LED solutions by Eaton's Crouse-Hinds business

Crouse-Hinds
by Eaton
Eaton's Crouse-Hinds business offers the broadest portfolio of LED luminaires for any industrial or hazardous application. Additionally, we utilize more than 100 years of lighting expertise to optimize the benefits of LED technology to offer the safest and most reliable LED luminaire on the market.

Why LED?

**Useful Life**
- Rated life is up to 60,000 hours of maintenance-free and safe operation

**Energy Efficiency**
- LED average energy consumption is 50% less than HID and 85% less than incandescent

**Start/restart Time**
- Instant illumination compared to 10 min restrike time for HID

**Light Quality**
- Higher color rendering and color temperature compared to HID

**Environmental Benefits**
- LED reduces carbon footprint
- Mercury-free

**Industry-best Reliability**
- Built to withstand extreme temperatures, vibration, water and dust

**Thermal Management**
- Effective heat sinking ensures longer life

**Quality of Light**
- Custom optics designed to maximize light distribution and intensity

**Retrofit Compatibility**
- LED fixtures are compatible with Crouse-Hinds’ HID installed base

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### Selection Guide – Harsh/Heavy & Light Industrial

<table>
<thead>
<tr>
<th>Area Classification</th>
<th>Application</th>
<th>Product</th>
<th>Equivalent Output</th>
<th>Lumen Level</th>
<th>Input Watts</th>
<th>Input Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Harsh/Heavy Industrial</strong></td>
<td>High/Mid Bay</td>
<td>Champ&lt;sup&gt;®&lt;/sup&gt; Pro PVM</td>
<td>9 models - 70W to 1000W HID replacement</td>
<td>3,000 - 25,000 lumens</td>
<td>41W to 232W</td>
<td>100-277 VAC, 347-480 VAC, 108-250 VDC</td>
</tr>
<tr>
<td></td>
<td>Low Bay</td>
<td>Vaporgard™ Pro P2L</td>
<td>2 models - 100W to 200W incandescent, 50W HID</td>
<td>1,600 lumens</td>
<td>22W</td>
<td>100-277 VAC, 12-24 VDC</td>
</tr>
<tr>
<td></td>
<td>Flood</td>
<td>Champ&lt;sup&gt;®&lt;/sup&gt; Pro PFM</td>
<td>7 models - 70W to 1500W HID replacement</td>
<td>5,000 - 50,000 lumens</td>
<td>64W to 531W</td>
<td>100-277 VAC, 347-480 VAC, 108-250 VDC</td>
</tr>
<tr>
<td></td>
<td>Wall Pack</td>
<td>Endure™</td>
<td>2 models - 50W to 70W HPS &amp; 70W HID replacement</td>
<td>2,200 - 4,300 lumens</td>
<td>27W to 51W</td>
<td>100-277 VAC</td>
</tr>
<tr>
<td><strong>Light Industrial</strong></td>
<td>High Bay</td>
<td>Industrial High Bay</td>
<td>1 model - 400W MH &amp; 4/6 Lamp T5HO</td>
<td>13,940 lumens</td>
<td>138W</td>
<td>100-277 VAC, 347-480 VAC</td>
</tr>
</tbody>
</table>
## Selection Guide – Hazardous Area

**Zone 2 and/or Class I, Division 2**

<table>
<thead>
<tr>
<th>Area Classification</th>
<th>Application</th>
<th>Product</th>
<th>Equivalent Light Output</th>
<th>Lumen Level</th>
<th>Input Watts</th>
<th>Input Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Mid Bay</td>
<td>Champ® VMV</td>
<td>9 models - 70W to 1000W HID replacement</td>
<td>3,000 - 25,000 lumens</td>
<td>41W to 232W</td>
<td>100-277 VAC, 347-480 VAC, 108-250 VDC</td>
<td></td>
</tr>
<tr>
<td>Flood</td>
<td>Champ® FMV</td>
<td>5 models - 70W to 400W HID replacement</td>
<td>5,000 - 13,000 lumens</td>
<td>64W to 179W</td>
<td>100-277 VAC, 347-480 VAC, 108-250 VDC</td>
<td></td>
</tr>
<tr>
<td>Low Bay</td>
<td>Vaporgard™</td>
<td>2 models - 100W to 200W incandescent &amp; 50W HID</td>
<td>1,600 lumens</td>
<td>22W</td>
<td>100-277 VAC, 12-24 VDC</td>
<td></td>
</tr>
<tr>
<td>Linear</td>
<td>LL48</td>
<td>2x58W T8/T12 fluorescent replacement</td>
<td>3,500 - 4,300 lumens</td>
<td>56W</td>
<td>100-277 VAC</td>
<td></td>
</tr>
</tbody>
</table>

