Hazard•Gard® EVLL Series LED

Crouse-Hinds
by **E:T•N**

Hazard•Gard EVLL LED

Safe.
Reliable.
Efficient.

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

Why LED?

Useful life
Rated life of 60,000 hours of maintenance-free and safe operation

Energy efficiency
LED average energy consumption is 50% less than HID and 85% less than incandescent

Start/restart time
Instant illumination compared to 10 minute restrike time for HID

Light quality
Higher color rendering and color temperature compared to fluorescent

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

Why Crouse-Hinds?

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

Thermal management
Effective heat sinking ensures longer life

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

Retrofit compatibility
LED fixtures are compatible with Crouse-Hinds' HID installed base

Why Hazard•Gard EVLL LED?

Designed for hazardous areas. Hazard•Gard EVLL LED luminaires are engineered to stand up to the demanding conditions faced in Class I, Division 1 environments. The rugged design and efficient heat dissipation stands up to challenging conditions while delivering long life and high lumen performance.

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

Rugged design
- The LED housing is constructed of durable die cast aluminum, providing an efficient thermal path to the heat sink assembly.
- Impact-resistant lens is sealed from the outside environment and provides ingress protection against water and dust.
- Multi-die LEDs are used to provide energy-efficient, long life white light.

Robust heat sink
- Heat sink designed to perform in high ambient temperatures up to +65°C* and as low as -25°C.
- Thick walled castings make for a tough, rugged housing that keeps the internal driver and LED temperature down.
  * EVLL5L-EVLL9L models

Optional color temperatures
- Warm and cool white color temperatures available.

Easy installation and replacement
- Contractor-friendly design is ideal for both retrofit and new construction applications.
- Installed using the same mounting modules as existing Hazard•Gard Series luminaires.
- Quick-connect design facilitates installation – install and wire the mounting module, then screw in your luminaire. Two start Acme threads ease and reduce installation time.

Case study: HID to LED retrofit

Location:
Petrochemical facility

Challenge:
Find a rugged, low maintenance solution to replace existing 400W pulse start metal halide HID luminaires

Solution:
Install EVLL13L, 149W LEDs

Results:
Energy consumption was reduced by 62%. Quick-connect design mounting modules made installation easy, and lamp maintenance was virtually eliminated.

Features & benefits

Hazard•Gard EVLL LED luminaires

The hazardous rated Hazard•Gard EVLL LED luminaire is used for general lighting in areas where flammable or explosive vapors or gases are present.

Model number	Nominal lumens	Wattage*	Equivalent HID luminaire	Typical energy savings/lifetime
EVLL5L	5,734	56	100W-150W	62% energy savings and over 60,000 hours of continuous operation!
EVLL7L	8,293	85	150W-175W	
EVLL9L	10,313	115	175W-250W	
EVLL11L	10,997	112	250W-320W	
EVLL13L	13,583	149	320W-400W	

* UNV1 at 120 VAC.

Applications:

- For areas with mounting heights of up to 30 feet
- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flyings are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- NEMA 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

LED system lifetime rated versus economic life:
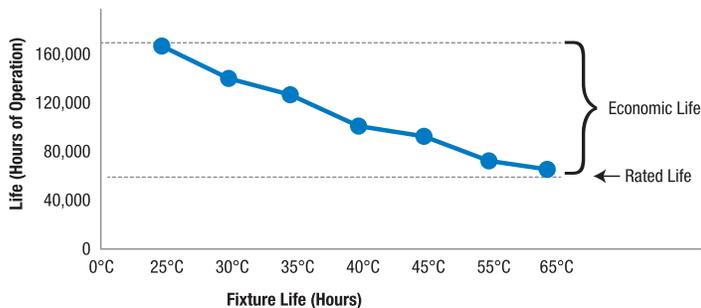
Economic life can range anywhere between 60,000 to 160,000 hours, or 8 to 20 years of maintenance-free operation.

