KILLARK®









LIGHTING INDEX

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LOW PROFILE LINEAR ALUMINUM LED • EXCLUSIVE DESIGN FEATURES





LAL/LALXE/LALC SERIES



LINEAR LED TECHNOLOGY













FEATURES-SPECIFICATIONSApplications

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- IEC suffix Zone 2/21 to IEC 60079-0, 60079-15, 60079-31 Standards
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Housing one piece natural finish < .1% copper-free aluminum extrusion
- Endcaps & wiring Access covers are copper-free (< .4%) aluminum with gray baked powder epoxy-polyester finish, electrostatically applied for complete uniform corrosion resistance.
- External screws are 316 stainless steel
- Lens Impact resistant polycarbonate lens available in diffuse or clear

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

LAL & LALxE Product Features

- LALxE models have "built-in" battery backup for 90 or 180 minute emergency
- Shallow design minimizes profile in work areas with low ceiling heights
- Diffuse Lens Standard to minimize glare; Clear Lens available
- Polycarbonate Single Lens 18W to 60W;
 Double Lens model 80W & 120W
- Slot Back Design allows multiple mounting access points across length – slots can also be used with 5/16" or 8mm bolts & nuts, 3 housing slots, 1 center back and 2 at 45°.
- Variety of mounting options including swivel brackets, wall, ceiling brackets, or beam clamps
- End Caps each have 2 mounting feet builtin plus a safety strap attachment point
- Standard unit End Caps each have single a ¾" NPT hub, and fixture is furnished with one ¾" close-up plug and two ¾" to ½" reducers – provides out of the box ½" dead-end to ¾" feed-through flexibility. Metric openings are available.
- Standard LALs have one wiring Access Plate for easy access to driver leads.

Class I, Div. 2, Groups A, B, C, D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
AEx nAII, Ex nAII
Wet Locations
Type 4X
IP66
Marine Rated (US only)



Ex nA IIC T6 to T3, Gc Ex tb IIC T95°C Db Tamb -50°C < Tz < +65°C, IP66

IECEx Certificate QPS 15.0010

ATEX Certificate CML 15ATEX4081X (nA) & CML15ATEX3082X (tb)

LED Features and Standards

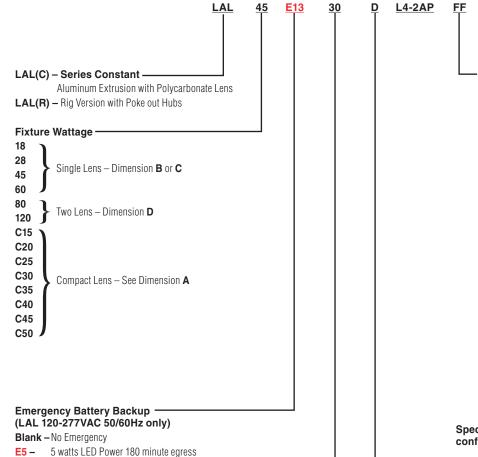
- Many Midpower LEDs blend light to simulate fluorescent tubes
- Chromaticity outputs: standard – 5000K 70 CRI 3590 option – 3500K 90 CRI 3070 option – 3000K 70 CRI
- 3590 option is not available on the LALC
- 3070 option is only available on the LALC 15-45 watt.
- Energy Savings High lumens per watt
- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours
- Ambient suitability -40°C to 65°C (see tables). -20°C to 50°C Ambient suitability for Emergency models.
- Instant On Including after power interruption
- World Voltage 120 277VAC 50/60Hz
- Solder-LESS LED Board Connections Vibration Resistant





ABLARK

CATALOG LOGIC



Example

= 45W 4PCB with 13W Emergency 120 - 277VAC with Diffuse Lens, 2 Fuses, 2 Access Plates Dimension "B"

- Options

F-

L4-2AP – approx. 4 foot with 2 access covers (Dimension **C**)

Single Fuse (1 pole)

FF - Two Fuses (2 pole - 2 hot legs)

S52 – 1 Endcap with 1x1/2" NPT and 1xM20 Entries (3/4" NPT Plugged)

D52 – 2 Endcaps with 1x1/2" NPT and 1xM20 Entries (3/4" NPT Plugged)

D50 – 2x1/2" NPT Entries 1 end cap, 3/4" plugged; 2nd end cap std. 1x3/4" NPT

D502 – 2x1/2" Entries 2 end caps, 3/4" NPTs

plugged

D20 – 2xM20 Entries 1 end cap, 3/4" plugged; 2nd end cap std. 1x3/4"NPT

D202 – 2xM20 Entries 2 end caps, 3/4" NPTs plugged

LSP – Less Surge Protector

GH – Gray Housing Red Housing

2AP – Dual Access Plates (Increases Length by 4.2" [102])

TBL - Terminal Blocks Looping through Wiring

CAH – Clear Anodized Housing 3590 – 3500K (CCT) and 90 CRI LEDs 3070 – 3000K (CCT) and 70 CRI LEDs

Specials – Contact Factory for custom configurations and options

Lens

D - Diffuse Polycarbonate

C – Clear Polycarbonate

Voltage

30 - 120V-277VAC 50/60Hz LAL/LALC all models

27 - 12VDC - 24VDC LALC 20W, 25W non-emergency models

33 - 347-480VAC; LAL not available with 60W or 120W; LALC not available with 15W, 20W, or 25W

34 – 125VDC-250VDC; 120-277VAC 50/60Hz LALC 18W, 20W, 23W, 25W and LAL 28W, 60W, 55W, 120W non-emergency models

Energy Savings

E13 - 13 watts LED Power 90 minute egress

E26 - 26 watts LED Power 90 minute egress

(2 Lens models only)

	LED VS FLUORESCENT WATTAGE & DELIVERED LUMENS											
CATALOG NUMBER	LUMENS	L/W	FLUOI	RESCENT	LUMENS	L/W						
LAL1830C	2479	138	40W	1x40W BX	2471	63						
LAL2830C	3624	129	55W	1x55W BX	3766	65						
LAL4530C	5515	122	56W	2x28T5	4676	71						
LAL4550G	3313	122	64W	2x32T8	4772	80						
LAL6030C	7709	128	108W	2x54T5H0	8088	67						
LALDUSUG	7709	120	120W	2x60T12H0	6965	56						
LAL8030C	11032	138	162W	3x54T5H0	11619	65						







ORDERING INFORMATION

ORDI	ERING INFO	RMATI	ON AND AMBI	ENT SUITABI	LITY		C1D2 ABCD/ ZONE 2 IIC, IIB, IIA			C1D2 GRPS. EFG SIMULTANEOUS			C2D1 GRPS. EFG			IEC ZONE 2			IEC ZONE 21		21
CATALOG NUMBER W/ DIFFUSE LENS	WEIGHT LBS./KG	WATTS STD. POWER	LENGTH STYLE - INCHES (MM)	VOLTAGE	AMPS	DELIVERED LUMENS Diffuse/ Clear	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C
LAL1830D	17.9 / 8.1		B-32.6 (828)																		
LAL1830D-L4-2AP	21.9 / 9.9	18	C-51 (1295)		0.15 - 0.06	2272 / 2479	T6	Т6	T5	T4A	T4A	T4A	T4A	T4A	T4A	Т6	Т6	T5	T4	T4	T4
LAL18E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)							ĺ						ĺ			ĺ		
LAL2830D	17.9 / 8.1		B-32.6 (828)																		
LAL2830D-L4-2AP	21.9 / 9.9	28	C-51 (1295)		0.23 - 0.10	3321 / 3624	T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	Т6	T6	T5	T4	T4	T4
LAL28E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)	100 077\/AC												İ					
LAL4530D	17.9 / 8.1		B-32.6 (828)	120-277VAC																	
LAL4530D-L4-2AP	21.9 / 9.9	45	C-51 (1295)		0.38 - 0.16	5054 / 5515	Т6	T5	-	T4A	T4A	T4A	T4A	T4A	T4A	Т6	T5	T5	T4	T4	T4
LAL45E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)																		
LAL6030D	18.9 / 8.6		B-32.6 (828)																		
LAL6030D-L4-2AP	22.9 / 10.4	60	C-51 (1295)		0.50 - 0.22	7064/7709	Т6	T5	-	T4A	T4A	-	T4A	T4A	-	Т6	T5	-	T4	T4	-
LAL60E1330D-L4-2AP	32.9 / 14.9		C-51 (1295)							ĺ						İ					
LAL8030D	34.5 / 15.6		D-57.9 (1471)													ĺ					
LAL80E1330D	44.5 / 20.2	80	D-57.9 (1471)		0.67 - 0.29	10110 / 11032	T6	T5	-	T4A	A T4A	-	T4A	A T4A -	-	Т6	T5	-	T4	T4	-
LAL80E2630D	54.5 / 24.7		D-57.9 (1471)	100 077\/00						ĺ						İ			ĺ		
LAL12030D	36.5 / 16.6		D-57.9 (1471)	120-277VAC																	
LAL120E1330D	46.5 / 21.1	120	D-57.9 (1471)		1.00 - 0.43	15090 / 16467	T6	T5	-	T4A	T4A	-	T4A	T4A	-	Т6	T5	-	T4	T4	-
LAL120E2630D	56.5 / 25.6		D-57.9 (1471)													ĺ					
LALC1527D				12-24VDC	1.3-0.6																
LALC1530D		15	A-18.73 (476)	120-277VAC	0.15-0.06	1503 / 1640	T5	T4A	_	T4A	T4A	_	T4A	T4A	_	T5	T4	_	T4	T4	_
LALC1534D		13	A-10.73 (470)	120- 250VDC	0.2-0.1	1303 / 1040	13	144		144	144	_	147	144		13	14		14	14	
LALC2027D				12-24VDC	1.7-0.8																
LALC2030D		20	A-18.73 (476)	120-277VAC	0.17-0.08	2337 / 2550	T5	T5	_	T4A	T4A	_	T4A	T4A	_	T5	T5	_	T4	T4	_
LALC2034D		20	11 10.10 (410)	120- 250VDC	0.2-0.1	2001 / 2000		10		1471	1471		1471	1-77			10		'		
LALC2527D	12.03 / 4.49			12-24VDC	2.1-1.0																
LALC2530D		25	A-18.73 (476)	120-277\/\C	0.18-0.08	3019 / 3294	T5	T4A	_	T4A	T4A	_	T4A	T4A	_	T5	T4	_	T4	T4	_
LALC2534D			(11 0)	120- 250VDC	0.2-0.1	30.070207				, .	, .										
LALC3030D		30	A-18.73 (476)		0.26-0.11	2726 / 2974	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-
LALC3530D		35 A	A-18.73 (476)		0.30-0.13	3261 / 3558	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-
LALC4030D			A-18.73 (476)	120-277VAC 0	0.34-0.15	4152 / 4530	T5	T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-
LALC4530D		45	A-18.73 (476)		0.38-0.17	5136 / 5604	T5	T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-
LALC5030D		50	A-18.73 (476)		0.42-0.18	6039 / 6590	T5	-	-	T4A	-	-	T4A	-	-	T5	-	-	T4	-	-

CABLE GLAND ORDERING OPTIONS



	ENTRY TUREAR	CABLE ACCEPTANCE DETAILS							
CATALOG NUMBER	ENTRY THREAD Size (NPT)	DIAMETER 'C'							
	OIZE (NI T)	MIN.	MAX.						
MCX1B	1/2"	0.51" (13.0)	0.63" (16.0)						
MCX1C	1/2"	0.60" (15.2)	0.82" (20.8)						
MCX2	3/4"	0.73" (18.5)	1.03" (26.2)						

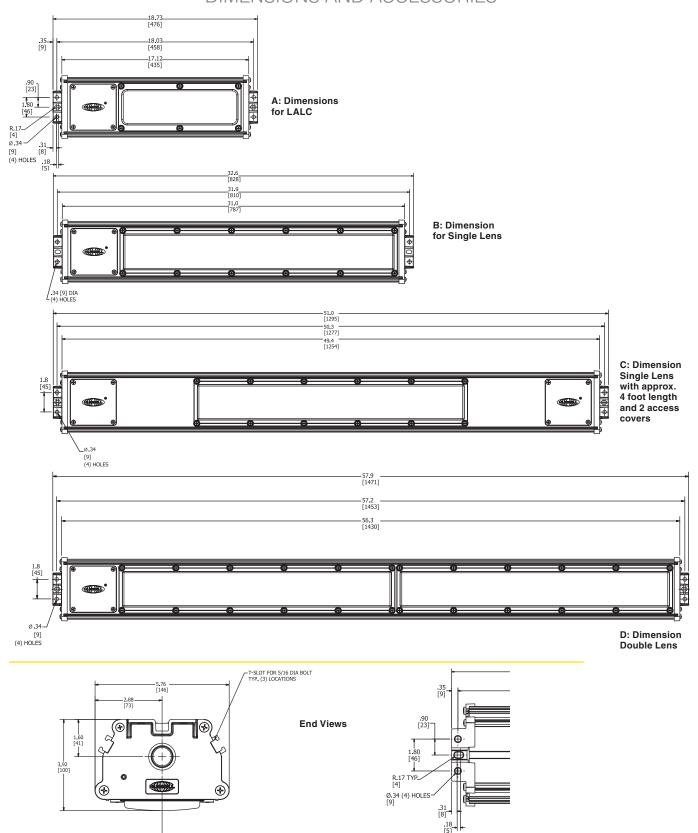
For entire series, please see page 81.







DIMENSIONS AND ACCESSORIES









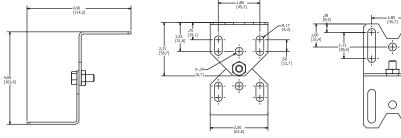
ACCESSORIES AND REPLACEMENT PARTS

	ACCESSORIES AND REPLACEMENT PARTS
LAL-SB	Swivel Bracket Set w/ Adjustable Height; includes 5/16" bolts/nuts/lock-washers for attachment to LAL(C) "slots; can also be attached to end cap mounting feet with FBO bolts.
LZCB	Ceiling Bracket Set with Stainless Steel Bolts to attach to LAL(C) "slots"
LZWB	Wall Bracket Set with Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-BC	Steel/malleable Iron with Zinc electroplate for corrosion resistance; includes Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-EB	Eyebolt Set with Stainless Steel Bolts to attach to LAL(C) "slots"
VMSC10	10' Stainless Steel Safety Cable with loop grip
LALG	Stainless Guard for 1 LAL Lens, order two for 2 lens models
LALCG	LALC Stainless Guard
LAL-LENSCLR	Single Clear Lens with Gasket for LAL Series
LAL-LENSDIF	Single Diffuse Lens with Gasket for LAL Series
LALC-LENSCLR	Single Clear Lens with Gasket for LALC Series
LALC-LENSDIF	Single Diffuse Lens with Gasket for LALC Series
LAL-RIG-CB	Rig Mounting Style Ceiling Bracket
LAL-RIG-WB	Rig Mounting Style Wall Bracket
RIG-LALC	Rig End Caps for LALC

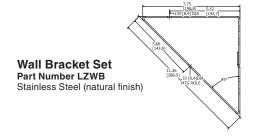


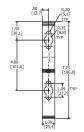
LAL-SB on Center Slot

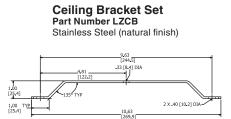
LAL-SB on 45° Slot



LAL-SB Dimensions – extended shown













ARK

LALEP Linear LED Food Processing Fixture

- Maintenance free long-lasting LEDs
- NSF Certified with Impact Resistant polycarbonate lens
- All exterior stainless steel hardware

- Large wiring access for ease of installation
- · Extremely durable copperfree aluminum mounting feet & access plate with anodized aluminum housing
- 90 or 180 minute emergency with Self-diagnostics in accordance with NFPA 101® Life Safety Code

LALFP SERIES



LINEAR LED TECHNOLOGY







FEATURES-SPECIFICATIONS

Applications

NSF (National Sanitation Foundation) approved for "Food Handling" areas, typically requiring non-glass lighting.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66/IP67

Materials

- Housing one piece clear anodized ≤ .1% copper-free aluminum extrusion
- Endcaps & wiring Access covers are copper-free (≤ .4%) aluminum with natural finish.
- · External screws are 316 stainless steel
- Lens Impact resistant polycarbonate lens available in diffuse or clear

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models) 10KA/10KV Surge Protection (for 347-480 VAC)

LALFP & LALFPxiE Product Features

- LALFPxiE models have "built-in" battery backup for 90 or 180 minute battery backup
- Shallow design minimizes profile in work areas with low ceiling heights
- Diffuse Lens Standard to minimize glare; Clear Lens available
- Polycarbonate Single Lens L1 & L3;
 Double Lens model L5
- Variety of mounting options including swivel brackets, wall, ceiling brackets, or beam clamps
- End Caps each have 2 mounting feet built-in plus a safety strap attachment point
- Standard unit End Caps each have single a ¾" NPT hub, and fixture is furnished with one ¾" close-up plug and two ¾" to ½" reducers – provides out of the box ½" dead-end to ¾" feed-through flexibility. Metric openings are available.
- Standard LALFPs have one wiring Access Plate for easy access to terminal block.

