VLL LED

Zone 1 GRP linear fixtures

Safe. Reliable. Efficient.

F·A·T·N

Powering Business Worldwide

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 50,000 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

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Features & specifications

The Zone 1 VLL product Series LED Luminaires with high-quality international brand LED chips, have extremely long lifespan. Multiple versions of the LED are available, providing ideal solutions for indoor or outdoor areas to retrofit existing fluorescent fixtures.

Model	Nominal* lumens	Wattage	Efficacy	Equivalent fluorescent
VLL-3L	3100	<25W	>130~Lm/W	2x18W
VLL-5L	6400	<50W	>130~Lm/W	2X36W
VLL-7L	7400	<60W	>130~Lm/W	2X54W

*Lumen values apply to 5700K light color, 70 CRI fixtures. Lumen output may vary slightly for different models.
*Tolerance+/-10%

Application

- Locations where require continuous and consistent light levels in extreme ambient temperatures
- Areas requiring frequent on-and-off of lights
- Where flammable vapors, gases, ignitable dusts, fibers or flyings are present; indoors or outdoors
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Marine, wet locations and hose-down environments
- Manufacturing plants; heavy industrial, chemical, petrochemical or pharmaceutical facilities; platforms; loading docks; tunnels

Benefits:

EFFICIENCY

- Industry leading lumen efficacy up to 130~lm/w reduces energy consumption and delivers cost savings.
- Three lumen packages available from 3100 to 7400lm providing a versatile solution for different illumination applications.

SAFETY AND RELIABILITY

- Rugged design for extremely harsh environments, IP66 even under vibration.
- Optional self-contained battery for emergency lighting applications delivers 25% of standard lumen output for 1.5-hours or 3-hours.

EASY INSTALLATION AND MAINTENANCE

- Retrofit- friendly with optional sliding rail mounting system, allowing brackets to be easily adjusted to existing mounting holes.
- Self-monitoring status battery indicator makes easy for maintenance check.
- Inhibit switch comes as standard for our emergency fitting which is suitable for offshore unmanned platform application.

LED vs. fluorescent savings at a glance

Why are so many facilities making the switch from fluorescent to LED? The numbers say it all.

VLL-5L vs. x 36W Fluorescent

40% REDUCTION IN ENERGY COSTS

66% LOWER TOTAL COST OF OWNERSHIP

100% LAMP MAINTENANCE REDUCTION
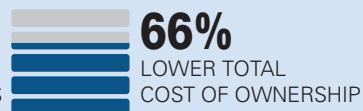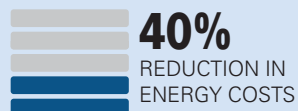
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Standard materials

- Enclosure-Glass Fiber Reinforced Plastic (GRP)
- Diffuser-Polycarbonate (PC)
- Gaskets-Silicone
- Fasteners-All external fasteners stainless steel

LED system:

- Cold white 5700K
- Optional 3000K, 4000K, 5000K
- All series feature field replaced LED modules
- Fog diffuser with harmful glare protection as standard
- Rated life of 5 years at 55°C provides long term, low-maintencnce operation.

Certifications and compliances

- Marking accd.to IECEx

  Ex eb mb IIC T5 Gb or Ex db eb mb IIC T5 Gb
  / Ex db eb ib mb IIC T5Gb (EM)*
  Ex tb IIIC T80°C Db

- Marking accd.to ATEX

  II2 G Ex eb mb IIC T5 Gb

  II2 G Ex db eb mb IIC T5 Gb

  II2 G Ex db eb ib mb IIC T5 Gb(EM)

