# Rugged versatility LED lighting solutions by Eaton



# Designed to perform

Lighting engineered to stand-up to challenging mine conditions

Mining is an around-the-clock operation where employee safety and zero downtime are critical requirements. You need to maximize your efficiency and minimize the risk of damage to equipment or personnel. You need a partner like Eaton.

Eaton, offers a large portfolio of innovative and reliable LED products for mine-related applications, and the broadest portfolio of LED luminaires for any industrial or hazardous application.

We utilize more than 100 years of lighting expertise to optimize the benefits of LED technology to offer the safest and most reliable LED luminaires on the market today.

> Colowyo Mine, Meeker, Colorado Dragline retrofitted with sixteen 25,000 lumen Champ<sup>®</sup> Pro PFM Series LED floodlights (see pg. 6)

# LED lighting solutions engineered for mining



Champ<sup>®</sup> Series LED Floodlights high output & durable floodlights



**HB Series LED High Bay** versatile & efficient high bay luminaires



Champ<sup>®</sup> Series LED Luminaires targeted illumination for multiple locations



Endure<sup>™</sup> LED wall or ceiling mount, versatile & efficient



Vaporgard<sup>™</sup> Series LED Luminaires rugged, dependable task lighting



Crosstour<sup>™</sup> MAXX LED rugged, architectural style wall pack



**LL48 Linear LED Luminaires** compact and low profile linear luminaires



Vaportite Linear LED modular designed linear luminaire

Encounter<sup>™</sup> LED Series

unmatched optical performance



XNV Roadway LED Luminaire high performance, economical design



NVN Navion **LED Roadway Luminaire** outstanding optical performance



Light-Pak<sup>™</sup> N2LPS Emergency Luminaire compact & reliable emergency lighting



**IHB Series LED High Bay** cost-effective & efficient high bay luminaires



**CCH UX Series Exit Lighting** exit lighting for any environment

## Eaton LED lighting locations

Eaton designs and manufactures a wide array of LED lighting solutions that save you energy and reduce recurring maintenance costs.

Eaton LED luminaires provide mine sites with flexibility and multiple fixture options usable in a variety of applications.



Stackers/Reclaimers

- Roadways (10)
- 11 Parking Lots

Floodlight

#### **Targeted**





#### Vaporgard<sup>™</sup> Series **LED Luminaires**

- Processing areas
- Equipment Maintenance
- Tunnels

#### Linear & troffer replacement

Champ<sup>®</sup> Series

**LED** Luminaires

Conveyors

Equipment

Maintenance

Stackers/reclaimers

Processing areas

.



Champ<sup>®</sup> Series **LED Floodlights** 

Walkways

Parking lots

Equipment

Conveyors

Maintenance

Stackers/reclaimers

- LL48 Linear LED Luminaires
- Processing areas
- Equipment Maintenance
- Tunnels



