Global LED lighting portfolio



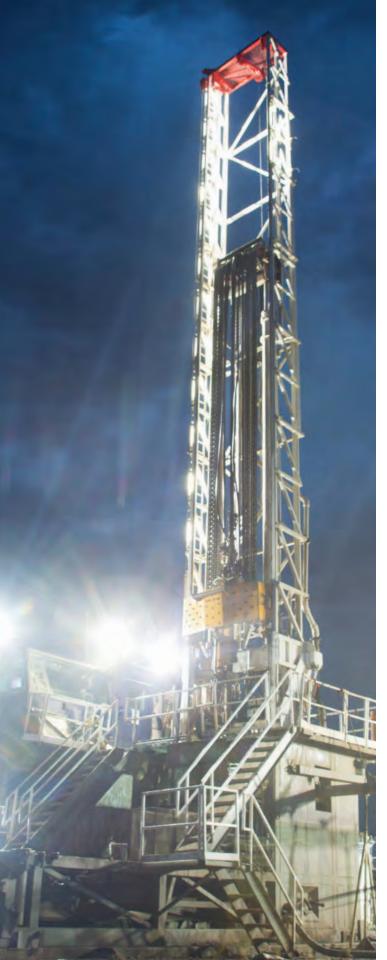
Safe. Reliable. Efficient. Global LED solutions for harsh and hazardous environments



Represented By:



Industrial Development Engineering Associates



Global LED solutions for harsh and hazardous environments

Safe. Reliable. Efficient.

Featuring the industry's broadest range of LED luminaires for harsh, hazardous and industrial environments, Eaton's Crouse-Hinds Division can deliver a lighting solution that performs safely and reliably in even the worst operating conditions. All the while reducing your energy, maintenance and manpower costs.

Why LED?

Energy efficiency

LED average energy consumption is significantly less than traditional fluorescent and HID fixtures

Start/restart time Instant illumination vs. 10 minute restrike time for HID

Light quality Higher color rendering compared to fluorescent and HID

Environmental benefits Mercury-free LED eliminates disposal costs and lowers energy consumption for a smaller carbon footprint

Why Crouse-Hinds?

Industry-best reliability Built to withstand a wide array of applications

Thermal management Effective heat sinking ensures longer life

Quality of light Custom optics designed to maximize light distribution and intensity

Globally certified

Designed to global specifications for NEC and IEC applications

Serviceable drivers

Easy access to drivers for service or replacement

Crouse-Hinds series LED family selection guide

Find out which solution is right for you

Selection guide – Hazardous areas

Area classification	Application	Product		Equivalent light output	Lumen level	Extreme ambients†	Emergency battery option	DLC qualified
	Flood COLUMNE USEED IECEX COLUMNE IECEX	Champ™ FMV		9 models - 70W to 400W HID replacement	3,000 - 50,000 lumens	+55°C +40°C		(select models)*
	High/mid bay UINTED IECEX	Champ™ VMV		9 models - 70W to 1000W HID replacement	3,000 - 26,000 Iumens	+65°C -40°C		(select models)*
	High/mid bay	Champ™ VMV Connected	0	5 models - 70W to 400W HID replacement	3,300 - 11,300 Iumens	+65°C +65°C -40°C		(select models)*
	Mid/low bay	NLE	•	4 models - 70W to 175W HID replacement	3,000 - 8,000 Iumens	+55°C +55°C -40°C		N/A
Class I, Division 2, Class II	Linear Custer Carter	Champ™ MLL		2 models - 2 lamp T5HO replacement	3,600 - 7,100 Iumens	+65°C +65°C -40°C	\checkmark	(select models)*
and/or Zone 2 & Zone 22	Linear CUDus USTED	Pauluhn™ Summit		3 models - up to 6 lamp T5H0 replacement	13,000 - 25,100 Iumens	+55°C ↔ -40°C		(select models)*
	Linear Colored Baseline Colored Colore	CEAG nLLK15		2 models - 2x18W and 2x36W fluorescent replacement	2,100 - 4,100 Iumens	+50°C	\checkmark	N/A
	Linear IECEx 🕢	nHLL	and the state of t	4 models - 2x18W, 2x36W and 2x58W fluorescent replacement	3,000 - 8,000 Iumens	+55°C +55°C -40°C	\checkmark	N/A
	Low bay	Vaporgard™ V2L	6	2 models - 100W to 200W incandescent & 50W-70W HID	1,700 - 3,300 Iumens	₩ +55°C		(select models)*
	Emergency and Exit Content of the second	N2LPS, UX, Ex-Lite, Exit, Exit2	50 00	N/A	N/A	Varies by family	\checkmark	N/A

+ Operating temperature range may vary slightly by lumen models within a product family. Refer to product catalog pages for complete temperature range details.

^{*} Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

Crouse-Hinds series LED family selection guide

Selection guide – Hazardous areas

Area classification	Application	Product	Equivalent light output	Lumen level	Extreme ambients†	Emergency battery option	DLC qualified
	Floodlight	CEAG PXLED	6 models - 70W to 600W HID replacement	5,000 - 30,000 lumens	+55°C		N/A
	High/mid bay	Hazard•Gard™ EVLL/nEVLL	5 models - 70W to 400W HID replacement	5,700 - 13,500 lumens	+55℃ +65℃		(select models)*
	High/mid bay		8 models - 70W to 400W HID replacement	4,500 - 14,500 Iumens	+55℃ +55℃ -40℃	\checkmark	N/A
	Mid/low bay	HPL	4 models - 70W to 175W HID replacement	3,000 - 8,000 lumens	+50°C	\checkmark	N/A
Class I, Division 1 Class II	Linear	Hazard-Gard™ XPL	2 models - 2 lamp T5HO replacement	3,800 - 7,600 Iumens	+65°C	\checkmark	N/A
and/or Zone 1 & Zone 21	Linear	CEAG Ex-Lin	3 models - 2x18W, 2x36W and 2x58W fluorescent replacement	2,750 - 8,120 Iumens	+55°C		N/A
	Linear COLUSE IECEX CON	CEAG eLLK LED	2 models - 2x18W and 2x36W fluorescent replacement	2,100 - 4,100 Iumens	+ 55℃	\checkmark	N/A
	Linear	HLL	2 models - 2x18W and 2x36W fluorescent replacement	2,800 - 5,700 lumens	+55°C	\checkmark	N/A
	Low bay	Hazard-Gard™ EV LED	2 models - 100W to 200W incandescent & 70W-100W HID replacement	1,500 - 2,000 lumens	+55°C (AC)		N/A
	Bulkhead	AB05 LED	1 model - 150W incandescent replacement	2,000 Iumens	+55°C		N/A

+ Operating temperature range may vary slightly by lumen models within a product family. Refer to product catalog pages for complete temperature range details.

Find out which solution is right for you

Selection guide – Harsh/heavy & light industrial

Area classification	Application	Product		Equivalent light output	Lumen level	Extreme ambients†	Emergency battery option	DLC qualified
	Flood «) usted C E TABS	Champ™ Pro PFM		9 models - 70W to 1500W HID replacement	3,000 - 50,000 Iumens	+55°C +50°C		(select models)*
	High/mid bay	Champ™ Pro PVM		9 models - 70W to 1000W HID replacement	3,000 - 26,000 Iumens	+65°C +65°C -40°C		(select models)*
	High/mid bay	Champ™ Pro PVMA		2 models - 150W to 175W HID replacement	5,800 - 7,700 Iumens	+55°C +50°C		(select models)*
	Mid/low bay	PLE	•	4 models - 70W to 175W HID replacement	3,000 - 8,000 Iumens	+55°C +40°C	\checkmark	N/A
Harsh/heavy	Linear c@us	Champ™ Pro PLL		2 models - 2 lamp T5H0 replacement	3,600 - 7,100 Iumens	+65°C +65°C -40°C	\checkmark	(select models)*
industrial	Linear	Pauluhn™ APEX		3 models - up to 6 lamp T5HO replacement	13,000 - 25,100 Iumens	+55°C +50°C -40°C		(select models)*
	Linear ¢∰us	Pauluhn™ Intrepid		1 model - 2 lamp T8 replacement	3,494 Iumens	+50°C	\checkmark	N/A
	Linear CE	PLLE	for the second second	4 models - 2x18W, 2x36W and 2x58W fluorescent replacement	3,000 - 8,000 Iumens	+55°C +50°C	\checkmark	N/A
	Linear	CEAG LLK15		2 models - 2x18W and 2x36W fluorescent replacement	2,100 - 4,100 Iumens	+55°C	\checkmark	N/A
	Low bay	Vaporgard⊺ Pro P2L		2 models - 100W to 200W incandescent; 50W-70W HID	1,700 - 3,300 Iumens	+55°C		(select models)*
Light Industrial	High bay	Industrial high bay		5 models - 250W-1000W HID & 4-10 Lamp T5H0 replacement	16,000 - 67,000 Iumens	+60°C +60°C		(select models)
	High bay ¢∰us	Champ® Pro PVM High Bay		2 models - 1000W to 1500W HID replacement	60,000 - 85,000 Iumens	+65°C +65°C -40°C		N/A

+ Operating temperature range may vary slightly by lumen models within a product family. Refer to product catalog pages for complete temperature range details.