Electronics Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs
 a 1 minute test once a month and an
 alternating 30-60 minute test once every
 6 months. LED indicator provides visible
 fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

Class I, Div. 2, Groups A, B, C, D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
AEx nAII, Ex nAII
Wet Locations
Type 4X
IP66/IP67
Marine Rated (US only)
ABS Type Approval

NSF Food Handling

© us Certified - File LR11713

IECEx Rated
Zone 2 and Zone 21 areas
Ex nA IIC T6 to T3, Gc
Ex tb IIC T95°C Db
Tamb -50°C < Tz < +65°C, IP66

IECEx Certificate QPS 15.0010

ATEX Certificate
CML 15ATEX4081X (nA)
&
CML15ATEX3082X (tb)

LED Features and Standards

- Many Midpower LEDs blend light to simulate fluorescent tubes
- Chromaticity outputs: standard – 5000K 70 CRI 3590 option – 3500K 90 CRI 3070 option – 3000K 70 CRI
- 3590 option is not available with the L1 length
- 3070 option is only available on L1 length and the 2 & 4 lumen outputs
- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours
- Ambient suitability -40°C to 65°C (see tables). -20°C to 50°C Ambient suitability for Emergency models.
- Instant On Including after power interruption
- World Voltage 120 277VAC 50/60Hz
- Solder-LESS LED Board Connections Vibration Resistant





ALARK

CATALOG LOGIC

30

LALFP

16

iE3

Weather Rated W - Weather only Blank - Hazardous Location and Weather rated LALFP - Series Constant Aluminum Extrusion with Polycarbonate Lens

Fixture Lumen Output -

- 2 2000 Lumen Range
- **4** 4000 Lumen Range
- 6 6000 Lumen Range
- **8 –** 8000 Lumen Range
- 11 11,000 Lumen Range
- 16 16,000 Lumen Range

Emergency Battery Backup -

Blank - No Emergency

- iE05 -500 Lumen Range during 180 minute emergency
- iE1 1000 Lumen Range during 90 minute emergency
- iE3 3000 Lumen Range during 90 minute emergency (only available on L5)

Voltage -

- **30 -** 120V-277VAC 50/60Hz all models
- 27 12VDC 24VDC models only L1 Length and 2 & 3 Lumen Range non-emergency models
- **33 –** 347-480VAC LAL 28W & 55W non-emergency models only
- **34** 125VDC-250VDC; 120-277VAC 50/60Hz Lumen Range 2, 4, 8, & 16 non-emergency models

<u>Example</u>

 Weather only rated, 16,000 Lumen output with 3,000 Lumen output during 90 minute emergency operation, 120-277 VAC, approximately 5 foot length Diffuse Lens, 2 fuses

Options

F – Single Fuse (1 pole)

FF - Two Fuses (2 pole - 2 hot legs)

S52 – 1 Endcap with 1x1/2" NPT and 1xM20 Entries (3/4" NPT Plugged)

D52 – 2 Endcaps with 1x1/2" NPT and 1xM20 Entries (3/4" NPT Plugged)

D50 – 2x1/2" NPT Entries 1 end cap, 3/4" plugged; 2nd end cap std. 1x3/4" NPT

D502 – 2x1/2" Entries 2 end caps, 3/4" NPTs

plugged

D20 – 2xM20 Entries 1 end cap, 3/4" plugged; 2nd end cap std. 1x3/4"NPT

D202 – 2xM20 Entries 2 end caps, 3/4" NPTs plugged

LSP – Less Surge Protector
GH – Gray Housing
RH – Red Housina

TBL - Terminal Blocks Looping through Wiring

3590 – 3500K (CCT) and 90 CRI LEDs **3070** – 3000K (CCT) and 70 CRI LEDs

Specials – Contact Factory for custom configurations and options

Lens

D - Diffuse Polycarbonate

C - Clear Polycarbonate

Length

L1 – Approximately 1 foot (2, 4, 6 Lumen Outputs)

L3 – Approximately 3 feet (2, 4, 6, 8 Lumen Outputs)

L5 - Approximately 5 feet (11, 16 Lumen Outputs)

Energy Savings

LE	D VS FLUORI	ESCENT WAT	TAGE & DI	ELIVERED LU	IMENS	
CATALOG NUMBER	LUMENS	L/W	FLUOI	RESCENT	LUMENS	L/W
LALFP230L3C	2479	138	40W	1x40W BX	2471	63
LALFP430L3C	3624	129	55W	1x55W BX	3766	65
LALFP630L1C	5515	122	64W	2x32T8	4772	80
LALFP830L3C	7709	128	120W	2x60T12H0	6965	56
LALFP1130L5C	11032	138	162W	3x54T5H0	11619	65







ORDERING INFORMATION

ORDE	ORDERING INFORMATION AND AMBIENT SUITABILITY					TY	C1D2 A,B,C,D/ ZONE 2 IIC, IIB, IIA			C1D2 E, F, G Simultaneous			C2D1 E, F, G		F, G	IEC ZONE 2		IEC ZONE 21		
CATALOG Number	WEIGHT LBS./KG	WATTS	LENGTH IN / MM	VOLTAGE	AMPS	LUMENS DIFFUSE/ CLEAR	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	65°C
LALFP230L1D	12.03 / 4.49	15	18.73 / 476		0.15-0.06	1503 / 1640	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	-
LALFP230L3D	17.90 / 8.1	18	32.6 / 828]	0.15 - 0.06	2272 / 2479	Т6	T6	T6	T4A	T4A	T4A	T4A	T4A	T4A	T6	Т6	T5	T4	T4
LALFP230L4D	12.90 / 9.9	10	51 / 1295]	0.13 - 0.00	2212/2419	10	10	10	144	144	144	144	144	144	10	10	13	14	'4
LALFP430L1D	12.03 / 4.49	35	18.73 / 476		0.30-0.13	3261 / 3558	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	-
LALFP430L3D	17.90 / 8.1	28	32.6 / 828		0.23 - 0.10	3321 / 3624	Т6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4
LALFP430L4D	12.90 / 9.9	20	51 / 1295	120/277 VAC	0.20 0.10	3321/3024	10	10	13	17/	17/	17/	17/	177	ודה	10	10	10	17	'-
LALFP630L1D	12.03 / 4.49	45	18.73 / 476	50/60	0.38-0.17	5136 / 5604	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	-
LALFP630L3D	17.90 / 8.1	45	32.6 / 828	Hz	0.38 - 0.16	5054 / 5515	Т6	T5	_	T4A	T4A		T4A	T4A	_	T6	T5	T5	T4	T4
LALFP630L4D	12.90 / 9.9	73	51 / 1295		0.00 0.10	303473313	10	10		אדו	ודה		17/	177		10	10	10	17	
LALFP830L3D	17.90 / 8.1	60	32.6 / 828		0.50 - 0.22	7064 / 7709	T6	T5	_	T4A	T4A	_	T4A	T4A	_	T6	T5	_	T4	
LALFP830L4D	12.90 / 9.9	00	51 / 1295		0.30 0.22	7004/7703	10	10		17/	ודה		17/	17/		10	10		17	
LALFP1130L5D	36.50 / 16.6	80	57.9 / 1471		0.67 - 0.29	10110 / 11032	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	-
LALFP1630L5D	36.50 / 16.6	120	57.9 / 1471		1.00 - 0.43	15090 / 16467	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	<u> </u>
WLALFP230L1D	12.03 / 4.49	15	18.73 / 476		0.15-0.06	1503 / 1640														
WLALFP230L3D	17.90 / 8.1	18	32.6 / 828		0.15 - 0.06	2272 / 2479														
WLALFP230L4D	12.90 / 9.9	'0	51 / 1295		0.10 0.00	2212/2413														
WLALFP430L1D	12.03 / 4.49	35	18.73 / 476		0.30-0.13	3261 / 3558	1													
WLALFP430L3D	17.90 / 8.1	28	32.6 / 828		0 23 - 0 10	3321 / 3624	4													
WLALFP430L4D	12.90 / 9.9	-0	51 / 1295	0 23 - 0 10 3321 / 3624											MAR					

VAC

50/60

0.38-0.17

0.38 - 0.16

0.50 - 0.22

5136 / 5604

5054 / 5515

7064 / 7709

0.67 - 0.29 | 10110 / 11032

1.00 - 0.43 | 15090 / 16467

18.73 / 476

32.6 / 828

51 / 1295

32.6 / 828

51 / 1295

57.9 / 1471

57.9 / 1471

45

WLALFP630L1D 12.03 / 4.49

WLALFP630L3D 17.90 / 8.1

WLALFP630L4D 12.90 / 9.9

WLALFP830L3D | 17.90 / 8.1

WLALFP830L4D 12.90 / 9.9

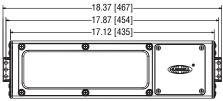
WLALFP1130L5D 36.50 / 16.6

WLALFP1630L5D 36.50 / 16.6

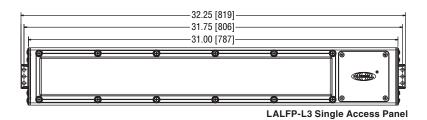
IGH



DIMENSIONS

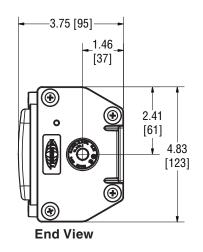


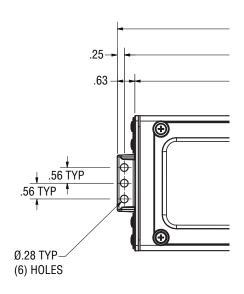
LALFP-L1 Single Access Panel



57.55 [1462] 57.05 [1449] 56.30 [1430]

LALFP-L5 Single Access Panel





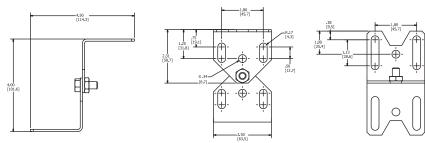


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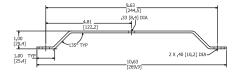
ACCESSORIES AND REPLACEMENT PARTS

	ACCESSORIES AND REPLACEMENT PARTS								
LAL-SB	Swivel Bracket Set w/ Adjustable Height; includes 5/16" bolts/nuts/lock-washers for attachment to LAL(C) "slots; can also be attached to end cap mounting feet with FBO bolts.								
LZCB	Ceiling Bracket Set with Stainless Steel Bolts								
LZWB	Wall Bracket Set with Stainless Steel Bol								
LAL-BC	Steel/malleable Iron with Zinc electroplate for corrosion resistance; includes Stainless Steel Bolts to attach to LAL(C) "slots"								
LAL-EB	Eyebolt Set with Stainless Steel Bolts								
VMSC10	10' Stainless Steel Safety Cable with loop grip								
LALG	Stainless Guard for 1 LAL Lens, order two for 2 lens models								
LALCG	LALC Stainless Guard								
LAL-LENSCLR	Single Clear Lens with Gasket for L3 & L5 Lengths								
LAL-LENSDIF	Single Diffuse Lens with Gasket for L3 & L5 Lengths								
LALC-LENSCLR	Single Clear Lens with Gasket for L1 Length								
LALC-LENSDIF	Single Diffuse Lens with Gasket for L1 Length								



LAL-SB Dimensions – extended shown

Ceiling Bracket Set Part Number LZCB Stainless Steel (natural finish)







LZ LED INTRODUCTION & LOGIC



Class I, Div. 2, Groups A, B, C, D Class I, Zone 2, Groups IIC, IIB, IIA Class II, Div. 1 & 2, Groups F, G **AEx nAII, Ex nAII Wet Locations** Type 4X, IP66

Certified - File LR11713

ABS Type Approval (L32NL, L32SL) **NSF** Food Handling (LZ2NL)

FEATURES-SPECIFICATIONS

Applications

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

NSF (National Sanitation Foundation) approved for "Food Handling" areas, typically requiring non-glass lighting.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages, storage facilities, tunnels, and grain/food facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X, IP66

Materials

- Housing one piece fiberglass reinforced polyester or 316 Stainless Steel
- Lens Clear Lexan® impact resistant polycarbonate lens (Lexan is a registered trademark of SABIC)
- Two 3/4" NTP hubs one at each end (includes one 3/4" close-up plug and two 3/4"x1/2" reducers for maximum user flexibility - LZ2NL hubs aluminum; LZ2SL hubs 316 Stainless Steel

LED Features and Standards

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models) 10KA/10KV Surge Protection (for 347-480 VAC)

- Many Midpower LEDs blend light to simulate fluorescent tube
- Crisp White Light for Excellent Color Rendering Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings High lumens per watt
- LED Array Life 100,000+ hours with 70% initial lumens

- Long Fixture Life 50,000 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C up to
- Instant On Including after power interruption
- World Voltage 120 277VAC 50/60Hz
- Solder-LESS LED Board Connections -Vibration Resistant

	LED VS	FLUORESCEN	T WATTAGE 8	& DELIVERED	LUMENS	
LED WATT	LUMENS	L/W	FLUOF	RESCENT	LUMENS	L/W
18W	2557	150	40W	1x40W BX	2471	63
28W	3775	144	55W	1x55W BX	3766	65
34W	5075	149	56W	2x28T5	4676	71
45W	5562	137	64W	2x32T8	4772	80
55W	7577	144	108W	2x54T5H0	8088	67
60W	7618	132	120W	2x60T12H0	6965	56
80W	11140	137	162	3x54T5H0	11619	65

Catalog Number Logic LZ2NL 55 33 FF LZ2NL - Series Constant FRP Housing, Lexan Lens -LZ2SL - Series Constant 316 Stainless Housing, Lexan Lens **Fixture Wattage** 18 28 30 - 120V-277VAC 50/60Hz 18W - 120W 45 33 - 347-480VAC 60Hz 28W, 55W 60 34 - 125VDC - 250VDC; 120-277VAC 28W, 60W, 55W, 120W 34 Options 55 **F** – Single Fuse (1 hot leg) (Not to be used in Canada) 80 FF – 2 Fuses (2 hot legs) (Not to be used in Canada) 120 TBL - Terminal Blocks Looping P1 - 120V Photocell factory installed (C1D2 only) **P2** – 208V-277VAC (C1D2 only) **P3** – 347V only - 28W, 40W, 55W, 75W (C1D2 only) **QD** – QuickDisconnect (before driver)





GS - Glare Reducing Shield

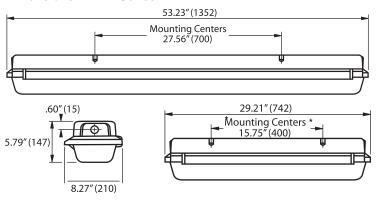
LZ2NL/LZ2SL SERIES



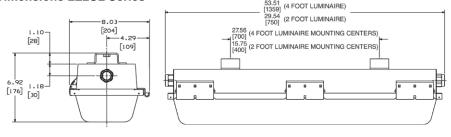
LZ SERIES - ORDERING INFORMATION & TECHNICAL DATA

