Thomas & Betts is committed to delivering high quality industrial lighting systems designed, tested and certified for use in hazardous locations and adverse environment conditions. You can rely on Hazlux® to safely provide light where you need it — even under the harshest indoor and outdoor conditions. If safety, labor reduction, quality and reliability are your priorities; consider Hazlux® lighting. Keeping our commitment to the industrial markets, T&B is introducing an energy efficient, long life and extreme temperature rated induction lighting system within our Hazlux® hazardous lighting products.

Longest Life-Energy Efficient Induction Lighting Available in the Market

Hazlux® has integrated a new induction lighting technology into its explosion-proof graded luminaires to create one of the longest lasting energy efficient lighting systems on the market. With a 100,000-hour rated life span, this system yields over twice the life and costs significantly less in maintenance than technologies like LED, HID, and fluorescent lighting. In addition, by selecting the “cold weather” feature during the order process, these luminaires are able to operate in -50° C temperatures. T&B’s new Hazlux® induction lighting system is the way to go in your facility.

Advantages of Hazlux® Induction Lighting

- Reduced power consumption of 50% - 70%
- Ultra-long life - up to 100,000 hours
- Excellent color rendering index (CRI) of 80+
- Instant On & Restrike (with no flickering)
- Rated for extreme temperatures of -40° C to 40° C (-40° F to 104° F)
- Operates in temperatures down to -50° C (-58° F) using our “Cold Weather Circuit” option
- Excellent lumen output with minimal depreciation
- Suitable for high-vibration applications
- Total harmonic distortion of less than 10%
- No interference with external instrumentation
- Universal voltage (120/277V) standard, 480/347V available, 50/60 Hz
- 5,000 Kelvin standard (others available)
- Convert existing luminaires easily with Quick-Pole Assembly and HazVertor® Ring

Area Lighting — Hazlux® 3 Low Wattage
- General Applications
- Class 1, Div. 2 Groups A, B, C, D
- Lamp wattage: 35 - 100 watt
- 100K Hour lamp life
- Selection of Globes, Guards, & Reflectors

Area Lighting — Hazlux® 3 High Wattage
- High-Bay / Extreme applications
- Class 1, Div. 2 Groups A, B, C, D
- Lamp Wattage: 165 watt
- 65K Hour lamp life
- Single selection of Globe, Guard, & Reflector

Area Lighting — Hazlux® 5 Induction
- Explosion Proof Environments
- Class 1, Div. 1 Groups C, D
- 100K Hour lamp life
- Lamp wattage: 35 - 85 watt

Accessory: Quick Pole Assembly
- Allows single person lowering of luminaire without the need for ladders
- Various mounting options
- Various heights available
About Induction Lighting

Induction lighting is similar to fluorescent lighting, in that they both use phosphors to fluoresce and create light. While a fluorescent lamp uses filaments to create an electric arc, the induction lamp is wireless and excites the phosphors via high-frequency induction energy (created by the induction coil located in the middle of the bulb). Usually the filaments are the ‘weak spot’ for the life of the lamp causing the whole lamp to become inoperative once they burnout. The induction lamp doesn’t have filaments and has a much longer life. The light emitted by the induction lamp also has a high Color Rendering Index (CRI). This allows it to accurately mimic sunlight by showing a full spectrum of colors and provide a high Kelvin temperature that ensures crisp contrast on your working surface. In addition, the lack of filaments makes this technology very resilient to high vibration environments.

Light output from a given luminaire declines over time due to the deterioration of the elements that comprise the lighting system (for example, within incandescent lamps, the filament is depleted and tungsten particles accumulate on the wall of the bulb); this is typically known as Lumen Depreciation. For industrial applications, it is common to replace the lamp when the output of the bulb is reduced to 65% of the initial rated lumen output. The chart below shows that induction lighting has the longest life span among competing technologies in today’s industrial environments. To help put a 100,000-hour lifespan in perspective – if you operated the lamp continuously, it would burn for over 11 years before needing to be replaced. This provides cost savings for facilities requiring a reduction in continuous operation and maintenance.
Greater Vision Clarity Per Watt = Increased Safety

It’s the quality of light — not the wattage or brightness — that counts when it comes to visual acuity. Induction lighting produces breakthrough light quality because it was engineered according to the latest understanding of how the human eye processes visual stimuli. With it you can use fewer luminaires and have the same work-surface visual acuity. Induction lighting produces vision-friendly light, offering more clarity per watt.

Transmission of visual stimuli from the eye to the brain depends on efficient functioning of the retina’s rods and cones. Rods are excellent for seeing at night (scotopic vision), while cones perform at brighter levels to see colors (photopic vision). Induction lighting is designed to allow the best possible interaction between the rods and cones, assuring optimal scotopic/photopic (S/P) balance.

Long Life Span Minimizes Energy and Maintenance Costs

- Eliminates the need for expensive HID options, such as quartz auxiliary lamps or instant restrike
- Increases efficiency by decreasing shutdown time
- Reduces the number of times necessary to de-energize an entire circuit of lights for maintenance in hazardous locations
- Reduces expensive rental costs of scissor lifts or bucket trucks

Operating Cost Comparison Between Induction and High Pressure Sodium Technology

<table>
<thead>
<tr>
<th>Operating Cost</th>
<th>85W Induction</th>
<th>150W HPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luminaire Wattage (lamp + ballast) x</td>
<td>89.25</td>
<td>180</td>
</tr>
<tr>
<td>Annual Burn Hours (1000) x</td>
<td>8.760</td>
<td>8.760</td>
</tr>
<tr>
<td># of Luminaires x</td>
<td>550</td>
<td>550</td>
</tr>
<tr>
<td>Total Annual Kilowatts</td>
<td>430,006</td>
<td>867,240</td>
</tr>
<tr>
<td>Kilowatt Rate ($/kilowatt*hour) x</td>
<td>0.135</td>
<td>0.135</td>
</tr>
<tr>
<td>Annual Cost</td>
<td>$58,050.88</td>
<td>$117,077.40</td>
</tr>
<tr>
<td>5-Year Cost</td>
<td>$290,254.39</td>
<td>$585,387.00</td>
</tr>
<tr>
<td>Total 5-Year Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total 5-Year Savings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Re-Lamping Cost Comparison