Hazardous Area Floodlights

Cl. I, Div. 2 Cl. II, Div. 1 Zone <u>2/22</u>

Champ[™] FMV LED floodlights

PRIMARY APPLICATIONS

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

LUMINAIRE MODELS

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
FMV3L	70W	
FMV5L	100W-150W	_
FMV7L	150W-175W	_
FMV9L	175W-250W	Up to 78%
FMV11L	250W-400W	reduction in
FMV13L	400W	energy costs and 60,000 hours of
FMV15L	400W-500W	continuous
FMVA20L	600W-750W	operation!
FMVA25L	705W-1000W	_
FMVA40L	1,500W+	_
FMVA50L	1,500W+	_

CERTIFICATIONS & COMPLIANCES

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2
- Class II, Division 1, Groups E, F, G; Simultaneous Presence; Class III
- Type 4X, IP66
- UL844; UL1598; UL1598A; UL8750
- CSA C22.2 No. 137
- IECEx/ATEX Certified; Zone 2/22
- CE
- DesignLights Consortium[®] approved for select models*

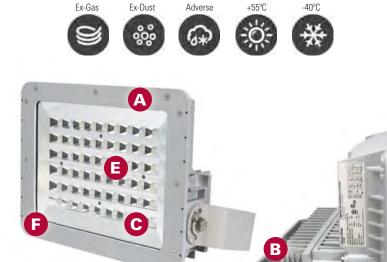


ELECTRICAL RATINGS

- Voltages: 100-277 VAC/108-250 VDC, 347-480 VAC
- Input power: 28W, 45W, 62W, 79W, 99W, 112W, 131W, 175W, 216W, 340W, 411W

OPTIONS AND ACCESSORIES

- Bolt-on visor; bolt-on wire guard
- Floodlight slipfitter (not available for 40L & 50L)
- Slipfitter wall mount adapter (not available for 40L & 50L)
- Diffused glass lens
- Dimmable driver
- 3x3 optic (select models)



FMV40L - 50L

Up to 6 times longer life and 78% reduction in power consumption compared to equivalent HID floodlights

DESIGN FEATURES

FMV3L - 25L

- 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.
- B Rugged heat sink Designed to perform in high ambient temperatures up to +65°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.
- **G** High lumen output Up to 120 lumens per watt.
- 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 and diffused glass options available.
- **Smaller and lighter -** 25% smaller and 10 lbs (4.5 kg) lighter than previous model (3L-25L models).





VMV3L - 11L

VMV21L and 25L

Custom Type I, III and V optics for better output, zero maintenance and reduced energy consumption

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.
- High efficiency drivers Designed to provide reliable operation in even the harshest environments.
- 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.
- **Custom optics** Type I, III and V optics designed to maximize light distribution and intensity.

Lever-lock connectors and 3-pole terminal block.



* Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

Hazardous Area High/Mid Bay

Cl. I, Div. 2 Cl. II, Div. 1 Zone 2/21

Champ[™] VMV 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

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
VMV3L	70W-100W	
VMV5L	100W-150W	_
VMV7L	150W-175W	 Up to 77%
VMV9L	250W-320W	reduction in
VMV11L	320W-400W	energy costs and 60,000 hours of
VMV13L	400W	continuous
VMV17L	400W-600W	operation!
VMV21L	600W-750W	_
VMV25L	750W-1000W	

CERTIFICATIONS & COMPLIANCES

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2 nA; Zone 21 tb
- Class II, Division 1, Groups E, F, G; Class III
- Simultaneous presence
- UL844; UL1598; UL1598A; UL8750; UL50; UL50E
- cUL Listed to CSA C22.2 No. 137
- NEMA 4X, IP66, Wet Locations
- IECEx/ATEX Certified; Zone 2/21
- DesignLights Consortium[®] approved for select models*
- CE

ELECTRICAL RATINGS

- Voltages: 120-277 VAC/ 108-250 VDC, 347/480 VAC
- Input power: 29W, 41W, 54W, 74W, 89W, 130W, 168W, 196W, 232W

OPTIONS AND ACCESSORIES

- Quick clip
- Diffused lens
- Teflon coated lens
- Polycarbonate lens
- Wire guard
- Trunnion mount
- Cone top hat
- Type I, III and V optics
- Terminal block (TB6) 6-pole

7



Hazardous Area High/Mid Bay

Cl. I, Div. 2 Cl. II, Div. 1 Zon<u>e 2/21</u>

Champ[™] VMV LED Connected fixtures

PRIMARY APPLICATIONS

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

LUMINAIRE MODELS

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
VMV3L	70W-100W	
VMV5L	100W-150W	Up to 77% more
VMV7L	150W-175W	 efficient than standard LED light
VMV9L	250W-320WW	fixtures!
VMV11L	320W-400W	_

CERTIFICATIONS & COMPLIANCES

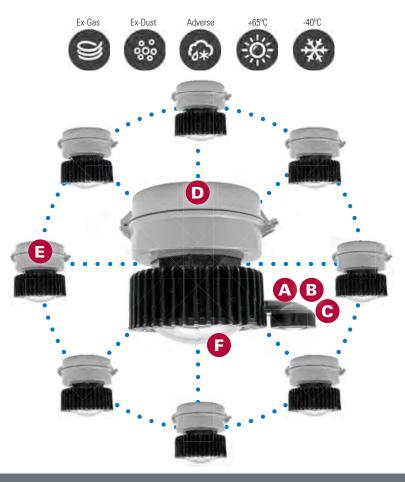
- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2, nA nR
- Class II, Division 1, Groups E, F, G; Simultaneous Presence; Class III
- Zone 21 tb
- Type 4X, IP66, Wet Locations, Marine Listed
- UL1598; UL1598A; UL8750; UL844; UL60079-0; UL60079-11; UL60079-15; UL60730; UL913; UL50; UL50E
- NEC NFPA 70
- R/C for sensor and controller
- cUL Listed to CSA Standard C22.2 No. 250 (for Luminaires)
- cUL Listed to CSA Standard C22.2 No. 137 (Electric Luminaires for Hazardous Locations)
- CSA 60079-11
- CSA 60079-0
- CE (pending)
- ATEX/IECEx nA, nR, ia (pending)
- DLC (pending)

ELECTRICAL RATINGS

- Voltages: 100-277 VAC; 108-250 VDC
- Input power: 29W, 41W, 54W, 74W, 89W

OPTIONS AND ACCESSORIES

- Pendant, cone pendant, ceiling, wall, and stanchion mounts
- Trunnion mount kit
- Safety cable
- Diffused lens; Teflon coated lens; Polycarbonate lens
- Terminal block (TB6) 6-pole



Full lighting control at your fingertips, allowing you to maximize energy savings and minimize maintenance costs

- A Integral sensor Detects and measures area occupancy, lighting levels and ambient temperatures. Up to 40 ft. sensor range provides excellent coverage.
- **Occupancy sensing -** Motion sensing to monitor occupancy of a site or for control of infrequently used areas.
- **C** Daylight harvesting Photo sensing measures ambient light levels and adjusts light output accordingly, saving energy and extending fixture life.
- Scheduled ON/OFF and Dimming Management of time scheduling to optimize energy usage installations.
- **Fixture grouping** -Tempered and clear glass standard, polycarbonate and diffused glass options available.
- Integral controller Send commands to multiple fixtures to control lighting levels per predefined settings. Also communicates system notifications/alarms on the fixture, sensor and radio.