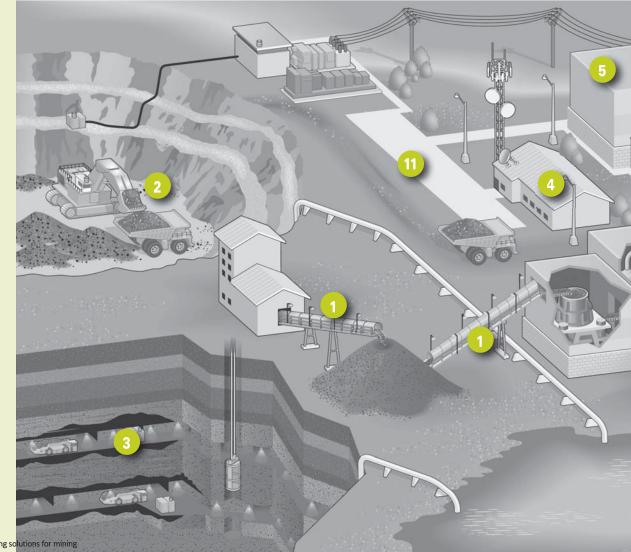
Vaportite Linear LED Luminaires

- Processing areas
- Equipment Maintenance
- Tunnels



#### Encounter<sup>™</sup> LED Series **Troffer Replacements**

- Office
- Non-industrial
- Administrative areas



4

#### High bay

#### Wall-pack/ceiling mount

Emergency & exit



**IHB Series LED** Luminaires

- Maintenance
- Warehouse
- Offices
- Processing areas



**HB LED Series** Luminaires

- . Maintenance •
- Warehouse . Offices
- Processing areas



Endure<sup>™</sup> LED Wall or Ceiling Mount

- Walkways
- Tunnels •
- Processing areas
- Maintenance



Crosstour™ MAXX Wall Pack/Area Site

- Walkways
- Tunnels
- Processing areas
- Maintenance

#### Roadway



#### XNV LED Roadway Luminaire

- •
- Walkways Parking lots •
- Roadways •
- Maintenance ٠



#### NVN NAVION Roadway LED Luminaire

- •
- Walkways Parking lots . .
- Roadways Maintenance



N2LPS Light-Pack LED Emergency Lighting

- Maintenance Warehouse Offices •
- •

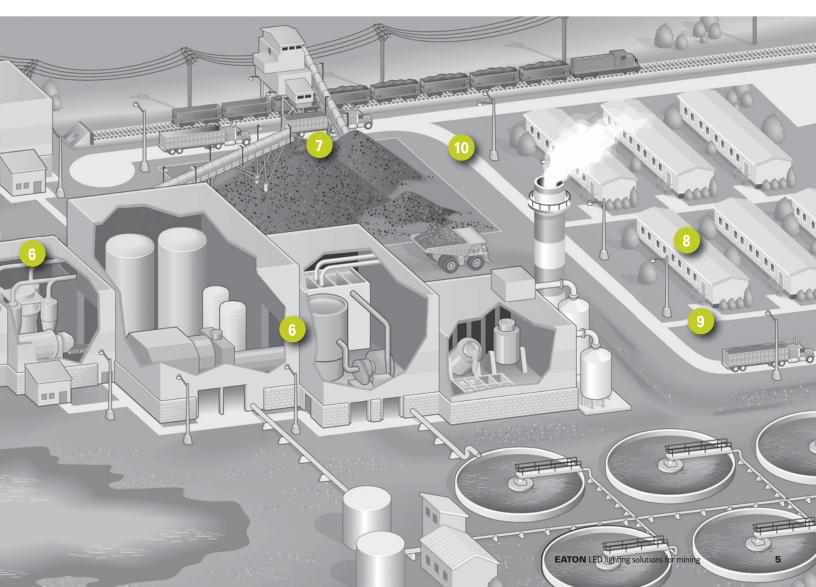
Processing areas .

- Walkways
- Equipment



CCH UX Series LED Exit Lighting

- Maintenance Warehouse Offices ٠
- .
- ٠
- Processing areas Walkways •
- ٠ Equipment





## high-output & durable

## Crouse-Hinds

#### **Champ<sup>®</sup> Pro PFM Series Floodlights**

#### Overview

Champ<sup>®</sup> Pro PFM Series Floodlights are designed to provide full-spectrum, crisp, white light.

Seven versions of the Champ PFM LED are available for pole and wall mounting, providing ideal solutions for a wide range of applications.

#### Certifications

- UL1598
- UL1598A
- cUL
- NEMA 4X
- IP66
- DesignLights Consortium<sup>®</sup> approved for select models
- UL approved up to 40°C ambient

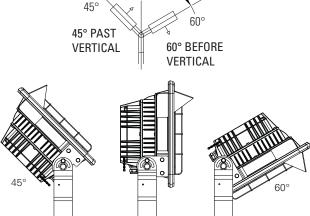
#### LED system

- High brightness LEDs
- Color temperature: warm and cool options available
- Advanced heat sink design ensures low LED junction temperature and sustained lumen performance
- Redundant drivers provide reliable operation in the harshest environments

#### Benefits

- Instant illumination and restrike
- Cold temperature operation; no warm-up time
- Available for wall and surface mounting
- Operating temperature range: -30°C to +55°C (-30°C to +40°C for 25L & 50L)
- Options include: Diffused glass or polycarbonate lens, bolt-on wire guard, bolt-on visor and slipfitter mounting adapters

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
PFM5L	100W-150W	
PFM7L	150W-175W	
PFM9L	175W-250W	Up to 65% reduction in
PFM11L	250W-320W	energy costs and 60,000
PFM13L	320W-400W	operation!
PFM25L	750W-1000W	
PFM50L	1500W	

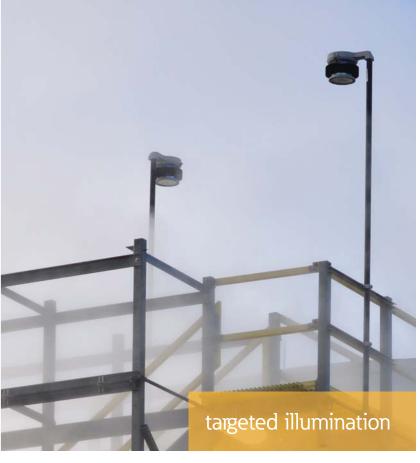


Shown with optional dark sky visor and wire guard



#### 105°

**Aiming Range** 



#### Champ<sup>®</sup> Pro PVM Series LED Luminaires

#### Overview

Champ<sup>®</sup> Pro PVM Series Luminaires are designed to provide full-spectrum, crisp, white light with custom Type I, III and V distribution.

Nine versions of the PVM Series are available, providing ideal solutions for a wide range of applications.