	OF	RDERING INF	ORMAT	ION AND	AMBIEN	T SUITABIL	ITY		C1	D2	C2 LZ2 <mark>N</mark> L G LZ2 <mark>S</mark> L GF		C1Z2 AEx nA Ex nA	
FIBERGLASS	CATALOG WEIGHT LBS/KG	NUMBER STAINLESS	WEIGHT LBS/KG	WATTS	LENGTH	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C
LZ2NL1830	12/5.4	LZ2 <mark>\$</mark> L1830	13/5.9	18	2'	120-277VAC	0.15 - 0.06	2557	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL2830	12/5.4	LZ2 <mark>\$</mark> L2830	13/5.9	28	2'	120-277VAC	0.23 - 0.10	3775	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL4530	12/5.4	LZ28L4530	13/5.9	45	2'	120-277VAC	0.38 - 0.16	5562	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL6030	14/6.4	LZ28L6030	15/6.8	60	2'	120-277VAC	0.50 - 0.22	7618	T4A	-	≤ 135°C	-	T4	-
LZ2NL3430	23/10.4	LZ28L3430	24/10.9	34	4'	120-277VAC	0.28 - 0.12	5075	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL5530	23/10.4	LZ2 <mark>S</mark> L5530	24/10.9	55	4'	120-277VAC	0.46 - 0.20	7577	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL8030	23/10.4	LZ2 <mark>\$</mark> L8030	24/10.9	80	4'	120-277VAC	0.67 - 0.29	11140	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL12030	25/11.3	LZ2 <mark>\$</mark> L12030	26/11.8	120	4'	120-277VAC	1.00 - 0.43	16010	T4A	-	≤ 135°C	-	T4	-

Dimensions LZ2NL Series



Dimensions LZ2SL Series



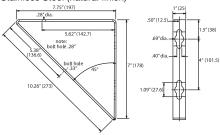
REP	REPLACEMENT PARTS:									
LZ2N4LENS	4' Lens only LZ2NL/LZ2SL									
LZ2N2LENS	2' Lens only LZ2NL/LZ2SL									
LZ2N4BAR	4' Locking Bar only LZ2NL									
LZ2N2BAR	2' Locking Bar only LZ2NL									
LZ2S-LATCH Latch and Spring LZ2SL										

*Mounting Centers are 1/4-20" tapped for user all thread rod or below accessories.

Mounting Accessories

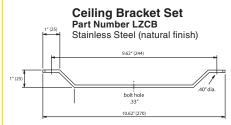
Wall Bracket Set Part Number LZWB

Stainless Steel (natural finish)



Adjustable Wall Bracket Set

Part Number LZAB Stainless Steel bracket with ceramic coated pivot bolt 2-3/8" (60) for 1/4" bolts 15° ADJ (FBO)



Eyebolt Set Part Number LZEB 1/2" (12) Stainless Steel bolt with lockwasher & nut approx. 1-3/4" (44.4) (natural finish) 1/4" (20)

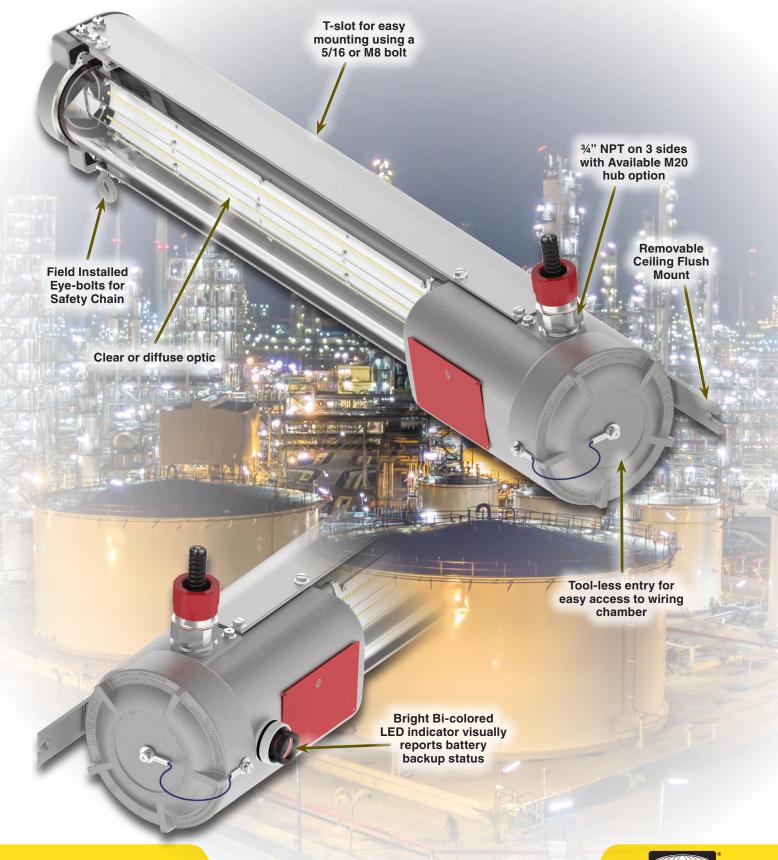
Suspension Chains (2 required) Part Number HFX-SC

36" length plated steel chain with snap link ends For use with LZEB





ARK





LED FIXTURES



Class I, Div. 1 & 2, Groups B, C, D Class I, Zones 1 & 2, Groups IIB, IIA Class II, Div. 1 & 2, Groups E, F, G Class III, Div. 1 & 2 IP66 Suitable for wet locations

Suitable for wet locations
Suitable for paint spray booths



FEATURES-SPECIFICATIONS



Applications

- Paint Spray Booths
- Chemical Facilities
- Waste Water Facilities
- Pipeline Pump Stations
- Ammunition Facilities
- Paint Manufacturing Plants
- Oil & Gas Refineries
- Fuel Transfer Facilities

LED Features

- Industry-Leading efficacy: up to 153 LPW
- · Corrosion resistant copper-free housing
- Standard 5000K CCT @ 70 CRI minimum
- Option 3500K CCT @ 90 CRI minimum
- 20kV / 10kA surge protection on standard fixture
- T-slot mounting for the ultimate in easy mounting
- Self-testing and self-diagnostics on battery backup fixtures
- Angled LED boards for wider mounting distances
- · Terminal blocks standard
- Low Profile
- · Tool-less access to wiring chamber
- · Diffuser option available
- 5 year fixture warranty

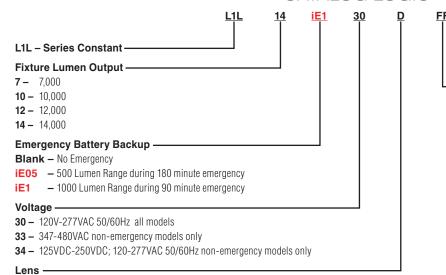
		LED VS FL	UORESCENT WAT	TAGE & DELIVERE	D LUMENS						
	LE	D		FLUORESCENT							
LED PART Number	LED WATT	LUMENS	L/W	LAMP WATTAGE	NUMBER AND Style of Lamp	LUMENS	L/W				
				55W	1x55W BIAX	4,788	87				
				56W	2x28 T5	3,878	60.2				
L1L730C	46.5	7,147	154	64W	2x32 T8	3,734	58.3				
				80W	2x40W BIAX	6,300	78.8				
				108W	2x54 T5H0	6,551	60.7				
L1L1030C	68.5	10,190	149	162W	3x54 T5H0	9,826	60.7				
L1L1230C	80.4	11.500	143	160W	4X40W BIAX	12,600	78.8				
LILIZOUG	00.4	11,500	143	180W	3x60 T12H0	11,202	62.2				
14144200	01.0	12 000	140	216W	4x54 T5H0	12,930	59.9				
L1L1430C	91.8	13,800	148	240W	4x60 T12H0	14,936	62.2				



D - DiffuseC - Clear

KILLARK

CATALOG LOGIC



Example

 L1L 14,000 lumen output with 1,000 lumen output during 90 minute emergency operation, 120-277VAC, Diffuse Lens, 2 Fuses

Options

F – Single Fuse (1 pole)

FF – Two Fuses (2 pole - 2 hot legs)

LSP – Less Surge Protector

GH – Gray Housing RH – Red Housing

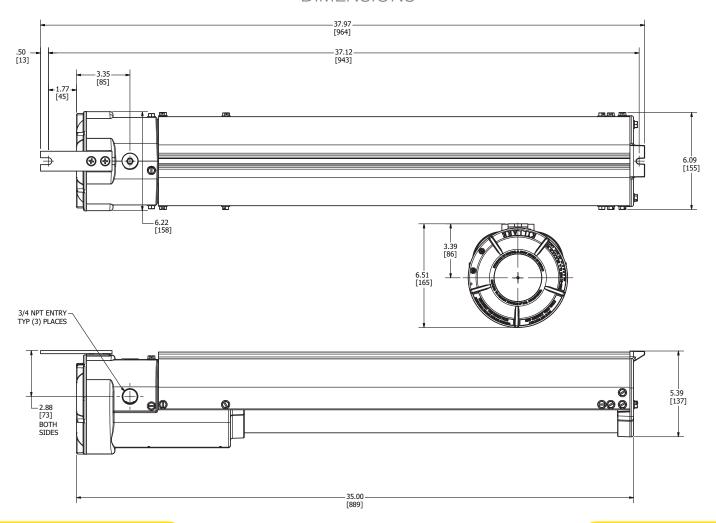
WH – White Housing

TBL - Terminal Blocks Looping through Wiring

YH – Yellow Housing 3590 – 3500k LED @ 90 CRI D20 – 3 M20 entries D25 – 3 M25 entries

Specials – Contact Factory for custom configurations and options

DIMENSIONS





HIGH WATTAGE SELF-TESTING EMERGENCY

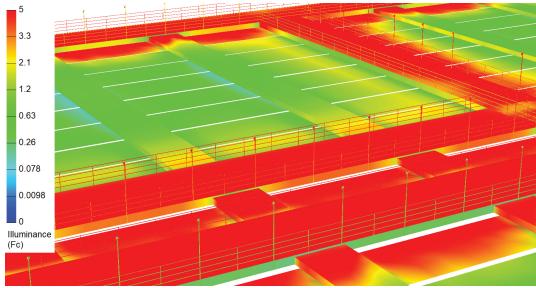
Electronics Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs
 a 1 minute test once a month and an
 alternating 30-60 minute test once every
 6 months. LED indicator provides visible
 fault detection and charging status
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

TEST SWITCH INDICATOR STATUS							
LED INDICATORS STATUS	EM DRIVER STATUS/MODE						
Solid Green	System OK/AC OK (Self-diagnostic Enabled or Disabled).						
Slow Flashing Red, 4s on/1s off	Battery not detected, check battery switch or connection.						
Flashing Red, 1s on/1s off	Battery Failure, replace battery.						
Flashing Green, 1s on/1s off	Self Diagnostic test underway.						
Fast Flashing Red, 0.1s on/0.1s off	Abnormal driver performance, replace driver.						
Very Slow Flashing Red, 4s on/4s off	Over temperature.						
None. Both LEDs OFF	Normal working in EM mode.						
Green/Red alternative flashing, 1s green/1s red	No load or output over voltage protection triggered.						

LED EMERGENCY LIGHTING DESIGN







ORDERING INFORMATION

	ORDERING INFORMATION AND AMBIENT SUITABILITY							C2	D1
CATALOG NUMBER	WEIGHT LBS./ KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS CLEAR/DIFFUSE	40°C	55°C	40°C	55°C
L1L730D	26/11.8								
L1L7IE0530D	28/12.7		120-277	0.4-0.2					
L1L7IE130D	20/12.7	46			7,147 / 5,598	T6	T6	T6	T5
L1L733D	26/11.8		347-480	0.13-0.10]				
L1L734D	20/11.0		105-250	0.4-0.2					
L1L1030D	26/11.8								
L1L10IE0530D	28/12.7		120-277	0.6-0.3					
L1L10IE130D	28/12.7	75			10,109 / 7,926	T6	T6	T6	T5
L1L1033D	26/11.8		347-480	0.22-0.16]				
L1L1034D	20/11.0		105-250	0.7-0.3]				
L1L1230D	26/11.8	88							
L1L12IE0530D	28/12.7	80	120-277	0.7-0.3					
L1L12IE130D	20/12.7	00			11,500 / 8,919	T6	T6	T6	T5
L1L1233D	26/11.8	88	347-480	0.3-0.2]				
L1L1234D	20/11.8	00	105-250	0.8-0.4					
L1L1430D	26/11.8								
L1L14IE0530D	28/12.7		120-277	0.8-0.3					
L1L14IE130D	20/12./	93			13,800 / 10,649	T6	-	T6	-
L1L1433D	26/11.8		347-480	0.3-0.2]				
L1L1434D	20/11.8		105-250	0.9-0.4					



CABLE GLAND ORDERING OPTIONS



0.0.7.0.00	ENTRY		CABLE ACCEPT	ANCE DETAILS		
CATALOG NUMBER	THREAD SIZE	BEND TYPE	WIRE DI	AMETER	MAX LENGTH	
NOMBLII	(NPT)		MIN	MAX		
MCX1B	1/2"		0.51" (13.0)	0.63" (16.0)	2.10" (53.3)	
MCX1C	1/2"	Straight	0.60" (15.2)	0.82" (20.8)	2.40" (61.0)	
MCX2	3/4"		0.73" (18.5)	1.03" (26.2)	2.60" (66.0)	
MCX14C	1/2"	45°	0.60" (15.2)	0.82" (20.8)	3.25" (82.6)	
MCX24	3/4"	40	0.73" (18.5)	1.03" (26.2)	3.43" (87.1)	
MCX19C	1/2"	90°	0.60" (15.2)	0.82" (20.8)	2.51" (63.8)	
MCX29	3/4"	90	0.73" (18.5)	1.03" (26.2)	2.61" (66.3)	

For entire series, please see page 81.