Low profile and lightweight design, easy to install and reliable illumination in Zone 2 and 22 areas

DESIGN FEATURES

- Rugged design Highly durable aluminum housing with a tempered and impact resistant glass globe. NLE fixture has an operating temperature range of -40°C to +55°C.
- B Lightweight and compact Low profile and lightweigh design is ideal for compact installations.
- **Ease of installation -** U-shaped yoke mount provides mounting flexibility wall, ceiling, pole, etc.

NLE LED light fixtures

PRIMARY APPLICATIONS

Certified for Zone 2 and Zone 22 hazardous areas. Suitable for mid bay and low bay lighting applications in chemical, petrochemical, pharmaceutical, platforms, shipyards, loading docks, wastewater treatment and paper mills.

Zone 2/22

LUMINAIRE MODELS

Model number	Equivalent HID Iuminaire	Typical energy savings/lifetime
NLE-3L	70W-100W	
NLE-5L	100W-150W	Up to 66%
NLE-7L	150W-175W	energy costs
NLE-8L	150W-175W	-

CERTIFICATIONS & COMPLIANCES

- Ex nR IIC T6/T5 Gc
- Ex tb IIIC T80°C/T100°C Db
- Ex tD A21 IP66 T80°C/T100°C
- EN 55015:2013
- EN 61000-6-4:2007/A1:2011
- EN 61000-3-2:2006/A2:2009
- EN 61000-3-3:2013
- EN 61547:2009
- EN 61000-6-2:2005/AC:2005
- IEC 61000-4-2 ed2.0(2008-12);IEC 61000-4-3 ed3.2 Consol.with am 1&2(2010-04)
- IEC 61000-4-4 ed3.0(2012-04);IEC 61000-4-5 ed2.0 (2005-11);IEC 61000-4-6 ed4.0(2013-10)
- IEC 61000-4-8 ed2.0(2009-09);IEC 61000-4-11 ed2.0 (2004-03)
- IP66

ELECTRICAL RATINGS

- Voltages: 100-240 VAC; 108-250 VDC
- Input power: 30W, 50W, 70W, 80W

- Clear or diffused glass lens
- Warm white (3000K) and cool white (5700K) color temperatures



Hazardous Area l inear

Cl. I. Div. 2 Cl. II, Div. 1 Zone 2



PRIMARY APPLICATIONS

Oil and gas refineries, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels outdoor and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present.

LUMINAIRE MODELS

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
VMV3L	70W-100W	
VMV5L	100W-150W	Up to 77% more
VMV7L	150W-175W	 efficient than standard LED light
VMV9L	250W-320WW	fixtures!
VMV11L	320W-400W	_

CERTIFICATIONS & COMPLIANCES

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2
- Class II, Division 1, Groups F, G
- UL844; UL1598; UL1598A; UL924
- CSA C22.2 No. 137
- NEMA 4X, IP66, Marine and Wet Locations
- DesignLights Consortium[®] approved for select models*



ABS design assessed

ELECTRICAL RATINGS

- Voltage: 100-277 VAC, 347-480 VAC, 108-250 VDC
- Input power: 29W, 55W

OPTIONS AND ACCESSORIES

- Diffused glass or polycarbonate lens
- Flush/back, ceiling/swivel, wall, offset wall, pole and pendant mounts
- Safety chain kit
- · Epoxy painted or natural aluminum finish



Up to 67% more energy efficient than a T5HO fluorescent light and 8 times the rated life

DESIGN FEATURES

- A Best-in-class efficacy Up to 130 lumens per watt.
- B Custom optics - Standard wide (120°) and narrow (80°) beam pattern for a wide variety of general and targeted applications.
- Built to last Passed 2,000 psi high pressure hose test; passed 5G C vibration test; 60,000 hour lifetime @ 55°C ambient.
- D Slim profile - 2.7" fixture height (excluding mounting brackets), perfect for mounting in confined or low height areas.
- Quick & easy installation Easy access to drivers and wiring; no custom brackets or hardware needed; Seven mounting options available.







NSF Splash Zone rated, 1500 PSI hose down tested and an angled housing to mitigate debris build-up

DESIGN FEATURES

- A Innovative and robust design Angled light fixture mitigates debris build-up. Withstands 1500 psi high pressure wash down, and food rated paint maintains safety.
- B High performance optics and drivers 100+ lumens per watt provides highly efficient lighting. Rated life is up to 60,000 hours of maintenance-free and safe operation.
- **Easily customized for application-specific performance -** Versatile mounting options with a through feed design for simplified multiple fixture wiring.

Hazardous Area

Pauluhn[™] Summit LED linear light fixtures

PRIMARY APPLICATIONS

Replaces fluorescent T12, T8, and T5HO fixtures in hazardous rated food processing, hose down and corrosive environments.

The Summit LED was designed with food and beverage processing facilities in mind. The fixture housing is angled to mitigate debris build-up and features a food-rated epoxy powder coat finish. Plus, its robust design can withstand 1,500 PSI hose pressure for wash down applications.

LUMINAIRE MODELS

Model number	Equivalent luminaire	Typical energy savings/lifetime
SUM13L	3 lamp T5HO	Up to 50% reduction in
SUM17L	4 lamp T5HO	energy costs and minimum 60,000 hours of
SUM25L	6 lamp T5HO	continuous operation!

CERTIFICATIONS & COMPLIANCES

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 1, Groups E, F, G
- UL1598; UL8750, UL844
- CSA 22.2 No. 137
- NSF Splash Zone
- Type 4X; IP66

ELECTRICAL RATINGS

- Voltages: 100-277 VAC/347-480 VAC, 127-250 VDC
- Input power: 122W, 144W, 217W

- Polycarbonate lens in clear or diffused
- 0-10V dimming capabilities
- Surface/swivel mount, cable/chain mount and threaded rod mount
- Available with cord assemblies and quick disconnect receptacle



Zone 2/22

CEAG[™] nLLK15 LED linear light fixtures

PRIMARY APPLICATIONS

Long-life LED tubes provide general illumination, indoors or out, in Zone 2 and 22 hazardous environments around the globe. Heavy duty, non-metallic construction stands up to tough physical and environmental demands, making it an excellent choice where dust, dirt, gas, vapor, smoke, fumes, moisture, corrosive and wet conditions are present.

LUMINAIRE MODELS

• Ex II 3 G Ex ec IIC T4 Gc

IP66

• Ex II 3 D Ex tc IIIC T80°C Dc

ELECTRICAL RATINGS

• Input power: 18W, 37W, 49W

systems possible (V-CG-S)

OPTIONS AND ACCESSORIES
Available with safety switch on request

• Self-contained battery version available

Connection to CEAG emergency light monitoring

• Light controlling via DALI interface (DALI option)

Voltage: 220-240 VAC/DC

Model number	Equivalent fluorescent luminaire	Typical energy savings/lifetime
nLLK15 LED 600	2 x 18W	Up to 77% more
nLLK15 LED 1200	2 x 36W	efficient than standard LED light
nLLK15 LED 1500	2 x 58W	fixtures!

CERTIFICATIONS & COMPLIANCES

• EC-Declaration of Conformity: CCH 15 ATEX 1044



Crisp, bright light and durability in harsh environments provides a long-life solution in Zone 2 and 22 areas

- Built to last Heavy duty, non-metallic construction stands up to tough physical and environmental demands, making it an excellent choice where dust, dirt, gas, vapor, smoke, fumes, moisture, corrosive and wet conditions are present.
- **B High output -** Utilizes Aura UltiLED LED tubes for extreme applications, providing high efficacy and long life.
- **Emergency** Available with a self-contained battery system or V-CG-S module for monitoring with an Eaton central battery system.







Rugged, low profile fixture that is easy to install and provides clear illumination in Zone 2 and 22 hazardous areas

DESIGN FEATURES

- Rugged design Copper-free aluminum housing and impact-resistant polycarbonate lens provide excellent resistance to corrosion and heat.
- **B** Easy installation Lightweight design, hinged cover, and a terminal block wing for easy installation and maintenance.
- **Industry leading thermal management -** For safe and reliable operation over a wide temperature range.
- **Retrofit friendly** Fixture utilizes the same mounting footprint of linear fluorescent lighting.