<table>
<thead>
<tr>
<th>Re-Lamping Cost</th>
<th>85W Induction</th>
<th>150W HPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Year Annual Burn Hours</td>
<td>43,800</td>
<td>43,800</td>
</tr>
<tr>
<td>Lamp Useful Hours</td>
<td>100,000</td>
<td>20,000</td>
</tr>
<tr>
<td># of Re-lampings within 5 years</td>
<td>0.438</td>
<td>2.19</td>
</tr>
<tr>
<td>Lamp Replacement Cost</td>
<td>$0</td>
<td>$15.00</td>
</tr>
<tr>
<td>Labor Replacement Cost</td>
<td>$0</td>
<td>$30.00</td>
</tr>
<tr>
<td># of Luminaires</td>
<td>550</td>
<td>550</td>
</tr>
<tr>
<td>5-Year Re-Lamping Cost</td>
<td>$0</td>
<td>$54,202.50</td>
</tr>
<tr>
<td>Total 5-Year Cost</td>
<td>$290,254.39</td>
<td>$639,587.00</td>
</tr>
<tr>
<td>Total 5-Year Savings</td>
<td>$349,335.11</td>
<td>—</td>
</tr>
</tbody>
</table>

Note: Kilowatts based on 5-year average. Check with local utility for rebate program availability. Cost calculator on www.tnb.com allows you to calculate your savings when using our induction luminaire. For government tax rebate incentives please visit local state information sites.
Hazardous Locations

Hazardous Location — An area where the possibility of explosion and fire is created by the presence of flammable gases, vapors, dust, fibers or flyings.

Class I — Gas
Class I — NEC® 500.5(B) — Class I locations are those in which flammable gases, flammable liquid-produced vapors or combustible liquid-produced vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Typical Class I Locations:
- Petroleum refineries and gasoline storage and dispensing areas
- Industrial firms that use flammable liquids in dip tanks for parts cleaning or other operations
- Petrochemical companies that manufacture chemicals from gas and oil
- Dry cleaning plants where vapors from cleaning fluids can be present
- Companies that have spraying areas where they coat products with paint or plastics
- Aircraft hangars and fuel serving areas
- Utility gas plants and operations involving storage and handling of liquified petroleum gas or natural gas

Class II — Dust
Class II — NEC® 500.5(C) — Class II locations are those that are hazardous because of the presence of combustible dust.

Typical Class II Locations:
- Grain elevators, flour and feed mills
- Plants that manufacture, use or store magnesium or aluminum powders
- Plants that have chemical or metallurgical processes: producers of plastics, medicines and fireworks, etc.
- Producers of starch or candies
- Spice-grinding plants, sugar plants and cocoa plants
- Coal preparation plants and other carbon handling or processing areas

Class III — Fibers
Class III — NEC® 500.5(D) — Class III locations are those that are hazardous because of the presence of easily ignitable fibers or where materials producing combustible flyings are handled, manufactured or used, but in which such fibers/flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures.

Typical Class III Locations:
- Textile mills, cotton gins, cotton seed mills and flax processing plants
- Any plant that shapes, pulverizes or cuts wood and creates sawdust or flyings

Note: Fibers and flyings are not likely to be suspended in the air but can collect around machinery or on lighting luminaires and where heat, a spark or hot metal can ignite them.

Division 1 — Normally Hazardous
Division 1 — Hazardous gases or dusts are present under normal operation conditions or during frequent repair and maintenance activity.

Groups A, B, C, D
Groups A, B, C and D (NEC® 500.6 (A)) — The gases and vapors of Class I locations are broken into four groups by the code A, B, C and D. These materials are grouped according to the ignition temperature of the substance, its explosion pressure and other flammable characteristics.

Groups E, F, G
Groups E, F, G (NEC® 500.6 (B)) — Class II dust locations groups E, F and G are classified according to the ignition temperature and the conductivity of the hazardous substance.

Division 2 — Not Normally Hazardous
Division 2 — Hazardous gases or dusts are not present under normal operating conditions.

Articles 500 through 505 (2011 NEC®) — Explains in detail the requirements for the installation of wiring or electrical equipment in hazardous locations. These articles along with other applicable regulations, local governing inspection authorities, insurance representatives and qualified engineering/technical assistance should be your guides to the installation of wiring or electrical equipment in any hazardous or potentially hazardous location.

Note: These are simplified definitions — complete data is in the referenced 2011 NEC®. NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.
Four-Step Method for Selecting Lighting Luminaires for Hazardous Locations

1. Select a luminaire that meets your Class, Division and Group requirements.
   - Typically:  Class I, Division 2, Group D
     Class II, Division 1, Group G
   - Example:  Say your environment has Propane gas that is always present. According to NEC Article 500 sections, you’ll need a Class 1, Division 1, Group D luminaire (which would be our Hazlux 5 series).

2. Determine the T-Number for your selected luminaire. Be sure it is for the specific wattage, ballast housing, optical assembly and ambient temperature.
   - Use the published information in this catalog or in Hazlux® product brochures
   - Example:  All of our Hazlux 5 series induction luminaires have a T6 rating (max. luminaire spot temperature of 85° C).

3. Determine the Maximum Allowable Temperature for the hazardous materials involved.
   - Class I Gas: Ignition Temperature for the Specific Gas (from pp. I-4–I-6 of this catalog or from NFPA497M)
   - Class II Dust:
     - Group E.............................200° C
     - Group F.............................200° C
     - Group G.............................165° C
     - Or ignition temperature of dust if lower
     - Above from NEC® Table 500-3(F)
   - Example:  The auto-ignition temperature of propane is 470° C which will require a minimum T-Code of T1.

4. Compare T-Number (from Step 2) to Maximum Allowable Temperature (from Step 3).
   - If T-Number is cooler than the Maximum Allowable Temperature, the selected luminaire is suitable.
   - If T-Number is hotter than the Maximum Allowable Temperature, the selected luminaire is not suitable.
   - Example:  Since the T-Code of the luminaire (T6, 85° C) is cooler than the auto-ignition temperature of the gas (T1, 470° C) then the Hazlux 5 induction luminaire is the appropriate choice.