**Zone 1, Zone 21 and/or Class I, Division 1**

<table>
<thead>
<tr>
<th>Area Classification</th>
<th>Application</th>
<th>Product</th>
<th>Equivalent Light Output</th>
<th>Lumen Level</th>
<th>Input Watts</th>
<th>Input Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Mid Bay</td>
<td>EVLL Hazard•Gard®</td>
<td>5 models - 70W to 400W HID/HPS replacement</td>
<td>5,000 - 13,500 lumens</td>
<td>80W to 175W</td>
<td>100-277 VAC, 347-480 VAC, 108-250 VDC</td>
<td></td>
</tr>
<tr>
<td>Exit</td>
<td>Ex-Lite /EXIT</td>
<td>4 models - Ex-Lite &amp; Ex-Lite N (with battery); EXIT &amp; EXIT N (with battery)</td>
<td>N/A</td>
<td>N/A</td>
<td>120-277 VAC, 110-250 VDC</td>
<td></td>
</tr>
<tr>
<td>Exit</td>
<td>Ex-Lite Z, ZE</td>
<td>2 models - Ex-Lite Z &amp; Ex-Lite ZE (with battery)</td>
<td>N/A</td>
<td>N/A</td>
<td>120-277 VAC, 110-250 VDC</td>
<td></td>
</tr>
<tr>
<td>Low Bay</td>
<td>EV LED</td>
<td>2 models - 100W to 200W incandescent &amp; 70W-100W HID replacement</td>
<td>1,500 - 2,000 lumens</td>
<td>26W to 36W</td>
<td>100-277 VAC, 10-30 VDC</td>
<td></td>
</tr>
<tr>
<td>High/Mid Bay</td>
<td>LPL</td>
<td>5 models - 70W to 250W MH replacement</td>
<td>2,840 - 6,294 lumens</td>
<td>60W to 150W</td>
<td>100-277 VAC</td>
<td></td>
</tr>
<tr>
<td>Linear</td>
<td>eLLK</td>
<td>2 models - 2x18W and 2x36W fluorescent replacement</td>
<td>2,100 - 4,100 lumens</td>
<td>2X13W and 2X26W</td>
<td>110-254 VAC, 110-250 VDC</td>
<td></td>
</tr>
<tr>
<td>Bulkhead</td>
<td>AB05</td>
<td>1 model - 150W incandescent replacement</td>
<td>2,000 lumens</td>
<td>32W</td>
<td>120-240 VAC</td>
<td></td>
</tr>
<tr>
<td>Low Bay</td>
<td>EV35</td>
<td>1 model - 100W to 150W incandescent &amp; 50W mercury vapor replacement</td>
<td>2,120 lumens</td>
<td>32W</td>
<td>220-240 VAC</td>
<td></td>
</tr>
</tbody>
</table>
Champ®
Pro PFM Series LED Floodlights

Primary applications
Indoor and outdoor area lighting in manufacturing plants, mine sites and processing areas, platforms, loading docks and parking areas.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFM5L</td>
<td>100W-150W</td>
<td></td>
</tr>
<tr>
<td>PFM7L</td>
<td>150W-175W</td>
<td></td>
</tr>
<tr>
<td>PFM9L</td>
<td>175W-250W</td>
<td></td>
</tr>
<tr>
<td>PFM11L</td>
<td>250W-320W</td>
<td></td>
</tr>
<tr>
<td>PFM13L</td>
<td>320W-400W</td>
<td></td>
</tr>
<tr>
<td>PFM25L</td>
<td>600W-750W</td>
<td></td>
</tr>
<tr>
<td>PFM50L</td>
<td>1,500W</td>
<td>Up to 65% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
</tbody>
</table>

Certifications & compliances
- UL1598
- UL1598A
- cUL
- CE
- NEMA 4X
- IP66
- UL approved up to 40°C ambient

Electrical ratings
- Voltages: 100-277 VAC, 347/480 VAC, 108-250 VDC
- Input Power: 64W, 89W, 121W, 149W, 179W, 263W, 531W

Options & accessories
- Fused
- Bolt-on Visor
- Bolt-on Wire Guard
- Floodlight Slipfitter
- Slipfitter Wall Mount Adapter
- Polycarbonate Lens

Design features

- **Versatile design** - Can be used for outdoor or indoor applications, and for a wide range of mounting heights depending on model and light level requirement.