IGHTINE Killark **Now Offers** Warm LED Colors! **KILLARK**® HUBBEL SEE WWW.HUBBELL-KILLARK.COM LIGHTING SOFTWARE FOR LATEST LED PHOTOMETRY 21





COMPACT SIZE - INTRODUCTION & LOGIC







Luminaire w/Flat Lens



Wall Mount w/VZRF8PR Pathway Reflector

Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC,IIB,IIA Class II, Div. 1 & 2, Groups E,F,G Class III Suitable for wet locations Marine Rated (US only) Type 3, 4X

Certified - File LR11713

CERTI LED

FEATURES-SPECIFICATIONSCompliances

- UL-8750 for LED lighting; UL 1598A
- UL Marine type lighting fixtures
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations
- · Enclosed and gasketed
- Type 3, 4X

Materials

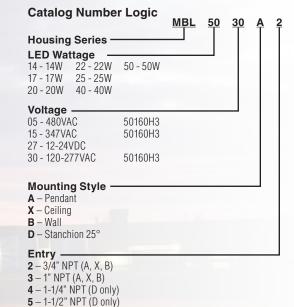
- Housing, splice box and guards (MBAG, VMAG) corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- · All external hardware stainless steel
- Reflectors Polyester reinforced fiberglass

LED Luminaire Features and Standards

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Compact in Size with Traditional Industrial Appearance and Suitability
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, and spin-top refractors
- Optional Mounting arrangements including Pendant, Wall, Ceiling, and Stanchion
- MBL LED Housings can be retrofitted to existing MB splice boxes; upgrade from Fluorescent or HID
- Warm LED color option available with 3070 option

- Energy Savings Less than 50 Watts of Power
- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering - Chromaticity 5000°K (CCT); 70 CRI
- Ambient suitability -40°C to 40°C (to 55°C for 14W to 22W)
- Instant on Including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections Vibration Resistant



8 - M20 4 hub (X only)

Options CP - Cor

CP – Component Pack (housing, mount, Optic, Guard if selected)

AN – Assembled Fixture (components as selected)

DDR— Dual Driver Option 3070— 3000K (CCT) and 70 CRI LEDs

Guard

 $\mathbf{N}-\mathsf{No}\;\mathsf{Guard}$

G – Guard

Optic

GL - Globe (MBG)

R5 – Type 5 Glass Refractor

S8 – 8" Spin-top Type V Refractor

S5 – 12" Spin-top V Refractor

P5 – 12" Poly Spin-top V Refractor

GF – 8" Glass Flat Lens

PF – 8" Polycarbonate Flat Lens



COMPACT SIZE - COMPONENTS









Pendant

Ceiling

Wall

Stanchion

MB MOUNTING BRACKETS									
	CATALOG NUMBER								
PENDANT	PENDANT CEILING WALL STANCHION								
MBA-2	MBX-2	MBB-2	_	3/4"					
MBA-3	MBX-3	MBB-3	_	1"					
_	MBX-8	_	_	M20					
_	_	_	MBD-4	1-1/4"					
_	_	_	MBD-5	1-1/2"					

















MBG

VMR175

VZRG1550

VZRG2550 VZRP175

VZRGF8 VZRPF8

MBAG

VMAG17

VMRWG8







VMPSD-17



VMPA-17



VMFSPC1





VEXA100B

Non-Glass Polycarbonate 8" Flat Lens or Spin-top





MBL LED OPTICS AND ACCESSORIES									
DESCRIPTION	OPTIC LOGIC	GUARD							
Globe (glass)	MBG (GL)	MBAG							
Refractor (all glass) Type V	VMR175 (R5)	VMAG17							
Refractor (spin top) 8" Type V	VZRG1550 (S8)	VMRWG8							
Refractor (spin top) 12" Type V	VZRG2550 (S5)	VMRWGS							
8" Spin-top flat lens (glass) 14-24W	VZRGF8 (GF)	VZRF8GRD							
8" Spin-top flat lens (polycarbonate) 14-24W	VZRPF8 (PF)	VZRF8GRD							
Refractor polycarbonate (spin -top) 12" Type V	VZRP175 (P5)	VMRWGS							
Pathway Reflector 14-24W	VZRF8PR	NA							
Reflector for MBG Globe - DOME	VMPSD-17	NA							
Reflector for MBG Globe - ANGLE	VMPA-17	NA							
120VAC Photocell with FS Style Cover	VMFSPC1	NA							
208-277VAC Photocell with FS Style Cover	VMFSPC2	NA							
3-sided EXIT Accessory (use without guard)	VEXA100B	NA							

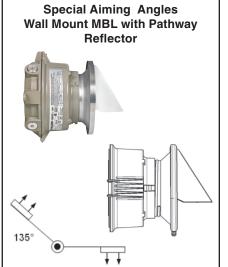


COMPACT SIZE - RATINGS, SPECIAL AIMING ANGLES

ORDERING INFORMATION AND AMBIENT SUITABILITY			OPTIC ILY		D W/ Ctor	C2D1 On	OPTIC ILY		W/ Ctor			
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
MBL1427			12-24VDC	1.17-0.58								
MBL1430		14	120-277VAC	0.12-0.05	T5	T4A	T4	T3B	T4A	T4A	T4A	T4A
MBL1434			120-250VDC	0.12-0.04								
MBL1727]		12-24VDC	1.42-0.71								
MBL1730		17	120-277VAC	0.14-0.06	T5	T5	T5	T5	T4	T4	T4	T4
MBL1734			120-250VDC	0.14-0.06								
MBL2027			12-24VDC	1.67-0.83								
MBL2030	10.00 / 4.54	20	120-277VAC	0.17-0.07	T5	T5	T5	T5	T4	T4	T4	T4
MBL2034			120-250VDC	0.17-0.06								
MBL2227			12-24VDC	1.83-0.92								
MBL2230]	22	120-277VAC	0.18-0.08	T4A	T4	T4A	T4	T4	T4	T4	T4
MBL2234			120-250VDC	0.18-0.07								
MBL2527]		12-24VDC	2.08-1.04								
MBL2530		25	120-277VAC	0.21-0.09	T5	T5	T5	T5	T4	T4	T4	T4
MBL2534			120-250VDC	0.21-0.08								
MBL4027		40	12-24VDC	3.33-1.67	T5		T5	_	T4		T4	_
MBL4030	15.5 / 7.03	70	120-277VAC	0.33-0.14	13		13		14		14	
MBL5027	10.5 / 7.05	50	12-24VDC	4.17-2.08	T5	_	T5	_	T4	_	T4	_
MBL5030		30	120-277VAC	0.42-0.18	10		10		14		14	

TYPICAL WEIGHTS (LBS.) W/STANDARD GLOBE AND GUARD - MBL SERIES									
14-25W	Pendant 14.96	Ceiling 15.96	Wall 19.30	Stanchion 16.83					
40-50W	Pendant 20.96	Ceiling 21.69	Wall 25.30	Stanchion 22.83					

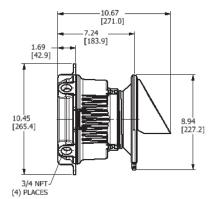
DELIVERED LUMENS										
WATTS MBL + MBG MBL + VMR MBL + VZRXF										
14	910	800	980							
20	1785	1570	2009							
22	1365	1201	1427							
25	2485	2236	3186							
40	3625	3821	-							
50	5824	6139	-							



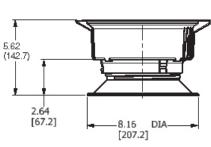
14W-25W MBL Housings with 8" Flat Spin-Top Lens may be aimed from 135° to 0° with or without the VZRF8PF Pathway Reflector. Pathway Reflector must NOT be aimed upwards in a Class II (Dust) environment, or where any contaminant may be collected. Applications include tunnels, lighting dark spots around ceiling piping or pathways near handrails.



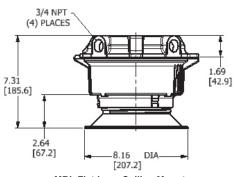
COMPACT SIZE - DIMENSIONS & WEIGHTS



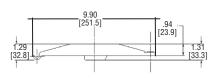
MBL Flat Lens, Pathway Reflector Wall Mount



MBL Tank with Flat Lens



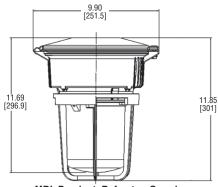
MBL Flat Lens Ceiling Mount



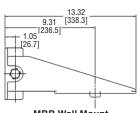
MBA Pendant



MBL Pendant, Globe, Guard

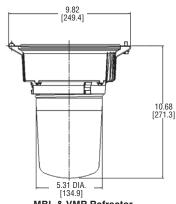


MBL Pendant, Refractor, Guard

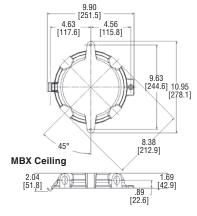


MBB Wall Mount

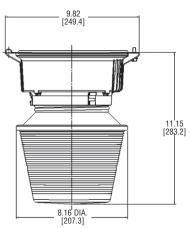




MBL & VMR Refractor



13.28 [337.3] - [185.9] 3.04 [77.2] 2.50 [63,5] **MBD Stanchion**



MBL & 8" Type V Spin-top

9.82 [249.4] 13.13 [333.5] 12.19 DIA. [309.6]

MBL & 12" Type V Spin-top



REDUCED PROFILE - INTRODUCTION





FEATURES-SPECIFICATIONS

Compliances

- · UL-8750 for LED lighting
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X

Materials

- Housing, splice box and cast guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware stainless steel
- Reflectors Polyester reinforced fiberglass



Polycarbonate 12" Spin-top Refractor VZRG2550

LED Luminaire Features and Standards

Supplemental 20KA/10KV Surge Protection is **standard** (for 120-277 VAC models) 10KA/10KV Surge Protection (for 347-480 VAC)

- Reduced profile with Traditional Industrial Appearance and Suitability
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, and spin-top refractors
- Swing-Barrel Nut patented tank mounting system
- **Optional Mounting arrangements** including Pendant, Wall, Ceiling, Stanchion and others
- VM1L LED Housings can be retrofitted to existing VM splice boxes; upgrade from HID sources
- Energy Savings less than 55 Watts of Power

Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC, IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III Suitable for wet locations Marine Rated (US only) Type 3, 4X



Certified - File LR11713

- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000°K (CCT); **70 CRI**
- Ambient suitability -40°C to 55°C
- Instant on including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections Vibration Resistant
- Dual Driver Option (DDR) For additional energy savings, half of the fixture can be turned off
- Warm LED color option available with 3070 option





Photo controls - Class I Div. 2 / N4X areas Available as Field or Factory Installed to save energy



Earthquake Tab -Built-in attachment point for safety cables.

Safety: Secures fixture to structure in case of conduit failure.

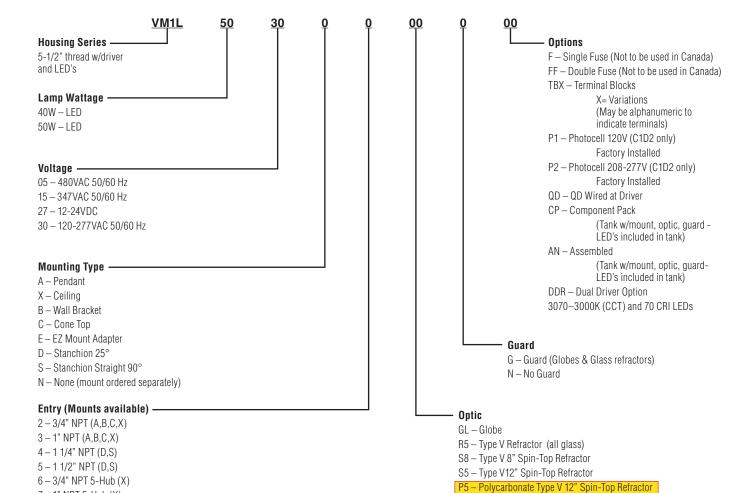




REDUCED PROFILE - CATALOG LOGIC



CertiLite®V LED Catalog Number Logic





N - None (mount ordered separately)

7 - 1" NPT 5-Hub (X) 8 – M20 4-Hub (X) 9 - M20 5-Hub (X) Z – EZ Mount Adapter

VM1L SERIES



REDUCED PROFILE - COMPONENTS



Pendant

25° Stanchion



Ceiling

Straight Stanchion



Wall



EZ Adapter* VMEŻA





Tank Adapter

	CERTILITE®V VM MOUNTING SPLICE BOXES											
LIID CITE	HUB SIZE CATALOG NUMBER											
HOD SIZE	PENDANT	PENDANT CEILING 4 HUB CEILING 5 HUB WALL CONE TOP 25 DEGREE STANCHION 90 DEGREE STANCHION										
3/4"	VMA2B	VMA2B										
1"	VMA3B	VMX3B	VMX7B	VMB3B	VMC3B	_	_					
1-1/4"	_	_	_	_	_	VMD4B	VMS4B					
1-1/2"	1	_	_	_	_	VMD5B	VMS5B					
M-20	_	VMX8B**	VMX9B**	VMB8B**	_	_	_					

^{*} VMEZA is used between a driver tank and an EZ mount-ordered separately.

^{**} Furnished with 🖾 non-metallic plugs. Also available: VMB10B wall 4xM25 hubs, and VMB810B 2xM20 side hubs and 2xM25 top/bottom

VM1L LED OPTICS AND ACCESSORIES									
DESCRIPTION	OPTIC LOGIC	GUARD							
Globe (glass)	VMG17 (GL)	VMAG17							
Refractor (all glass) Type V	VMR175 (R5)	VMAG17							
Refractor (spin top) 8"Type V	VZRG1550 (S8)	VMRWG8							
Refractor (spin top) 12"Type V	VZRG2550 (S5)	VMRWGS							
Refractor polycarbonate (spin-top) 12" Type V	VZRP175 (P5)	VMRWGS							
DOME REFLECTOR (Polyester reinforced fiberglass)	VMPSD40	NA							
ANGLE REFLECTOR (Polyester reinforced fiberglass)	VMPA40	NA							
120VAC Photocell with FS Style Cover	VMFSPC1	NA							
208-277VAC Photocell with FS Style Cover	VMFSPC2	NA							
3-sided EXIT Accessory (use without guard)	VEXA100B	NA							
Tank adapter to Crouse-Hinds® VM Series mounts*	VMCHVM	NA							

	C1D2		C2D1							
CATALOG No.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	VMG15 LUMENS	VMR175 LUMENS	40°C	55°C	40°C	55°C
VM1L4005	480 VAC 0.09 347 VAC 0.13									
VM1L4015		40	347 VAC	0.13	5267	5060	0 T5	T4A	T4	
VM1L4027		40	12-24VDC	3.33-1.67	3207				`	4
VM1L4030	15.50 /		120-277VAC	0.36-0.16						
VM1L5005	7.03		480 VAC	0.10				1		
VM1L5015		50	347 VAC	0.14	6162	6427	T5	T4A	_	4
VM1L5027	1 1	50	12-24VDC	4.17-2.08	0102	0427	10	14A	T4	4
VM1L5030			120-277VAC	0.43-0.18						



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VMR175



VZRG1550



VZRG2550



VMAG17



VMRWG8 VMRWGS





VMPSD40



VMFSPC1

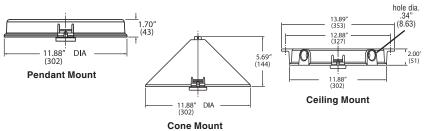


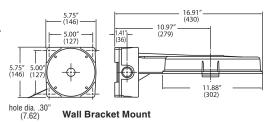
VEXA100B

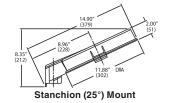
TYPICAL WEIG	TYPICAL WEIGHTS (LBS.) W/ STANDARD GLOBE AND GUARD - VM1L SERIES								
Pendant 23.00	Ceiling 24.10	Wall 27.50	Stanchion 23.90						

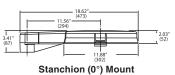


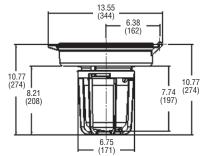
REDUCED PROFILE - DIMENSIONS & WEIGHTS



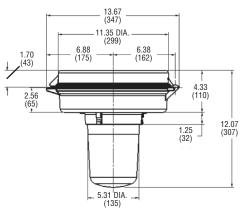




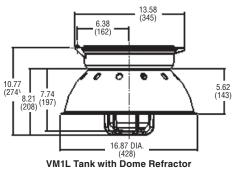




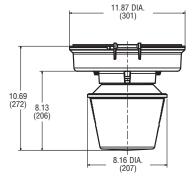
VM1L Tank Globe & Guard



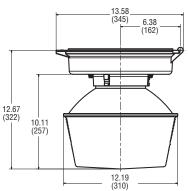
VM1L Tank w/Pendant Mount & Globe







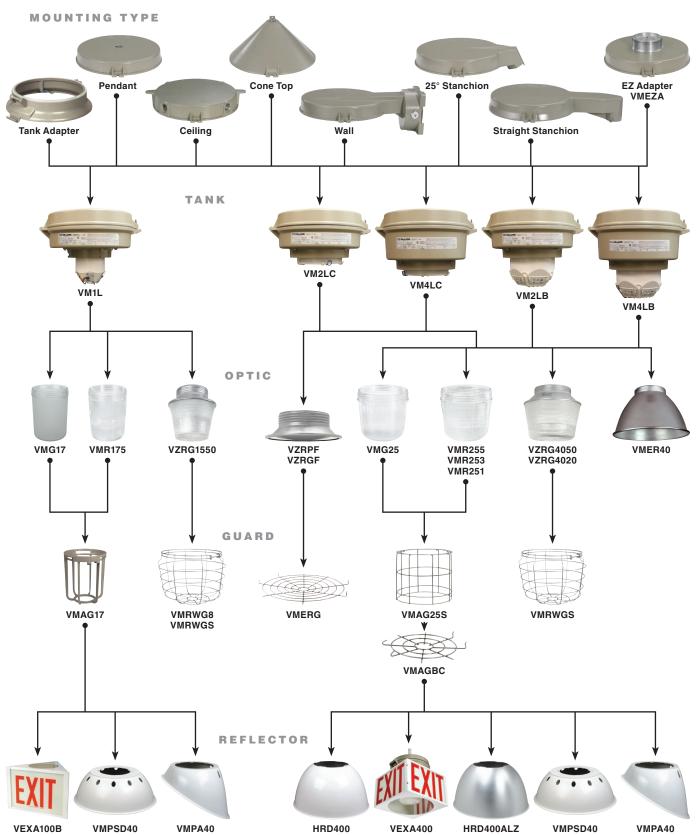
VM1L Tank with 8" Spin-top Refractor



VM1L Tank with 12" Spin-top Refractor



HOUSING FIXTURE ASSEMBLY GUIDE



VM2&4LB, VM2&4LC SERIES

HIGH WATTAGE – INTRODUCTION







VM4LB with Globe/ Guard



VM4LC with Flat Lens











IECEx Rated Models (VM4L with IEx suffix)
Ex nA IIC T4, Gc / Ex tb IIC T83°C Db Tamp -40°C ≤Ta≤+65°C, IP66