Fixture life and years of maintenance-free operation

Ambient temperature	Fixture life (hours)	No. of years at 24 hours usage	No. of years at 12 hours usage
25°C	167,896	19	38
40°C	107,055	12	24
55°C	68,261	8	16
65°C	64,286	7	14

Fixture life:

- EVLL5L-EVLL9L: rated life of 60,000 hours @ 65°C operating ambient and 24/7 continuous operation for 365 days
- EVLL11L-EVLL13L: rated life of 60,000 hours @ 55°C operating ambient and 24/7 continuous operation for 365 days
- Economic life of >160,000 hours @ 25°C ambient
- L70 >150,000 hours @ 55°C

Hazard•Gard EVLL LED benefits:

Industry best ease of installation

- Quick-connect design – install and wire the mounting module, then simply screw in the luminaire
- Factory sealed – no external sealing fittings required in Groups B, C and D
- Adapter available for connection to existing Hazard•Gard EVI, EVLP and EVM modules

Reduce operation and maintenance costs

- Energy-efficient – up to 62% reduction in energy used versus equivalent HID fixtures
- 60,000 hours rated life – eliminates need for frequent lamp replacement

Reliable performance in any environment

- Shock- and vibration-resistant solid-state luminaires have no filaments or glass components that could break – greatly reduces the risk of premature failure
- T5 temperature rating
- 5 year fixture warranty‡

‡Extension of standard terms and conditions to five years. Refer to page 2 of the D-0914 authorized distributor price book for Crouse-Hinds standard Terms and Conditions.

Operating ambient temperature:

EVLL:
- -25°C to 65°C (EVLL5L - EVLL9L)
  -25°C to 55°C (EVLL11L & EVLL13L)

nEVLL:
- -20°C to 65°C (nEVLL5L - nEVLL9L)
  -20°C to 55°C (nEVLL11L & nEVLL13L)

Certifications and compliances:

EVLL models

NEC and CEC
- Class I, Division 1, Groups B, C, D
- Class II, Groups E, F, G
- Class III, Simultaneous Presence
- Wet Locations, NEMA 4X, IP66

UL Standards
- UL844; UL1598; UL1598A

CSA Standard
- CSA C22.2 No. 137

nEVLL models

IECEx/ATEX
- Ex II 2G Ex d IIC (Zone 1, 2)
- Ex II 2D Ex tD A21 IP66 (Zone 21, 22)

ATEX
- DEMKO 14 ATEX 1302151X
- CE

IECEx
- IECEx UL 14.0053X

EMC
- 2004/108/EC

Specifications

Electrical ratings:

	EVLL5L	EVLL7L	EVLL9L	EVLL11L	EVLL13L
Voltage range, VAC	120-277	120-277	120-277	120-277	120-277
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input power (watts)	56	85	115	112	149
Input amps at 100-277 VAC	0.47-0.21	0.72-0.32	0.96-0.42	0.94-0.41	1.25-0.54
Voltage range, VDC	108-250	108-250	108-250	108-250	108-250
Input amps at 108-250 VDC	0.53-0.23	0.81-0.35	1.08-0.46	1.07-0.45	1.43-0.60
Power factor	>0.95	>0.95	>0.95	>0.95	>0.95
Maintained lumens	5,734	8,293	10,313	10,997	13,583

Standard materials:

- Body and mounting modules – copper-free aluminum with Corro-free™ epoxy powder coat
- Lens – shatter-resistant, explosionproof glass
- Gaskets – silicone
- Guard – stainless steel
- External hardware – stainless steel
- Factory sealed*

* Refer to Installation and Maintenance Sheet for external seal requirements.

LED system:

- Cool white (5000K), CRI 70
- Warm white (3000K), CRI 80
- Array complies with requirements of LM79 and LM80

Temperature codes:

Model number	Max. ambient temp. °C	Class I, Div. 1	Class II, Div. 1 & 2	Class I, II simultaneous
EVLL5L	40°	T6	T5	T5
	55°	T6	T5	T5
	65°	T5	–	–
EVLL7L	40°	T6	T5	T5
	55°	T6	T5	T5
	65°	T5	–	–
EVLL9L	40°	T6	T5	T5
	55°	T6	T5	T5
	65°	T5	–	–
EVLL11L	40°	T6	T5	T5
	55°	T6	T5	T5
EVLL13L	40°	T6	T5	T5
	55°	T6	T5	T5

Model number	Max. ambient temp. °C	Zone 1	Zone 21
nEVLL 5L, 7L, 9L	65°	T6	95
nEVLL 11L, 13L	55°	T6	95

Weights:

Model number	Lbs.	Kg.
EVLL5L	51.76	23.48
EVLL7L	51.81	23.50
EVLL9L	52.38	23.76
EVLL11L	53.00	24.04
EVLL13L	53.00	24.04
Add additional weights for mounting module		
Pendant mount	2.00	0.90
Ceiling mount	3.50	1.59
Wall mount	3.00	1.36
Stanchion mount	5.50	2.49
Adapter	2.00	0.90

Ordering information

Part number example

EVLL5LCA20/UNV1

*Hazard•Gard EVLL, NEC and CEC certified 5,734 lumen, cool white, pendant mount, ¾" NPT hubs, UNV1 driver*

n EVLL 5L C A 2 0 /UNV1

### Certification

n	IEC certified
BLANK	NEC and CEC certified

Lamp/function

5L	5,734 lumen LED
7L	8,293 lumen LED
9L	10,313 lumen LED
11L	10,997 lumen LED
13L	13,583 lumen LED

Color temperature

C	Cool (5000K)
W	Warm (3000K)

Mounting style

BLANK	Mounting module adapter or no mounting module
A	Pendant EVSP
BX	Wall bracket EVSW
CX**	Ceiling mount EVSC
J	Stanchion EVSJ
M*	Mounting module adapter EVSA

* EVSA adapter for use with existing Crouse-Hinds EVI, EVLP and EVM mounting modules.

** nEVLL only available with ceiling mount or trunnion with ceiling mount.

Suffixes

S812	Trunnion mount kit

Voltage

/UNV1	120-277 VAC, 50/60 Hz; 108-250 VDC
/UNV34	347-480 VAC, 50/60 Hz

Guard

0	No guard
1	Stainless steel

Hub size

BLANK	Mounting module adapter or no mounting module
2	¾" NPT *(pendant, ceiling and wall only)*
3	1" NPT *(pendant, ceiling and wall only)*
5	1-½" NPT *(stanchion only)*
25	25 mm *(pendant, ceiling and wall only)*
32	32 mm *(pendant, ceiling and wall only)*

Mounting options and dimensions:

Pendant

Ceiling

nEVLL only available with ceiling mount.

Stanchion

Wall

Family tree
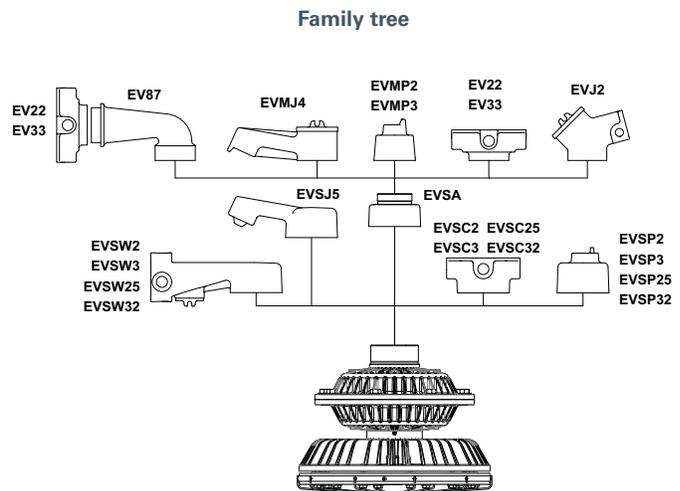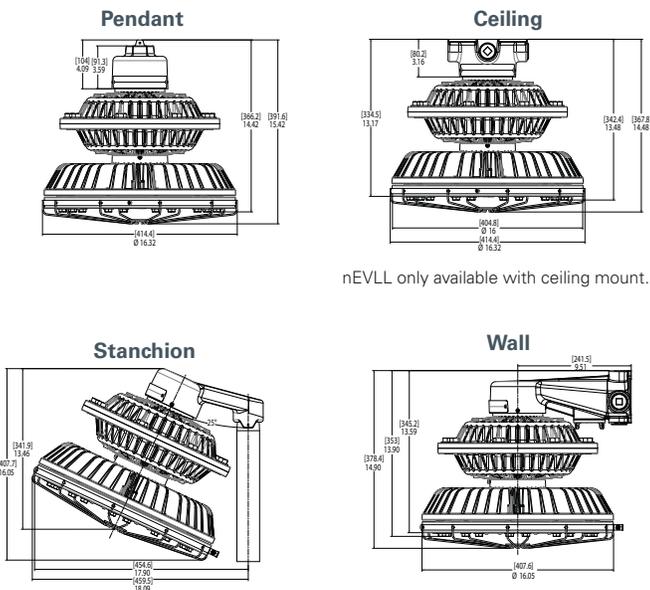
Photometric data