- **Rugged heat sink** - Designed to perform in high ambient temperatures up to +55°C and as low as -40°C. The thick walls of the castings make for a tough, rugged housing that keeps the internal driver and LED temperatures down.

- **High lumen output** - High efficiency drivers and LED arrays provide reliable low cost operation in harsh and hazardous environments.

- **Full-frame yoke** - Designed to utilize the SFA6 slipfitter and SWB6 wall mount bracket, making it ideal for retrofit or new installations.

- **Multiple lens options** - Tempered and clear glass standard, polycarbonate option available.

Up to 6 times longer life and 65% reduction in power consumption compared to equivalent HID floodlights
Champ® Pro PVM Series LED Luminaire

Primary applications
Locations requiring continuous and consistent light levels in extreme ambient temperatures, such as manufacturing plants, mine sites, heavy industrial or petrochemical facilities, food and beverage facilities, marine environments, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVM3L</td>
<td>70W-100W</td>
<td></td>
</tr>
<tr>
<td>PVM5L</td>
<td>100W-150W</td>
<td></td>
</tr>
<tr>
<td>PVM7L</td>
<td>150W-175W</td>
<td></td>
</tr>
<tr>
<td>PVM9L</td>
<td>175W-250W</td>
<td></td>
</tr>
<tr>
<td>PVM11L</td>
<td>250W-320W</td>
<td></td>
</tr>
<tr>
<td>PVM13L</td>
<td>320W-400W</td>
<td></td>
</tr>
<tr>
<td>PVM17L</td>
<td>400W-600W</td>
<td></td>
</tr>
<tr>
<td>PVM21L</td>
<td>600W-750W</td>
<td></td>
</tr>
<tr>
<td>PVM25L</td>
<td>750W-1,000W</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
- UL1598
- UL1598A
- cUL
- CE
- NEMA 4X
- IP66
- cUL Listed to CSA Standard CSA C22.2 No. 250
- UL approved up to 55°C ambient

Electrical ratings
- Voltages: 100-277 VAC, 347/480 VAC, 108-250 VDC

Options & accessories
- Quick Clip
- Diffused Lens
- Teflon Coated Lens
- Polycarbonate Lens
- Wire Guard
- Trunnion Mount
- Cone Top Hat

Design features

A Modular design - This contractor-friendly design is ideal for both retrofit and new construction applications.

B Safe, reliable heat transfer - Die cast aluminum housing provides safe and effective heat transfer from the LED assembly to the outside environment, ensuring low LED junction temperature, reliability and sustained lumen performance.

C High efficiency drivers - Designed to provide reliable operation in even the harshest environments.

D Type 4X rated - The LED housing is constructed of durable die cast aluminum, providing an efficient thermal path to the heat sink assembly. The impact-resistant lens is sealed from the outside environment and provides ingress protection against water and dust.

E Custom optics - Type I, III and V optics designed to maximize light distribution and intensity.

F Lever-lock connectors and 3-pole terminal block.

Custom Type I, III and V optics for better output, zero maintenance and reduced energy consumption
Endure™
Pro Series
LED Wall Pack

Primary applications
Ideal for a variety of complex non-hazardous applications such as mining, food processing, marine, wastewater treatment, heavy manufacturing and general wash-down areas.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM1 B01</td>
<td>50W</td>
<td>59%</td>
</tr>
<tr>
<td>FM1 B02</td>
<td>70W</td>
<td>43%</td>
</tr>
</tbody>
</table>

50,000 hours of continuous operation!

Certifications & compliances
• UL1598
• cUL
• IP66

Electrical ratings
• Input Power: 27W, 51W

50,000 hours rated life and up to 59% more energy-efficient than equivalent 70 watt HID luminaire

Design features

A. White light - Provides superior color rendering and ambient clarity. Optics are precisely designed to shape the distribution, maximizing efficiency and application spacing.

B. Energy efficiency and longer life - 50,000 hours rated life and up to 59% more energy-efficient than the 70W high pressure sodium equivalent.

C. Reduction in light pollution - Controlled distribution of light means far less light loss.

D. IP66 ingress protection rating and -30°C to 50°C ambient temperature rating - Ensures trouble-free operation in a variety of harsh and complex applications.

