TMD Series - LED Loading Dock Light

- **Up to 97% Less Electricity**
  - TMD Series LED Loading Dock Lights require far less energy than traditional fixtures while accomplishing the same lighting task.

- **Lower Maintenance Costs**
  - Based on our advanced thermal management techniques the TMD will perform over time where many competing offerings will not.

- **Higher Quality Lighting**
  - TMD Series LED Loading Dock Lights deliver a better quality of light than the incandescent, quartz or metal halide fixtures traditionally used in loading dock applications.

- **Real Cost Savings**
  - When you combine the energy savings, longevity and quality of our TMD Series Loading Dock Lights, the cost savings can be enormous.

- **Precision Lighting’s Experience**
  - While many manufacturers promise long life and maintenance free performance from their LED products, it takes a real expert to create a fixture that delivers on that promise.
  - Precision Lighting’s experience lets us deliver on the promise of LED lighting technology.

### Application

- Industrial, manufacturing and warehousing.
- Designed to illuminate tractor trailers up to 53’ while loading and unloading.
- Excellent for any application requiring long life and low maintenance costs.


<table>
<thead>
<tr>
<th>Fixture Series</th>
<th>Input Watts</th>
<th>Optics</th>
<th>Color Temp.</th>
<th>LED Chip Quantity</th>
<th>Voltage</th>
<th>Drive Current</th>
<th>Cord Plug</th>
<th>Other</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMD - Load Light</td>
<td>14W = 14 Watt (12 Chip, 350mA)</td>
<td>SP = 12° Spot (Standard)</td>
<td>50K = 5000 Kelvin</td>
<td>12C = 12 Chip Board</td>
<td>UL = 120 through 277 volt</td>
<td>350 mA Across Chip</td>
<td>C6/F14 = 6’ Cord, No Plug</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16W = 16 Watt (6 Chip, 700mA)</td>
<td>DSP = 32° Diffused Flood</td>
<td>12C = 12 Chip Board</td>
<td>Voltage</td>
<td>350 mA Across Chip*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21W = 21 Watt (18 Chip, 350mA)</td>
<td>18C = 18 Chip Board</td>
<td>520 mA Across Chip*</td>
<td>Drive Current</td>
<td>350 mA Across Chip**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21W = 21 Watt (12 Chip, 520mA)</td>
<td>* Available only with 21W 12C</td>
<td>700 mA Across Chip**</td>
<td>Available only with 16W 6C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Otg of LED Chips

- 6C = 6 Chip Board
- 12C = 12 Chip Board
- 18C = 18 Chip Board

### Voltage

- UL = 120 through 277 volt

### Drive Current

- 350 mA Across Chip*
- 520 mA Across Chip*
- 700 mA Across Chip**

### Cord and Plug

- C6 = 6’ Cord, No Plug
- C6/L715 = 6’ Cord & 277v Twistlock Plug (NEMA L7-15P)
- C6/S15 = 6’ Cord & 120v Convenience Plug (NEMA 5-15P)
- C3/C14 = 3’ Cord & 120v Dedicated Dock Arm Plug (IEC C-14P)

### Other

- IRS = In-Line Rocker Switch (120 V only)
- CP = Clear Polycarbonate Lens
- Color Temperature
- 50K = 5000 Kelvin
- Dock Arms*
  - SD40 = 40” Single Strut Dock Arm
  - DL40 = 40” Double Strut Dock Arm
  - DSDL40 = 40” Double Strut Swing Arm
  - * Additional configurations available
TMD Series – LED Loading Dock Light

Fixture Construction

- Die cast aluminum body designed for maximum heat dissipation.
- Designed to meet IP66 standards.
- Sealed tempered glass lens.
- Stainless steel fasteners.
- Powered by Evolucia light engines using high quality Cree LED chips.
- Dedicated constant current driver.
- Advanced thermal management techniques and components.

Our Commitment

Just as when we were at the front end of the fluorescent Hi-bay development curve, Precision commits extensive resources to the thermal design and testing of our LED fixtures.

Why? Because heat is directly related to the usable life of LED components. Our thermal management focus allows us to deliver on the promise of LED, without the risk of premature failure.