IECEx Certificate QPS 15.0006

INMETRO Certificate IEx 16.0137

ATEX Certificate
CML 15ATEX4101X(nA)
&
CML 15ATEX3102X(tb)

Contact Factory for other certification details



Consult website for current list of approved luminaires

- Ambient suitability -40°C to 65°C (see tables). -20°C to 50°C Ambient suitability for Emergency models.
- Warm LED color option available with 3070
- Instant On Including after power interruption
- World Voltage 120 277VAC 50/60Hz
- Solder-LESS LED Board Connections Vibration Resistant
- Dual Driver Option (DDR) For additional energy savings, half of the fixture can be turned off.
- Two LED internal heat sink styles
 - » Bulb VM2LB/VM4LB
 - » Concave VM2LC/VM4LC



FEATURES-SPECIFICATIONSCompliances

- UL-8750 for LED lighting
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminairies for use in hazardous locations
- · Enclosed and gasketed
- Type 3, 4X
- IP66 & Marine
- Self-testing per NFPA 101[®] Life Safety Code

Materials

- Housing, splice box and cast guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware stainless steel
- Reflectors Polyester reinforced fiber glass or aluminum

LED Luminaire Features and Standards

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models) 10KA/10KV Surge Protection (for 347-480 VAC)

- Traditional Industrial Appearance, Suitability, and Photometric Performance
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, spin-top refractors and flat lens
- Swing-Barrel Nut patented tank mounting system
- Optional Mounting arrangements including Pendant, Wall, Ceiling, Stanchion and others
- VM4L LED Housings can be retrofitted to existing VM splice boxes; upgrade from HID sources
- VM2Lx housing is 1.56" shallower for low ceilings
- Chromaticity outputs: Standard – 5000K 70 CRI 3070 option – 3000K 70 CRI
- TURTLE option provides Amber LEDs that have no blue wavelength light (Not available with 14 & 18 lumen outputs)
- AMBER option provides phospher converted LEDs. (Not available with 14 & 18 lumen outputs).
- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours



VM2&4LB, VM2&4LC SERIES



HIGH WATTAGE - CATALOG LOGIC



Killark high efficiency LED Luminaries require NO external heat sink which adds weight and collects dust and other contaminates



CertiLite®V LED Catalog Number Logic

VM2L or VM4L **Housing Series** Options/Accessories 7-3/4" thread w/driver **F** – Single Fuse (Not for use in CP - Component Pack (Tank w/ and LED's Canada) mount, optic, quard-LED's included in tank) FF - Double Fuse (Not for use in B - Bulb heat sink -Canada) AN - Assembled (Tank w/mount, C - Concave heat sink optic, guard- LED's **TBx** – Terminal Blocks x= Variations (May included in tank) Lumen Output S - Fiberglass White Reflector be alphanumeric to Approx. Lumen Output to the nearest indicate terminals) (VMPSD40) thousand with Globe IEX - IEC Ex includes TBL & A - Fiberglass ANGLE White 6 LED VM2, VM4 external ground. Not Reflector (VMPA40) 7 LED VM2, VM4 available with polyoptic, D - Deep White Reflector 9 LED VM2, VM4 fuses, photocells or (HRD400) 347/480 volt input. **12** LED VM4 Z - Deep Alzak Reflector RD - Red Tank/Mount/Guard (HRD400ALZ) **14** LED VM4 **P1** – Photocell 120V (C1D2 only) **18** LED VM4 3070 - 3000K (CCT) and 70 CRI Factory Installed **LEDs** Intelligent Emergency -**P2** – Photocell 208-277V (C1D2 TURTLE - Wildlife friendly Amber iE2 – 2K Lumens during 90 minute Emergency operation only) Factory Installed LEDs (Available on VM4L 6, 7, 9) P3 - Photocell 347V (C1D2 only) AMBER - PC Amber (Phosphor-(Available on VM2L & VM4L 6, 7, 9) Factory Installed converted LEDs QD - QD Wired at Driver Voltage -30 - 120-277VAC 50/60 Hz Guard **G** – Guard (Globes & Glass refractors) 33 - 347-480VAC 50/60Hz 34 - 120-250VDC non-emergency models N - No Guard Mounting Type Optic A - Pendant **GL** - Globe X - Ceiling R5 - Type V Refractor (all glass) **B** - Wall Bracket ER - Enclosed Refractor P5 – 12" Type V Polycarbonate Spin-Top* C - Cone Top E - EZ Mount Adapter \$2 - Type II 12" Spin-Top Refractor D - Stanchion 25° \$5 - Type V 12" Spin-Top Refractor S – Stanchion Straight 90° **PF** – Spin-Top with flat poly lens (VM2LC and VM4LC only) N - None (mount ordered separately) GF - Spin-Top with flat glass lens (VM2LC and VM4LC only) Entry (Mounts available) 2 - 3/4" NPT (A,B,C,X) **7** – 1" NPT 5-Hub (X) 3 - 1" NPT (A,B,C,X) 8 - M20 4-Hub (X) 4-11/4" NPT (D,S) 9 - M25 5-Hub (X) 5 - 1 1/2" NPT (D,S) Z - EZ Mount Adapter 6 - 3/4" NPT 5-Hub (X) N - None (mount ordered separately)

*Non-glass Group G Food Processing Suitability





VM2&4LB, VM2&4LC SERIES

HIGH WATTAGE - OPTICS AND ACCESSORIES

DELIVERED LUMENS										
CATALOG NUMBER	VMG25 VMR255		VMER40	VZRP175B	VZRG4020	VZRG4050	VZRPF12	VZRGF12		
	GL	R5	ER	P5	\$2	\$5	PF	GF		
VM4LB6(XX)(YY)N	6278	5915	4575	4692	4771	4879				
VM4LC6(XX)(YY)N	6223	5127	4645	4880	4989	4914	5570	5644		
VM4LB7(XX)(YY)N	7437	6996	5589	5846	5968	5973				
VM4LC7(XX)(YY)N	7344	6026	5491	5757	5892	5830	6563	6679		
VM4LB9(XX)(YY)N	9692	9084	7465	7928	8090	8078				
VM4LC9(XX)(YY)N	9453	7746	6973	7420	7420 7671 7482		8492	8647		
VM4LB12(XX)(YY)N	12750	12020	9804	10410	10550	9168				
VM4LC12(XX)(YY)N	12300	10380	9470	9969	10190	10030	11370	11570		
VM4LB14(XX)(YY)N	14760	13810	11240	11890	12110	12010				
VM4LC14(XX)(YY)N	14120	11980	10910	11460	11810	11520	13080	13300		
VM4LB18(XX)(YY)N	17710	16700	14080	14910	15050	15140		·		
VM4LC18(XX)(YY)N	17820	14530	13380	13970	14390	14190	15940	16270		

(XX) = VOLTAGE(YY) = MOUNT















VMG25

VMR255 VMER40

ER40 VZRP

VZRP175B

VZRG4020

VZRG4050

VZRPF/VZRGF

TYPICAL WEIGHTS (LBS./KG) W/STANDARD GLOBE AND GUARD - VM4LB/C SERIES									
Pendant	Ceiling	Wall	Stanchion 34.3/15.6						
33.4/15.2	33.0/15.0	37.9/17.2							

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2			C2D1		
CATALOG NO.②	TYPICAL TANK ONLY WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS [®]	40°C	55°C	65°C	40°C	55°C	65°C	
VM4L(Y)630		40	120-277 VAC	0.35-0.16	T4A	T4A	T4	EFG			
VM4L(Y)633	1	40	347-480VAC	0.12-0.09							
VM4L(Y)634		40	120-250VDC	0.33-0.16							
VM4L(Y)730		50	120-277 VAC	0.43-0.21	T4A	T4A	T4	EFG			
VM4L(Y)733		50	347-480VAC	0.15-0.12							
VM4L(Y)734		50	120-250VDC	0.42-0.20							
VM4L(Y)930		65	120-277 VAC	0.56-0.24	T4A	T4A	T4	EFG			
VM4L(Y)933		65	347-480VAC	0.19-0.14							
VM4L(Y)934	18.90 / 8.57	65	120-250VDC	0.54-0.26							
VM4L(Y)1230		90	120-277 VAC	0.77-0.33	T4A	T4	-				
VM4L(Y)1233		90	347-480VAC	0.27-0.19				EFG	-		
VM4L(Y)1234		90	120-250VDC	0.75-0.36							
VM4L(Y)1430		105	120-277 VAC	0.89-0.39	T4A	T4	-	EFG			
VM4L(Y)1433		105	347-480VAC	0.31-0.23					-		
VM4L(Y)14834		105	120-250VDC	0.88-0.42				L			
VM4L(Y)1830		130	120-277 VAC	1.10-0.46			_		EFG		
VM4L(Y)1833		130	347-480 VAC	0.38-0.27			_	Eru			

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2			C2D1		
CATALOG NO.②	TYPICAL TANK ONLY WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS ^①	40°C	55°C	65°C	40°C	55°C	65°C	
VM2L(Y)630		40	120-277 VAC	0.35-0.16	T4A	T4A	T4	EFG			
VM2L(Y)633		40	347-480VAC	0.12-0.09							
VM2L(Y)634		40	120-250VDC	0.33-0.16							
VM2L(Y)730		50	120-277 VAC	0.43-0.21							
VM2L(Y)733	17.65 / 8.00	50	347-480VAC	0.15-0.12	T4A	T4A	T4		EFG		
VM2L(Y)734	1	50	120-250VDC	0.42-0.20							
VM2L(Y)930		65	120-277 VAC	0.56-0.24							
VM2L(Y)933		65	347-480VAC	0.19-0.14	T4A	T4A	T4		EFG		
VM2L(Y)934		65	120-250VDC	0.54-0.26	1						

① For a given wattage current values are the same, regardless of tank type VM2LB/C or VM4LB/C.

② Replace (Y) with heat sink style B or C.



HIGH WATTAGE SELF-TESTING EMERGENCY

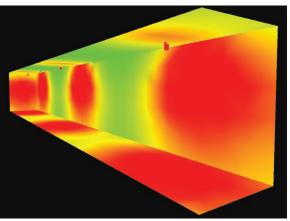
Electronics Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs
 a 1 minute test once a month and an
 alternating 30-60 minute test once every
 6 months. LED indicator provides visible
 fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

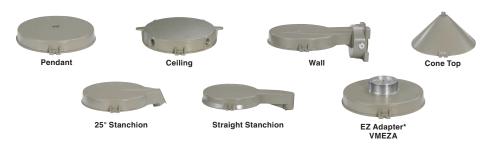
TEST SWITCH INDICATOR STATUS					
LED INDICATORS STATUS	EM DRIVER STATUS/MODE				
Solid Green	System OK/AC OK (Self-diagnostic Enabled or Disabled).				
Slow Flashing Red, 4s on/1s off	Battery not detected, check battery switch or connection.				
Flashing Red, 1s on/1s off	Battery Failure, replace battery.				
Flashing Green, 1s on/1s off	Self Diagnostic test underway.				
Fast Flashing Red, 0.1s on/0.1s off	Abnormal driver performance, replace driver.				
Very Slow Flashing Red, 4s on/4s off	Over temperature.				
None. Both LEDs OFF	Normal working in EM mode.				
Green/Red alternative flashing, 1s green/1s red	No load or output over voltage protection triggered.				

LED Emergency Lighting Design





HIGH WATTAGE - COMPONENTS



	CERTILITE®V VM MOUNTING SPLICE BOXES								
		CATALOG NUMBER							
HUB SIZE	PENDANT	PENDANT CEILING 4 HUB CEILING 5 HUB WALL CONE TOP 25 DEGREE STANCHION STRAIGHT STANCHION							
3/4"	VMA2B	VMX2B	VMX6B	VMB2B	VMC2B	_	_		
1"	VMA3B	VMX3B	VMX7B	VMB3B	VMC3B	_	_		
1-1/4"	_	_	_	_	_	VMD4B	VMS4B		
1-1/2"	_	_	_	_	_	VMD5B	VMS5B		
M-20	_	VMX8B	VMX9B	VMB8B	_	_	-		
M-25	_	_	_	VMB10B	_	_	_		

VM2&4LB, VM2&4LC SERIES

HIGH WATTAGE - COMPONENTS & RATINGS



"EZ" Mount Adapter For easy fixture relocation or to repair fixture on 'bench top'.



VMEZA adapter is used between a driver tank and EZ mount ordered separately.

Pendant

Ceiling





Wall Bracket

25° Stanchion

MOUNTING BOXES							
	CATALOG NUMBER						
PENDANT	PENDANT CEILING BRACKET STANCHION						
EZA2	EZX2	EZB3	_	3/4"			
EZA3	EZA3 EZX3 EZB3 —						
_	— — EZD4A						

^{*1-1/2&}quot; furnished with 1-1/2"-1-1/4" reducer and extension.

Competitive Adapters

Designed to ease upgrading of other manufacturer's fixtures to KILLARK LEDs where removal of existing mounting screws and conduit would be difficult and time consuming.