E. Junction box - Polycarbonate, IP66 rated, four screws to access cover, double row terminal box to expedite installation.
Harsh & heavy industrial

Vaporgard™ Pro P2L Series LED Luminaires

Primary applications
Indoor or outdoor areas with low mounting heights or confined spaces, such as tunnels and catwalks, over doorways or entries, landing areas, utility rooms, etc.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2LC/UNV1</td>
<td>50W HID or 100-200W incandescent</td>
<td>Up to 85% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
<tr>
<td>P2LC/DC1</td>
<td>7EATON’S CROUSE-HINDS LED lighting solutions</td>
<td></td>
</tr>
<tr>
<td>P2LW/DC1</td>
<td>7EATON’S CROUSE-HINDS LED lighting solutions</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
- UL1598
- UL1598A
- cUL
- CE
- NEMA 4X
- IP66

Electrical ratings
- Voltages: 90-264 VAC, 277 VAC, 12-24 VDC
- Input Power: 22W

Options & accessories
- Frosted Lens
- Teflon Coated Lens
- High Temperature Option (65°C)
- Brazil (CEPEL) Certification
- Warm White (3000K) and Cool White (5600K) Color Temperatures
- 12 VDC/24 VDC Driver

Design features
- **A** Domeless reflector, low profile design - Designed for low mounting heights and confined spaces where incandescent and HID based luminaires are too large.
- **B** Installation and replacement made simple - Installed using the same mounting modules as existing Eaton’s Crouse-Hinds Vaporgard™ fixtures.
- **C** Safe, reliable heat transfer - Heat sink engineered to safely and effectively remove heat from the LED and driver, ensuring long product life and superior T-ratings.
- **D** High power multi-die LED arrays - Provides instant on and full illumination in the harshest conditions, even when exposed to high, repeated vibration.

85% more energy-efficient than a 200 watt incandescent and over 20 times the rated life
Harsh & heavy industrial

Industrial High Bay Series LED Luminaires

Primary applications
IHB Series LED Luminaires are the perfect replacement for 400W HID and 4-6 lamp T5HO fluorescent high bay fixtures. Designed for locations requiring continuous and consistent light levels, requiring frequent on-and-off of lights and that are difficult to relamp or that cause production to be stopped during the lamp maintenance process.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHB13L2A/UNV1</td>
<td>400W HID</td>
<td>Up to 69% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
<tr>
<td></td>
<td>4-6 lamp T5HO fluorescent</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
- Meets UL1598 and cUL construction requirements
- UL approved up to 40°C
- Operating Temperature: -30°C to 40°C
- 60,000 hours rated life at 40°C

Electrical ratings
- Voltages: 100-277 V, 347-480 V; 50/60 Hz
- Input Power: 141W (at 120 VAC); 138W (at 277 VAC)

Options & accessories
- Occupancy Sensor Kit
- Hook and Cord Kit
- Driver Replacement Kit
- Polycarbonate Lens

Perfect replacement for 400 watt HID or 4-6 lamp T5HO high bay fixtures

Design features

A High efficiency serviceable drivers.

B Multiple mounting options - Mounting bracket for ¾" pendant mount conduit or hook/cord mounting option.

C Aluminum heat sinks for superior thermal management.

D Two discrete LED boards for uniform illumination.

E Multiple lens options - Tempered and clear glass standard, polycarbonate option available.

F Powder-coated, white painted sheet metal body.

G Optional occupancy sensor kit available.
Champ® VMV Series LED Luminaires

Primary applications
Locations requiring continuous and consistent light levels in extreme ambient temperatures, such as manufacturing plants, heavy industrial or petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMV3L</td>
<td>70W-150W</td>
<td>Up to 77% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
<tr>
<td>VMV5L</td>
<td>100W-175W</td>
<td></td>
</tr>
<tr>
<td>VMV7L</td>
<td>150W-250W</td>
<td></td>
</tr>
<tr>
<td>VMV9L</td>
<td>175W-300W</td>
<td></td>
</tr>
<tr>
<td>VMV11L</td>
<td>250W-400W</td>
<td></td>
</tr>
<tr>
<td>VMV13L</td>
<td>320W-600W</td>
<td></td>
</tr>
<tr>
<td>VMV17L</td>
<td>400W-800W</td>
<td></td>
</tr>
<tr>
<td>VMV21L</td>
<td>600W-1000W</td>
<td></td>
</tr>
<tr>
<td>VMV25L</td>
<td>750W-1000W</td>
<td></td>
</tr>
</tbody>
</table>

Design features

A **Modular design** - This contractor-friendly design is ideal for both retrofit and new construction applications.

B **Safe, reliable heat transfer** - Die cast aluminum housing provides safe and effective heat transfer from the LED assembly to the outside environment, ensuring low LED junction temperature, reliability and sustained lumen performance.

C **High efficiency drivers** - Designed to provide reliable operation in even the harshest environments.