  II2 D Ex tb IIIC T80°C Db
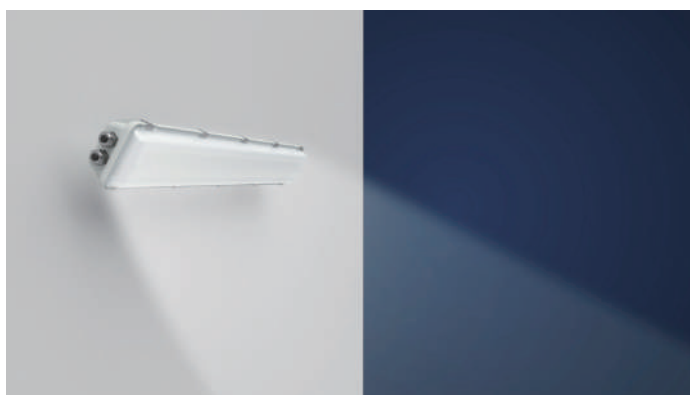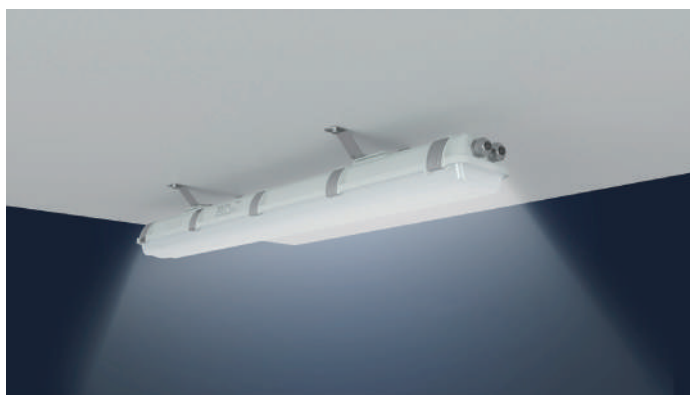
Technical data

IECEx-certification of conformity	IECEx NEP 21.0020X, SEV 22 ATEX 0584X
Ex Marking	Ex eb mb IIC T5 Gb or Ex db eb mb IIC T5 Gb / Ex db eb ib mb IIC T5Gb (EM)* Ex tb IIIC T80°C Db
Ambient temp	-40°C to 55°C (Normal) -25°C to 45/50°C (Emergency)
Rated input volt	100-240VAC 50/60Hz, DC 105-250V
Power factor	>0.9
Color Temperature	5700K as standard, 3000K,4000K,5000K is available.
CRI	Cool white>70 as standard, CRI>80 is optional
System watt*	VLL 3L series: <30W VLL 5L series: <55W VLL 7L series: <65W
Lumen output	VLL 3L series:3100Lm VLL 5L series:6400Lm VLL 7L series:7400Lm
Material	GRP and PC
Weight	VLL 3L series Normal and EM: 4.3Kg / 5.8Kg VLL 5L /7L series Normal and EM: 7.5Kg / 9.8Kg
Terminals	Max 6mm²
Entry Size	M20 as standard, M25 is available.
Out line dimension	VLL 3L series: 732x178x125 VLL 5L /7L series:1333x178x125
Backup duration & Lumen percentage	Standard version EM1=1.5h,25% output. EM2=3h, 25% output is available.
IP(IEC60598)	IP66

*Isolation switch is available as optional
*Tolerance+/-5%

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Ordering Information:

Product Type	Colour Temp[1]	Terminals	Throughwiring Single-ended	Throughwiring Twin-ended	Entry Threaded	Threaded Plug[2]	Blanking plug	Part No.[3]
VLL 3L								
VLL-3L-57-1/6-120-N	5700K	1x6	●	-	2xM20	1	1	CCL2004126
VLL-3L-57-2/6-220-N		2x6	-	●	4xM20	2	2	CCL2004130
VLL 3L Emergency								
VLL-3L-57-EM1-1/6-120-N	5700K	1x6	●	-	2xM20	1	1	CCL2004134
VLL-3L-57-EM1-2/6-220-N		2x6	-	●	4xM20	2	2	CCL2004138
VLL 5L								
VLL-5L-57-1/6-120-N	5700K	1x6	●	-	2xM20	1	1	CCL2004174
VLL-5L-57-2/6-220-N		2x6	-	●	4xM20	2	2	CCL2004178
VLL 5L Emergency								
VLL-5L-57-EM1-1/6-120-N	5700K	1x6	●	-	2xM20	1	1	CCL2004182
VLL-5L-57-EM1-2/6-220-N		2x6	-	●	4xM20	2	2	CCL2004186
VLL 7L								
VLL-7L-57-1/6-120-N	5700K	1x6	●	-	2xM20	1	1	CCL2004222
VLL-7L-57-2/6-220-N		2x6	-	●	4xM20	2	2	CCL2004226
VLL 7L Emergency								
VLL-7L-57-EM1-1/6-120-N	5700K	1x6	●	-	2xM20	1	1	CCL2004230
VLL-7L-57-EM1-2/6-220-N		2x6	-	●	4xM20	2	2	CCL2004234