T-Number Table

<table>
<thead>
<tr>
<th>CLASS I, II, DIV. 1, 2 T-NUMBER</th>
<th>MAX. TEMP. (IN °C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>450</td>
</tr>
<tr>
<td>T2</td>
<td>300</td>
</tr>
<tr>
<td>T2A</td>
<td>280</td>
</tr>
<tr>
<td>T2B</td>
<td>260</td>
</tr>
<tr>
<td>T2C</td>
<td>230</td>
</tr>
<tr>
<td>T2D</td>
<td>215</td>
</tr>
<tr>
<td>T3</td>
<td>200</td>
</tr>
<tr>
<td>T3A</td>
<td>180</td>
</tr>
<tr>
<td>T3B</td>
<td>165</td>
</tr>
<tr>
<td>T3C</td>
<td>160</td>
</tr>
<tr>
<td>T4</td>
<td>135</td>
</tr>
<tr>
<td>T4A</td>
<td>120</td>
</tr>
<tr>
<td>T5</td>
<td>100</td>
</tr>
<tr>
<td>T6</td>
<td>85</td>
</tr>
</tbody>
</table>

Thomas & Betts has recently added induction lighting technology to our hazardous lighting offering. This technology allows us to serve our customers looking to improve energy efficiency and reduce their hazardous lighting maintenance costs, all while operating in extreme weather temperatures. With a white color output, minimal lumen depreciation, and a rated lifespan of 100,000+ hours, T&B’s new Hazlux® induction lighting systems are the way to go in your facility.

Features include:
- 100,000+ hour lamp life
- Reduced maintenance/re-lamp operations
- Instant On/Instant Restrike
- Automatic switch-off in case of failure
- 5000K CCT Standard
- Exceptional energy efficiency
- -40° C to 40° C ambient operating range (temperatures down to -50° C available with our ‘Cold Weather Circuit’ option)
- Retrofits into existing Hazlux® 3 applications
- RFI-approved (FCC part 18 reference luminaire)

Here’s how you save maintenance costs with Hazlux® Induction Lighting:

- Eliminates the need for expensive HID options such as Quartz Auxiliary Lamps or Instant Restrike
- Reduces risks to installers performing maintenance in hard-to-reach places
- Increases efficiency by decreasing machine shutdown time
- Reduces number of times necessary to de-energize entire circuit of lights for maintenance in hazardous locations
- Lowers cost of expensive rental of scissor lifts or bucket trucks

Hazlux® 3 Induction Certification Guide

<table>
<thead>
<tr>
<th>WATTS</th>
<th>AMBIENT TEMP (°C)</th>
<th>CLASS I, DIVISION 2 GROUPS A, B, C, D TEMPERATURE CODE</th>
<th>CLASS II, DIVISION 1</th>
<th>SIMULTANEOUS CLASS I, DIVISION 2 AND CLASS II, DIVISION 1</th>
<th>UL 1598A MARINE</th>
<th>NEMA 4X*</th>
<th>SUPPLY WIRE TEMP. RATING (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>40</td>
<td>T2B</td>
<td>T6</td>
<td>T2</td>
<td>Yes</td>
<td>Yes</td>
<td>90°</td>
</tr>
<tr>
<td>55</td>
<td>40</td>
<td>T2B</td>
<td>T6</td>
<td>T2</td>
<td>Yes</td>
<td>Yes</td>
<td>90°</td>
</tr>
<tr>
<td>85</td>
<td>40</td>
<td>T2A</td>
<td>T6</td>
<td>T2A</td>
<td>Yes</td>
<td>Yes</td>
<td>90°</td>
</tr>
<tr>
<td>100</td>
<td>40</td>
<td>T2A</td>
<td>T6</td>
<td>T2A</td>
<td>Yes</td>
<td>Yes</td>
<td>90°</td>
</tr>
</tbody>
</table>

Note: 1. Simultaneous presence applications: Some Hazlux® 3 luminaires are UL® Listed for simultaneous presence of gas and dust. Contact Hazlux® for specific information.
2. Tuff-Skin® Coated Optics: Many Hazlux® 3 luminaires are UL® Listed with Tuff-Skin® (silicone) coating on glass optics. Contact Hazlux® for specific information.
3. For UL® and CSA Certification Information on other ambient temperatures and luminaire configurations, consult the factory.
4. Tuff-Skin® is a registered trademark of Thomas Manufacturing Corp.
Hazardous Area Lighting Class I, Division 2
Luminaire Assembly Guide

<table>
<thead>
<tr>
<th>Mounting Style</th>
<th>HazVertor™ Adapter Ring</th>
<th>Rigid or Flexible Pendant</th>
<th>Cone-Top Pendant</th>
<th>Ceiling Mount</th>
<th>Wall Mount</th>
<th>25° Angle Stanchion</th>
<th>Straight Stanchion</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ballast Tank</th>
<th>R-Housing</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Globe or Refractor</th>
<th>Heat-Resistant Globe</th>
<th>Refractor Globe</th>
<th>Refractor Glass</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Guard</th>
<th>Polymeric Guard</th>
<th>Cast Guard</th>
<th>Steel Wire Guard</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reflectors*</th>
<th>Standard Dome</th>
<th>30° Angle Deflector</th>
<th>Deep Dome</th>
</tr>
</thead>
</table>

* Reflectors are shipped uninstalled and separately.
Hazardous Area Lighting Class I, Division 2
Catalog Numbering System

1 Luminaire Series
   DI = Hazlux® 3 Induction Series

2 Starter Circuit/Quartz Options
   Ø = Standard Luminaire (Without Options)
   C = Cold Weather Circuit (-50°C)

3 Lamp Wattage
   03 = 35 Watts
   05 = 55 Watts
   08 = 85 Watts
   10 = 100 Watts

4 Ballast Circuit
   E = Electronic Ballast

5 Voltage/Frequency
   UN = 120 to 277 Vac, 50/60 Hz
   48 = 480 Vac, 60 Hz
   34 = 347 Vac, 60 Hz

6 Ballast Housing Style
   R = R-Housing
   I = R-Housing with Stainless Steel Inserts

7 Optical Assembly Options
   Globes are available only for 35W and 55W
   R1 = 7½" Refractor Globe, Type I
   R3 = 7½" Refractor Globe, Type III
   R5 = 7½" Refractor Globe, Type V
   R1C = R1 with Cast Guard
   R3C = R3 with Cast Guard
   R5C = R5 with Cast Guard
   R1P = R1 with Polymeric Guard
   R3P = R3 with Polymeric Guard
   R5P = R5 with Polymeric Guard
   TG = 7½" Thermal Shock-Resistant Globe
   TGC = TG with Cast Guard
   TGP = TG with Polymeric Guard
   Refractor Glass are available for all wattages
   RR2 = 12" Glass Refractor Type II
   RR2G = 12" Glass Refractor Type II with Wire Guard
   RR5 = 12" Glass Refractor Type V
   RR5G = RR5 with Wire Guard