#### Certifications

- UL1598
- UL1598A
- cUL
- NEMA 4X
- IP66
- DesignLights Consortium<sup>®</sup> approved for select models
- UL approved up to 55°C ambient

#### LED system

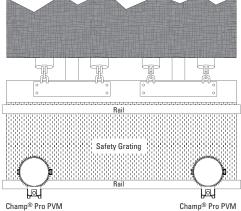
- High brightness LEDs
- Color temperature: warm and cool options available
- Advanced heat sink design ensures low LED junction temperature and sustained lumen performance
- Redundant drivers provide reliable operation in the harshest environments
- Custom optics provide IES Type I, III and V light patterns

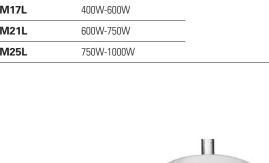
#### Benefits

- Instant illumination and restrike
- Cold temperature operation; no warm-up time
- Operating temperature range: -40°C to +55°C
- Optional occupancy sensor available for increased energy savings

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
PVM3L	70W-100W	
PVM5L	100W-150W	
PVM7L	150W-175W	
PVM9L	175W-250W	Up to 79% reduction in
PVM11L	250W-320W	energy costs and 60,000 hours of continuous
PVM13L	320W-400W	operation!
PVM17L	400W-600W	
PVM21L	600W-750W	
PVM25L	750W-1000W	

The Champ® Pro PVM is an ideal luminaire for illuminating conveyor belts and walkways. Optics allow for increased visibility and performance.







PVM21L and 25L



12.2

120" [xxx ]

PVM13L and 17L



PVM3L-11L



## hazardous area rated

## Crouse-Hinds

#### **Champ® FMV Series Floodlights**

#### Overview

Champ<sup>®</sup> FMV Series Floodlights are hazardous location rated and are designed to provide fullspectrum, crisp, white light.

Five versions of the Champ FMV LED are available for pole and wall mounting, providing ideal solutions for a wide range of hazardous area applications.

#### Certifications

- 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

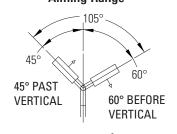
#### LED system

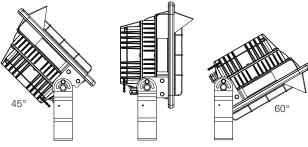
- High brightness LEDs
- Color temperature: warm and cool options available
- Advanced heat sink design ensures low LED junction temperature and sustained lumen performance
- Redundant drivers provide reliable operation in the harshest environments

#### Benefits

- Instant illumination and restrike
- Cold temperature operation; no warm-up time
- Available for wall and surface mounting
- Operating temperature range: -30°C to +55°C
- Options include: Diffused glass or polycarbonate lens, bolt-on wire guard, bolt-on visor and slipfitter mounting adapters

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
FMV5L	100W-150W	
FMV7L	150W-175W	Up to 65% reduction in
FMV9L	175W-250W	energy costs and 60,000 hours of continuous
FMV11L	250W-320W	operation!
FMV13L	320W-400W	





Shown with optional dark sky visor and wire guard



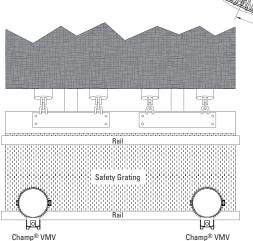
#### Aiming Range





## hazardous area rated

The Champ<sup>®</sup> VMV is an ideal luminaire for illuminating conveyor belts and walkways. Optics allow for increased visibility and performance.



12.2

120" [xxx ]

## Crouse-Hinds

#### Champ<sup>®</sup> VMV Series LED Luminaires

#### Overview

Champ<sup>®</sup> VMV Series Luminaires are designed to provide full-spectrum, crisp, white light with custom Type I, III and V distribution.

Nine versions of the VMV Series are available, providing ideal solutions for a wide range of hazardous area applications.

#### Certifications

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2, Zone 21 tb
- Class II, Groups E, F, G
- Class III
- UL844; UL1598; UL1598A
- CSA C22.2 No. 137
- Type 4X, IP66
- IECEx/ATEX Certified
- DesignLights Consortium<sup>®</sup> approved for select models

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
VMV3L	70W-100W	
VMV5L	100W-150W	
VMV7L	150W-175W	
VMV9L	175W-250W	Up to 79% reduction in
VMV11L	250W-320W	energy costs and 60,000 hours of continuous
VMV13L	320W-400W	operation!
VMV17L	400W-600W	
VMV21L	600W-750W	
VMV25L	750W-1000W	



VMV21L and 25L



VMV13L and 17L



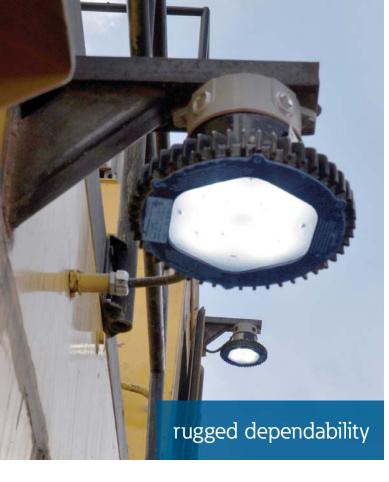
VMV3-11L

#### LED system

- High brightness LEDs
- Color temperature: warm and cool options available
- Advanced heat sink design ensures low LED junction temperature and sustained lumen performance
- Redundant drivers provide reliable operation in the harshest environments
- Custom optics provide IES Type I, III and V light patterns

#### Benefits

- Instant illumination and restrike
- Cold temperature operation; no warm-up time
- Operating temperature range: -40°C to +55°C



#### Vaporgard<sup>™</sup> Pro LED Series Luminaires

#### Overview

Vaporgard<sup>™</sup> LED Luminaires are suitable for lower mounting heights, confined spaces, tunnels or utility rooms.

