**Purchase Specification for   
Sectored Port Entry Light with a 5 degree beam width**

**Overview**

This specification is for a Precision Sectored Port Entry Light with a 5 degree beam width.

The manufacturer shall provide a low-powered, high-intensity precision sector light, suitable for day or night-time use.

The Light shall be delivered ready for installation.

**1.0 Light Characteristics**

The Light shall comprise of ten (10) LEDs in each sector light.

The minimum sector of each LED shall be 0.5 degrees.

The total horizontal beamwidth of the Light shall be 5 degrees.

The total vertical divergence of the Light shall be 0.85 degrees.

Each individual LED shall be independently configurable by the user for intensity.

Each individual LED shall be independently configurable by the user for flash character, eliminating the need for moving parts to achieve an oscillating boundary.

Each individual LED shall be independently configurable by the user for synchronisation offset.

The Light shall have the ability to be configured for automatic night dimming, eliminating the need for moving filters.

The Light shall be solid state and have no moving parts.

The Light output shall be available in red, green and white.

The Light shall output a peak red intensity of at least 380,000 candela.

The Light shall output a peak green intensity of at least 345,000 candela

The Light shall output a peak white intensity of at least 505,000 candela

The Light shall have a visible range of up to 23.5 NM for night time operation (@ T=0.74)

The Light shall have a visible range of up to 5.0NM for day time operation (@ T=0.74)

The Light shall have at minimum 256 IALA recommended user-adjustable flash characteristics.

**2.0 Electrical Characteristics**

The Light shall draw a maximum power of 30 Watts.

The Light shall be designed with reverse polarity protection.

The Light shall have an operating voltage of 12 to 24 volts.

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

**3.0 Physical Characteristics**

The rear housing of the Light shall be CNC machined from marine grade aluminium alloy.

The front housing of the Light shall be laser cut carbon fibre.

The housing shall be coated in a two part marine epoxy resin.

The Light shall be ingress protection rated to at least IP67.

The front objective lens of the Light shall be coated in anti-reflection (AR) coating.

The Light shall be user programmable via USB with an easy and intuitive Graphic User Interface.

The Light rear mounting plate shall consist of four (4) 16mm slotted holes on a 200mm PCD

The Light front mounting plate shall consist of three (3) 16mm slotted holes.

The Light shall have a maximum height of 384 mm.

The Light shall have a maximum length of 1,272 mm.

The Light shall have a maximum mass of 20 kg.

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

**4.0 Options**

The Light shall be offered with optional GSM monitoring and control system.

The Light shall be offered with optional GPS synchronisation.

The Light shall be offered with optional Hardwire synchronisation.

The Light shall be offered with optional AIS capability.

The Light shall be offered with a variety of optional solar powered configurations.

The Light shall be offered with a variety of and mains powered configurations.

**5.0 Environmental**

The Light shall be compliant with the environmental driving rain standard: MIL-STD-810F Method 506.4

The Light shall be compliant with the environmental Low Temperature standard: MIL-STD-810G Method 502.5

The Light shall be compliant with the environmental High Temperature standard: MIL-STD-810G Method 501.5

The Light shall be compliant with the environmental Humidity standard: MIL-STD-810F Method 507.4

The Light shall be compliant with the environmental Salt Fog standard: MIL-STD-810F Method 509.4

The Light shall be compliant with the environmental Shock standard: IEC 60068-2-29 Test Eb

The Light shall be compliant with the environmental Vibration standard: ASTM D4169-05 cl.12.3

**6.0 Certifications**

The Light shall be compliant with ingress protection rating IP67.

The Light shall be compliant with the CE standards: EN61000-6-1: 2007 and EN61000-6-3: 2007.

The Light colours shall be compliant to IALA E-200-1.

The Manufacturer of the Light shall be ISO9001:2015 certified.

**7.0 Warranty**

The Light shall have a three (3) year warranty.