[1] Tolerance +/- 10%
[2] Standard version without cable gland. if need, please order separately
[3] Contact your local sales representative for special requirements.

Metallic Cable Glands (Order Separately)

ADE-1F2

Catalog #	Metric Thread Size	Cable Types	Cable sealing range - Min	Cable seaing range - Max
ADE1M200NPN	M20	Non-armoured, Marine shipboard, Type P, Tray cable (armoured)	2.8	5.5
ADE1M201NPN	M20		4.5	8.5
ADE1M202NPN	M20		7.0	12.0
ADE1M203NPN	M20		10.0	16.0

ADE-4F

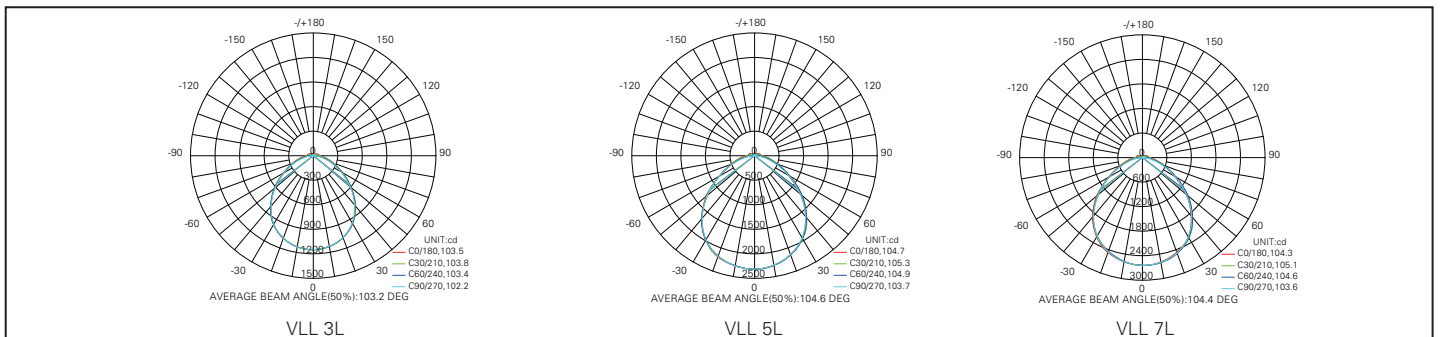| Catalog #	Metric Thread Size	Cable Types	Cable sealing range inner sheath Min.	Cable sealing range inner sheath Max.	Cable sealing range outer sheath Min.	Cable sealing range outer sheath Max.	Armor Min.	Armor Max.
ADE4M200NPN	M20	SWA, SWB, STA, Braided marine shipboard, Type P; Lead sheathed cable (with addition of earthing washer)	2.8	5.5	4.5	8.5	0.2	0.9
ADE4M201NPN	M20		4.5	8.0	7.0	12.0	0.2	0.9
ADE4M202NPN	M20		7.0	12.0	10.0	16.0	0.2	1.3
ADE4M203NPN	M20		10.0	15.5	13.5	21.0	0.2	1.3

ADE-1F2 and ADE-4F catalog numbers are for nickel-plated brass; For other material options, please contact our sales representative.