Hazardous Area

nHLL LED linear light fixtures

Zone 2/22

PRIMARY APPLICATIONS

Constructed with an aluminum housing and high impact-resistant polycarbonate cover for use in Zone 2 and 22 hazardous areas where moisture or corrosion may be a problem, such as offshore oil platforms, pharmaceutical and chemical plants, oil refineries and industrial locations.

LUMINAIRE MODELS

Model number	Equivalent luminaire	Typical energy savings/lifetime
NLLE-2-C2-3L	2x18W	Up to 72%
NLLE-2-C2-4L	2x36W	reduction in energy costs and
NLLE-4-C2-5L	2x36W	50,000 hours of continuous
NLLE-4-C2-8L	2x58W	operation!

CERTIFICATIONS & COMPLIANCES

- Ex db ec IIC T5/T6 Gc
- Ex ec IIC T5/T6 Gc
- Ex db ec ib mb IIC T5/T6 Gc
- Ex ec ib mb IIC T5/T6 Gc
- Ex tb IIIC T80°C Db
- IECEx-certification of conformity: IECEx NEP
 18.0003X
- EC-Type examination certificate: SEV 18 ATEX 0171X
- IP66

ELECTRICAL RATINGS

- Voltages: 100-240 VAC
- Input power: 30W, 40W, 60W, 80W

- Epoxy coating on aluminum housing
- Emergency battery back-up
- Pipe, wall, and ceiling mounts available



Cl. I, Div. 2 Cl. II, Div. 1 Zone 2/22

Vaporgard[™] 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

Model number	Equivalent luminaire	Typical energy savings/lifetime
V2LM2	50W HID or 150-200W	Up to 85% reduction in energy costs and
V3LM2	incandescent	50,000 hours of continuous operation!

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
- ATEX/IECEX Zone2/22
- DesignLights Consortium[®] approved for select models*

ELECTRICAL RATINGS

- Voltages: 120-277 VAC, 12-24 VDC
- Input power: 14W, 29W

OPTIONS AND ACCESSORIES

- Frosted lens
- Teflon coated lens
- Brazil (CEPEL) Certification
- Color temperature: Warm white (3000K)
- 12-24 VDC Driver



Ex-Dust

Adverse

Ex-Gas

+50°C

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

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



* Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

EATON'S CROUSE-HINDS LED lighting solutions









EXIT / EXIT 2

LED egress, emergency and exit lighting designed for harsh and hazardous locations

N2LPS M2 DESIGN FEATURES

- Non-metallic, enclosed, gasketed housing Provides corrosion protection in the most extreme environments.
- **B** Durable and marine rated LED lamp head assemblies Provide protection against water ingress, corrosion and impact.
- **O** Nickel cadmium battery High temperature rated nickel cadmium battery for reliable operation up to 55°C ambient.
- Reduced maintenance costs Self-test, monitoring and diagnostics reduce costly maintenance checks.
- Remote mountable lamp heads Lamp heads can be mounted independently from the enclosure, allowing you to focus light where you need it.

Exit Lighting DESIGN FEATURES

- **Corrosion- and impact-resistant housing -** Ensures long product life and reliability.
- **6** Nickel cadmium battery Premium heavy duty nickel cadmium battery with 24-hour charge and recharge time increases safety by recovering quickly from an outage.
- **Mutiple "EXIT" legend options -** EXIT inscriptions, pictograms, and directional arrows to meet customer preferences.



* Zone ratings vary by product family. Refer to individual catalog pages for complete certifications and compliances.

Hazardous Area Emergency & Exit

LED emergency and exit lights

N2LPS M2 Emergency Lighting PRIMARY APPLICATIONS

Used to provide reliable illumination for egress areas during failure or interruption of power to the normal lighting system.

LUMINAIRE MODEL

Model number	Battery life
N2LPSM2	90 minutes

CERTIFICATIONS & COMPLIANCES

- Class I, Division 2, Groups B, C, D
- Class I, Zone 2
- UL844; UL924; UL1598A
- CSA C22.2 No. 141-M1985; C22.2 No. 137-M1981
- Life Safety Code NFPA101® Section 5-9
- Type 4X, Marine Wet Locations

ELECTRICAL RATINGS

- Power supply input: 102-277VAC; 6W max.
- LED heads: 12VDC, 1W LED, 6W max.

LED Exit Signs PRIMARY APPLICATIONS

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

LUMINAIRE MODELS

Model Number	Rating	Battery
Ex-Lite	Hazardous	Optional
UX LED	Industrial or Hazardous	Optional
EXIT / EXIT 2	Hazardous	Optional

CERTIFICATIONS & COMPLIANCES

Ex-Lite:

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 1
- Class II, Division 2, Groups F, G (NEC)
 IP66
- UL844; UL924; UL60079; UL1203

UX LED:

- Class I, Division 2, Groups A, B, C, D
- NEMA 4X, IP66, Outdoor Wet Locations
- UL50; UL844; UL924; UL1598A

EXIT / EXIT 2

- Ex e ib mb IIC T6/T5 Gb; Ex tb IIIC T80°C Db
- IECEx BVS 13.0017
- EC-Type Examination Certificate: BVS 09 ATEX E 029

ELECTRICAL RATINGS

Please refer to individual catalog pages

Hazardous Area Floodlights

Zone 1/21 Zon<u>e 2/22</u>

CEAG[™] PX LED Floodlights

PRIMARY APPLICATIONS

Ideal for ceiling and wall mounted general area lighting where flammable vapors and gases are present, along with harsh conditions including vibration, dust, moisture, corrosive atmospheres and extreme temperatures

LUMINAIRE MODELS

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
PXLED5L	100W-150W	
PXLED10L	175W-250W	Up to 70% reduction in
PXLED15L	400W-500W	energy costs and 60,000 hours of continuous operation!
PXLED20L	600W-750W	
PXLED25L	750W-1000W	
PXLED30L	1500W	·

CERTIFICATIONS & COMPLIANCES

- Ex db eb op is q IIC T4 Gb
- Ex tb op is IIIC T100°C Db
- BVS 17 ATEX E 013 X
- IECEx Certificate of conformity: IECEx BVS
 17.0004 X
- IP66/67

ELECTRICAL RATINGS

- Voltages: 110-277 VAC; 127-270 VDC
- Input power: 49W, 98W, 147W, 196W, 245W, 294W

OPTIONS AND ACCESSORIES

- Wide, narrow and asymetric beam options
- Pole mounting



60,000 hour rated life at 55°C ensures years of reliable performance in hazardous IEC applications

- A Modular design Provides six models with light output ranging from 5,000 lumens up to 32,000 lumens.
- **B** High efficiency LEDs Delivers up to 110 lm/W, reducing energy costs by up to 70% over conventional lamps.
- **C** Easy installation and maintenance Ex-e compartment provides quick access to the driver and terminals.
- Simple, flexible alignment Stainless steel swivel bracket with adjustable setting angle allows an easy alignment of the floodlight.
- **Custom optics** Wide and narrow beam pattern options distribute light where you need it most.
- **Built to last** Designed for offshore and high vibration applications.





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

DESIGN FEATURES

- A **Retrofittable to install base** Adapter available for connection to existing Hazard•Gard[®] EVI, EVLP and EVIM modules.
- **Quick-connect design** Install and wire the mounting module, then simply screw in the luminaire.
- **G** Factory sealed No external sealing fittings required in Groups B, C and D.
- 60,000 hours rated life Eliminates the need for frequent lamp replacement.
- **Shock- and vibration-resistant -** The LED housing is constructed of durable die cast aluminum, providing efficient long life.

Hazard-Gard[™] EVLL LED luminaires

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

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
EVLL5L	100W-150W	Up to 62%
EVLL7L	150W-175W	reduction in
EVLL9L	175W-250W	energy costs and 60,000 hours of
EVLL11L	250W-320W	continuous
EVLL13L	320W-400W	operation!