D **Type 4X rated** - The LED housing is constructed of durable die cast aluminum, providing an efficient thermal path to the heat sink assembly. The impact-resistant lens is sealed from the outside environment and provides ingress protection against water and dust.

E **Custom optics** - Type I, III and V optics designed to maximize light distribution and intensity.

F **Lever-lock connectors and 3-pole terminal block.**
Champ®
FMV Series
LED Floodlights

Primary applications
Indoor and outdoor area lighting in manufacturing plants, heavy industrial chemical and petrochemical facilities, platforms, loading docks and parking lots.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMV5L</td>
<td>100W-150W</td>
<td>Up to 62% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
<tr>
<td>FMV7L</td>
<td>150W-175W</td>
<td></td>
</tr>
<tr>
<td>FMV9L</td>
<td>175W-250W</td>
<td></td>
</tr>
<tr>
<td>FMV11L</td>
<td>250W-320W</td>
<td></td>
</tr>
<tr>
<td>FMV13L</td>
<td>320W-400W</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2
- Class II, Groups E, F, G; Class III
- Type 4X, IP66
- UL844; UL1598; UL1598A
- CSA C22.2 No. 137
- IECEx UL 11.0054X
- Ex nA nR IIC T4 Gc Tamb -30°C to +55°C
- CEPEL Ex-1996/10
- Ex nA nR IIC T5 Gc Tamb -30°C to +40°C
- Ex tc IIC T68°C Dc IP66 Tamb -30°C to 40°C
- ✅ DEMKO 12 ATEX 115535X

Design features

A Versatile design - Suitable for hazardous location use in gas or dust areas. Can be used for outdoor or indoor applications, and for a wide range of mounting heights depending on model and light level requirement.

B Rugged heat sink - Designed to perform in high ambient temperatures up to +55°C and as low as -40°C. The thick walls of the castings make for a tough, rugged housing that keeps the internal driver and LED temperatures down.

C High lumen output - High efficiency drivers and LED arrays provide reliable low cost operation in harsh and hazardous environments.

D Full-frame yoke - Designed to utilize the SFA6 slipfitter and SWB6 wall mount bracket, making it ideal for retrofit or new installations.

Electrical ratings
- Voltages: 100-277 VAC, 347/480 VAC, 108-250 VDC
- Input Power: 64W, 89W, 121W, 149W, 179W

Options & accessories
- Fused
- Bolt-on Visor
- Bolt-on Wire Guard
- Floodlight Slipfitter
- Slipfitter Wall Mount Adapter
**Hazardous area**

**LL48 Linear LED Luminaires**

**Primary applications**
Indoor and outdoor areas with low mounting heights or confined spaces, such as aisles, tunnels and catwalks, over doorways or entries, landing areas, utility rooms, etc.

**Luminaire model**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL48</td>
<td>2 x 58W fluorescent</td>
<td>Up to 50% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
</tbody>
</table>

**Certifications & compliances**
- Class I, Division 2, Groups A, B, C, D
- UL844; UL1598; UL1598A
- CSA C22.2 No. 137
- Type 4X, IP66
- IECEx/ATEX Certified

**Electrical ratings**
- Voltage: 100-277 VAC

**Options & accessories**
- Multiple mounting accessories, including: ceiling, wall, pole

**Design features**

A Versatile design - Designed to match the footprint of a traditional linear fluorescent fixture.

B Energy-efficient - Same light pattern and lumen output at a fraction of the energy cost.

C Better visibility - Diffused lens reduces glare.

D Shock- and vibration-resistant - LEDs contain no mercury, eliminating costly lamp disposal programs.

E Slim and low profile - Designed for use in confined spaces.

Up to 50% more energy efficient than a 2x58W fluorescent light and 8 times the rated life.
Hazardous area

Vaporgard™
V2L Series
LED Luminaires

Primary applications
Indoor or outdoor areas with low mounting heights or confined spaces, such as tunnels and catwalks, over doorways or entries, landing areas, utility rooms, etc.

Luminaire model

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>V2L</td>
<td>100W-200W incandescent</td>
<td>Up to 85% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
<tr>
<td></td>
<td>50W HID</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
- Class I, Division 2, Groups A, B, C, D
- Class II, Division 1, Groups F, G
- UL844; UL1598; UL1598A
- CSA C22.2 No. 137
- NEMA 4X
- UL1598; UL1598A
- IP66
- RoHS Compliant
- II 3 G Ex nA IIC T4 Gc (T4 at 55°C)
- II 3 D Ex tc IIIB T69°C Dc IP66

Electrical ratings
- Voltages: 90-264 VAC, 277 VAC, 12-24 VDC
- Input Power: 22W

Options & accessories
- Frosted Lens
- Teflon Coated Lens
- High Temperature Option (55°C)
- Brazil (CEPEL) Certification
- Warm White (3000K) and Cool White (5600K) Color Temperatures
- 12 VDC/24 VDC Driver

Design features

A Domeless reflector, low profile design - Designed for low mounting heights and confined spaces where incandescent and HID based luminaires are too large.