8 Mounting Style
   A2 = ¾" Cone-Top Pendant
   A3 = 1" Cone-Top Pendant
   B2 = ¾" Wall Mount
   B3 = 1" Wall Mount
   C2 = ¾" Ceiling Mount
   C3 = 1" Ceiling Mount
   F2 = ¾" Flexible Pendant
   F3 = 1" Flexible Pendant
   HV1 = HazVertor® Ring — Class I, Div. 2
   HV2 = HazVertor® Ring — Class II, Div. 1
   L4 = 1¼" Straight Stanchion
   L5 = 1½" Straight Stanchion
   P2 = ¾" Rigid Pendant
   P3 = 1" Rigid Pendant
   S4 = 1½" 25° Angle Stanchion
   S5 = 1½" 25° Angle Stanchion

9 Special Options
   T = HazCote® Custom Corrosion Coating (Consult Factory)
   E = UNIPAK® with Induction Lamp

10 UNIPAK® *

11 Fusing Options
   F = Fuse Block(s) with Fuse(s)

12 Certification
   C = Canadian Market (CSA Label)

(*) Available Unipak® only

Class I — Zone 2, Groups IIC, IIB, IIA
   Division 2, Groups A, B, C and D
Class II — Divisions 1 and 2, Groups E, F and G
Class III
   • UL® Listed (UL1598A) for Marine Locations
   • UL844
   • NEMA 4X, IP66
   • CSA C22.2 No 137 standard

Contact your Thomas & Betts sales representative to verify classification.

* Reflectors are shipped uninstalled and separately.
## Area Lighting — Hazlux® 3 Class I, Division 2

### Mounting Options

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
<th>CONDUIT HUB SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP2</td>
<td>Rigid Pendant</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>VP3</td>
<td></td>
<td>1&quot;</td>
</tr>
<tr>
<td>VA2</td>
<td>Cone-Top Pendant</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>VA3</td>
<td></td>
<td>1&quot;</td>
</tr>
<tr>
<td>VF2</td>
<td>Flexible Pendant</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>VF3</td>
<td></td>
<td>1&quot;</td>
</tr>
<tr>
<td>VC2</td>
<td>Ceiling Mount</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>VC3</td>
<td></td>
<td>1&quot;</td>
</tr>
<tr>
<td>VB2</td>
<td>Wall Mount</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>VB3</td>
<td></td>
<td>1&quot;</td>
</tr>
<tr>
<td>VB2-VIB</td>
<td>Wall Mount for High Vibration Applications</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>VB3-VIB</td>
<td></td>
<td>1&quot;</td>
</tr>
<tr>
<td>VS4</td>
<td>25° Angle Stanchion</td>
<td>1 1/4&quot;</td>
</tr>
<tr>
<td>VS5</td>
<td></td>
<td>1 1/2&quot;</td>
</tr>
<tr>
<td>VS4-VIB</td>
<td>25° Angle Stanchion for High Vibration Applications</td>
<td>1 1/4&quot;</td>
</tr>
<tr>
<td>VS5-VIB</td>
<td></td>
<td>1 1/2&quot;</td>
</tr>
<tr>
<td>VL4</td>
<td>Straight Stanchion</td>
<td>1 1/4&quot;</td>
</tr>
<tr>
<td>VL5</td>
<td></td>
<td>1 1/2&quot;</td>
</tr>
<tr>
<td>VL4-VIB</td>
<td>Straight Stanchion for High Vibration Applications</td>
<td>1 1/4&quot;</td>
</tr>
<tr>
<td>VL5-VIB</td>
<td></td>
<td>1 1/2&quot;</td>
</tr>
<tr>
<td>HV1</td>
<td>HazVertor® Adapter Ring</td>
<td></td>
</tr>
</tbody>
</table>

### Globes or Refractors

- **Heat-Resistant Globe**
- **Type I, III or V Refractor Globe**
- **Type II or V Refractor Glass**

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGT31S</td>
<td>7 3/4&quot; dia. Heat-Resistant Globe (250W max.)</td>
</tr>
<tr>
<td>VGL31R1</td>
<td>7 3/4&quot; dia. IES Type I Refractor Globe (250W max.)</td>
</tr>
<tr>
<td>VGL31R3</td>
<td>7 3/4&quot; dia. IES Type III Refractor Globe (250W max.)</td>
</tr>
<tr>
<td>VGL31R5</td>
<td>7 3/4&quot; dia. IES Type V Refractor Globe (250W max.)</td>
</tr>
<tr>
<td>VRF31C2</td>
<td>12&quot; dia. IES Type II Refractor Glass, 7 3/4&quot; Thread</td>
</tr>
<tr>
<td>VRF31CS</td>
<td>12&quot; dia. IES Type V Refractor Glass, 7 3/4&quot; Thread</td>
</tr>
</tbody>
</table>

* Tuff-Skin® coating is available - contact technical support for additional information. Tuff-Skin® is a registered trademark of Thomas Manufacturing Corp.

### Reflectors

- **30° Angle Reflector**
- **Standard Dome**
- **Deep Dome**

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>VR31P</td>
<td>Standard Dome, Fiberglass-Reinforced Polyester</td>
</tr>
<tr>
<td>VRD31</td>
<td>Deep Dome, Anodized Aluminum</td>
</tr>
<tr>
<td>VRA31P</td>
<td>30° Angle Reflector, Fiberglass-Reinforced Polyester</td>
</tr>
</tbody>
</table>

### Guards

- **Polymeric Guard**
- **Cast Guard**
- **Wire Guard**

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGU31RP</td>
<td>Polymeric Guard for VGT31S Globe and VGL31R Series Refractor Globes</td>
</tr>
<tr>
<td>VGU31R</td>
<td>Cast Aluminum Guard for VGT31S Globe and VGL31R Series Refractor Globes</td>
</tr>
<tr>
<td>VGR48</td>
<td>Steel Wire Guard for All VRF Series 12&quot; Refractors</td>
</tr>
</tbody>
</table>
Dimensions