CERTIFICATIONS & COMPLIANCES

- Class I, Division 1, Groups B, C, D
- Class I, Zone 1, Groups IIB + H₂, IIB, IIA
- Class II, Groups E, F, G
- Class III, Simultaneous Presence
- UL844; UL1598; UL1598A
- CSA C22.2 No. 137
- NEMA 4X, IP66, Wet Locations
- CE
- ATEX/IECEX, Zone 1/21

ELECTRICAL RATINGS

- Voltages: 120-277 VAC/108-250 VDC, 347-480 VAC
- Input power: 56W, 85W, 112W, 115W, 149W

- Trunnion mount
- Guard
- Color temperature: warm (3000K) or cool (5000K)
- Pendant, ceiling, stanchion and wall mounts
- Epoxy painted



Hazardous Area High/Mid Bay

Zone 1/21 Zone 2/22

LPL LED light fixtures

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

Model Number	Equivalent HID Luminaire	Typical Energy Savings/ Lifetime
LPL 18-C57-4L	70W-100W	
LPL 18-C57-5L	70W-100W	
LPL 18-C57-6L	150W-175W	
LPL 18-C57-7L	150W-175W	Up to 60% reduction in
LPL 18-C57-9L	175W	energy costs
LPL 18-C57-10L	250W	
LPL 18-C57-12L	250W-400W	
LPL 18-C57-14L	400W	

CERTIFICATIONS & COMPLIANCES

- Ex db eb IIC T6/T5 Gb
- Ex tb IIIC T80°C/T95 C Db

Ambient temperature

- Non-EM: -40°C to +40°C/45°C/55°C
- EM: -40°C to +45°C/55° C

ELECTRICAL RATINGS

 Voltage: Non-EM: 100-277 VAC 50/60Hz, 127-250 VDC. EM: 100-240 VAC 50/60Hz, 127-250 VDC

OPTIONS AND ACCESSORIES

- Cold white (5,700K) and warm white (3,000K) are available
- Mounting: Pipe mounting and "U" shape bracket
 available



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

- A 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 -** Innovative heatsink ensures long life in extreme environments.
- C Lead-free and environmentally-friendly.
- **Emergency** Available with a self-contained battery system for emergency power loss applications.







Energy-efficient and globally certified explosionproof workhorse for general area and low/mid bay lighting applications

DESIGN FEATURES

- Rugged design Highly durable aluminum housing with a tempered and impact resistant glass globe. HPL fixture has an operating temperature range of -40°C to +50°C.
- **B** Lightweight and compact Low profile and lightweigh design is ideal for compact installations.
- **Ease of installation -** U-shaped yoke mount provides mounting flexibility wall, ceiling, pole, etc.

HPL LED light fixtures

PRIMARY APPLICATIONS

Certified for Zone 1, 2, 21 and 22 hazardous areas. Suitable for mid bay and low bay lighting applications in chemical, petrochemical, pharmaceutical, platforms, shipyards, loading docks, wastewater treatment and paper mills.

LUMINAIRE MODELS

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
HPL-3L	70W-100W	
HPL-5L	100W-150W	Up to 66%
HPL-7L	150W-175W	 reduction in energy costs
HPL-8L	150W-175W	_

CERTIFICATIONS & COMPLIANCES

- Ex db e mb IIC T6 Gb
- Ex tb IIIC T80°C Db IP66
- Ex tD A21 IP66 T80°C
- IECEx-Certification of Conformity: IECEx CQM
 15.0054X
- EC-Type Examination Certificate: EPT 16 ATEX 2405X
- GB Certificate: GYJ15.1157X
- IP66

ELECTRICAL RATINGS

- Voltages: 100-247 VAC; 108-250 VDC
- Input power: 30W, 50W, 70W, 80W

- Clear or diffused glass lens
- Warm white (3000K) and cool white (5700K) color temperatures
- Emergency back-up battery available



Hazardous Area

Cl. I, Div. 1 Cl. II, Div<u>. 1</u>

Hazard•Gard[™] XPL linear LED luminaires

PRIMARY APPLICATIONS

Ideal for Class I, Division 1 and Class II, Division 1 areas in wastewater treatment, oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, tunnels, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present.

LUMINAIRE MODELS

Model number	Equivalent fluorecsent luminaire	Typical energy savings/lifetime
XPL2	2 x 2 ft. T5/T8/ T12H0	Up to 53% reduction in energy costs and
XPL4	2 x 4 ft. T5/T8/ T12H0	60,000 hours of continuous operation!

CERTIFICATIONS & COMPLIANCES

- Class I, Division 1, Groups C, D
- Class II, Division 1, Groups E, F, G
- Class III
- UL844; UL1598; UL1598A
- CSA C22.2 No. 137
- NEMA 4X, IP66, Marine and Wet Locations, Paint spray rated

ELECTRICAL RATINGS

- Voltage: 100-277 VAC/108-250 VDC, 347-480 VAC
- Input power: 34W, 63W, 78W (EM model)

OPTIONS AND ACCESSORIES

- Glass or difussed glass lens
- Epoxy paint finish
- Flush, pole and swivel/surface mounts
- Polycarbonate paint spray lens shield kit
- Safety chain kit











XPL with emergency battery

Up to 53% more energy efficient than a T5HO fluorescent light and 8 times the rated life

- A High efficacy Up to 130 lumens per watt.
- **B** Custom optics Standard wide (120°) beam spread maximizes illumination on wall panels.
- **Built to last -** 2,000 psi high pressure hose down rated; passed 5G vibration test; 60,000 hour lifetime @ 55°C ambient.
- Slim profile Less than 5" fixture height (excluding mounting brackets), perfect for mounting in confined or low height areas.
- **Quick & easy installation** Easy access to drivers and wiring; no custom brackets or hardware needed; Two mounting options available.
- **Emergency battery back-up** 90-minute minimum run time at 700 lumens in emergency mode.





State-of-the-art LED technology with optimized thermal management and a time-tested, field-proven enclosure

DESIGN FEATURES

- A Superior performance and efficiency Up to 120 LM/W provides up to 40% energy efficiency compared to traditional fluorescent fixtures.
- **Built to last** Rated life of 100,000 hours at 25°C based on L90C5 provides long term, low-maintenance operation.
- Optimized light distribution Standard, narrow and wide beam optics optimise light distribution, providing light where the customer needs it with the potential to reduce the number of fixtures required.
- Low profile and lightweight Decreases footprint in confined applications and reduces installation effort while still providing IK10.
- **Drop-in mounting capability to eLLK fluorescent -** Same fixing point as eLLK 2x18W fixtures and a mounting kit is available allowing for easy replacement of 2x36W and 2x58W without changing cables.

Hazardous Area

CEAG[™] ExLin LED linear light fixtures

Zone 1

Zone 2

PRIMARY APPLICATIONS

Approved for use in Zone 1 and 2 hazardous areas, ExLin provides longer life, improved efficiency and superior performance with a competitive payback versus fluorescent fixtures. Designed to provide general illumination where moisture, dust, corrosion and extreme temperature exist.

LUMINAIRE MODELS

Model number	Equivalent fluorescent luminaire	Typical energy savings/lifetime
ExLin 3L-1	2 x 18W	Up to 40% reduction in
ExLin 5L-1	2 x 36W	energy costs and a rated life of
ExLin 7L-2	2 x 58W	100,000 hours at 25°C

CERTIFICATIONS & COMPLIANCES

- Ex II 2 G Ex eb ib op is q IIC T4 Gb
- Ex eb ib op is q IIC T4 Gb
- IECEx-Certification of Conformity: IECEx BVS
 18.0028X
- EC-Type Examination Certificate: BVS 18 ATEX E
 037 X
- IP66/67

ELECTRICAL RATINGS

- Voltages: 110-277 VAC/DC
- Input power: 22W, 44W, 67W

- Clear or diffused lens
- Standard, narrow, and wide beam options
- Pole adapter



Hazardous Area Linear

Zone 1/21 Zone 2/22

CEAG[™] eLLK LED linear light fixtures

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

Model number	Equivalent Iuminaire	Battery	Typical energy savings/ lifetime
eLLK LED 400A	2x18W fluorescent	No	Up to 20%
eLLK LED 800A	2x36W fluorescent	No	reduction in energy costs and 60,000
eLLK LED 400A NE	2x18W fluorescent	Yes	hours of
eLLK LED 800A NE	2x36W fluorescent	Yes	operation!