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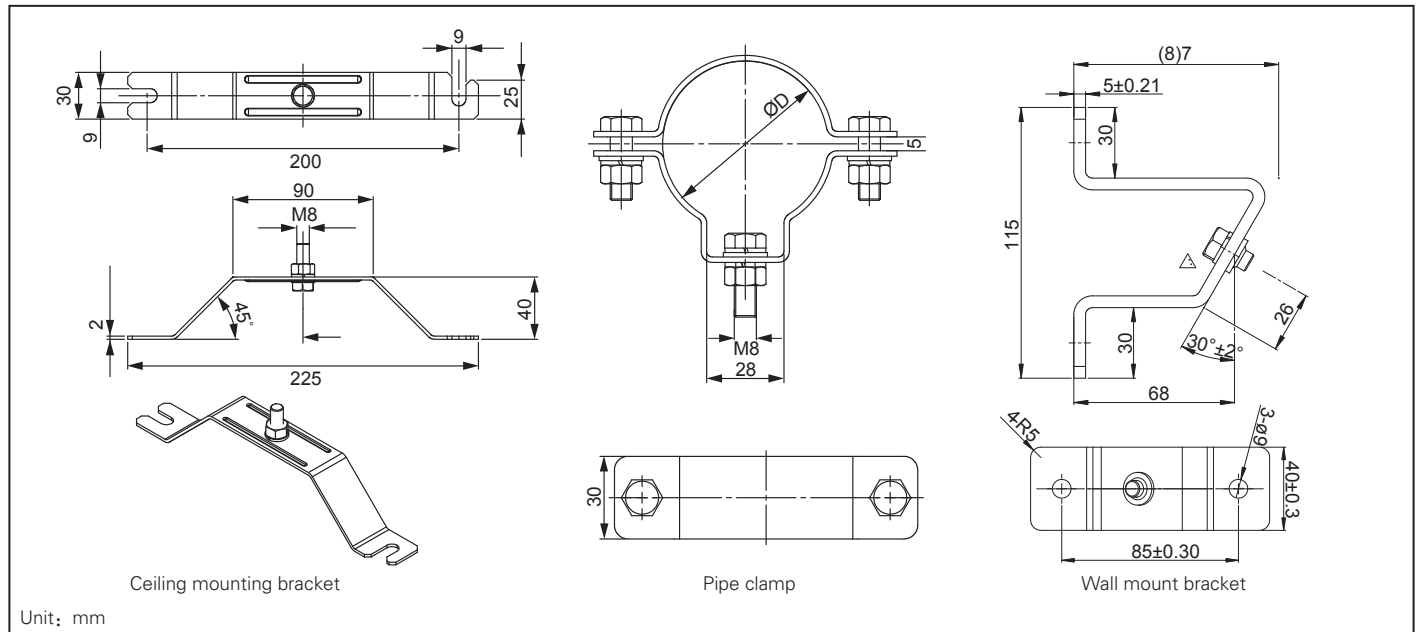
Dimensions (mm)