This fixture delivers similar light levels to a 200W incandescent and is available in cool or warm white light.

#### Certifications

- UL1598
- UL1598A
- cUL
- NEMA 4X
- IP66
- DesignLights Consortium<sup>®</sup> approved for select models

#### LED system

- High brightness LEDs
- Color temperature: warm and cool options available
- Advanced heat sink design ensures low LED junction temperature and sustained lumen performance
- Redundant drivers provide reliable operation in the harshest environments

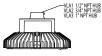
#### Benefits

- Instant illumination and restrike
- Cold temperature operation; no warm-up time
- 22W LED system can save up to 85% in energy costs
- Operating temperature range: -30°C to +55°C

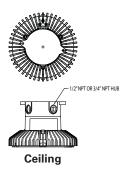
Model Number	Equivalent Luminaire	Typical Energy Savings/ Lifetime
P2LC/UNV1		Up to 85% reduction in
P2LW/UNV1	50W HID or 100-200W incandescent	energy costs and 60,000
P2LC/DC1		hours of continuous
P2LW/DC1		operation!

#### **Typical Mounting Options**





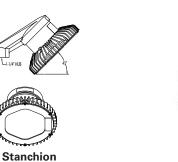
Pendant







Wall







### compact & low profile

## Crouse-Hinds

#### LL48 Linear LED Luminaires

#### Overview

LL48 LED Luminaires allow for the replacement of existing harsh and hazardous industrial fluorescent fixtures.

Used for general lighting in indoor and outdoor areas with low mounting heights or confined spaces, such as aisles, tunnels and catwalks, over doorways or entries, landing areas and utility rooms.

#### Certifications

- Class I, Division 2, Groups A, B, C, D
- NEMA 4X
- IP66
- UL Listed and CSA Certified
- Marine and Wet Locations

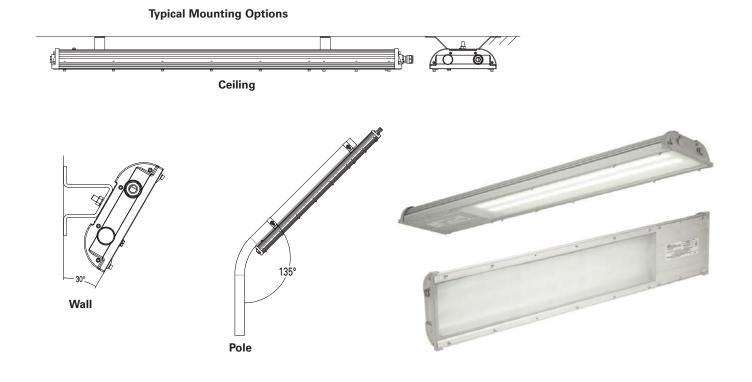
#### **Design features**

- Designed to match the footprint of a traditional linear fluorescent fixture
- Same light pattern and lumen output at a fraction of the cost versus fluorescent

#### Benefits

- Linear LEDs can withstand extreme temperatures and vibration that would cause traditional technologies to fail
- Operating temperature range: -35°C to +55°C
- Versatile mounting options; uses the same mounts as eLLK/nLLK Series

Model Number	Equivalent Luminaire	Typical Energy Savings/ Lifetime
LL48-60W-765/-F-1M		Up to 50% reduction in
LL48-60W-765/-C-1M	- 2x58W fluorescent	energy costs and 60,000 hours of continuous
LL48-60W-765/-F-1N		
LL48-60W-765/-C-1N		operation!





## Cooper Lighting

#### Vaportite LED Luminaires

#### Overview

The Vaportite LED Series is an energy-efficient industrial vaportight fixture that features rugged and durable construction. The Vaportite LED incorporates a full metal fixture liner inside a reinforced fiberglass housing with a high impact diffuser. This Vaportite Series is suitable for interior and exterior applications and can be surface or chain mounted.

#### Certifications

Mounting brackets

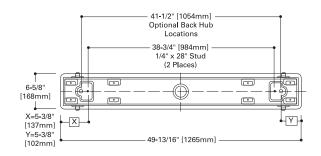
 DesignLights Consortium<sup>®</sup> approved for select models\*

#### **Design features & benefits**

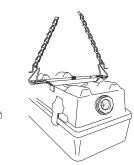
- Ideal for cold storage applications
- LEDs available in 3500K or 4000K with 85 CRI
- Wet location rated
- Narrow and wide distributions
  - 2' and 4' housings
  - Modular design with quick disconnects
  - 0-10V dimming driver is standard

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
* VT-LD2-58DR-UNV- L840-CD2-WL-U	150W metal halide	60%
VT-LD2-30DR-UNV- L840-CD1-WL-U	100W metal halide	70%

