The LED HBM Series Modular High Bay features a lightweight, customizable design that provides exceptional light distribution for mounting heights up to 130 feet. This durable, 75° C rated, fixture efficiently delivers over 150 LPW of bright, white, uniform light to maximize energy savings and utility rebates. The long 50,000 hour rated life significantly decreases maintenance, labor, and material costs over the life of the fixture. A 0-10V dimming driver comes standard, enabling easy integration with a variety of controls options.

**Reasons to choose the LED HBM Series High Bay from TCP**

- Built for extreme temperatures: 75° C Rated
- Modular design allows for limitless customization
- Energy efficient: Up to 63% energy savings compared to HID equivalents
- Smooth, uniform dimming (0-10V) standard
- Instant on, no warm up time for full light
- Long life: 50,000 hours
- Durable light weight Aluminum housing

**Ideal Applications**

- Steel Mills
- Paper Mills
- Heavy Industrial Plants
- Commercial Facilities
- Field Houses & Gymnasiums
- Open Ceiling Designs
- Warehouse and Distribution Centers

TCP®
325 Campus Dr. | Aurora, Ohio 44202 | P: 800-324-1496 | tcpi.com

DLC®
FCC
RoHS
UL Listed
IPS65
5 Year Warranty

Not all versions of this product are qualified on the DLC QPL. To view our DLC qualified products, please consult the DLC Qualified Products list at www.designlights.org/qpl.
Specifications

Input Line Voltage ................................................... 120-277 VAC
Input Line Frequency (Hz) .............................................. 50/60HZ
Wattage (W) ............................................................... 200W
Lumens (L) ................................................................. 30,000L
Lumens per Watt (LPW) .................................................. >150LPW
Rated Life .............................................................. 50,000 hours
Minimum Starting Temperature ................................... -40°C (-40°F)
Maximum Operating Temperature ............................... 75°C (167°F)
CRI ................................................................................... >82
Power Factor ................................................................... >0.90
THD ................................................................................<20%
Ratings ........................................... cULus wet location rated, IP65
Controls ................................................0-10V dimming (standard)

Unlimited customization due to modular design: HBMUZDA450K90D utilized below

Side by side assembly resulting in a 400W Luminaire

End to end assembly resulting in a 600W Luminaire

Order consists of:
- (2) HBMUZDA450K90D
- (1) HBMPTBAG
- (1) HBMJBOX

Replacement Strategy

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>FIXTURE CONFIGURATION</th>
<th>TOTAL FIXTURE WATTAGE</th>
<th>LED ENERGY SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCP HBM Series - 30,000 lumens</td>
<td>(1) 200W Luminaire</td>
<td>200</td>
<td>—</td>
</tr>
<tr>
<td>400W Metal Halide</td>
<td></td>
<td>458</td>
<td>56%</td>
</tr>
<tr>
<td>TCP HBM Series - 60,000 lumens</td>
<td>(2) 200W Luminaires</td>
<td>400</td>
<td>—</td>
</tr>
<tr>
<td>1000W Metal Halide</td>
<td></td>
<td>1081</td>
<td>63%</td>
</tr>
</tbody>
</table>
Applications

The TCP LED HBM Series Modular High Bay is ideal for replacing traditional metal halide high bay systems in high temperature environments. Primary applications include steel mills and other heavy industrial plants, commercial facilities, manufacturing facilities, field houses and other applications with a suggested mounting height up to 130’. Benefits include high efficiency, excellent color rendering, long life, instant on, and a modular design that will satisfy the most complex of lighting applications.