B Installation and replacement made simple - Installed using the same mounting modules as existing Eaton’s Crouse-Hinds Vaporgard™ fixtures.

C Safe, reliable heat transfer - Heat sink engineered to safely and effectively remove heat from the LED and driver, ensuring long product life and superior T-ratings.

D High power multi-die LED arrays - Provides instant on and full illumination in the harshest conditions, even when exposed to high, repeated vibration.
LED Exit Luminaires

Primary applications
Used for marking escape routes and exits in potentially explosive atmospheres.

EXIT and Ex-Lite
Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Rating</th>
<th>Battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXIT</td>
<td>Hazardous</td>
<td>No</td>
</tr>
<tr>
<td>EXIT N</td>
<td>Hazardous</td>
<td>Yes</td>
</tr>
<tr>
<td>Ex-Lite</td>
<td>Hazardous</td>
<td>No</td>
</tr>
<tr>
<td>Ex-Lite N</td>
<td>Hazardous</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Certifications & compliances
- III 2 G Ex e ib mb IIC T4/T5/T6 Gb
- III 2 D Ex tb IIC T80°C Db IP66
- BVS 09 ATEX E 029/BVS 09 ATEX E 048
- Ex e ib mb IIC T4/T5/T6 Gb/Ex tb IIC T80°C Db
- IECEx BVS 13.0017/ IECEx BVS 13.0016

Electrical ratings
- Voltages: 120-277 VAC, 110-250 VDC
- Power Consumption: 6/8VA

Ex-Lite Z and Ex-Lite ZE
Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Rating</th>
<th>Battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex-Lite Z</td>
<td>Hazardous</td>
<td>No</td>
</tr>
<tr>
<td>Ex-Lite ZE</td>
<td>Hazardous</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Certifications & compliances
- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 1, AEx em ib IIC (NEC)
- Class I, Zone 1, Ex em ib IIC (CEC)
- Class II, Division 2, Groups F, G (NEC)
- Class II, Division 2, Groups E, F, G (CEC)
- IP66
- UL844; UL924/CSA22.2 No. 141-02: UL60079CSA22.2 E60079; UL1203/CSA22.2 E6124-1-1-02

Electrical ratings
- Voltages: 120-277 VAC, 110-250 VDC
- Power Consumption: 6/8VA

EXIT Lighting design features
A Polycarbonate housing - Provides corrosion protection in the most extreme environments and is IP66 rated to protect against dust and moisture ingress
B Nickel cadmium battery back-up - High temperature rated nickel cadmium back-up battery (EXIT N model)
C Reduced maintenance costs - Self-test, monitoring and diagnostics reduce costly maintenance checks.
D IEC standard pictograms
E Power-saving LED technology

Ex-Lite Lighting design features
F Corrosion- and impact-resistant cast aluminum housing - Ensures long product life and reliability.
G Nickel cadmium battery back-up - High temperature rated nickel cadmium back-up battery (Ex-Lite N and Ex-Lite ZE models)
H “EXIT” legend with alternative directional arrows - Left, right or left and right; simple field modification (Ex-Lite Z and Ex-Lite ZE only).
I IEC standard pictograms - (Ex-Lite and Ex-Lite N only)
Hazardous area

Hazard•Gard® EVLL LED Luminaire

Primary applications
Used for general lighting in areas where flammable or explosive vapors or gases are present, such as petroleum refineries, chemical and petrochemical plants, oil terminals, gas plants, drilling platforms and wastewater treatment plants.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVLL5L</td>
<td>100W-150W</td>
<td>Up to 62% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
<tr>
<td>EVLL7L</td>
<td>150W-175W</td>
<td></td>
</tr>
<tr>
<td>EVLL9L</td>
<td>175W-250W</td>
<td></td>
</tr>
<tr>
<td>EVLL11L</td>
<td>250W-320W</td>
<td></td>
</tr>
<tr>
<td>EVLL13L</td>
<td>320W-400W</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
• Class I, Division 1, Groups B, C, D
• Class I, Zone 1, Groups II B + H, II B, IIA
• Class II, Groups E, F, G
• Class III, Simultaneous Presence
• UL844; UL1598; UL1598A
• CSA C22.2 No. 137
• Ex II 2G Ex d IIC (Zone 1, 2) (Pending)
• Ex II 2D Ex tD A21 IP66 (Zone 21, 22) (Pending)
• NEMA 4X, IP66

Electrical ratings
• Voltages: 100-277 VAC, 347/480 VAC, 108-250 VDC

Options & accessories
• Trunnion Mount
• Guard
• Color Temperature: Warm White (3000K)*
  *available on 5L–11L models only

Design features

A Retrofittable to install base - Adapter available for connection to existing Hazard•Gard® EVI, EVLP and EVM modules.

