 2008 Ed3. , Electromagnetic compatibility (EMC) - Part 4-6 Immunity.

**7.0 Warranty**

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