R-Housing with Globe and Guard

R-Housing with Refractor and Guard

R-Housing with 12” Refractor Glass

Photometry

R-Housing with Refractor

**Ceiling Mount**

**Reference Data**

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>DI005EUNRTGA2-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamp</td>
<td>55W Induction lamp</td>
</tr>
<tr>
<td>Lamp Lumens</td>
<td>N.A. (absolute)</td>
</tr>
<tr>
<td>Input Watt</td>
<td>55.71</td>
</tr>
<tr>
<td>Luminaire Lumens</td>
<td>3644</td>
</tr>
<tr>
<td>Efficiency</td>
<td>NA</td>
</tr>
<tr>
<td>Efficacy Rating (LER)</td>
<td>65</td>
</tr>
<tr>
<td>Spacing Criterion (0-180)</td>
<td>1.38</td>
</tr>
<tr>
<td>Spacing Criterion (90-270)</td>
<td>1.38</td>
</tr>
<tr>
<td>Spacing Criterion (diagonal)</td>
<td>1.58</td>
</tr>
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</table>

**Candlepower Curve**

**Reference Data**

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>DI005EUNRR5A2-E</th>
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</thead>
<tbody>
<tr>
<td>Lamp</td>
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<tr>
<td>Lamp Lumens</td>
<td>N.A. (absolute)</td>
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<tr>
<td>Input Watt</td>
<td>55.87</td>
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<tr>
<td>Luminaire Lumens</td>
<td>3351</td>
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<tr>
<td>Efficiency</td>
<td>NA</td>
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<tr>
<td>Efficacy Rating (LER)</td>
<td>60</td>
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<td>Spacing Criterion (0-180)</td>
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<td>Spacing Criterion (90-270)</td>
<td>1.90</td>
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<td>Spacing Criterion (diagonal)</td>
<td>2.22</td>
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**Candlepower Curve**

**Reference Data**

<table>
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<tr>
<th>Catalog No.</th>
<th>DI010EUNRR6A2-E</th>
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<tr>
<td>Lamp</td>
<td>100W Induction lamp</td>
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<td>Lamp Lumens</td>
<td>N.A. (absolute)</td>
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<tr>
<td>Input Watt</td>
<td>100.5</td>
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<td>Luminaire Lumens</td>
<td>5245</td>
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<td>Efficacy Rating (LER)</td>
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<td>Spacing Criterion (0-180)</td>
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<tr>
<td>Spacing Criterion (90-270)</td>
<td>1.36</td>
</tr>
<tr>
<td>Spacing Criterion (diagonal)</td>
<td>1.70</td>
</tr>
</tbody>
</table>

**Candlepower Curve**

In industrial plants, reliable lighting is often required in hazardous, hard-to-reach places. Lamp replacement not only places employees at risk, but often requires the rental of expensive equipment such as scissor lifts.

With the introduction of Hazlux® Induction Lighting Luminaires for hazardous areas (Class 1, Div. 2 Groups A, B, C, D) and non-hazardous areas, you can benefit from one of the longest lamp lives available on the market.

Features include:

- 65,000+ hour lamp life
- Reduced maintenance/re-lamp operations
- Instant On/Instant Restrike
- Automatic switch-off in case of failure
- 5000K CCT Standard
- Exceptional energy efficiency
- -40° C to 40° C ambient operating range
- Retrills into existing Hazlux® 3 applications
- RFI-approved (FCC part 18 reference luminaire)

Here’s how you save maintenance costs with Hazlux® Induction Lighting:

- Eliminates the need for expensive HID options such as Quartz Auxiliary Lamps or Instant Restrike
- Reduces risks to installers performing maintenance in hard-to-reach places
- Increases efficiency by decreasing machine shutdown time
- Reduces number of times necessary to de-energize entire circuit of lights for maintenance in hazardous locations
- Lowers cost of expensive rental of scissor lifts or bucket trucks

### Hazlux® 3 Induction Certification Guide

<table>
<thead>
<tr>
<th>WATTS</th>
<th>AMBIENT TEMP (°C)</th>
<th>CLASS I, DIVISION 2 GROUPS A, B, C, D TEMPERATURE CODE</th>
<th>CLASS II, DIVISION 1</th>
<th>UL 1598A MARINE</th>
<th>NEMA 4X*</th>
<th>SUPPLY WIRE TEMP. RATING (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>165</td>
<td>40</td>
<td>T2A</td>
<td>T6</td>
<td>Yes</td>
<td>Yes</td>
<td>90°</td>
</tr>
</tbody>
</table>

**Note:**
1. Simultaneous presence applications: Some Hazlux® 3 luminaires are UL® Listed for simultaneous presence of gas and dust. Contact Hazlux® for specific information.
2. Tuff-Skin® Coated Optics: Many Hazlux® 3 luminaires are UL® Listed with Tuff-Skin® (silicone) coating on glass optics. Contact Hazlux® for specific information.
3. For UL® and CSA Certification Information on other ambient temperatures and luminaire configurations, consult the factory.
4. Tuff-Skin® is a registered trademark of Thomas Manufacturing Corp.
Area Lighting — Hazlux® 3 Class I, Division 2
Luminaire Assembly Guide

Mounting Style
- HazVertor® Adapter Ring
- Rigid or Flexible Pendant
- Cone-Top Pendant
- Ceiling Mount
- Wall Mount
- 25° Angle Stanchion
- Straight Stanchion

Ballast Tank
- L-Tank

Refractor
- Refractor Globe

Guard
- Steel Wire Guard
### Area Lighting — Hazlux® 3 Class I, Division 2

#### Catalog Numbering System

<table>
<thead>
<tr>
<th>D</th>
<th>I</th>
<th>Ø</th>
<th>16</th>
<th>E</th>
<th>12</th>
<th>L</th>
<th>-</th>
<th>R5G</th>
<th>-</th>
<th>P2</th>
<th>T</th>
<th>E</th>
<th>F</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 1 Hazlux® 3 HID Luminaire
- **D** = Class I, Div. 2, Groups A, B, C and D
- **D** = Class I, Zone 2, Groups IIA, IIB, IIC
- **D** = Class II, Div. 1 & 2, Groups E, F and G
- **D** = Class III
  - UL 595 Marine Locations,
  - Wet Locations, NEMA 4X