Fig.1
Ceiling Mounting

Fig.2
Wall Mounting

Fig.3
Pipe Mounting

Fig.4
Ceiling Mounting
with Sliding Rail

Polar curve

UNIT:cd
C0/180,103.5
C30/210,103.8
C60/240,103.4
C90/270,102.2
AVERAGE BEAM ANGLE(50%):103.2 DEG

VLL 3L

UNIT:cd
C0/180,104.7
C30/210,105.3
C60/240,104.9
C90/270,103.7
AVERAGE BEAM ANGLE(50%):104.6 DEG

VLL 5L

UNIT:cd
C0/180,104.3
C30/210,105.1
C60/240,104.6
C90/270,103.6
AVERAGE BEAM ANGLE(50%):104.4 DEG

VLL 7L
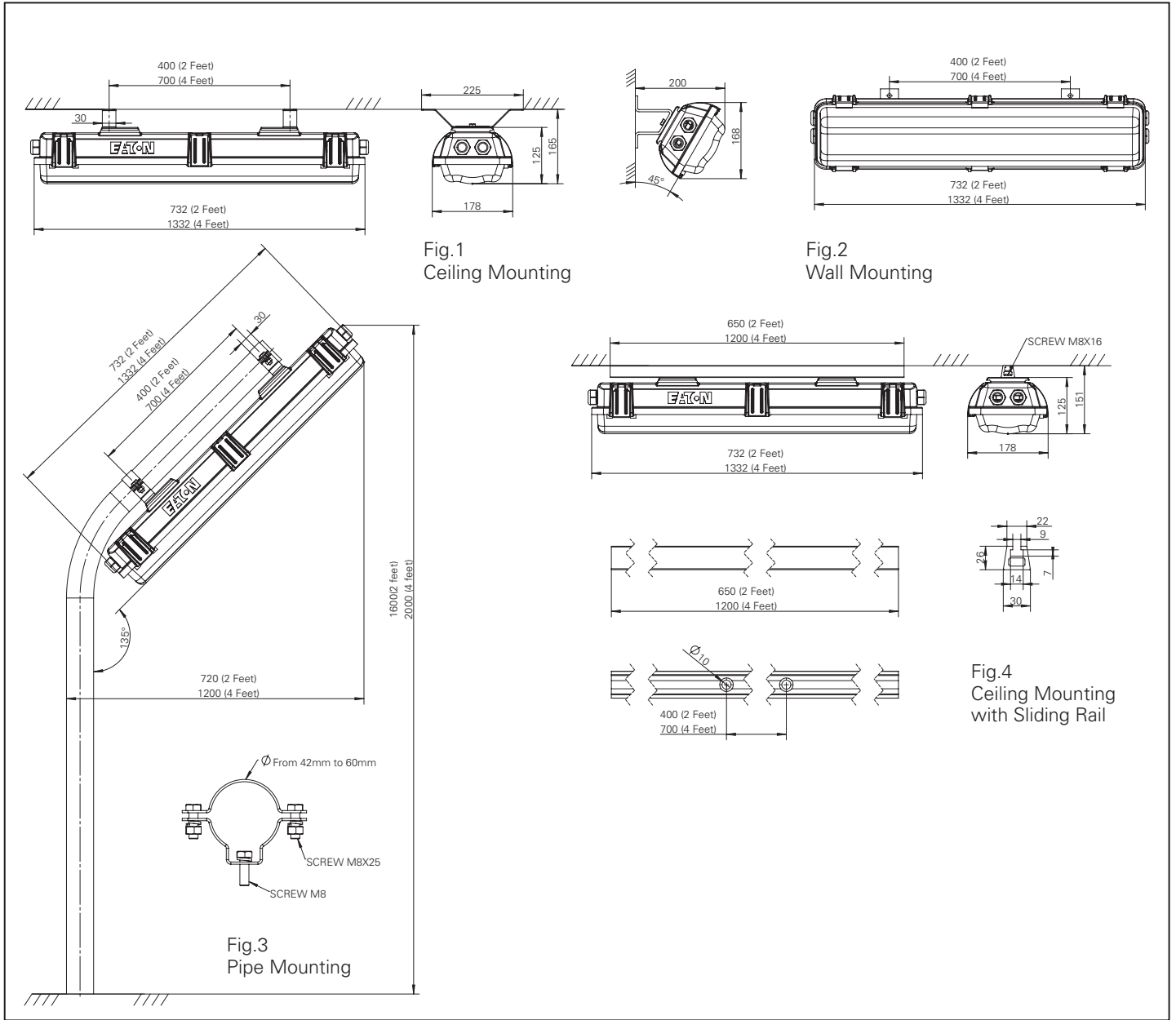
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Mounting accessories (To be ordered separately)

Ceiling mounting bracket

Pipe clamp

Wall mount bracket

Unit：mm

Pipe mounting

Part No	Description	Quantity per luminaire
CHR5218	Pipe clamp assy D42 316S/S	2
CHR5220	Pipe clamp assy D42 plating	2
CHR5221	Pipe clamp assy D51 316S/S	2
CHR5223	Pipe clamp assy D51 plating	2

Wall mounting

Part No	Description	Quantity per luminaire
CHR5248	Wall suspension 316S/S	2
CHR5250	Wall suspension plating	2

Ceiling mounting

Part No	Description	Quantity per luminaire
CHR5245	Ceiling mounting BKT 316S/S	2
CHR5247	Ceiling mounting BKT plating	2
CHLMT2372-01	Mounting sliding rail for 2 feet	1
CHLMT2372-02	Mounting sliding rail for 4 feet	1

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