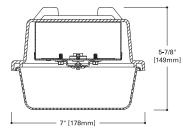
#### Dimensions

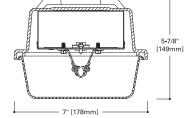


Typical mounting options

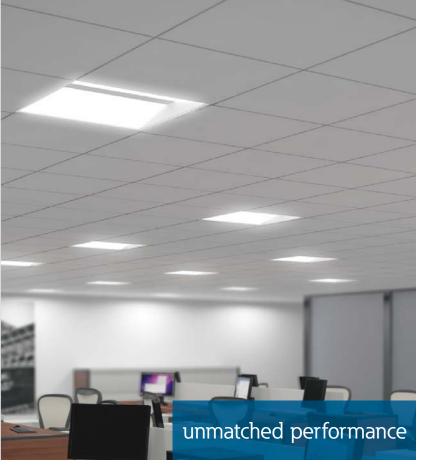


Chain hanging set

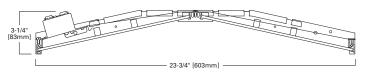




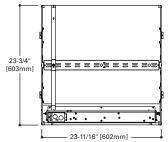




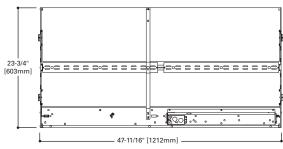
#### **Dimensions and mounting options**











## Cooper Lighting

#### **Encounter™ LED Series**

#### Overview

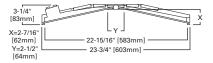
The Metalux Encounter™ Series redefines ambient lighting by blending contemporary styling with Cooper Lighting's proprietary WaveStream™ technology. The result is exceptional performance and superior energy savings - all at an affordable price. The highly efficient LED system with advanced optical design delivers optimal light uniformity, resulting in soft, natural light for superior visual comfort. Encounter is a perfect balance of form and function, making it an ideal choice for commercial interiors.

#### Certifications

- cULus Damp Location Listed
- IC Rated
- RoHS Listed
- LM79/LM80 Compliant
- DesignLights Consortium<sup>®</sup> Qualified
- NOM Compliant
- CA Title 24

Model Number	Equivalent Fluorescent Luminaire	Typical Energy Savings/ Lifetime
22EN-LD1-34- UNV-L835- CD1-U	Parabolic troffer with (2) U6T8 lamps	45%

#### Lamp configurations





#### Design features & benefits

- Available in 2' x 2', 2' x 4', 1' x 4' and 1' x 2' recessed versions
- Leverages our patented
  WaveStream Technology with
  AccuAim™ optics
- Advanced optical control with optimal illumination
- High performance efficacy up to 105 lumens per watt
- Over 45% energy savings when compared to fluorescent troffers
- Three CCT options: 3000K, 3500K and 4000K at 85 CRI
- Five stocked lumen packages offered, along with multiple MTO options
- Standard 0-10V continuous dimming driver
- 2x2: L85 at 60,000 hours;
  2x4: L78 at 60,000 hours with
  5 year warranty



#### **IHB Series LED High Bay Luminaires**

#### Overview

IHB Series LED Luminaires are the perfect replacement for 400W HID and 4-6 lamp T5HO fluorescent high bay fixtures. The IHB is designed for locations requiring continuous and consistent light levels and areas that are difficult to maintain.

#### Certifications

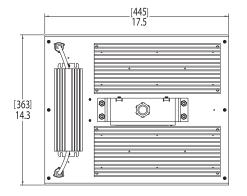
- Meets UL1598 and cUL construction requirements
- DesignLights Consortium<sup>®</sup> approved for select models

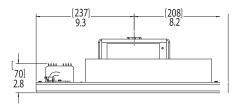
#### **Design features & benefits**

- High efficiency serviceable drivers
- Powder coated white painted sheet metal body
- Mounting bracket for ¾" pendant mount conduit or aircraft cable hook/cord mounting option
- Available with optional occupancy sensor
- Aluminum heat sinks for superior thermal management
- Two discrete LED boards for uniform illumination
- Tempered and clear glass lens cover

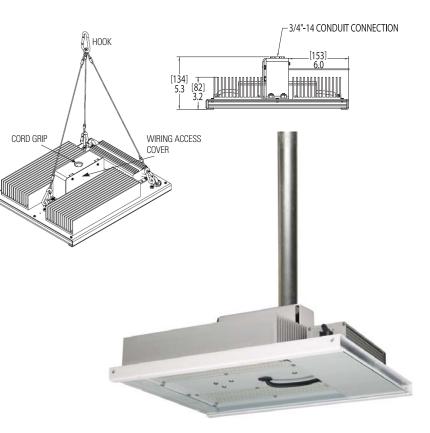
Model	Equivalent HID	Typical Energy Savings/
Number	Luminaire	Lifetime
IHB13L2A/UNV1	400W	Up to 69% reduction in energy costs and 60,000 hours of continuous operation!