B Quick-connect design - Install and wire the mounting module, then simply screw in the luminaire.

C Factory sealed - No external sealing fittings required in Groups B, C and D.

D 60,000 hours rated life - Eliminates the need for frequent lamp replacement.

E Shock- and vibration-resistant - Solid-state luminaires have no filaments or glass components that could break, greatly reducing the risk of premature failure.

Energy-efficient and globally certified explosion-proof workhorse for general area and high bay lighting applications

ATEX NEC CEC

EATON’S CROUSE-HINDS LED lighting solutions
EV LED Luminaire

Primary applications
Indoors or outdoors in process and storage areas, corridors, bridges and stairs.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVLED201</td>
<td>100W-200W incandescent</td>
<td>Up to 85% reduction in energy costs and 50,000 hours of continuous operation!</td>
</tr>
<tr>
<td>EVLED701</td>
<td>70W-100W HID</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
- Class I, Division 1, Groups C, D
- Class I, Zone 1 & 2, Group IIIB
- Class II, Groups E, F, G
- Class III; Simultaneous Presence
- UL844; UL1598; UL1598A
- CSA C22.2 No. 137
- Type 4X, IP66

Electrical ratings
- Voltages: 100-277 VAC, 10-30 VDC
- Input Power: 26W, 30W, 36W

Options & accessories
- Wildlife Friendly Model Available (Amber)
- Color Temperature: Warm White
- 10-30 VDC

Design features

A Retrofittable mounting modules - Compatible with existing EV Series mounting modules, which reduces retrofit installation time and materials costs, and makes new construction installation easy.

B Dark Sky Compliant light distribution - Certified by the International Dark Sky Association as Dark Sky Compliant, virtually no light pollution will escape up into the atmosphere.

C 20 times longer life than incandescents in tough-to-maintain Division 1 locations.

Up to 85% reduction in energy costs and 50,000 hours of continuous operation!
Hazardous area

eLLK 92
Linear
LED Luminaire

Primary applications
Designed for use in outdoor and indoor hazardous and non-hazardous areas where moisture or corrosion may be a problem, such as offshore oil platforms, pharmaceutical plants, oil refineries and industrial locations.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent Luminaire</th>
<th>Battery</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>eLLK LED 400</td>
<td>2x18W fluorescent</td>
<td>No</td>
<td>Up to 20% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
<tr>
<td>eLLK LED 800</td>
<td>2x36W fluorescent</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>eLLK LED 400 NiB</td>
<td>2x18W fluorescent</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>eLLK LED 800 NiB</td>
<td>2x36W fluorescent</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
- IIA 2G Ex de mb IIC T4 Gb
- IIA 2D Ex tb IIC T80 °C Db IP66
- BVS 09 ATEX E 034
- Ex de mb IIC T4 Gb/Ex tb IIC T80 °C
- IECEx BVS 09.0033
- NEC/CEC pending

Electrical ratings
- Voltages: 110-254 VAC, 110-250 VDC;
- Input Power: 2x13W, 2x26W

Options & accessories
- LED Module 400 (2x13W) for eLLK/M 92 018/18
- LED Module 800 (2x26W) for eLLK/M 92 036/36
- Through Wiring Single/Double Ended
- Cable Glands
  - Ex-e M25 x 1.5 (plastic) for cables 8-17mm in diameter
  - M20 x 1.5 metal threaded

Design features
- **A** High output - Illuminance (lux/Fc) equivalent to related fluorescent tubes at measurement plane.
- **B** Non-metallic design - Fiberglass-reinforced polyester construction for extreme durability.
- **C** Retrofit friendly - Retrofits to existing eLLK 92 fixtures with existing EVG 09 ballast or as a complete unit.
- **D** Better visibility - Glare minimized by indirect emission from luminaire’s built-in reflector.
- **E** Emergency battery pack - (NiB versions only)

Saves on energy consumption and easily retrofit existing luminaires in hazardous and corrosive environments