Construction

- Durable, light weight aluminum body
- Finish: powder coated, post-painted black
- Modular design: unlimited lighting design solutions
- Lightweight, low-profile design

Electrical

- cULus damp location rated
- 0-10V dimming driver (standard)
- Easy-to-access wiring compartment
- System rated for long 50,000 hour life
- Efficiently delivers >150 LPW

Optics

- High impact, clear acrylic lens comes standard to protect the LEDs and minimize glare
- Delivers bright, white light and excellent uniformity

Catalog Ordering Matrix

Example: HBMUZDA450K90D

<table>
<thead>
<tr>
<th>FAMILY</th>
<th>VOLTAGE</th>
<th>CONTROLS/DIMMING</th>
<th>LUMEN PACKAGE (Power)</th>
<th>CCT</th>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBM – LED High Temp Modular High Bay</td>
<td>U – 120V - 277V</td>
<td>ZD – 0-10V Dimming</td>
<td>A4 – 30,000 lumens (200W)</td>
<td>50K – 5000K</td>
<td>90D – 90° Beam Angle</td>
</tr>
</tbody>
</table>

**Accessories:**

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBMPTBAG</td>
<td>Parts bag for modular assembly</td>
</tr>
<tr>
<td>TCPYHOOKX10FT</td>
<td>Y-hook hanging kit</td>
</tr>
<tr>
<td>MODJBOX</td>
<td>Junction box for modular wiring</td>
</tr>
</tbody>
</table>

**Listings**

UL/cUL Listed
RoHS Compliant
DLC 5.0 Premium

**Warranty**

Five year limited warranty against defects in manufacturing.¹

¹ Warranty is valid when operating in 70°C and below environments.

¹ IESNA TM-21-11 projected value based on 6X IESNA LM-80-08 total test duration of 6,000 hours.
² IESNA TM-21-11 calculated value exceeds 6X IESNA LM-80-08 total test duration of 6,000 hours.

For the most up-to-date specs and warranty information, please visit www.tcpi.com
Industra by TCP
LED HBM Series Modular High Bay

Dimensions and Mounting Data

Product dimensions:
- 14.96"
- 5.34"

Side-by-Side assembly:

Linear assembly:

Installation method:
1. Use the Y-Hook shown below.
2. Insert the hook into the slotted holes, as shown below.
3. Hook up the chain on the ceiling anchor.
4. Turn off power, and make wiring connections with terminal cap (see installation instruction document for wiring details.)

Photometric Report

Based on photometric data for TCP Item #HBMUZDA450K90D

Polar Graph

Coefficients of Utilization – Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

<table>
<thead>
<tr>
<th>Zone</th>
<th>Lumens</th>
<th>%Luminaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>6468.84</td>
<td>20.80</td>
</tr>
<tr>
<td>0-30</td>
<td>12653.39</td>
<td>41.40</td>
</tr>
<tr>
<td>0-40</td>
<td>19596.53</td>
<td>63.00</td>
</tr>
<tr>
<td>0-60</td>
<td>28704.53</td>
<td>92.30</td>
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<tr>
<td>0-80</td>
<td>30889.57</td>
<td>99.40</td>
</tr>
<tr>
<td>0-90</td>
<td>31038.95</td>
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<td>10-90</td>
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<tr>
<td>20-40</td>
<td>13127.69</td>
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<td>60.60</td>
</tr>
<tr>
<td>40-70</td>
<td>10690.64</td>
<td>34.40</td>
</tr>
<tr>
<td>60-80</td>
<td>2185.04</td>
<td>7.00</td>
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</table>

Zonal Lumen Summary

<table>
<thead>
<tr>
<th>Zone</th>
<th>Lumens</th>
<th>%Luminaire</th>
<th>Zone</th>
<th>Lumens</th>
<th>%Luminaire</th>
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<td>30.80</td>
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<tr>
<td>0-80</td>
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<tr>
<td>0-90</td>
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<td>2185.04</td>
<td>7.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- Maximum Cavity = 15010 - Located All Horizontal Angle = 10.1 Vertical Angle = 4
- 1 - Vertical Plane Through Horizontal Angle (1.750.57 Through Max. Cavity) (Through Max. Cavity)

Specifications and dimensions subject to change without notice. For the most up-to-date specs and warranty information, please visit www.tcpi.com

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