CERTIFICATIONS & COMPLIANCES

- 🐵 II 2G Ex de mb IIC T4 Gb
- 🚱 II 2D Ex tb IIIC T80 °C Db IP66
- BVS 09 ATEX E 034
- Ex de mb IIC T4 Gb/Ex tb IIIC T80 °C
- IECEx BVS 09.0033

ELECTRICAL RATINGS

- Voltages: 110-254 VAC, 110-250 VDC; 50/60 Hz
- Input power: 2x13W, 2x26W

OPTIONS AND ACCESSORIES

- LED module 400A (2x13W) for eLLK/M 92 018/18
- LED module 800A (2x26W) for eLLK/M 92 036/36
- Self contained battery system (NE models)
- Available with V-CG-S module for monitoring with an Eaton central battery system



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

- 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.
- **Retrofit friendly** Retrofits to existing eLLK/nLLK fixtures with existing EVG 09 ballast or as a complete unit.
- Emergency eLLK NE models include a 7 Ah-NC battery with LED display and monitoring via microprocessor. Provides 1.5 or 3 hours of emergency lighting.





Rugged, low profile fixture that is easy to install and provides clear illumination in Zone 1, 2, 21 and 22 hazardous areas

DESIGN FEATURES

- Rugged design Copper-free aluminum housing and impact-resistant polycarbonate lens provide excellent resistance to corrosion and heat.
- **B** Easy installation Lightweight design, hinged cover, and a terminal block wing for easy installation and maintenance.
- **Industry leading thermal management -** For safe and reliable operation over a wide temperature range.
- **Retrofit friendly** Fixture utilizes the same mounting footprint of linear fluorescent lighting.

Hazardous Area Linear Zone 1/21 Zone 2/22

CEAG[™] HLL LED linear light fixtures

PRIMARY APPLICATIONS

Cconstructed with an aluminum housing and high impact-resistant polycarbonate cover, providing extreme durability and reliability in Zone 1, 2, 21 and 22 hazardous areas. Designed for use in hazardous areas where moisture or corrosion may be a problem, such as offshore oil platforms, pharmaceutical and chemical plants, oil refineries and industrial locations.

LUMINAIRE MODELS

Model number	Equivalent luminaire	Typical energy savings/lifetime
HLL-2-2L	2x18W	Up to 72%
HLL-2-3L	2x36W	reduction in energy costs and
HLL-4-4L	2x36W	50,000 hours of continuous
HLL-4-5L	2x58W	operation!

CERTIFICATIONS & COMPLIANCES

- Ex db ec IIC T5/T6 Gc
- Ex ec IIC T5/T6 Gc
- Ex db ec ib mb IIC T5/T6 Gc
- Ex ec ib mb IIC T5/T6 Gc
- Ex tb IIIC T80°C Db
- IECEx-certification of conformity: IECEx CQM
 16.0030X
- EC-Type examination certificate: CML 17ATEX3305X
- IP66

ELECTRICAL RATINGS

- Voltages: 100-240 VAC, 108-250 VDC
- Input power: 30W, 40W, 60W, 80W

- Epoxy coating on aluminum housing
- Emergency battery back-up
- Pipe, wall, and ceiling mounts available



Hazardous Area Low Bay/Targeted

Cl. I, Div. 1 Cl. II, Div. 1 Zon<u>e 1</u>____

Hazard-Gard[™] EV LED light fixtures

PRIMARY APPLICATIONS

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

LUMINAIRE MODELS

Model number	Equivalent luminaire	Typical energy savings/lifetime
EVLEDC201	100W-200W incandescent	Up to 85% reduction in energy costs and
EVLEDC701	70W-100W HID	50,000 hours of continuous operation!

CERTIFICATIONS & COMPLIANCES

- Class I, Division 1, Groups C, D
- Class I, Zone 1 & 2, Group IIB
- Class II, DIvision 1, 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: 15W, 30W

OPTIONS AND ACCESSORIES

- Amber color for wildlife-friendly applications
- Color temperature: cool white (3000K) and warm white (5600K)
- 24-27 VDC

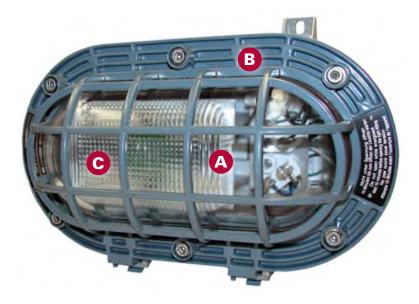


Up to 85% reduction in energy costs and 50,000 hours of continuous operation

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



Ex-Gas Ex-Dust Adverse +55°C -55°C



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

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.
- Instant illumination and restrike Decreases facility downtime; no warm-up time required.

AB05 LED marine wallpack

PRIMARY APPLICATIONS

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

LUMINAIRE MODELS

Model number	Equivalent Iuminaire	Typical energy savings/lifetime
AB05	150W incandescent	Up to 80%
60,000 hours of continuous operation!		

CERTIFICATIONS & COMPLIANCES

- Zone 1, 2, 21, 22
- Ex d IIB T6
- Ex II 2 G Ex d IIB T6/T5 Gb
- Ex 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: 32W



Champ[™] Pro PFM 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

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
PFM3L	70W	
PFM5L	100W-150W	_
PFM7L	150W-175W	_
PFM9L	175W-250W	 Up to 78%
PFM11L	250W-400W	reduction in energy costs and 60,000 hours of
PFM13L	400W	
PFM15L	400W-500W	continuous
PFMA20L	600W-750W	operation!
PFMA25L	750W-1000W	_
PFMA40L	1,500W+	_
PFMA50L	1,500W+	_

CERTIFICATIONS & COMPLIANCES

- UL1598; UL1598A; UL8750
- cUL
- Type 4X
- IP66
- DesignLights Consortium[®] approved for select models*



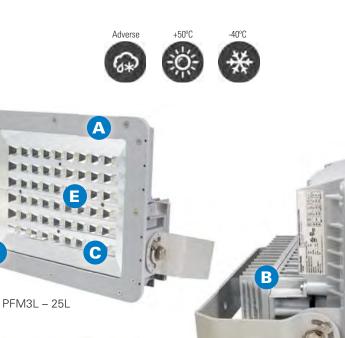
- UL approved up to 65°C ambient (3L-15L)
- cUL Listed to CSA Standard CSA C22.2 No. 250
- IEC Standards: IEC 60598; CE

ELECTRICAL RATINGS

- Voltages: 100-277 VAC, 347-480 VAC, 108-250 VDC
- Input power: 28W, 45W, 62W, 79W, 99W, 112W, 131W, 175W, 216W, 340W, 411W

OPTIONS AND ACCESSORIES

- Bolt-on visor and Bolt-on wire guard
- Floodlight slipfitter (not available on 40L & 50L)
- Slipfitter wall mount adapter (not available on 40L & 50L)
- Polycarbonate lens
- Diffused glass lens
- Dimmable driver (NEC only)
- 3x3 optic (select models)





Up to 6 times longer life and 78% reduction in power consumption compared to equivalent HID floodlights

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.
- B Rugged heat sink Designed to perform in high ambient temperatures up to +65°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.
- **G** High lumen output Up to 120 lumens per watt.
- 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 and diffused glass options available.
- **Smaller and lighter -** 25% smaller and 10 lbs (4.5 kg) lighter than previous model (3L-25L models).





Adverse

+65°C

-40°C



PVM13L and 17L



PVM21L and 25L

PVM3L - 11L

Custom Type I, III and V optics for better output, zero maintenance and reduced energy consumption

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.
- **High efficiency drivers -** Designed to provide reliable operation in even the harshest environments.
- 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.
- **Custom optics** Type I, III and V optics designed to maximize light distribution and intensity.

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



Harsh & heavy industrial High/Mid Bay

Champ[™] Pro PVM LED light fixtures

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

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
PVM3L	70W-100W	
PVM5L	100W-150W	_
PVM7L	150W-175W	Up to 77%
PVM9L	250W-320W	reduction in
PVM11L	320W-400W	energy costs and 60,000 hours of
PVM13L	400W	continuous
PVM17L	400W-600W	operation!
PVM21L	600W-750W	_
PVM25L	750W-1,000W	_

CERTIFICATIONS & COMPLIANCES

- UL1598; UL1598A
- cUL
- NEMA 4X, IP66, Wet Locations



- cUL Listed to CSA Standard CSA C22.2 No. 250
- IEC standard: CE
- UL approved up to 65°C ambient (3L-11L UNV1; all other models 55°C)

ELECTRICAL RATINGS

- Voltages: 120-277 VAC/108-250 VDC, 347/480 VAC
- Input power: 29W, 41W, 54W, 74W, 89W, 130W,
 - 168W, 196W, 232W

- Quick clip
- Diffused lens
- Teflon coated lens
- Polycarbonate lens
- Wire guard
- Trunnion mount
- Cone top hat
- Occupancy sensor and remote
- * Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

Champ[™] Pro PVMA LED light fixtures

PRIMARY APPLICATIONS

Ideal for a variety of non-hazardous medium or heavy-duty applications such as mining, marine, food processing, pulp and paper, wastewater treatment, power generation, and general industrial manufacturing areas.

