HID Lamps

January 22, 2018
HID Lamps
Metal Halide / Pulse Start / High Pressure Sodium

Howard’s best-in-class HID lamps have long life, high efficiency, and are engineered for performance. Available in different wattages and sizes. We offer the following types of HID Lamps:
- **Metal Halide**
- **Pulse Start Metal Halide**
- **High Pressure Sodium**
  - Standard
  - Standby
  - Non-cycling
  - “NEW” Long Life (80,000 hrs.)
- **Mercury Vapor**
Howard Lighting is committed to quality!
We constantly test and evaluate our products prior to shipment.

Testing and Evaluation of lamps
• We are constantly testing our HID lamps on our burn in racks, plus our photo sphere for lumens, color, CRI, etc. To ensure each product meets ANSI prior to shipment.
• Each production run is tested several times during manufacture and again at our distribution center once received prior to customer shipments.
• Independent testing has also been conducted.
# HID Lamps

## Basic Lamp Ordering Information

<table>
<thead>
<tr>
<th>Watts</th>
<th>Howard Catalog #</th>
<th>Bulb</th>
<th>Base</th>
<th>ANSI</th>
<th>Burning Position</th>
<th>Lumen Initial (Im)</th>
<th>Mean (Im)</th>
<th>MOL (Im)</th>
<th>LCL (In)</th>
<th>Avg. Life (hours)</th>
<th>Color Temp. (K)</th>
<th>CRI</th>
<th>Lamp Finish</th>
<th>Pkg. Qty.</th>
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<tbody>
<tr>
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<td>LU35/MED</td>
<td>ED17</td>
<td>MED</td>
<td>S75</td>
<td>Universal</td>
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<td>2025</td>
<td>5.43</td>
<td>3.43</td>
<td>16000</td>
<td>2100</td>
<td>22</td>
<td>Clear</td>
<td>12</td>
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<tr>
<td>35</td>
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<td>S75</td>
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<td>1935</td>
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<td>2100</td>
<td>22</td>
<td>Diffuse</td>
<td>12</td>
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<tr>
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<td>MED</td>
<td>S88</td>
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<td>3600</td>
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<td>3.43</td>
<td>24000+</td>
<td>2100</td>
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<td>24000+</td>
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**LU70 = 70 watt HPS**

**ED23.5 = Bulb Shape**

**ANSI Code**

This code is developed and assigned by the American National Standards Institute. The ANSI Code consists of type of lamps as S=HPS, H=Mercury, M=Metal Halide and followed by ballast number. For Metal Halide lamps, the ballast number is followed by the fixture requirement (O, E, S).

**LCL = Light Center Length**

Measurement from the center of the arc tube to the bottom of the lamp base.

**MOL = Maximum Overall Length**

Measured as the maximum distance from the top of the bulb to the bottom of the base.
HID Lamps

Information regarding HID Lamps

Average Life (Hours)

Average life is defined as the total operation hours at which 50% of any group of lamps is still under operation. The average life of a lamp is based upon vertical operation of representative lamps operated under controlled conditions of at least 10 hours per start (except MH1500 which is based on 5 hours per start).

Warm Up Time

Most HID lamps do not have instant capabilities. It may take several minutes for the arc tube to stabilize before optimal light output is achieved.

Hot Restrike

In most instances, if an HID lamp experiences a momentary power interruption or sudden voltage drop, the lamp may extinguish. A lamp that is still hot will not restart immediately, because the arc tube within the lamp must cool down before it can re-start. HID lamps have hot restrike times ranging from 1-15 minutes depending on the product type.
HID Lamps

Information regarding HID Lamps (cont.)

Bulb

Each bulb description consists of both a letter to indicate bulb shape and number to show the maximum bulb diameter in 1/8 inch increments. Example: BT37 bulb indicates a blown shape with tubular top, 37/8 of an inch in diameter. Various bulb shapes are noted below.
HID Lamps

Lamp Base Information

- **Medium (E26)** – bases are used on E17 bulbs and limited to 175w maximum.
- **Mogul (E39)** – bases are used on High Pressure Sodium, Metal Halide, Pulse Start, and Mercury Vapor lamps.
- **Mogul (EX39)** – exclusionary Mogul bases are used on Metal Halide and Pulse Start lamps, permitting them to be use in open fixture applications. These bases are compatible with standard or exclusionary sockets.
HID Lamps

Metal Halide
Current models available
- 50-70-100-150-175 watts available in medium and mogul base
- 250-400-1000-1500 in mogul base
- 50-70-150-175 watts available in protected (medium and mogul base)
- 250-400-1000 watts available in protected (mogul base)
- Available in clear and coated
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Pulse Start Metal Halide
Current models available
- 200-250-320-350-400-750-1000 watt models
- Coated and clear available
HID Lamps

High Pressure Sodium

Current models available

- 35-50-70-100-150/55 watts in both medium and mogul base
- 150/100-200-250-310-400-1000 watts in mogul base
- Standard (single arc tube)
- Standby (dual arc tube)
- Non-cycling (single arc tube)
- “NEW” Long Life (80,000 hrs.) available in 100, 150/55, 250 and 1000w mogul base.