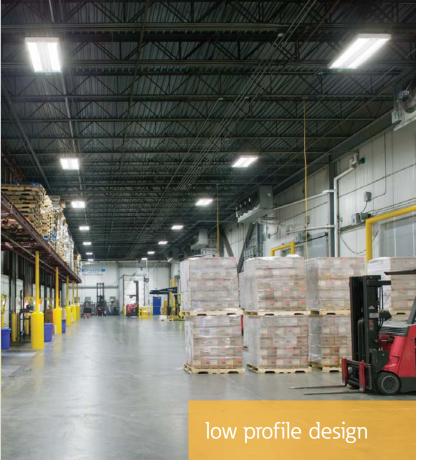
#### Dimensions





#### Typical mounting options





#### **Cooper Lighting** by **FAT-N**

#### **HB LED Series High Bay Luminaires**

#### **Overview**

The HB LED is an outstanding value for a wide variety of applications and mounting heights. Precision designed optics, multiple distributions, lumen outputs and color temperatures make the energyefficient HB LED the ideal solution for high bay applications.

#### Certifications

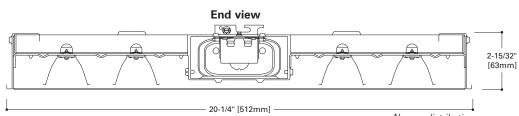
- cULus Damp Location Listed
- 50° ambient rating
- **RoHS** Compliant
- DesignLights Consortium<sup>®</sup> • approved for select models

#### **Design features & benefits**

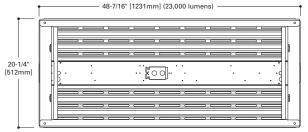
- Three lumen package options (9000, 18,000 and 24,000)
- Two correlated color temperatures (4000K and 5000K)
- 80+ CRI
- L70 at 50,000 hours
- High efficacy with 90+ LPW
- Tool-less driver access for • easy maintenance
- Precision optics general and • wide distribution
- Optional 0-10V dimming driver (15% - 100%)
- Multiple lens and wire guard options
- 5 year warranty

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
HBLED-LD2-9-W- UNV-L850-ED1-U	175W metal halide	40%
HBLED-LD2-18-W- UNV-L850-ED2-U	250W metal halide	30%
HBLED-LD2-24-W- UNV-L850-ED3-U	400W metal halide	40%

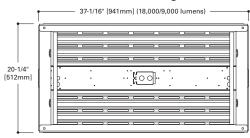
#### **Dimensions**



#### 4' Housing

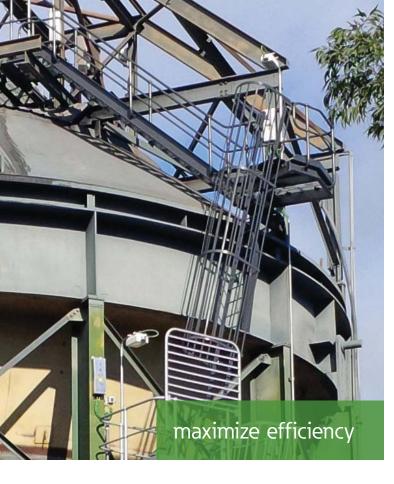


#### 3' Housing



Narrow distribution





#### Endure<sup>™</sup> LED Wall or Ceiling

#### Overview

The IP66, stainless steel Endure™ LED Wall Pack features the patented, modular LED LightBAR™ technology.

The Endure LED Luminaire is available with one or two LightBAR configurations in Type II or Type V distributions.

#### Certifications

- UL1598
- cUL
- IP66

10″ [254mm]

00

8.5" [215.1mm]

#### **Design Features**

- 4 point mounting for quick wall or ceiling mounting
- 50,000+ hour life with >70% lumen maintenance
- 98 lumens per watt; 0.9 power factor
- -30°C to 50°C ambient temperature rating
- Designed for indoor or outdoor use

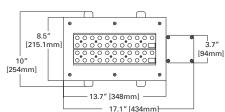
#### Benefits

- Optics: Type V for general illumination or Type II for narrow illumination. Ideal for conveyors or walkways.
- Controlled distribution of light means far less light loss
- Available in 316 stainless steel
- Glass or polycarbonate lens options available

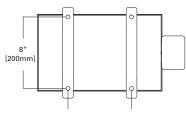
Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
FM1 B01	50W	59%
FM1 B02	70W	43%

#### Dimensions





#### Mounting

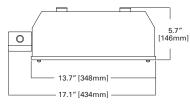


#### Side View

5.75″

[145.9mm]

End View







## Cooper Lighting

#### CrossTour MAXX Wall Pack/Area Site

#### Overview

The Crosstour<sup>™</sup> MAXX LED Wall Pack Series Luminaires provide low profile architectural style with super bright, energyefficient LEDs. The rugged die cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with a sealed and gasketed optical compartment make Crosstour impervious to contaminants.