Polar plot candela
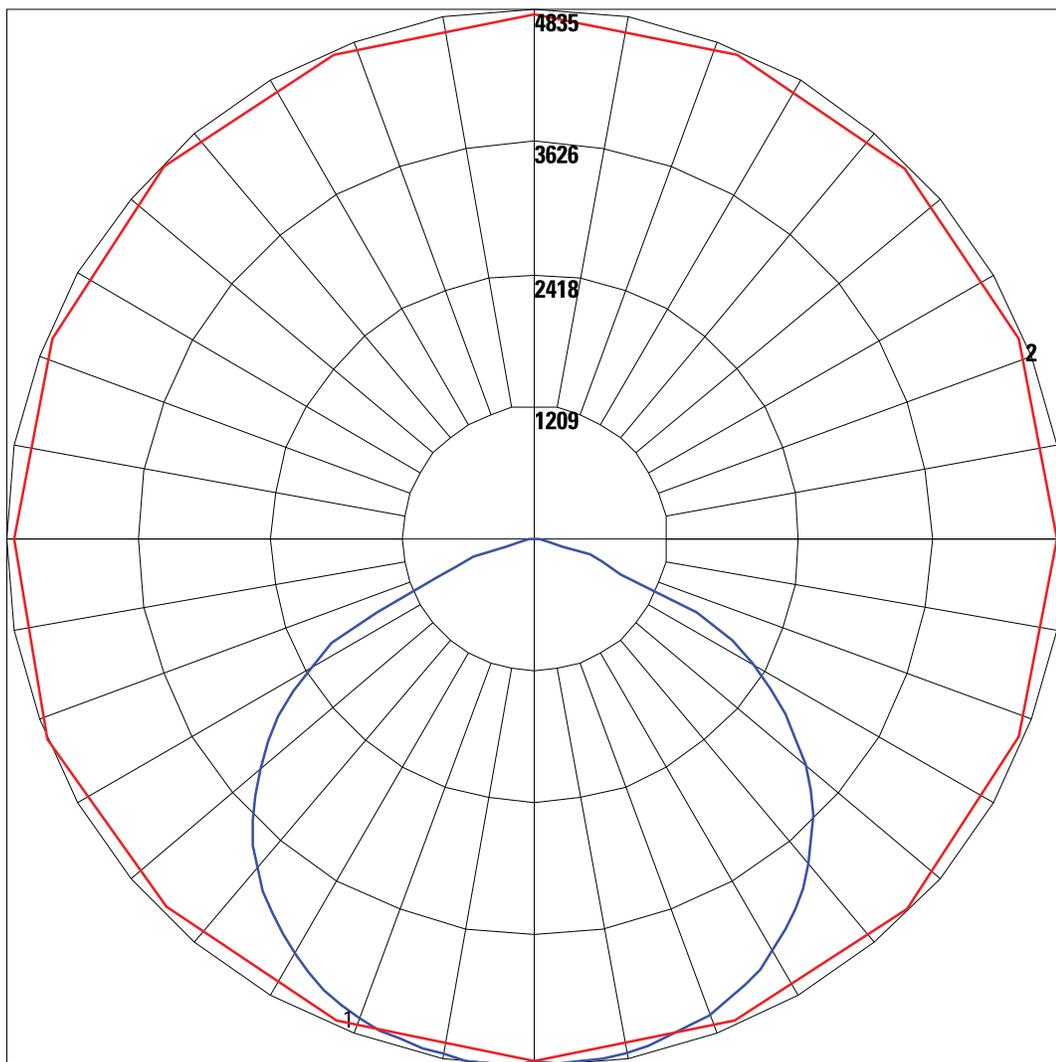
EVLL13 LED (175 Watt)

Zone	% of luminaire
0-30	28.5%
0-40	47.7%
0-60	86.4%
0-90	100.0%
90-180	0.00%
0-180	100.0%

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