EATON’S CROUSE-HINDS LED lighting solutions
Primary applications
Suitable for Zone 1 and Zone 2 Ex-Gas and Zone 21/22 Ex-Dust hazardous areas, such as heavy industrial, chemical, petrochemical or pharmaceutical facilities, platforms, shipyards, electric power, loading docks, wastewater treatment plants and paper mills.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent HID Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPL04-C60-60W</td>
<td>70W-100W</td>
<td></td>
</tr>
<tr>
<td>LPL04-C60-85W</td>
<td>150W</td>
<td>Up to 40% reduction in energy costs and 60,000 hours of continuous operation!</td>
</tr>
<tr>
<td>LPL04-C60-100W</td>
<td>175W</td>
<td></td>
</tr>
<tr>
<td>LPL04-C60-125W</td>
<td>175-250W</td>
<td></td>
</tr>
<tr>
<td>LPL04-C60-150W</td>
<td>250W</td>
<td></td>
</tr>
</tbody>
</table>

Certifications & compliances
- Class I, Division 2, Groups A, B, C, D
- Ex II 2 G Ex d e IIC T6 Gb
- Ex II 2 D Ex tb IIIC T80°C Db IP66
- EC-type Exam Certification: DNV 11 ATEX 06805X
- IECEx - Certificate of Conformity: IECEx-CM 12.007X
- IP66
- Zones 1 and 2 (Ex-Gas)
- Zones 21 and 22 (Ex-Dust)

Electrical ratings
- Voltage: 100-277 VAC
- Input Power: 60W, 85W, 100W, 125W, 150W

Options & accessories
- Warm White Color Temperature (3300K)
- Pole Mount Accessories

A long-life, energy-efficient luminaire for general area lighting in hazardous IEC applications

Design features
- Robust construction - This corrosion-proof fixture offers high quality, shock- and vibration-resistant LEDs, copper-free aluminum housing and an impact-resistant glass globe.
- Excellent thermal management - Provides over 50,000 hours of life.
- Lead-free and environmentally-friendly.
Hazardous area

EV35
LED Luminaire

Primary applications
Indoors or outdoors in process and storage areas, corridors, bridges and stairs.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV35</td>
<td>100W-150W Incandescent</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>50W HID</td>
<td>40%</td>
</tr>
</tbody>
</table>

Certifications & compliances
- Group II 2 GD (Zone 1)
- Gas: Ex d IIC T6 Gb
- Dust: Ex t IIIC T85°C Db
- Certificate: LOM 10 ATEX 2075
- IP66

Electrical ratings
- Voltages: 220-240V
- Input Power: 22W

Options & accessories
- Internal high polished aluminum reflector for down light applications
- Direct entries or indirect entries via Connection Box

Design features

A Wide ambient temperature range from -40°C to +55°C - Allows installation and safe use in nearly every climatic condition.

B High power LED module - Provides instant on and full illumination in the harshest conditions, even when exposed to high, repeated vibration.

C Safe, reliable heat transfer - Heat sink connected to copper-free aluminum housing to safely and effectively remove heat from the LED module and driver, therefore offering a T-rating of T6.

Up to 78% more energy-efficient than a 150 watt incandescent and over 20 times the rated life

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV35</td>
<td>100W-150W Incandescent</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>50W HID</td>
<td>40%</td>
</tr>
</tbody>
</table>

60,000 hours of continuous operation!
AB05 Marine LED Luminaire

Primary applications
Perfect for confined or restricted spaces, such as stairwells, storage areas and corridors that require consistent light.

Luminaire models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Equivalent Luminaire</th>
<th>Typical Energy Savings/Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB05</td>
<td>150W incandescent</td>
<td>Up to 80%</td>
</tr>
</tbody>
</table>

60,000 hours of continuous operation!

Certifications & compliances
- Zone 1, 2, 21, 22
- Ex d IIB T6
- II 2 G Ex d IIB T6/T5 Gb
- II 2 D Ex tb IIIC T80°C/T100°C Db
- Certificate BVS 09 ATEX E 014 X
- IP66

Electrical ratings
- Voltage: 120-240 VAC
- Input Power: 22W

Design features
A Shock- and vibration-resistant - Durable vibration-resistant LEDs decrease maintenance costs.
B Lightweight enclosure - Robust light alloy enclosure weighs only 7.0 kg, allowing the user to mount in areas where the available space is restricted, and making installation fast and easy.
C Instant illumination and restrike - Decreases facility downtime; no warm-up time required.

Up to 6 times longer life and 65% reduction in power consumption compared to equivalent HID floodlights