#### Certifications

- UL/cUL Wet Location Listed
- LM79/LM80 Compliant
- RoHS Compliant
- ARRA Compliant
- NOM Compliant Models
- 3G Vibration Tested
- UL924 Listed (CBP Models)
- IP66 Rated
- Lighting Facts<sup>®</sup> Registered
- DesignLights Consortium<sup>®</sup> approved for select models

#### **Design features & benefits**

- Wall, inverted or pole mount. Energy saving replacement up to 400W HID
- Patent pending, heavy duty construction, maximum LED performance
- Die cast aluminum, low profile design with hinged removable door
- 50W and 85W full cutoff and refractive lens models
- Sealed LED optical chamber with 5000K or 3500K (CCT) LEDs
- Rated for -40°C to 40°C. High ambient 50°C available
- Options include: pole mount arm, dimming and occupancy sensors
- Emergency egress battery pack
- 5 year warranty

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
XTOR5A XTOR5ARL	250W	83%
XTOR9A XTOR9ARL	400W	82%

#### Dimensions and mounting options





Dimensions

## **Cooper Lighting**

The NAVION Roadway LED

optical performance, energy

requirements of any roadway

unparalleled uniformity and

application. Patented AccuLÉD™ optics technology delivers

budget-beating operating costs for municipal streets and

highways. UL/cUL Listed for wet

locations, IP66 enclosure rating

efficiency and outstanding

versatility to meet the

Luminaire combines world-class

#### by **F:T•N**

**Overview** 

#### **NVN NAVION Roadway LED Luminaire**

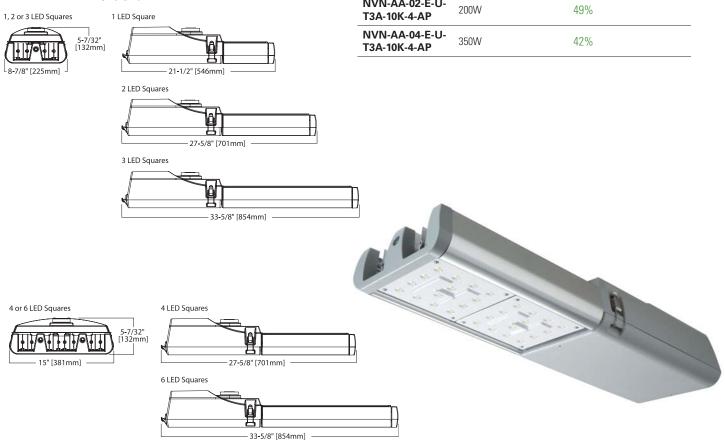
#### Design features & benefits

- Tool-less entry; hinged removable power door for easy maintenance
- 10kV surge protection
- Suitable for operation in -40°C to 40°C environments
- L90 60,000 hours at 40°C
- 3G vibration rated
- IP66 LED panels
- 5 year warranty
- CertificationsUL and cUL Wet Location

available.

- Listed
- IP66 LED Panels
- 3G Vibration Rated
- ARRA Compliant
- ISO9001

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
NVN-AA-01-E-U- T3A-10K-4-AP	100W	70%
NVN-AA-02-E-U- T3A-10K-4-AP	200W	49%
NVN-AA-04-E-U- T3A-10K-4-AP	350W	42%



#### **EATON** LED lighting solutions for mining



#### **Cooper Lighting** by **FAT-N**

#### **XNV LED Roadway Luminaire**

#### **Overview**

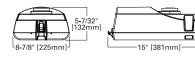
The XNV LED Roadway Luminaire combines highperformance optics and a simple, economical design to deliver uniform illumination, low maintenance costs and rugged, user-friendly construction. It is designed for years of worry-free operation and is ideal for retrofits where a quick payback is as important as lighting performance.

#### Certifications

- UL and cUL Wet Location • Listed
- IP66 Light Square
- **3G Vibration Rated** •
- **ARRA** Compliant
- UL 1449 Surge Protection
- ISO 9001

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
XNV-AC-01-E- U-2-10K-4-AP		
XNV-AC-01-E- U-3-10K-4-AP	100W	70%
XNV-AC-01-E- U-5-10K-4-AP		

#### **Dimensions and mounting options**

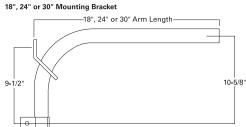


Optional wood pole pipe arm

2-5/16"

(2) 5/8" [16mm]

Dia. Holes

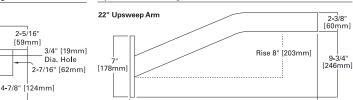


arm drilling

Optional mounting arm



θ



22" [559mm]

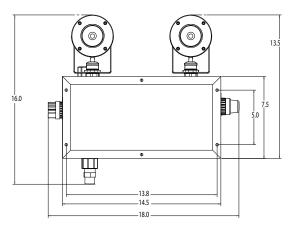


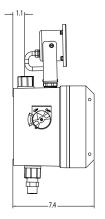
#### **Design features & benefits**

- Tool-less entry; hinged removable power door for easy maintenance
- 10kV surge protection •
- Suitable for operation in -40°C to 40°C environments
- L90 60,000 hours at 40°C
- 3G vibration rated
- IP66 LED panels
- 5 year warranty



#### Dimensions





## Crouse-Hinds

#### Light-Pak<sup>™</sup> N2LPS LED Emergency Lighting System

#### Overview

Light-Pak™ N2LPS LED Emergency Lighting Systems are used to provide reliable illumination for egress areas, to illuminate machinery or panels during failure or interruption of power to the normal lighting system. Also used where moisture, dirt, dust or corrosion will limit the life and reliability of ordinary emergency lighting systems