Note: Howard HPS lamps pass TCLP for hazardous waste. Disposal regulations may vary; check your local and state regulations.
**HID Lamps**

**High Pressure Sodium**

- **Standby HPS Lamps**
  70-100-150/55-200-400 watt models (mogul base)

- **Non-cycling HPS Lamps**
  100-150/55-200-250-400 watt models (mogul base)
HID Lamps

Mercury Vapor

Current models available
- 100-175-250-400-1000 watts
- 100 watt is available in medium and mogul base
- 9 current models

Literature

We offer the following literature for HID Lamps:

- HID Lamp Product Guide
- Individual lamp information
- Cross Reference Guide
- Individual Spec Sheets
- HID Lamp Warranty
- HID Lamp Service Guide

Check out our literature library under Documents/Forms on our home page at www.howard-lighting.com for a full list of literature.
Literature

Individual specification sheets for each lamp.
Howard Industries, Inc. – Lighting Products Division ("Howard Lighting Products") warrants HID lamps to be free from defects in material and workmanship. Howard Lighting Products’ HID lamps with greater than 12,000 hours average rated life are warranted for a period of one year from date of purchase based on max operation of 4,000 hours per year (minimum 10 fixture start for lamp). If lamps fail to operate for the warranty period, Howard Lighting Products’ sole warranty obligation is to provide a replacement lamp (no labor allowed).

Terms and Conditions:
1. Howard Lighting Products warrants the lamps to be free from defects in material and workmanship.
2. Howard Lighting Products’ HID lamps must be operated on ballasts designed to operate the lamps. The ballast should be rated with the same ANSI lamp code designation as the lamp. The electrical values depicted on the HID ballast label, as well as the lamp and lighting equipment instructions must be adhered to. The lamp must be operated within the normal specified operating range, orientation, and environmental conditions for the HID system. Lamps operated in any system that has been subjected to abnormal stresses, such as, but not limited to, excess temperatures, mechanical stresses, excessive switching cycles or under or over voltage conditions or on ballasts, control gear, or electrical systems that are outside of the defined ANSI parameters of the appropriate ANSI standards are excluded from coverage under this warranty.
3. This warranty excludes any product damaged from misuse, faulty installation, inadequate maintenance, damage, negligence, accident, or tampering.
4. Howard Lighting Products reserves the right to examine all failed lamps and reserves the right to be the sole judge as to whether lamps are defective and covered under this warranty.
5. This warranty shall be the sole remedy of the Customer and the sole liability of Howard Lighting Products to Customer.

NO IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OR IS TO BE IMPLIED. Howard Lighting Products will not under any circumstance whether as a result of breach of contract, breach of warranty, tort, strict liability or otherwise be liable for consequential, incidental, special or exemplary damages including, but not limited to, loss of profits or revenues, loss of use of lamps or any other goods or associated equipment or damages to any associated equipment, cost of capital, cost of substitute products, facilities or services, down-time costs, or claims of third party customers.

6. After contacting Howard Lighting Products and receiving a technical authorization number, the user/customer shall promptly return the product at the user/customer's expense to Howard Lighting Products after receiving instructions as to when and where to ship product. Failure to follow this procedure shall void this warranty.
7. Howard Lighting Products reserves the right to change the warranty period without notice.
8. Lamps and applications that have average rated life of 14,000 hours or less will be warranted for 6 months from date of purchase based on max operation of 4,000 hours per year (minimum 10 fixture start for lamp). Lamps and applications with rated average life of less than 7,000 hours are excluded from this warranty.

Experience the Howard Advantage

Howard LED Lighting Solutions

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Fax: 937.577.4744
www.howardlighting.com
Literature

HID Lamp Service Guide
This is a quick reference to troubleshooting HID lighting systems.
For more information on other Howard Lighting products, contact the Howard Lighting (Utility/DOT) regional manager in your area or our customer service team.