Our commitment is that any product that bears our name can be specified with confidence, knowing that we have taken the steps necessary to ensure maximum component life and future serviceability.

TMD – LED Performance Data

<table>
<thead>
<tr>
<th>LED System Configuration</th>
<th>Drive Current</th>
<th>Qty LED Chips</th>
<th>Initial Lumens</th>
<th>Junction Temp (1)</th>
<th>L70 Hours</th>
<th>L90 Hours</th>
<th>Junction Temp (1)</th>
<th>L70 Hours</th>
<th>L90 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMD - 14 Watt Spot</td>
<td>350mA</td>
<td>12</td>
<td>1163</td>
<td>48.9</td>
<td>210,000</td>
<td>60,000</td>
<td>59.1</td>
<td>140,000</td>
<td>40,000</td>
</tr>
<tr>
<td>TMD - 16 Watt Spot</td>
<td>700mA</td>
<td>6</td>
<td>825</td>
<td>60.9</td>
<td>100,000</td>
<td>32,000</td>
<td>71.2</td>
<td>80,000</td>
<td>24,000</td>
</tr>
<tr>
<td>TMD - 21 Watt Spot</td>
<td>350mA</td>
<td>18</td>
<td>1506</td>
<td>58.1</td>
<td>140,000</td>
<td>42,000</td>
<td>68.4</td>
<td>98,000</td>
<td>30,000</td>
</tr>
</tbody>
</table>

1) The junction temperature of the LED chip is the single most important factor determining expected life and lumen maintenance.
2) LED chip manufacturers project 70% lumen maintenance at 50,000 hours, provided JT is maintained below 80°C.
3) L70 represents expected hours the chip will maintain 70% of its initial lumens, based on TMD measured JT and Cree chip data.
4) L90 represents expected hours the chip will maintain 90% of its initial lumens, based on TMD measured JT and Cree chip data.
5) The table above refers to LED component life. Driver life expectancy is 50,000 hours @ 25°C ambient.

TMD vs. Traditional Load Light – Operating Cost Comparison

<table>
<thead>
<tr>
<th>Load Light System</th>
<th>Input Watts</th>
<th>Rated Lamp Life (Hours)</th>
<th>Energy Cost</th>
<th>Maint Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q500 T3 Quartz</td>
<td>500</td>
<td>2,000</td>
<td>$240</td>
<td>$60</td>
<td>$300</td>
</tr>
<tr>
<td>Q300 T3 Quartz</td>
<td>300</td>
<td>2,000</td>
<td>$144</td>
<td>$60</td>
<td>$204</td>
</tr>
<tr>
<td>MH70 Med</td>
<td>88</td>
<td>12,000</td>
<td>$42</td>
<td>$27</td>
<td>$69</td>
</tr>
<tr>
<td>MH1100 Med</td>
<td>119</td>
<td>15,000</td>
<td>$57</td>
<td>$24</td>
<td>$81</td>
</tr>
<tr>
<td>MH150 Med</td>
<td>186</td>
<td>15,000</td>
<td>$89</td>
<td>$24</td>
<td>$113</td>
</tr>
<tr>
<td>100 PAR</td>
<td>100</td>
<td>3,000</td>
<td>$48</td>
<td>$47</td>
<td>$95</td>
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<tr>
<td>TMD - 14 Watt LED</td>
<td>14</td>
<td>210,000</td>
<td>$7</td>
<td>-</td>
<td>$7</td>
</tr>
<tr>
<td>TMD - 16 Watt LED</td>
<td>16</td>
<td>100,000</td>
<td>$8</td>
<td>-</td>
<td>$8</td>
</tr>
<tr>
<td>TMD - 21 Watt LED</td>
<td>21</td>
<td>140,000</td>
<td>$10</td>
<td>-</td>
<td>$10</td>
</tr>
</tbody>
</table>

1) All operating cost estimates are for general illustrative purposes. Actual values will vary on a site specific basis.
2) Annual maintenance and energy costs are estimated based upon 4,000 annual operating hours per year, for 10 years.
3) Energy costs are based upon $0.12 cents per kWh; maintenance cost estimates include lamps, ballasts and labor.