VM2L/VM4L LED OPTICS AND ACCESSORIES					
DESCRIPTION	OPTIC LOGIC	GUARD			
Flat Lens (glass spin top) "C" tank only	VZRGF12 (GF)	VZRF12GRD			
Flat Lens (polycarbonate spin top) "C" tank only	VZRPF12 (PF)	VZRF12GRD			
Globe (glass)	VMG25 (GL)	VMAG25S			
Refractor (all glass) Type V	VMR255 (R5)	VMAG25S			
Enclosed Reflector	VMER40 (ER)	VMERG			
Refractor (polycarbonate spin top) 12" Type V	VZRP175B (P5)	VMRWGS			
Refractor (glass spin top) 12" Type V	VZRG4050 (S5)	VMRWGS			



VMAG25S





VMERG



VMAGBC



VMPSD40 Standard Dome, Fiberglass White Reflector, Dia: 16"



VMPA40 30° Angle, Fiberglass White Reflector, Dia:16"

VM2L/VM4L LED REFLECTORS AND ACCESSORIES				
DOME REFLECTOR (Polyester reinforced fiberglass)	VMPSD40			
ANGLE REFLECTOR (Polyester reinforced fiberglass)	VMPA40			
DEEP DOME REFLECTOR (White Painted Aluminum)	HRD400			
DEEP DOME REFLECTOR (Anodized Aluminum)	HRD400ALZ			
120VAC Photocell with FS Style Cover	VMFSPC1			
208-277VAC Photocell with FS Style Cover	VMFSPC2			
Bottom Closure for VMAG25S	VMAGBC			



HRD400 Deep Aluminum, White Reflector, Dia: 21"



HRD400ALZ Deep Aluminum, Anodized Reflector, Dia: 21"



VEXA400 Fixture not included



VMFSPC



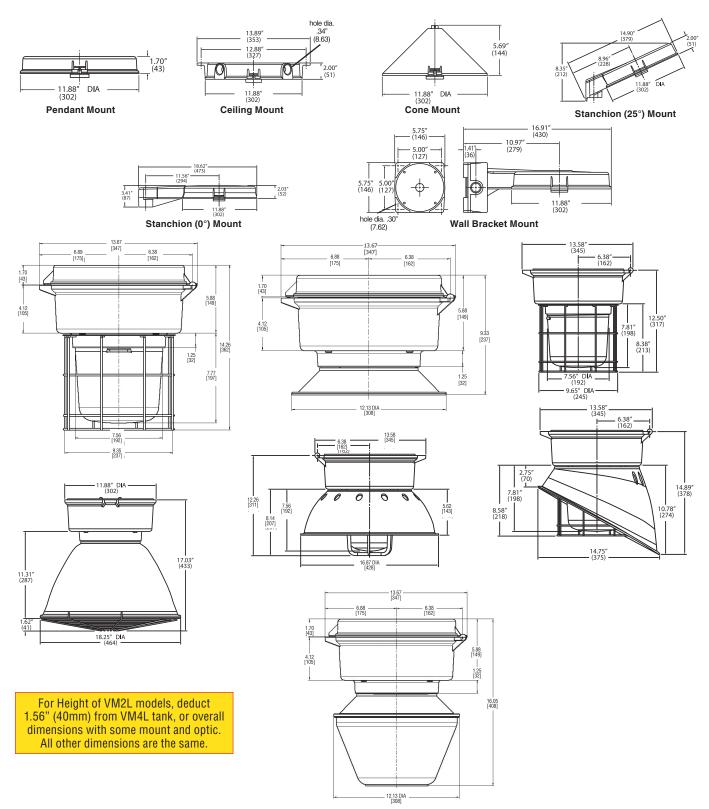
4-sided EXIT Accessory (use without guard)



VEXA400



HIGH WATTAGE - DIMENSIONS & WEIGHTS



FIXTURE ADAPTERS







VMCHVM-DEEP



FEATURES-SPECIFICATIONS

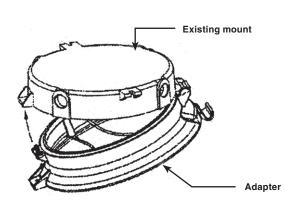
Applications

The Killark VM adapters are designed to ease upgrading of other manufacturer's fixtures to KILLARK LEDs where removal of existing mounting screws and conduit would be difficult and time consuming.

Adapters are used with the Killark Fixture Housing, Globe, guard (if applicable) and the competitive fixture splicebox. The Killark fixtures when used with the Killark adapters and appropriate competitive adapter.

Features

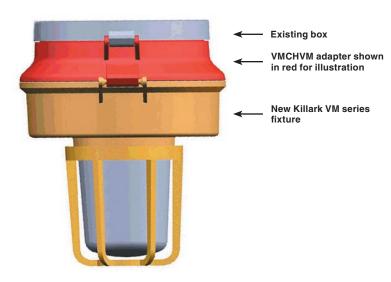
- · Fixture and competitive mount are certified together
- Baked powder epoxy/polyester finish, electrostatically applied to match the Killark VM tank
- All external hardware Stainless Steel







VM SERIES COMPETATIVE ADAPTERS							
CATALOG NUMBER	DESCRIPTION	EXAMPLE OF MODEL UTILIZED OR REPLACED					
VMCHVM	Tank adapter to Crouse-Hinds® VM Series mounts	VMV S2 C 050 R5					
VMCHVM-DEEP	Tank adapter to CH (70's era wall mount with deep box)	VMV S2 TW 050 R5					
VMM2LP	Tank adapter to Appleton® MERCMASTER II mounts	LPCL 50 75 J					
VMM3KP	Tank adapter to Appleton® MERCMASTER III mounts	KPCL 50 75 J5 MT					
VMHLDS	Tank adapter to Hazlux®3 mounts	DS015 H040-TGL-P2 E1 F					
VMHPP2	Tank adapter mount to Holophane® Petrolux™	PETL 250HP 27 S25 CD					
VMGEH2	Tank adapter H2 mount to GE® H2 Filtr-gard™	H2 4 05L 3C GG					







EXPLOSION-PROOF - INTRODUCTION & LOGIC



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
Suitable for wet locations
Suitable for Paint Spray Booth
Marine Rated (US only)
Type 3, 4, 4X
Factory Sealed



Certified - File LR11713

HOSTILE

FEATURES-SPECIFICATIONSCompliances

- UL-8750 for LED lighting
- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- Type 3, 4, 4X, 7CD, 9EFG

Materials

- Housing, splice box and guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electorstatically applied for complete, uniform corrosion protection
- All external hardware Stainless Steel
- · Reflectors are aluminum with white finish

LED Luminaire Features and Standards

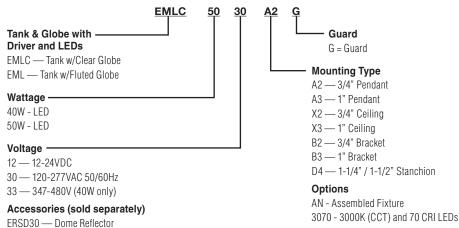
- Compact Explosion-proof with Traditional Industrial Appearance and Suitability
- Fluted or Exclusive Clear Globe; Dome or Angle Reflectors
- Optional Mounting arrangements including Pendant, Wall, Ceiling, and Stanchion
- EML LED Housings can be retrofitted to existing EZ splice boxes; upgrade from Incandescent, Fluorescent or HID
- Energy Savings Less than 55 Watts of Power
- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours

- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT range; approx. 70 CRI
- Ambient suitability -40°C to 55°C
- Instant on Including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections Vibration Resistant
- Factory Sealed Construction No external seal required, simply wire mouting cap and thread-in fixture to install
- Warm LED color option available with 3070

Suitable for Paint Spray Booth Applications

Catalog Number Logic

ERA30 — Angle Reflector





EXPLOSION-PROOF - COMPONENTS & RATINGS









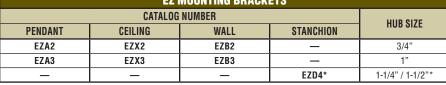




Pendant Ceiling **Wall Bracket** 25° Stanchion

Factory Sealed Photocell VMHKPC1

EZ MOUNTING BRACKETS						
	HUB SIZE					
PENDANT	PENDANT CEILING WALL STANCHION					
EZA2	EZX2	EZB2	_	3/4"		
EZA3	EZX3	EZB3	_	1"		
_	_	_	EZD4*	1-1/4" / 1-1/2"*		



* 1-1/2" furnished with 1-1/2" - 1-1/4" reducer

EML - EMLC LED ACCESSORIES					
DESCRIPTION	CATALOG NUMBER				
Guard	EMG2				
Dome Reflector	ERSD30				
Angle Reflector	ERA30				
CIDI C2D1 N4X Photocell 120VAC	VMHKPC1				
CIDI C2D1 N4X Photocell 208-277VAC	VMHKPC2				
Replacement Fluted Globe & Support	EMGS3				
Replacement Clear Globe & Support	EMGS2				
Adapter to old Killark "H" Series or Crouse Hinds®	EAC/EACH				







EMGS3 EMGS2



ERA30 Angle Dome

EML4530 EMLC4530

EAC/EACH

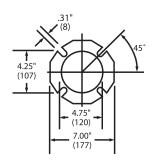
	ORDERING INFORMATION AND AMBIENT SUITABILITY							C1D1/C1Z1		C2D1	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	EML FLUTTED LUMENS	EMLC CLEAR LUMENS	40°C	55°C	40°C	55°C	
EML4030		40	120-277VAC	0.46-0.16	3479	3750	T6	T6	T4A (EFG)	T4 (EFG)	
EML4033	26.00 / 11.79	40	347-480VAC	0.14-0.10	3479	3750	10	10	14A (EFG)	14 (EFG)	
EML5030		50	120-277VAC	0.43-0.18	5740	5741	T6	T6	T4A (EFG)	T4 (EFG)	

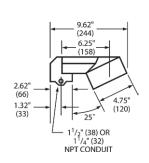
	TYPICAL	WEIGHTS (LBS.) W/STANDAR	D GLOBE AND GUARD - EML (C) SERIES
İ	Pendant 29.33	Ceiling 31.79	Wall 33.25	Stanchion 30.94

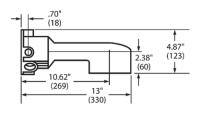


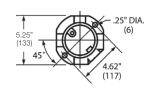


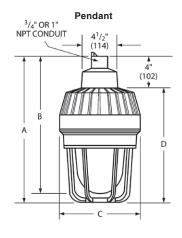
EXPLOSION-PROOF – DIMENSIONS & WEIGHTS

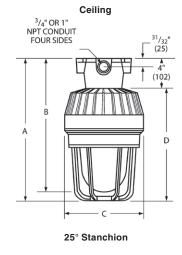


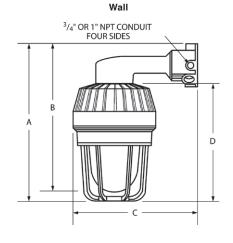


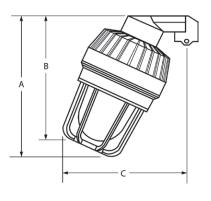












EML(C) DIMENSIONS								
TYPE A B C D								
PENDANT	15-15/16"	15-1/16"	8-13/16"	11-15/16"				
	(404)	(382)	(224)	(303)				
CEILING	15-15/16"	15-1/16"	8-13/16"	11-15/16"				
	(404)	(382)	(224)	(303)				
WALL	16-13/16"	15-15/16"	15"	11-15/16"				
	(426)	(404)	(379)	(303)				
STANCHION	15-1/8" (384)	14" (356)	13-1/2" (343)					

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EXPLOSION-PROOF - INTRODUCTION & LOGIC



Class I, Div. 1 & 2, Groups C,D Class I, Zones 1 & 2, Groups IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III, Div. 1 & 2 Suitable for wet locations **Suitable for Paint Spray Booth** Marine Rated (US only) Type 3, 4, 4X **Factory Sealed**



Certified - File LR11713

HOSTILE

FEATURES-SPECIFICATIONS

Compliances

- UL-8750 for LED lighting
- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- Type 3, 4, 4X, 7CD, 9EFG

Materials

- Housing, splice box, and guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electorstatically applied for complete, uniform corrosion protection
- All external hardware Stainless Steel
- Reflectors are aluminum with white finish

LED Luminaire Features and Standards

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models) 10KA/10KV Surge Protection (for 347-480 VAC)

- Explosion-proof with Traditional Industrial Appearance and Suitability
- Mounting choice Pendant, ceiling, 25° stanchion or 90° wall mount, all with "wireless" design that allows fast, easy fixture installation or removal for maintenance.
- · Accessories Available with or without guard, standard dome or angle reflector
- EZL LED Housings can be retrofitted to existing EZ splice boxes; upgrade from Incandescent, Fluorescent or HID
- Energy Savings Less than 130 Watts of Power

- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering - Chromaticity 5000K (CCT range; approx. 70 CRI
- Ambient suitability -40°C to 55°C
- Instant on Including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections -Vibration Resistant
- Factory Sealed Construction No external seal required, simply wire mouting cap and thread-in fixture to install
- Warm LED color option available with 3070

125 **Series Constant**

55 - 55 W 65 - 65 W

Lamp Wattage

90 - 90 W

95 - 95 W

100 - 100 W

125 - 125 W

Voltage, Frequency -

30 - 120 - 277 VAC, 50/60 Hz 33 - 347 - 480 VAC, 50/60 Hz

Catalog Number Logic

34 - 120-250VDC

Options

Guard

AN - Assembled Fixture

EB - Eyebolts

3070 - 3000K (CCT) and 70 CRI LEDs

G – Guard

(omit G if guard is not required)

Mounting Type

A2 - 3/4" Pendant

A3 - 1" Pendant

X2-3/4" Ceiling

X3 - 1" Ceiling

B2 - 3/4" Bracket B3 – 1" Bracket

D4 - 1-1/4" / 1-1/2" Stanchion





EXPLOSION PROOF - ORDERING INFORMATION, COMPONENTS & RATINGS



EZL SERIES PENDANT WITH OPTIC AND GUARD						
WATTS	HUB SIZE VOLTAGE		GLOBE & GUARD			
55	3/4"	120-277VAC	EZL5530A2G			
65	3/4"	120-277VAC	EZL6530A2G			
90	3/4"	120-277VAC	EZL9030A2G			
95	3/4"	120-277VAC	EZL9530A2G			
100	3/4"	120-277VAC	EZL10030A2G			
125	3/4"	120-277VAC	EZL12530A2G			

OPTIC AND GUARD	RACKET WITH	IES WALL B	EZL SER
GLOBE & GUARD	VOLTAGE	HUB SIZE	WATTS
EZL5530B2G	120-277VAC	3/4"	55
EZL6530B2G	120-277VAC	3/4"	65
EZL9030B2G	120-277VAC	3/4"	90
EZL9530B2G	120-277VAC	3/4"	95
EZL10030B2G	120-277VAC	3/4"	100
EZL12530B2G	120-277VAC	3/4"	125





EZL S	EZL SERIES CEILING WITH OPTIC AND GUARD										
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD								
55	3/4"	120-277VAC	EZL5530X2G								
65	3/4"	120-277VAC	EZL6530X2G								
90	3/4"	120-277VAC	EZL9030X2G								
95	3/4"	120-277VAC	EZL9530X2G								
100	3/4"	120-277VAC	EZL10030X2G								
125	3/4"	120-277VAC	EZL12530X2G								

EZL SEI	EZL SERIES STANCHION WITH OPTIC AND GUARD											
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD									
55	3/4"	120-277VAC	EZL5530D4G									
65	3/4"	120-277VAC	EZL6530D4G									
90	3/4"	120-277VAC	EZL9030D4G									
95	3/4"	120-277VAC	EZL9530D4G									
100	3/4"	120-277VAC	EZL10030D4G									
125	3/4"	120-277VAC	EZL12530D4G									



MOUNTING BOXES											
HUB	CATALOG NUMBER										
SIZE	PENDANT	PENDANT CEILING BRACKET									
3/4"	EZA2	EZX2	EZB2	_							
1"	EZA3	EZX3	EZB3	_							
1-1/4"/1-1/2"	_	_	_	EZD4							



Ceiling

EAC

25° Stanchion





HIC-BEIGE replacement wiring plug for EZBx Wall Bracket









VMPSD40

VMPA40

HRD400 HRD400ALZ (pictured)

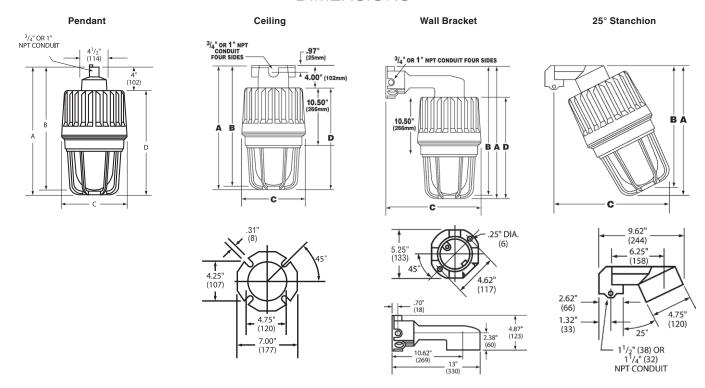
Replacement Globe & Support Assemblies EZGS1