#### Certifications

- NEC/CEC: Class I, Division 2, Groups B, C, D, Zone 2; Class II, Division 1, Groups F, G
- UL Standards:1598A; 924; 844
- CSA Standards: C22.2 No. 141-M1985; C22.2 No. 137-M1981
- Life Safety Code NFPA101<sup>®</sup> Section 5-9
- Marine Wet Locations
  Suitability
- Type 4X

#### **LED System**

- Compact, factory-assembled luminaire featuring LED lamps for improved lumen performance and lifetime
- Durable and marine rated LED lamp head assemblies provide protection against water ingress, corrosion and impact

#### Benefits

- High temperature rated nickel cadmium battery option available for reliable operation up to 55°C ambient
- Solid state battery charger for long life and reliable battery operation prevents deep discharge by automatically disconnecting the battery from the luminaire
- Factory-installed "push-to-test" button
- Self-test, monitoring and diagnostics reduce costly maintenance checks
- Remote luminaire head assemblies (one or two) are available for mounting of luminaire heads away from main power system

Model Number Description		
N2LPS	3 hour battery life	
N2RF	3 hour battery life, remote lamp heads	





#### **CCH UX Series Exit Lighting**

#### Overview

The CCH UX NEMA 4X Exit Sign is designed for the most severe environments; the exit sign will provide maximum performance against rain, moisture, cold, corrosives and dust. Universal configurations (single and double face) and universal mounting provide the ease of one product specifying for any job.

#### Certifications

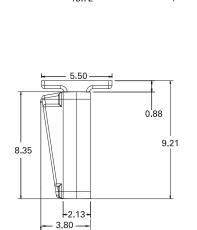
- Class I, Division 2, Groups A, B, C, D, T5 lamp rating with HAZ option
- NEMA 4X Listed with dual voltage input 120/277 VAC, 60 Hz
- UL FTBR Listed when specified with the "2C" option
- NSF National Sanitation Foundation/Splash Zone (for food processing)
- Suitable for wet and damp locations; meets most state and local codes

#### Design features & benefits

- Die cast aluminum housing
- Can be ceiling, wall or end mounted
- Watchguard EMS selfdiagnostic system
- Universal configurations (single and double face) and universal mounting provide the ease of one product specifying for any job
- Self-diagnostics, photocell testing, LED technology and nickel cadmium battery provide long life and low maintenance
- Injection-molded, clear, polycarbonate shield not only provides protection against moisture and rain, but also vandalism
- Four Torx<sup>®</sup> head tamper-proof screws with center pin reject provide additional vandalproof security

# Dimensions

Model Number	Description	
CCH UX60	Single sided exit sign (AC only)	
CCH UX70	Single sided exit sign (self-diagnostic with battery)	





#### **EATON** LED lighting solutions for mining

# Robust performance above



# and below ground

Crouse-Hinds underground mine train headlight, patented March 23, 1903

#### **Eaton's Cooper Lighting business**

## Eaton's Cooper Lighting business headquarters

1121 Highway 74 South Peachtree City, GA 30269 (770) 486-4800 www.cooperlighting.com

#### Canada sales

5925 McLaughlin Road Mississauga, Ontario L5R 1B8 (905) 501-3000 FAX: (905) 501-3172

#### Eaton's Crouse-Hinds business

#### U.S. (global headquarters): Eaton's Crouse-Hinds business

1201 Wolf Street Syracuse, NY 13208

(866) 764-5454 FAX: (315) 477-5179 FAX Orders Only: (866) 653-0640

crouse.customerctr@ cooperindustries.com

www.crouse-hinds.com

#### For more information:

If further assistance is required, please contact an authorized Eaton Distributor, Sales Office, or Customer Service Department.

#### Canada

Toll Free: 800-265-0502 FAX: (800) 263-9504 FAX Orders only: (866) 653-0645

## Mexico/Latin America/Caribbean 52-555-804-4000

FAX: 52-555-804-4020 mxmercadotecnia@ cooperindustries.com

#### Europe (Germany)

49 (0) 6271 806-500 49 (0) 6271 806-476 sales.CCH.de@ cooperindustries.com

#### Middle East (Dubai)

971 4 4272500 FAX: 971 4 4298521 sales.CCH.me@ cooperindustries.com

#### Singapore 65-6645-9888 FAX: 65-6297-4819 chsi-sales@ cooperindustries.com

China

86-21-2899-3600 FAX: 86-21-2899-4055 cchsales@ cooperindustries.com

#### Korea

82-2-3484-6783 82-2-3484-6778 CCHK-sales@ cooperindustries.com

#### Australia

61-2-8787-2777 FAX: 61-2-9609-2342 CEASales@ cooperindustries.com

#### India

91-124-4683888 FAX: 91-124-4683899 cchindia@ cooperindustries.com

Eaton 1000 Eaton Boulevard Cleveland, OH 44122 United States Eaton.com

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