#### 2 Lamp Type
- **I** = Induction Lighting

#### 3 Starter Circuit/Quartz Options
- **Ø** = Standard Luminaire

#### 4 Lamp Wattage
- **16** = 165 Watt Induction System

#### 5 Ballast Circuit
- **E** = Electronic Ballast (Induction Luminaire)

#### 6 Voltage
- **12** = 120V, 60 Hz
- **06** = 208/240/277V 50 or 60 Hz
- **34** = 347V 60 Hz (CSA)

#### 7 Ballast Housing Style
- **L** = Large Housing
- **M** = Large Housing with Stainless Steel Inserts

#### 8 Refractor
- **R5G** = Type V Refractor with Wire Guard
- **R5** = Type V Refractor

#### 9 Mounting Style
- **A2** = ¾” Cone-Top Pendant
- **A3** = 1” Cone-Top Pendant Mount
- **B2** = ¼” Wall Mount
- **B3** = 1” Wall Mount
- **C2** = ¾” Ceiling Mount
- **C3** = 1” Ceiling Mount
- **F2** = ¾” Flexible Pendant
- **F3** = 1” Flexible Pendant
- **HV1** = HazVertor™ Ring — Class I, Division 2
- **HV2** = HazVertor™ Ring — Class II, Division 1
- **L4** = 1¼” Straight Stanchion
- **L5** = 1½” Straight Stanchion
- **P2** = ¾” Rigid Pendant
- **P3** = 1” Rigid Pendant
- **S4** = 1¼” 25° Angle Stanchion
- **S5** = 1½” 25° Angle Stanchion

#### 10 Coating
- **T** = HazCote® Custom Corrosion Coating

#### 11 UNIPAK® *
- **E** = UNIPAK® with Induction Lamp

#### 12 Fusing Options
- **F** = Fuse Block(s) with Fuse(s)

#### 13 Certification
- **C** = Canadian Market (CSA Label)

(*) Available Unipak® only

Class I
- Zone 2, Groups IIC, IIB, IIA
- Division 2, Groups A, B, C and D

Class II
- Divisions 1 and 2, Groups E, F and G

Class III
- UL® Listed (UL1598A) for Marine Locations
- UL844
- NEMA 4X, IP66
- CSA C22.2 No 137 standard

Contact your Thomas & Betts sales representative to verify classification.
Area Lighting — Hazlux® 3 Class I, Division 2

Mounting Options

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
<th>CONDUIT HUB SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VP2</td>
<td>Rigid Pendant</td>
<td>3⁄4&quot;</td>
</tr>
<tr>
<td>VP3</td>
<td>Rigid Pendant</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VA2</td>
<td>Cone-Top Pendant</td>
<td>3⁄4&quot;</td>
</tr>
<tr>
<td>VA3</td>
<td>Cone-Top Pendant</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VF2</td>
<td>Flexible Pendant</td>
<td>3⁄4&quot;</td>
</tr>
<tr>
<td>VF3</td>
<td>Flexible Pendant</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VC2</td>
<td>Ceiling Mount</td>
<td>3⁄4&quot;</td>
</tr>
<tr>
<td>VC3</td>
<td>Ceiling Mount</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VB2</td>
<td>Wall Mount</td>
<td>3⁄4&quot;</td>
</tr>
<tr>
<td>VB3</td>
<td>Wall Mount</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VB2-VIB</td>
<td>Wall Mount for High Vibration Applications</td>
<td>3⁄4&quot;</td>
</tr>
<tr>
<td>VB3-VIB</td>
<td>Wall Mount for High Vibration Applications</td>
<td>1&quot;</td>
</tr>
<tr>
<td>VS4</td>
<td>25° Angle Stanchion</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>VS5</td>
<td>25° Angle Stanchion</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>VS4-VIB</td>
<td>25° Angle Stanchion for High Vibration Applications</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>VS5-VIB</td>
<td>25° Angle Stanchion for High Vibration Applications</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>VL4</td>
<td>Straight Stanchion</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>VL5</td>
<td>Straight Stanchion</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>VL4-VIB</td>
<td>Straight Stanchion for High Vibration Applications</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>VL5-VIB</td>
<td>Straight Stanchion for High Vibration Applications</td>
<td>1½&quot;</td>
</tr>
<tr>
<td>HV1</td>
<td>HazVertor® Adapter Ring</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Globes or Refractors

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRF31CS</td>
<td>12&quot; dia. IES Type V Refractor Glass, 7½&quot; Thread</td>
</tr>
</tbody>
</table>

* Tuff-Skin® coating is available - contact technical support for additional information. Tuff-Skin® is a registered trademark of Thomas Manufacturing Corp.

Guards

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGR48</td>
<td>Steel Wire Guard for All VRF Series 12&quot; Refractors</td>
</tr>
</tbody>
</table>
Dimensions
Large Housing with 12” Refractor

Flexible Pendant

20 5/8”
(530mm)

13 3/4”
(340mm)

Cone-Top Pendant

25 3/4”
(644mm)

13 3/4”
(340mm)

Ceiling Mount

21 1/2”
(546mm)

13 3/4”
(340mm)

Wall Mount

23 3/4”
(603mm)

14 1/4”
(378mm)

25° Angle Stanchion Mount

22 3/4”
(568mm)

16 1/2”
(410mm)

Straight Stanchion

22 3/4”
(568mm)

15 3/4”
(400mm)

HazVertor® Ring

13 3/4”
(340mm)

21 5/8”
(552mm)

Photometry
Large Housing with 12” Refractor

Ceiling Mount

Reference Data
Catalog No. DI016E12L-R5-P2E
Lamp 165W Induction lamp
Lamp Lumens 12000
Input Watt 165
Luminaire Lumens 6890
Efficiency 57%
Efficacy Rating (LER) 42
Spacing Criterion (0-180) 1.12
Spacing Criterion (90-270) 1.12
Spacing Criterion (diagonal) 1.30

Candlepower Curve

Large Housing with 12” Refractor

525
1050
1574
2099

25° Angle Stanchion Mount

22 3/4”
(568mm)

16 1/2”
(410mm)

Straight Stanchion

Lamp Lumens 12000
Input Watt 165
Luminaire Lumens 6890
Efficiency 57%
Efficacy Rating (LER) 42
Spacing Criterion (0-180) 1.12
Spacing Criterion (90-270) 1.12
Spacing Criterion (diagonal) 1.30
Hazardous Area Lighting — Hazlux® 5 Induction Lighting Luminaires for Class I, Division 1, Groups C and D Hazardous Locations