Replacement Guard EZG1

	ORDERIN	G INFORMATION A	AND AMBIENT SUI	TABILITY		C1D1,	/C1Z1	C2D1		
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	VOLTAGE AMPS D		40°C	55°C	40°C	55°C	
EZL5530		55	120-277VAC	0.46/0.20	5596	T6	T6	EFG	EFG	
EZL6530		65	120-277VAC	0.54/0.23	6515	T6	T6	EFG	EFG	
EZL9030	36 / 16.33	90	120-277VAC	0.75/0.32	7818	T6	T6	EFG	EFG	
EZL9530	30 / 10.33	95	120-277VAC	0.79/0.34	9121	T6	T6	EFG	EFG	
EZL10030	1	100	120-277VAC	0.83/0.36	10903	T6	XXX	EFG	XXX	
EZL12530		125	120-277VAC	1.04/0.45	12720	T6	XXX	EFG	XXX	

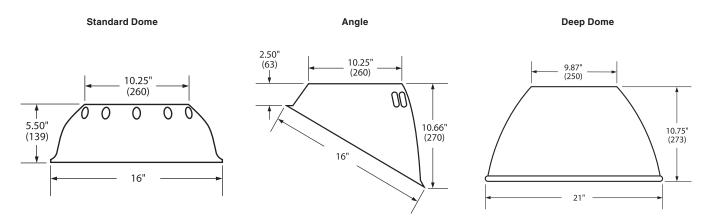


DIMENSIONS



	MOUNTING DIMENSIONS													
PENDANT				CEILING			BRACKET				STANCHION			
Α	В	C	D	A	В	C	D	A	В	C	D	A	В	C
22" (558)	21-1/4" (539)	11-1/4" (285)	18" (457)	22" (558)	21-1/4" (539)	11-1/4" (285)	18" (457)	22-7/8" (580)	22-1/8" (561)	16-3/4" (425)	18" (457)	24-7/8" (631)	24" (609)	19-13/16" (503)

Reflector Dimensions



SCHURE OF THE PARTY OF THE PART

FIXTURE ADAPTERS





EZBA12

Class I, Div. 1 & 2, Group D Class I, Zones 1 & 2, Groups IIA Class II, Div. 1 & 2, Groups E,F,G Class III



EAC/EACH

/EACH

FEATURES-SPECIFICATIONS



Applications

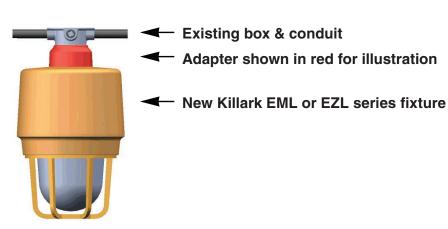
EAC Series adapters are designed to ease upgrading of existing Crouse-Hinds® "EV" series or existing Killark "H" series to Killark HOSTILELITE® EML or EZL series. Units are primarily designed to aid replacement of old ceiling or wall mount units where removal of the existing mounting box and conduit would be difficult or time consuming. Adapter & Killark fixtures rated Type 4.

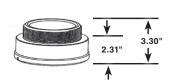
Adapters are used with Fixture Housing, Globe, Globe Support assemblies. Complete fixture with mounting box is not required. Adapters are painted to match Killark beige fixture finish.

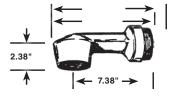
Features

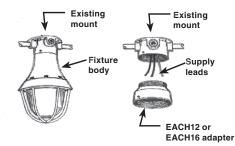
- Setscrews permit secure adapter attachment into old mounting box and to new fixture
- Converted fixtures may be easily removed for service using the Killark EZ mounting system. Wire terminals are included in the adapter (EZTB Terminal Block)

	EAC / EZBA FIXTURE ADAPTERS											
CATALOG NUMBER	DESCRIPTION	EXAMPLE OF MODEL Utilized or replaced										
EAC	Killark H series Ceiling or Wall	HXG-2-125 Fixture										
EACH12	Crouse old style Ceiling Mount with lamp socket in adapter ring between fixture body and a GUF 12 pitch box	GUF box w/Set Screw										
EZBA12	Crouse old style Wall Mount, old style Arm with integral lamp socket (socket in fixture in newer models) attached to GUF 12 pitch mounting box. EZBA12 includes arm	GUF box w/Set Screw										
EACH16	Crouse newer style ceiling or wall fixtures w/lamp socket in fixture body; mounted to EV series 16 pitch threaded box; adapter fits in ceiling box or existing arm attached to wall fixture	EVA26/EV22 Box; EVBX240										
EAAP-C2	Appleton Code-Master 2	CLC5075										



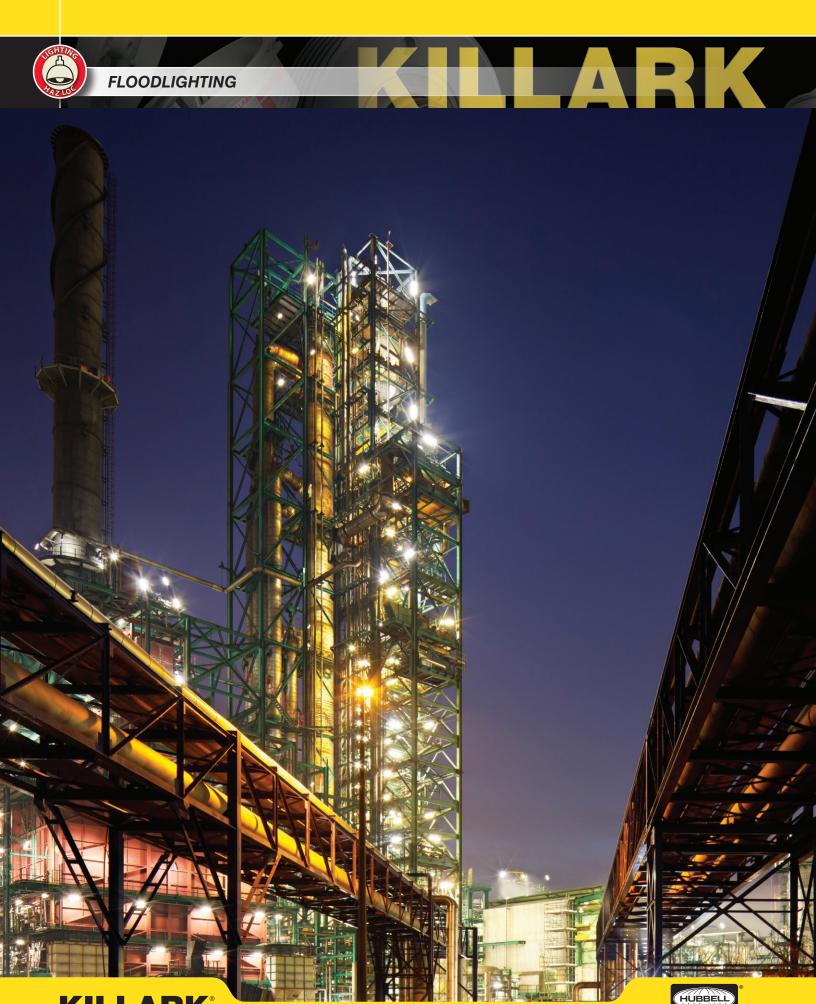












C1D2 FLOOD – INTRODUCTION & LOGIC



Segurança





Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models)

10KA/10KV Surge Protection (for 347-480 VAC)

FEATURES-SPECIFICATIONS

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminairies for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- **IP66**
- IEX suffix Zone 2/21 to IEC 60079-0, 60079-15, 60079-31 Standards

Materials

- Body, end caps and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware stainless steel
- Thermal shock and impact resistant glass
- High temperature silicone gasketing
- Trunnion heavy gauge galvanized steel with painted finish

LED Flood Features and Standards

- Crisp White Light for Excellent Color Rendering - Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings High lumens per watt
- LED Array Life 100,000+ hours with 70% initial lumens

 Long Fixture Life – 50,000 - 55,000 maintenance free hours

- Ambient suitability -50°C to 55°C up to 125W
- Instant On Including after power interruption
- World Voltage 120 277VAC 50/60Hz
- Solder-LESS LED Board Connections -Vibration Resistant
- Standard Fixture is supplied with a single 3/4" NPT entry
- Warm LED color option available with 3070 option
- Chromaticity output: Standard - 5000K 70 CRI 3070 option - 3000K 70 CRI
- TURTLE option provides Amber LEDs that have no blue wavelength light
- AMBER option provides phospher converted

Class I, Div. 2, Groups A,B,C,D Class II, Div. 1&2, Groups EFG Class III Suitable for wet locations Marine Rated (US Only) Type 3, 4X IP66



IEC Ex Rated model (w/IEX suffix) Zone 2 and Zone 21 areas Ex nA IIC T6...T3, Gc Ex tb IIIC T160°C Db Tamb -50°C <Ta<+55°C, IP66

IECEx Certificate CSA 14.0002X



IEX Units include Qty. 3 6mm terminals plus external ground as standard

XX

Catalog Number Logic

KFL

125

30

KFL - Series Constant Fixture Wattage -

060 - 60W

070 - 70W

075 - 75W

085 - 85W

090 - 90W

105 - 105W

110 - 110W

125 - 125W

150 - 150W

165 - 165W

195 - 195W



Consult website for current list of approved luminaires

Voltage -

30 - 120 - 277VAC 50/60Hz

33 - 347 - 480VAC 60Hz (60W to 125W models)

34 – 120 - 250VDC (60W to 125W models)

Options -

Single Fuse (Not for use in Canda)

Double Fuse (Not for use in Canda)

TBL - Terminal Blocks Looping (Std. w/IEX)

P1 - 120V Photocell, factory installed

P2 - 208V-277V Photocell, factory installed

P3 - 347V Photocell, factory installed

D20 - 2x M20 entries

D25 - 2x M25 entries

D75 - 2 x 3/4" NPT

SY - 316 SS Yoke

IEX - IECEx & ATEX includes TBL and External Ground (to 125W)

3070 - 3000K (CCT) and 70 CRI LEDs

TURTLE - Wildlife friendly Amber LFDs

AMBER - PC Amber (Phosphor-Converted) LEDs





C1D2 FLOOD - ORDERING INFORMATION & TECHNICAL DATA

0	RDERING IN	FORMATIO	N AND AMBIEN	T SUITABILIT	Υ	C1	D2	_	D2 Aneous	C2	D1	IEC Z	ONE 2	IEC ZO	NE 21
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED Lumens	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
KFL06030		60	120-277VAC	0.50-0.20	6111	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL07030		70	120-277VAC	0.60-0.30	9742	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL07530		75	120-277VAC	0.60-0.30	7454	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL08530			120-277VAC	0.70-0.30											1
KFL08533		85	347-480VAC	0.24-0.17	10840	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL08534			120-250VDC	0.70-0.27											
KFL09030	30.00 /		120-277VAC	0.80-0.40											
KFL09033		90	347-480VAC	0.28-0.23	9023	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL09034			120-250VDC	0.80-0.36										<u> </u>	
KFL10530			120-277VAC	0.90-0.40											
KFL10533		105	347-480VAC	0.31-0.23	10370	T4A	T4A	T3C	T3C	T3C (EFG)	T3C (EFG)	T4	T4	145	160
KFL10534			120-250VDC	0.90-0.36											
KFL11030			120-277VAC	0.90-0.40											1
KFL11033		110	347-480VAC	0.31-0.23	13780	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL11034			120-250VDC	0.90-0.36											
KFL12530			120-277VAC	1.00-0.50											i I
KFL12533		125	347-480VAC	0.35-0.29	15340	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL12534			120-250VDC	1.00-0.45											
KFL15030		150	120-277VAC	1.25-0.54	18550	T5	-	T3C	-	T3C (EFG)	-	T5	T5	160	160
KFL16530		165	120-277VAC	1.38-0.60	19220	T5	-	T3C	-	T3C (EFG)	-	T5	T4	160	160
KFL19530		195	120-277VAC	1.63-0.70	21940	T5	-	T3C	-	T3C (EFG)	-	T5	T4	160	160

	KFL MOUNTS AND ACCESSORIES
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe.
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Uses with KFS-6
KFLG	Wire Guard, 316 Stainless Steel (not used with KFL-DARK)
VMSC10	10' Stainless Steel Safety Cable with loop grip
KFL-DARK	Dark Sky Visor, White Painted Aluminum (not used with KFLG)
KFL-DOOR	Replacement Door and Lens Assembly (for units w/o internal reflectors)
KFL-DOOR2	Replacement Internal Reflector and Lens Assembly







KFWB Wall/Pipe Bracket



4041 Tenon Fitting

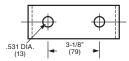


KFCB Cross Arm Mount

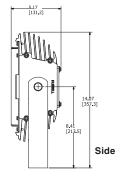


K4040 Wall Bracket

Dimensions



Trunnion Mounting Detail

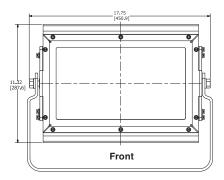






	CATALOG #	ENTRY Thread	RFND	CABLE ACCEPTANCE DETAILS DIAMETER 'C'					
I	GATALUG #	SIZE	DEND						
		(NPT)		MIN.	MAX.				
ĺ	MCX19C	1/2"	90°	.60" (15.2)	.82" (20.8)				
	MCX29	3/4"	90°	.73" (18.5)	1.03" (26.2)				

For entire series, please see page 81.





COMPACT FLOOD - INTRODUCTION & LOGIC



Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC, IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III Type 4X



File LR11713

PETRO BRIGHT LED

FEATURES-SPECIFICATIONS

LED Flood Features and Standards

- One 3/4" NPT hub & R-21 3/4" x 1/2" reducer is standard
- Crisp White Light for Excellent Color Rendering

 Chromaticity 5000 K (CCT); approx. 70 CRI
- Energy Savings High lumens per watt
- LED Array Life 100,000+ hours with 70% initial lumens

ORDERING INFORMATION AND AMBIENT SUITABILITY

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models) 10KA/10KV Surge Protection (for 347-480 VAC)

- Long Fixture Life 50,000 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C

C1D2

• Instant On – Including after power interruption

C1D2

C2D1

 Solder-LESS LED Board Connections – Vibration Resistant

Catalog Number Logic

KF

<u>30 X X</u>

<u>45</u>

KFLC - Series Constant

LED Wattage

15 - 15W "30, 27 or 34" voltage codes

20 - 20W "30, 27 or 34" voltage codes

25 - 25W "30, 27 or 34" voltage codes

30 - 30W "30" voltage code 120 - 277VAC

35 - 35W "30" voltage code 120 - 277VAC

40 - 40W "30" voltage code 120 - 277VAC

45 - 45W "30" voltage code 120 - 277VAC

50 - 50W "30" voltage code 120 - 277VAC

Voltage

30 - 120 - 277VAC 50/60Hz

27 - 12 - 24VDC input

34 - 120-250VDC input; 120-277VAC (15 - 23W only)

Options

LY- Less Yoke for Wall Mount

F- Single Fuse (Not for use in Canada)

FF- 2 Fuses (Not for use in Canada)