LUMINAIRE MODELS

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
PVMA5L	150W	Up to 77% reduction in energy costs and
PVMA7.5L	175W	60,000 hours of continuous operation!

CERTIFICATIONS & COMPLIANCES

- UL1598; UL1598A
- CSA C22.2 No. 250
- IP66, Wet Locations
- RoHS
- IEC Standards: IEC 60598; CE
- DesignLights Consortium[®] approved for select models*



ELECTRICAL RATINGS

- Voltage: 100-277 VAC, 347-480 VAC, 127-300 VDC
- Input power: 48W, 64W

OPTIONS AND ACCESSORIES

- Ceiling, pendant, cone pendant, wall, and trunnion mounts
- Safety cable
- Quick clip



Smaller footprint, lightweight design, and maintenance-free illumination in demanding environments

DESIGN FEATURES

- A Rugged design Engineered for durability in complex environments.
- **B** High efficiency Up to 122 LPW and custom optics to maximize light on the work plane.
- Ease of installation Compact footprint with ceiling, pendant, wall or stanchion mount options and the ability to retrofit Crouse installed base.





Low profile and lightweight design, easy to install and reliable illumination is demanding environments

DESIGN FEATURES

- Rugged design Highly durable aluminum housing with a tempered and impact resistant glass globe. PLE fixture has an operating temperature range of -40°C to +55°C.
- B Lightweight and compact Low profile and lightweigh design is ideal for compact installations.
- **Ease of installation -** U-shaped yoke mount provides mounting flexibility wall, ceiling, pole, etc.

Harsh & heavy industrial Mid/Low Bay

PLE LED light fixtures

PRIMARY APPLICATIONS

Ideal for a variety of non-hazardous medium or heavy-duty applications such as mining, platforms, loading docks, tunnels, and general industrial manufacturing areas.

LUMINAIRE MODELS

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
PLE-3L	70W-100W	
PLE-5L	100W-150W	Up to 66% reduction in
PLE-7L	150W-175W	energy costs
PLE-8L	150W-175W	

CERTIFICATIONS & COMPLIANCES

- IEC Standard: CE
- IP66

ELECTRICAL RATINGS

- Voltages: 100-240 VAC; 108-250 VDC
- Input power: 30W, 50W, 70W, 80W

- Emergency battery
- Clear or diffused glass lens
- Warm white (3000K) and cool white (5700K) color temperatures



Harsh & heavy industrial

Champ[™] Pro PLL LED linear light fixtures

PRIMARY APPLICATIONS

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

LUMINAIRE MODELS

Model number	Equivalent fluorecsent luminaire	Typical energy savings/lifetime
PLL2	2 x 2 ft. T5/T8/ T12H0	Up to 63% reduction in energy costs and
PLL4	2 x 4 ft. T5/T8/ T12H0	60,000 hours of continuous operation!

CERTIFICATIONS & COMPLIANCES

- UL1598; UL1598A; UL924
- CSA C22.2 No. 250
- Type 4X, IP66, Wet Locations
- ABS design assessed



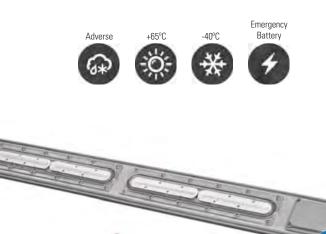
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ELECTRICAL RATINGS

- Voltage: 100-277 VAC, 347-480 VAC, 108-250 VDC
- Input power: 32W, 63W

OPTIONS AND ACCESSORIES

- Polycarbonate lens, available in clear or diffused
- Flush/back, ceiling/swivel, wall, offset wall, pole and pendant mounts
- Safety chain kit
- Epoxy painted or natural aluminum finish
- Emergency back-up battery option





Up to 63% more energy efficient than a T5HO fluorescent light and 8 times the rated life

DESIGN FEATURES

- Best-in-class efficacy Up to 123 lumens per watt.
- **Custom optics** Standard wide (120°) and narrow (80°) beam pattern for a wide variety of general and targeted lighting applications.
- **Built to last** 2,000 psi high pressure hose down rated; high vibration resistant; 60,000 hour lifetime @ 55°C ambient.
- Slim profile 2.7" fixture height (excluding mounting brackets), perfect for mounting in confined or low height areas.
- **Quick & easy installation** Easy access to drivers and wiring; no custom brackets or hardware needed; Seven mounting options available.



* Refer to www.designlights.org Qualified Products List under family models for full listing details. Not all models are approved for all application categories.

EATON'S CROUSE-HINDS LED lighting solutions

Adverse +55°C -40°C



Harsh & heavy industrial

Pauluhn[™] APEX LED linear light fixtures

PRIMARY APPLICATIONS

Replaces fluorescent T12, T8, and T5HO fixtures in hose down, corrosive and heavy industrial environments.

The APEX LED was designed with food and beverage processing facilities in mind. The fixture housing is angled to mitigate debris build-up and features a food-rated epoxy powder coat finish. Plus, its robust design can withstand 1,500 PSI hose pressure for wash down applications.

LUMINAIRE MODELS

Model number	Equivalent luminaire	Typical energy savings/lifetime
APX13L	3 lamp T5HO	Up to 50% reduction in
APX17L	4 lamp T5HO	energy costs and minimum 60,000 hours of
APX25L	6 lamp T5HO	continuous operation!

NSF Splash Zone rated, 1500 PSI hose down tested and an angled housing to mitigate debris build-up

DESIGN FEATURES

- Innovative and robust design Angled light fixture mitigates debris build-up. Withstands 1500 psi high pressure wash down, and food rated paint maintains safety.
- B High performance optics and drivers 100+ lumens per watt provides highly efficient lighting. Rated life is up to 60,000 hours of maintenance-free and safe operation.
- **C** Easily customized for application-specific performance Versatile mounting options with a through feed design for simplified multiple fixture wiring.

CERTIFICATIONS & COMPLIANCES

- UL1598; UL8750
- CSA 22.2 No. 250
- NSF Splash Zone
- Type 4X; IP66

ELECTRICAL RATINGS

- Voltages: 100-277 VAC/347-480 VAC, 127-250 VDC
- Input power: 122W, 144W, 217W

- Polycarbonate lens in clear or diffused
- Optional 0-10V dimming capabilities
- Surface/swivel mount, cable/chain mount and threaded rod mount
- Available with cord assemblies and quick disconnect receptacle



Pauluhn[™] Intrepid LED linear light fixtures



PRIMARY APPLICATIONS

A low/mid bay linear LED fixture for industrial and marine locations. The Intrepid is available with a non-metallic housing and is Type 4X / IP66 rated for moisture protection in hose down and marine applications.

LUMINAIRE MODELS

FPS2L2 x 2 ft. T8/Up to 63% reduction in energy costs and 60,000 hours of continuous operation!	Model number	Equivalent fluorecsent luminaire	Typical energy savings/lifetime
	FPS2L	2 x 2 ft. T8/	reduction in energy costs and 60,000 hours of continuous

CERTIFICATIONS & COMPLIANCES

- UL1598; UL1598A; UL924
- CSA C22.2 No. 250
- Type 4X
- IP66
- NSF Splash Zone
- ABS approved (pending)

ELECTRICAL RATINGS

- Voltage: 100-277 VAC
- Input power: 27W, 37W (EM model)

OPTIONS AND ACCESSORIES

- Red and Blue color LEDs for naval applications
- Emergency battery back-up
- Surface and pole mounts



A nonmetallic, corrosion-resistant LED fixture designed for hose down and <u>marine applications</u>

- Built to last Nonmetallic housing and stainless steel mounts and latches provide excellent resistance to corrosion.
- **B** Low-glare design Diffused lens minimizing glare in low mounting height applications.
- Color LED options Available with red or blue LEDs for naval or emergency applications.
- Installation-friendly Versatile options for terminal blocks and through feed.
- **Emergency** Available with a self-contained battery system for emergency power loss applications.





