TRB-220 is a high intensity rotating beacon capable of providing simple and complex flash characters. This beacon can be configured to provide high efficiency in effective intensities using a wide range of low wattage marine signal lamps as well as LED light source.

Tideland Signal’s TRB-220 MaxLumina® is excellent in battery operations where a proper charge level can be maintained through photovoltaic charging from solar panels. A 6-lens carousel, light source, gearless direct drive motor and electronic control module are contained in a watertight aluminium and fiberglass housing (IP65) with acrylic glazing and stainless steel fasteners.

Mounted on a light tower of proper height, TRB-220 gives coastal shipping up to a 20NM range light (@ T = 0.74).

**Characteristics**

- 6-lens carousel, consisting of a flash panel design with catadioptric prisms
- Operates with up to a 110W lamp without need for ventilation or cooling fans
- Brushless DC direct drive motor designed for smooth operation at low RPM
- Over 16 preprogrammed rotation periods, ranging from a period of 6 to 120 seconds
- 25 years of useful life
- Available in all IALA colours
- No scheduled maintenance for life of motor
- Accommodates Tideland’s TF-3B MicroPower OMNIBUS® II 6-place lampchanger, MaxiHALO-60RB (LED) or MLED-Retro
- Automatic switchover to standby lantern
- Full monitor and control access
### Technical Details

#### Power Consumption
- Lamp version: As specified (from 3 to 110W)
- LED version: Up to 30W
- Motor: Average 2.5W

#### Operating Temperature
- DC Version: 9 – 36VDC
- AC Version (requires additional equipment): 110 – 240VAC, 50/60Hz

#### Light Source
- Tideland TF-3B OMNIBUS® II, high temperature, 3 or 6 place lampchanger, MaxiHALO-60RB (LED) or MLED-Retro

#### Drive System
- Brushless DC motor; gearless direct drive

#### Optics
- Acrylic Moulded Flash Panel
- Glazing: 110mm focal length, Catadioptric Fresnel Lens
- 330mm UV-resistant acrylic

#### Lens Configuration
- Standard: 110mm focal length, Catadioptric Fresnel Lens
- 330mm UV-resistant acrylic

#### Environmental
- Temperature: -40° C to +55° C
- Humidity: 100% non-condensing

#### Physical Size
- Height: 915mm (36.0in) with spike
- Weight: 20kg (44lb)

#### IP Rating
- IP65

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**NOTE:** Specifications are subject to change.

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**TRB-220 ROTATING BEACON, HEXAGONAL LENS CAROUSEL CONFIGURATION**

### Effective Intensity Table for Selected Rotation Periods

<table>
<thead>
<tr>
<th>LAMP SIZE</th>
<th>HOR. OVL. (deg)</th>
<th>FIXED INT. (cd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V / 10W</td>
<td>42.724</td>
<td>6,416</td>
</tr>
<tr>
<td>On-Time, Sec</td>
<td>6.098</td>
<td>0.087</td>
</tr>
<tr>
<td>15 sec / 4.0 rpm</td>
<td>0.067</td>
<td>0.044</td>
</tr>
<tr>
<td>20 sec / 3.0 rpm</td>
<td>0.053</td>
<td>0.034</td>
</tr>
<tr>
<td>ROTATION PERIOD / SPEED</td>
<td>0.049</td>
<td>0.030</td>
</tr>
<tr>
<td>20 sec / 2.0 rpm</td>
<td>0.031</td>
<td>0.026</td>
</tr>
<tr>
<td>15 sec / 1.5 rpm</td>
<td>0.025</td>
<td>0.020</td>
</tr>
<tr>
<td>10 sec / 1.0 rpm</td>
<td>0.021</td>
<td>0.016</td>
</tr>
<tr>
<td>5 sec / 0.75 rpm</td>
<td>0.016</td>
<td>0.012</td>
</tr>
<tr>
<td>2.5 sec / 0.375 rpm</td>
<td>0.011</td>
<td>0.008</td>
</tr>
<tr>
<td>1.25 sec / 0.1875 rpm</td>
<td>0.007</td>
<td>0.005</td>
</tr>
</tbody>
</table>

### NOTES:
1. All fixed intensities were measured with the outer glazing in place.
2. The Schmidt-Clausen Formula is used in compliance with IALA’s “Recommendation for the Calculation of the Effective Intensity of a Rhythmic Light,” November 1980.
3. Intensities may be reduced due to shadowing when using a 6-place lampchanger by approximately 20% at two small arcs 180° apart.

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