Features

- UL® Listed for Class I, Division 1 for safe, explosion-proof application in a variety of hazardous areas
- Temperature Range: -40°C to 40°C (temperatures down to -50°C available with our ‘Cold Weather Circuit’ option)
- Factory-sealed assembly meets code requirements without the need for external sealing fittings
- Dual-pitch Acme threads make assembly easy and faster than designs with standard V-cut threads, greatly reducing the risk of cross threading
- Factory-wired connection block means ballast is pre-wired to lower half of electrical connection block, allowing wireless connection of ballast housing to mounting module
- Five mounting styles — pendant, ceiling, wall, angle stanchion and bulkhead — provide versatility for installation
- Thermal shock-resistant glass globes are factory assembled and pre-tested to ensure the highest quality and safety
- Die-cast aluminum guards are epoxy powder coated for corrosion resistance and have keyhole slots for easy attachment to stainless steel screws
- Polymeric reflectors are available in standard dome and 30° angle versions

Hazlux® 5 Induction Certification Guide

<table>
<thead>
<tr>
<th>Watts</th>
<th>Ambient Temp (°C)</th>
<th>Class I, Groups C &amp; D (Used With) Globe With or Without External Reflector</th>
<th>Class II, Groups E, F &amp; G (Used With) Globe With or Without External Reflector</th>
<th>UL 1598A Marine</th>
<th>NEMA 3R</th>
<th>Supply Wire Temp. Rating (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>40</td>
<td>80°C (T6)</td>
<td>T6</td>
<td>No</td>
<td>Yes</td>
<td>90°</td>
</tr>
<tr>
<td>55</td>
<td>40</td>
<td>80°C (T6)</td>
<td>T6</td>
<td>No</td>
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<td>90°</td>
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<tr>
<td>100</td>
<td>40</td>
<td>80°C (T6)</td>
<td>T6</td>
<td>No</td>
<td>Yes</td>
<td>90°</td>
</tr>
</tbody>
</table>

Thomas & Betts realizes that when your design calls for explosion-proof Class I, Div. 1 lighting luminaires, workers and equipment will be in extreme environments. Even the most basic maintenance requires work areas to be evacuated of all dangerous gases, vapors, and residuals before the work can start. In addition, there can be significant costs associated with maintenance in these classified areas, not to mention the interruption and subsequent start-up costs. Also, safety for facility personnel and risk of equipment damages is elevated with constant maintenance in this type of environment. In an effort to reduce downtime and increase safety in highly explosive environments, Thomas & Betts is introducing an explosion-proof induction luminaire with one of the longest life-spans in the market (100,000 Hours). Demand Thomas & Betts Induction Hazlux® luminaires for your next project.

Applications

- Chemical Plants
- Oil Refineries
- Offshore Platforms
- Waste Treatment Facilities
- Automotive Manufacturing Plants
- Paint Manufacturing Facilities
- Paint Spray Locations
- Chemical and Plastic Mixing and Storage Areas
- Pipeline Pumping Stations
- Oil and Gas Terminals
- Defense and Government Facilities

Wattages

- Induction: 35, 55, 85 W

Materials and Finishes

- Ballast Housing: Copper-free aluminum, powder finish
- Mounting Modules: Copper-free aluminum, powder finish
- Hardware: Stainless steel
- Globes: Tempered glass
- Guard: Copper-free aluminum, powder finish
- Reflectors: Fiberglass-reinforced
Hazardous Area Lighting Class I, Division 1 Luminaire Assembly Guide

Mounting Style
- Pendant Mount
- Stanchion Mount
- Ceiling Mount
- Wall Mount
- Bulkhead Mount

Luminaire and Globe
- Standard Dome
- 30° Angle Reflector

Guard
- Cast Guard

Reflector*
* Reflectors are shipped uninstalled and separately.
Hazardous Area Lighting Class I, Division 1
Catalog Numbering System

<table>
<thead>
<tr>
<th></th>
<th>Luminaire Series</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>XI = Hazlux® 5 Induction Series</td>
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<table>
<thead>
<tr>
<th></th>
<th>Starter Circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Ø = Standard Luminaire (Without Options)</td>
</tr>
<tr>
<td></td>
<td>C = Cold Weather Circuit (-50°C)</td>
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<table>
<thead>
<tr>
<th></th>
<th>Lamp Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>03 = 35 Watts</td>
</tr>
<tr>
<td></td>
<td>05 = 55 Watts</td>
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<td></td>
<td>08 = 85 Watts</td>
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<table>
<thead>
<tr>
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<th>Ballast Circuit</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>E = Electronic Ballast</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Voltages/Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>UN = 120 to 277 Vac, 50/60 Hz</td>
</tr>
<tr>
<td></td>
<td>34 = 347 Vac, 60 Hz</td>
</tr>
<tr>
<td></td>
<td>48 = 480 Vac, 60 Hz</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Guard</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Blank = No Guard</td>
</tr>
<tr>
<td></td>
<td>G = Cast Guard</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mounting Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>B2 = ¼” Wall Mount</td>
</tr>
<tr>
<td></td>
<td>B3 = 1” Wall Mount</td>
</tr>
<tr>
<td></td>
<td>C2 = ¼” Ceiling Mount</td>
</tr>
<tr>
<td></td>
<td>C3 = 1” Ceiling Mount</td>
</tr>
<tr>
<td></td>
<td>J2 = ½” Bulkhead</td>
</tr>
<tr>
<td></td>
<td>J3 = 1” Bulkhead</td>
</tr>
<tr>
<td></td>
<td>P2 = ¼” Rigid Pendant</td>
</tr>
<tr>
<td></td>
<td>P3 = 1” Rigid Pendant</td>
</tr>
<tr>
<td></td>
<td>S4 = 1½” 25° Angle Stanchion</td>
</tr>
<tr>
<td></td>
<td>S5 = 1⅛” 25° Angle Stanchion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Special Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>T = HazCote® Custom Corrosion Coating on all Aluminum Parts</td>
</tr>
<tr>
<td></td>
<td>PS = UL® Luminaire for Paint Spray Areas</td>
</tr>
<tr>
<td></td>
<td>PST = UL® Listed Luminaire for Paint Spray Areas with HazCote®</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>UNIPAK® Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>E = UNIPAK® with Induction Lamp</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Certification</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>C = Canadian Market (CSA Label)</td>
</tr>
</tbody>
</table>

Class I — Division 1, Groups C and D
— Zone 2, Groups IIC, IIB and IIA
— Division 2, Groups A, B, C and D

UL® Listed
UL944
NEMA 3R
CSA C22.2 No 137 standard

Contact your Thomas & Betts sales representative to verify classification.