Rugged, low profile fixture that is easy to install and provides clear illumination in challenging areas

DESIGN FEATURES

- A **Rugged design** Copper-free aluminum housing and impact-resistant polycarbonate lens provide excellent resistance to corrosion and heat.
- **B** Easy installation Lightweight design, hinged cover, and a terminal block wing for easy installation and maintenance.
- **C** Industry leading thermal management For safe and reliable operation over a wide temperature range.
- **Retrofit friendly** Fixture utilizes the same mounting footprint of linear fluorescent lighting.

Harsh & heavy industrial

PLLE LED linear light fixtures

PRIMARY APPLICATIONS

Constructed with an aluminum housing and high impact-resistant polycarbonate cover for use in outdoor and indoor industrial areas where moisture or corrosion may be a problem, such as offshore oil platforms, pharmaceutical and chemical plants, oil refineries and industrial locations.

LUMINAIRE MODELS

Model number	Equivalent luminaire	Typical energy savings/lifetime
PLLE-2-C2-3L	2x18W	Up to 72%
PLLE-2-C2-4L	2x36W	reduction in energy costs and
PLLE-4-C2-5L	2x36W	60,000 hours of continuous
PLLE-4-C2-8L	2x58W	operation!

CERTIFICATIONS & COMPLIANCES

- CE self declared
- IP66

ELECTRICAL RATINGS

- Voltages: 100-240 VAC
- Input power: 30W, 40W, 60W, 80W

- Epoxy coating on aluminum housing
- Emergency battery back-up
- Pipe, wall, and ceiling mounts available



CEAG[™] LLK15 LED linear light fixtures

PRIMARY APPLICATIONS

Crisp, bright light and durability in wet and harsh environments. Wide ambient temperature range from -40° to +55°C. Heavy duty, non-metallic construction stands up to dust, dirt, gas, vapor, smoke, fumes, moisture, corrosive and wet conditions are present.

LUMINAIRE MODELS

Model number	Equivalent fluorescent luminaire	Typical energy savings/lifetime
LLK15 LED 600	2 x 18W	Up to 60% more
LLK15 LED 1200	2 x 36W	efficient than fluorescent light
LLK15 LED 1500	2 x 58W	fixtures



CERTIFICATIONS & COMPLIANCES

- Text
- IP66
- Operating temperature range -40°C to +55°C

ELECTRICAL RATINGS

- Voltage: 220-240 VAC
- Input power: 18W, 37W, 49W

OPTIONS AND ACCESSORIES

- Available with safety switch on request
- Wall mount brackets, ceiling mount brackets and pipe clamps

A rugged and durable LED fixture designed reliable performance in extreme ambient temperatures

- Built to last Heavy duty, non-metallic construction stands up to tough physical and environmental demands, making it an excellent choice where dust, dirt, gas, vapor, smoke, fumes, moisture, corrosive and wet conditions are present.
- **B** High output Utilizes long-life LED tubes for extreme applications, providing high efficacy and long life.
- **Extreme temperatures -** Rated for use in ambient temperatures from -40°C to +55°C
- Emergency Available with a self-contained battery system or V-CG-S module for monitoring with an Eaton central battery system.



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

DESIGN FEATURES

- Domeless reflector, low profile design Designed for low mounting heights and confined spaces where incandescent and HID based luminaires are too large.
- Installation and replacement made simple Installed using the same mounting modules as existing Eaton's Crouse-Hinds Vaporgard fixtures.
- 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.
- High power multi-die LED arrays Provides instant on and full illumination in the harshest conditions, even when exposed to high, repeated vibration.

Harsh & heavy industrial Low Bay/Targeted

Vaporgard[™] Pro P2L LED light fixtures

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

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
P2LM2	50W HID or — 150-200W	Up to 85% reduction in energy costs and
P3LM2	incandescent	50,000 hours of continuous operation!

CERTIFICATIONS & COMPLIANCES

- UL1598
- UL1598A Marine
- cUL Listed to CSA Standard CSA 22.2 No. 250
- Type 4X, IP66, Wet Locations
- DesignLights Consortium[®] approved for select models*



• IEC Standard: CE

ELECTRICAL RATINGS

- Voltages: 120-277 VAC, 12-24 VDC
- Input power: 14W, 29W

OPTIONS AND ACCESSORIES

- Frosted/Diffused lens
- Teflon coated lens
- Warm white (3000K), Neutral (400K) and cool white (5000K) color temperatures
- 10-30 VDC driver
- Wall, ceiling, pendant and stanchion mounts



Light industrial High Bay

Champ[™] Pro PVM High Bay LED

PRIMARY APPLICATIONS

A durable, high lumen solution for industrial areas with mounting heights from 60 to 100+ feet. Common applications include production facilities, clean rooms, packaging facilities and warehouses.

LUMINAIRE MODELS

Model number	Equivalent HID luminaire	Typical energy savings/lifetime
PVM60L	1000W	Up to 65% reduction in energy costs and
PVM85L	1500W	60,000 hours of continuous operation!

CERTIFICATIONS & COMPLIANCES

- cULus wet location
- Type 4X, IP66
- ROHS compliant
- DesignLights Consortium[®] approved for select models*



ELECTRICAL RATINGS

- Voltage: 277-480 VAC
- Input power: 472W, 678W

OPTIONS AND ACCESSORIES

- Two CCT colors: 4000K and 5000K at 85 CRI
- Medium, narrow, wide and extra wide optics
- Control options include standard fixed output or optional 0-10V dimming
- Universal mounting allows for suspended, pipe or hook mount. Optional surface mount bracket available
- Available with cord assemblies and plugs



+65°C

-40°C

Adverse

DESIGN FEATURES

- Best-in-class efficacy Up to 132 lumens per watt.
- Built to last Constructed of heavy duty, die cast aluminum with a 3G vibration rating and an operating temperature range of -40°C to +65°C.
- **Custom optics** Narrow, medium, wide and extra wide distribution options ensures superior performance to key areas within an application.
- Dimming capabilities Control options include standard fixed output or optional 0-10V dimming.





Perfect replacement for 400-1500 watt HID or 4-10 lamp T5HO fixtures

DESIGN FEATURES

- A Increased efficiency Up to 117 lumens per watt.
- B Multiple mounting options Available with pendant, aircraft cable or jack chain mounting.
- C Aluminum heat sinks for superior thermal management.
- Multiple lens options Tempered and clear glass standard, diffused glass and clear or diffused polycarbonate options available.
- **(B)** Optional occupancy sensor kit available.

Light industrial High Bay

Industrial High Bay LED light fixtures

PRIMARY APPLICATIONS

IHB LED luminaires are the perfect replacement for 250W-1,500W HID and 4-10 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

Model number	Equivalent luminaire	Typical energy savings/lifetime
IHB16L	250-500W HID or 4 lamp T5H0	
IHB24L	400-750W HID or 4-6 lamp T5H0	Up to 72% reduction in
IHB32L	500-1000W HID or 6-8 lamp T5H0	energy costs and 60,000 hours of
IHB48L	750-1,500W HID or 8-10 lamp T5HO	continuous operation!
IHB64L	1,000-1,500W HID or 10 lamp T5H0	

CERTIFICATIONS & COMPLIANCES

- UL1598; UL8750
- cULus
- Damp location
- DesignLights Consortium[®] approved for select models



ELECTRICAL RATINGS

- Voltages: 100-277 VAC/127-250 VDC, 347-480 VAC
- Input power: 145W, 216W, 289W, 436W, 582W

OPTIONS AND ACCESSORIES

- Occupancy sensor kits
- Diffused or clear lens (glass or polycarbonate)
- Lens guard
- Open ended and closed dust cover kits
- Dimmable driver
- Wide or aisle optic
- Pendant, aircraft cable or jack chain mounting





















Why are so many facilities making the switch to Crouse-Hinds series LED?

The numbers say it all.



Assumptions: Calculations based on overall life of the LED system. Energy cost of \$.09 per kilowatt; 24 hour per day operation; labor rate of \$75 each for 2 workers; average time for fixture maintenance of 1 hour.

LED vs. Conventional lighting technologies

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