* Reflectors are shipped uninstalled and separately.
Mounting Options

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
<th>CONDUIT HUB SIZE</th>
<th>STD. PKG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XP2</td>
<td>Pendant Mount</td>
<td>¾</td>
<td>1</td>
</tr>
<tr>
<td>XP3</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>XS4</td>
<td>Stanchion Mount</td>
<td>1 ¼</td>
<td>1</td>
</tr>
<tr>
<td>XS5</td>
<td></td>
<td>1 ½</td>
<td></td>
</tr>
<tr>
<td>XC2</td>
<td>Ceiling Mount</td>
<td>¾</td>
<td>1</td>
</tr>
<tr>
<td>XC3</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>XB2</td>
<td>Wall Mount</td>
<td>¾</td>
<td>1</td>
</tr>
<tr>
<td>XB3</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>XJ2</td>
<td>Bulkhead Mount</td>
<td>¾</td>
<td>1</td>
</tr>
<tr>
<td>XJ3</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Outlet Boxes include female electrical connectors and appropriate close-up plugs.

Guards

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>XGU44</td>
<td>Cast Aluminum Guard</td>
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</table>

Replacement Globe Assemblies

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>XGSA44</td>
<td>Hazlux 5 Replacement Globe Assembly</td>
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Reflectors

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
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<tr>
<td>VR31P</td>
<td>Standard Dome, Fiberglass-Reinforced Polyester</td>
</tr>
<tr>
<td>VRA31P</td>
<td>30° Angle Reflector, Fiberglass-Reinforced Polyester</td>
</tr>
</tbody>
</table>

Note: Reflectors are shipped uninstalled and separately.
Dimensions

Wall Mount with Globe and Guard

Stanchion Mount with Globe, Guard and Reflector

Bulkhead Mount with Globe, Guard and Reflector

Photometry

Ceiling Mount

Reference Data

Catalog No. X1008EUNG2E
Lamp 85W Induction lamp
Lamp Lumens N.A. (absolute)
Input Watt 91.49
Luminaire Lumens 3578
Efficiency N.A.
Efficacy Rating (LER) 39
Spacing Criterion (0-180) 1.52
Spacing Criterion (90-270) 0.60
Spacing Criterion (diagonal) 1.84

Candlepower Curve

Ceiling Mount

Reference Data

Catalog No. X1008EUNG2E (VR31P)
Lamp 85W Induction lamp
Lamp Lumens N.A. (absolute)
Input Watt 91.51
Luminaire Lumens 2989
Efficiency N.A.
Efficacy Rating (LER) 33
Spacing Criterion (0-180) 1.38
Spacing Criterion (90-270) 1.38
Spacing Criterion (diagonal) 1.58

Candlepower Curve

Ceiling Mount with Globe and Guard

Ceiling Mount with Globe and Guard
Features & Benefits

If you need to maintain or service Hazlux® hazardous lighting luminaires in hard-to-reach locations, in which a ladder is not recommended or against code, the Thomas & Betts Quick Pole assembly can make the operation quicker, safer, and more efficient. The quick pole allows users to lower the luminaire to a safe working height, reducing this operation to a one-man task without the need of ladders, lifts, or harnesses. Once the luminaire is serviced, it can be returned to its original position and locked with a safety pull-pin. If safety, efficiency and cost are your primary concerns, the Quick Pole is a great companion to your Hazlux® lighting luminaire installation.

Construction

- Sphere shaped, quick knuckle features round edges, preventing injuries and contaminent build-up of components
- The quick release mechanism is activated using one hand and one pull pin
- The quick pole assembly blocks at a 90º angle when the pull pin reaches the stopper
- All quick knuckle hardware is made of stainless steel
- All mounting bracket hardware is hot dip galvanization

Quick Pole Assembly

- Operates in any kind of weather
- Overall length is 10’ (3 m)
- Pole trade size is 1-1/2” treaded NPT. Aluminum pole trade size is 2” treaded NPT
- Top pole section is 70” (1.78 m) long
- Lower pole section is 50” (1.27 m) long
- Set screws secure top and bottom section into the quick knuckle

Quick Knuckle Assembly

- Rotates 180º (90º left and right) around the knuckle’s center axis allowing freedom of installation and easy adjustment
- Easy one man operation. After center bolt is loosened, use the pull pin to lock and unlock the assembly
- Pre-fished with tape to ease wiring

Brackets

- Universal mounting for 2” to 3” angle iron railings
- Quick mounting brackets can be installed inside or outside the guardrails
- Quick knuckle assembly should be mounted above the hand rail allowing the pole sections to rotate before final positioning
**Galvanized Standard Kit**

- Overall height of 10’ (3 m)
- 1-1/2” NPT treads at both ends
- Installed with two rail mounting brackets

1. Rotating Quick Knuckle Assembly
2. Angle Iron Mounting Brackets allowing the pole section to rotate before final positioning

SAFETY FIRST

- One person operation
- No ladders or lifts required
- Simplified maintenance
- Hot dipped galvanized steel and aluminum finishes
- Frees up catwalks and walkways during maintenance
- Epoxy coated finishes available

Cat. No.:
- Q-P-5-10-N
- Q-P-A-5-10-N (Aluminum)

**Retrofit Kit**

- Overall maximum and predetermined height of 10’ (3 m) once assembled
- Can be adapted to existing pole
- Upgrades existing assembly with quick and easy maintenance features
- See instruction sheets provided with product for installation details

1. Rotating Quick Knuckle Assembly
2. Tapered Adaptor, fits over Standard 1-1/4” or 1-1/2” NPT Pipe

Cat. No.:
- RQ-P-5-10-N
- RQ-P-A-5-10-N (Aluminum)

**Universal Bracket Kit**

Cat. No.:
- AMB-QP-BKT-N
- AMB-QP-A-BKT-N (Aluminum)

- Quick bolt-on installation, no welding or drilling
- Can be attached to angle iron guardrails up to 3”
- Can be installed on tubular structures less than 2” O.D.
- Allows the pole sections to rotate before final positioning

Cat. No.:
- RMB-QP-BKT-N
- RMB-QP-A-BKT-N (Aluminum)
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Industry codes and specifications

Thomas & Betts products meet or exceed applicable industry specifications or codes which are detailed in the appropriate T&B product literature.

Online CAD library

Thomas & Betts offers free download of two- and three-dimensional CAD models of many of its products in more than 90 native CAD formats at: www.tnb.com/cadlibrary