SP- Surge Protection

TBL- Terminal Blocks Looping

D75- Dual 3/4" threaded NPT entry

M25- Single M25 Slip-hole Entry

D25- Two M25 Slip-hole Entry

M20- Single M20 Slip-hole Entry

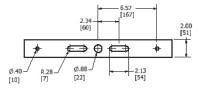
D20- Dual M20 Slip-hole Entry

PL- Polycarbonate Lens

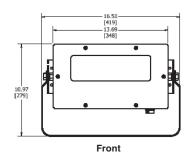
3070- 3000K (CCT) and 70 CRI LEDs

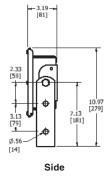
CATALOG WEIGHT DELIVERED 40°C 40°C 40°C WATTS **VOLTAGE AMPS** 55°C 55°C 55°C LBS./KG LUMENS NO. KFLC1527 12-24VDC 1.3-0.6 KFLC1530 15 120-277VAC 0.2-0.1 1435 T6 T6 T4 ТЗВ T4A T4A KFLC1534 120-250VDC 0.2-0.1 KFLC2027 12-24VDC 1.7-0.8 KFLC2030 120-277VAC 0.2-0.1 20 2170 T6 T6 T4 T4A T4A T₃B KFLC2034 120-250VDC 0.2-0.1 KFLC2527 2.1-1.0 12-24VDC 9.50 / 4.31 KFLC2530 25 120-277VAC 0.2-0.1 2667 T6 T6 T4 ТЗВ T4A T4A KFLC2534 120-250VDC 0.2-0.1 KFLC3030 30 0.26-0.11 2662 T4A Т6 Т6 T4 T3B T4A KFLC3530 35 0.30-0.13 3302 T6 T6 T4 ТЗВ T4A T4A KFLC4030 40 120-277VAC 0.34-0.15 4039 T6 T6 T4 ТЗВ T4A T4A KFLC4530 45 4718 T4A 0.38-0.17 T6 T6 T4 T3B T4A KFLC5030 50 0.42-0.18 T4 T4A T4A 5353 T6 T6 T3B

Dimensions



Trunnion Mounting Detail









C1D2 FLOOD – INTRODUCTION & LOGIC









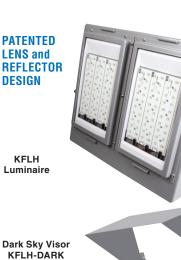
Class I, Div. 2, Groups A, B, C, D Class I, Zone 2, IIC, IIB, IIA Class II, Div. 1 & 2, Groups E, F, G Class III Suitable for wet locations Marine Rated (US only) Type 3, 4X **IP66**

IEC Ex Rated Model Zone 2 and Zone 21 areas Ex nA IIC T6...T3, Gc Ex tb IIC T105°C, Db Tamb -50°C < Ta < +55°C, IP66



IECEx Certificate QPS 15.0011

ATEX Certificate CML 15ATEX4079X (nA) CML 15ATEX3080X (tb)





FEATURES-SPECIFICATIONS

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminairies for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- **IP66**

Materials

- Body and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware stainless steel
- Thermal shock and impact resistant glass lens (Polycarbonate available)
- High temperature silicone gasketing
- Trunnion heavy gauge 316 stainless steel

LED Flood Features and Standards

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models) 10KA/10KV Surge Protection (for 347-480 VAC)

- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings High lumens per watt
- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55.000 maintenance free hours
- Ambient suitability -40°C to 55°C up to 250W to -50°C for non-hazardous applications
- Instant On Including after power interruption
- World Voltage 120 277VAC 50/60Hz
- Solder-LESS LED Board Connections -Vibration Resistant
- Standard fixture is supplied with dual M20 slip holes with 3/4" NPT hub adapters with one plugged
- Warm LED color option available with 3070

Catalog Number Logic KFLH 170 30 **KFLH - Series Constant Fixture Wattage 170 -** 170W 210 - 210W 220 - 220W 250 - 250W Voltage -300 - 300W 30 - 120 - 277VAC 50/60Hz **390 -** 390W 33 - 347 - 480VAC 60Hz (170W to 250W)

34 - 120 - 250VDC (170W to 250W)

Options

PL - Polycarbonate Lens

F - Single Fuse (Not for use in Canada)

FF - Double Fuse (Not for use in Canada)

TBL - Terminal Blocks Looping

P1 - 120V Photocell, factory installed

P2 - 208V-277V Photocell, factory installed

P3 - 347V Photocell, factory installed

3070 - 3000K (CCT) and 70 CRI LEDs

TURTLE - Wildlife Friendly Amber LEDs

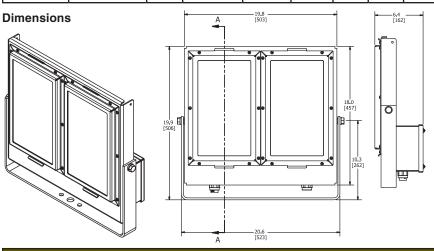
AMBER - PC Amber (Phosphor Converted) LEDs



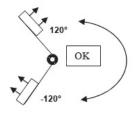


C1D2 FLOOD - ORDERING INFORMATION & TECHNICAL DATA

0	RDERING INFORMA	TION AND	AMBIENT SUIT	ABILITY		C1	D2 C1D2 SIMULTANEOUS		C2D1		IEC ZONE 2		IEC ZONE 21		
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
KFLH17030			120-277VAC	1.46-0.63											
KFLH17033		170	347-480VAC	0.51-0.36	21620	T4A	T4	T4	T3C	T4	T3C	T4	T4	T100°C	T100°C
KFLH17034			120-250VDC	1.46-0.56											
KFLH21030			120-277VAC	1.75-0.75											
KFLH21033			347-480VAC	0.61-0.43	21220	T4A	T4	T4	T3C	T4	T3C	T4	T4	T100°C	T100°C
KFLH21034			120-250VDC	1.75-0.68											
KFLH22030	25.00 / 11.3		120-277VAC	1.88-0.81		T4A	T4	T4	T3C	T4	T3C	T4	T4	T100°C	T100°C
KFLH22033	25.00 / 11.5	220	347-480VAC	0.65-0.47	26970										
KFLH22034			120-250VDC	1.88-0.73											
KFLH25030			120-277VAC	2.17-0.94											
KFLH25033		250	347-480VAC	0.75-0.54	30950	T4A	T4	T4	T3C	T4	T3C	T4	T4	T100°C	T100°C
KFLH25034			120-250VDC	2.17-0.85											
KFLH30030		300	120-277VAC	2.48-1.07	37030	T4A	-	-	-	-	-	T4	-	T110°C	
KFLH39030		390	120-277VAC	3.30-1.43	40410	T3C	-	-	-	-	-	T3	-	T110°C	



2.0.	
	_
2 x Ø .55 - 1.56	
2-M20 slip holes supplied with 3/4" NPT adapters with one plugged.	



	KFLH MOUNTS AND ACCESSORIES
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe.
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Use with KFS-6
KFLG	Wire Guard, 316 Stainless Steel (order 2 per fixture)
VMSC10	10' Stainless Steel Safety Cable with loop grip
KFLH-DARK	Dark Sky Visor, White Painted Aluminum
KFLH-DOOR	Replacement Internal Reflector and Lens Assembly (order 2 per fixture as required)

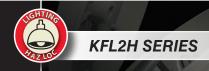
CABLE GLAND ORDERING OPTIONS



CATALOG #	ENTRY THREAD	DEND		CEPTANCE Ails
GATALUG #	SIZE	BEND	DIAMETER 'C'	
	(NPT)		MIN.	MAX.
MCX19C	1/2"	90°	.60" (15.2)	.82" (20.8)
MCX29	3/4"	90°	.73" (18.5)	1.03" (26.2)

For entire series, please see page 81.





C1D2 FLOOD – INTRODUCTION & LOGIC









Class I, Div. 2, Groups A, B, C, D Class I, Zone 2, IIC, IIB, IIA Class II, Div. 1 & 2, Groups E, F, G Class III Suitable for wet locations Marine Rated (US only) Type 3, 4X **IP66**

IEC Ex Rated Model (w/ IEX suffix) Zone 2 and Zone 21 areas Ex nA IIC T6...T3, Gc Ex tb IIC T105°C Db Tamb -50°C < Ta < +55°C, IP66

IECEx Certificate



QPS 15.0011



PETRO

FEATURES-SPECIFICATIONS

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminairies for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Body and lens frame corrosion resistant copper-free aluminum allov with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware stainless steel
- Thermal shock and impact resistant glass lens (Polycarbonate available)
- High temperature silicone gasketing
- Trunnion heavy gauge 316 stainless steel

LED Flood Features and Standards

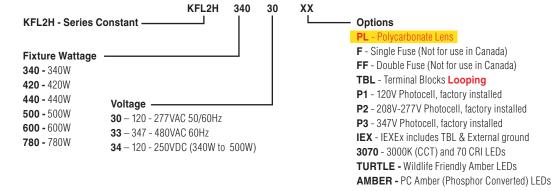
Supplemental 20KA/10KV Surge Protection is **standard** (for 120-277 VAC models) 10KA/10KV Surge Protection (for 347-480 VAC)

- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings High lumens per watt
- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C up to 500W to -50°C for non-hazardous applications
- Instant On Including after power interruption
- World Voltage 120 277VAC 50/60Hz
- Warm LED color option available with 3070
- Solder-LESS LED Board Connections -Vibration Resistant
- Standard fixture is supplied with dual M20 slip holes with 3/4" NPT hub adapters with one plugged

PATENTED LENS and REFLECTOR DESIGN

Dark Sky Visor KFLH-ĎARK

Catalog Number Logic

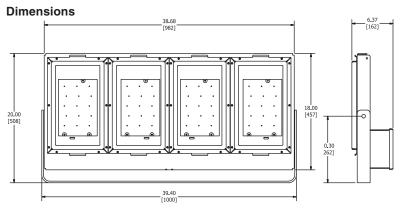


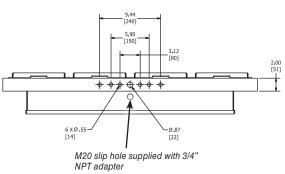




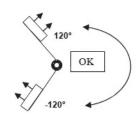
C1D2 FLOOD - ORDERING INFORMATION & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1	C1D2 C1D2 SIMULTANEOUS		C2D1		IEC ZONE 2		IEC ZONE 21		
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
KFL2H34030			120-277VAC	2.92-1.26											
KFL2H34033		340	347-480VAC	1.02-0.72	43240	T4A	T4	T4	T3C	T4	T3C	T4	T4	T85°C	T100°C
KFL2H34034			120-250VDC	2.92-1.12											
KFL2H42030			120-277VAC	3.50-1.50											
KFL2H42033		420	347-480VAC	1.22-0.86	42440	T4A	T4	T4	T3C	T4	T3C	T4	T4	T85°C	T100°C
KFL2H42034			120-250VDC	3.50-1.36											
KFL2H44030	50.00 / 22.6		120-277VAC	3.76-1.62											
KFL2H44033	30.00 / 22.0	440	347-480VAC	1.30-0.94	53940	T4A	T4	T4	T3C	T4	T3C	T4	T4	T85°C	T100°C
KFL2H44034			120-250VDC	3.76-1.46											
KFL2H50030			120-277VAC	4.34-1.88											
KFL2H50033		500	347-480VAC	1.50-1.08	61900	T4A	T4	T4	T3C	T4	T3C	T4	T4	T85°C	T100°C
KFL2H50034			120-250VDC	4.34-1.70]										
KFL2H60030		600	120-277VAC	4.96-2.14	74060	T4A	T4	-	-	-	-	T4	T4	T85°C	T100°C
KFL2H78030		780	120-277VAC	6.60-2.86	80820	T4	-	-	-	-	-	T4	-	T100°C	-





KFL2H MOUNTS AND ACCESSORIES						
CATALOG NUMBER	DESCRIPTION					
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe					
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion					
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)					
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)					
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Use with KFS-6					
KFLG	Wire Guard, 316 Stainless Steel (order 4 per fixture)					
VMSC10	10' Stainless Steel Safety Cable with loop grip					
KFLH-DARK	Dark Sky Visor, White Painted Aluminum					
KFLH-DOOR	Replacement Internal Reflector and Lens Assembly (order 4 per fixture as required)					





K4040

Wall Bracket

CABLE GLAND ORDERING OPTIONS



CATALOG #	ENTRY THREAD	BEND	CABLE AC	AILS
	SIZE (NPT)		DIAME Min.	TER 'C' Max.
MCX19C	1/2"	90°	.60" (15.2)	.82" (20.8)
MCX29	3/4"	90°	.73" (18.5)	1.03" (26.2)

For entire series, please see page 81.

KFWB Wall/Pipe Bracket



C1D1 FLOOD - INTRODUCTION & LOGIC











FEATURES-SPECIFICATIONS Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598A
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 1; Class II, Division 1; Class III
- CSA C22.2 no. 137-M1981 electric luminairies for use in hazardous locations
- Zone 1 and Zone 21 to IEC 60079-0,60079-1,60079-31, 60079-7 Standards
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Body, end caps and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware stainless steel
- Thermal shock and impact resistant extra heavy-duty glass lens
- High temperature silicone gasketing
- Trunnion heavy gauge 316 SS

LED Flood Features and Standards

Supplemental 20KA/10KV Surge Protection is standard (for 120-277 VAC models)

- Factory Sealed Construction
- One 3/4" NPT & one M20 entry standard (see logic for other choices)
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT); approx. 70 CRI
- Energy Savings High lumens per watt
- LED Array Life 100.000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours
- Instant On Including after power interruption
- World Voltage 120 277VAC 50/60Hz
- Solder-LESS LED Board Connections -Vibration Resistant
- LT option for models needing IECEx. Zone 1. -50°C to +55°C suitability for hydrogen

Class I, Div. 1&2, Groups B,C,D Class I, Zone 1&2, Groups IIB+H2, IIA Class II, Div. 1&2, Groups EFG, Class III Enclosure Type 4X, IP66 (-50°C to +55°C)



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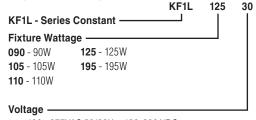
IEC Ex Rated model (w/IEX or IEX4B suffix) Zone 1, Zone 21 Ex de IIB+H2 T6..T5, Gb, IP66 Tamb -20°C ≤Ta≤ +55°C; Option LT for -50°C ≤Ta≤ +55°C① Ex de IIB T6..T5, Gb, -50°C ≤Ta≤ +55°C① Ex tb IIIC T90°C Db, -50°C ≤Ta≤ +55°C①

IECEx Certificate CSA 14.0010

ATEX Certificate SIRA14ATEX1159X



Catalog Number Logic



30 - 120 - 277VAC 50/60Hz +130-300 VDC

33 - 347 - 480VAC 60Hz

XX

LT - For -50°C to +55°C, IEC Zone 1

D20 - Dual M-20 Entries

D25 - Dual M-25 Entries

D75 - Dual 3/4" NPT



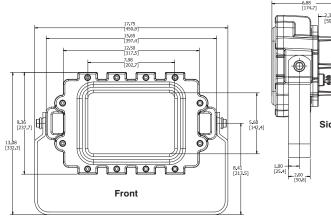


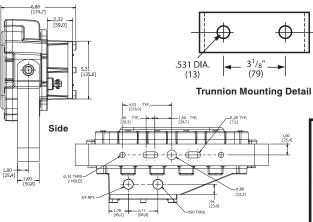


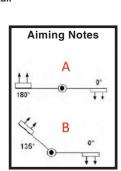
C1D1 FLOOD - ORDERING & TECHNICAL DATA

	ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D1 C2D		D1 IEC ZONE 1		IEC ZONE 21		
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
KF1L09030			120-277VAC	0.72-0.31					Limited				
KF1L09033	1	90	347-480VAC	0.25-0.18	7182	T6	Т6	(EFG)	Aiming	T6	T5	160-75	175-90
KF1L09034	1		120-250VDC	0.72-0.28]		l i	l i	В			i i	
KF1L10530]		120-277VAC	0.85-0.37					Limited				
KF1L10533]	105	347-480VAC	0.29-0.21	8362	T6	Т6	(EFG)	Aiming	T6	T5	160-76	175-91
KF1L10534	1		120-250VDC	0.85-0.33]				В				
KF1L11030	46.00 / 20.87		120-277VAC	0.95-0.41					Limited				
KF1L11033]	110	347-480VAC	0.33-0.24	10590	T6	Т6	(EFG)	Aiming	T6	T5	160-77	175-92
KF1L11034	1		120-250VDC	0.95-0.37]				В				
KF1L12530	1		120-277VAC	1.10-0.48					Limited				
KF1L12533	1	125	347-480VAC	0.38-0.28	11590	Т6	Т6	(EFG)	Aiming	T6	T5	160-78	175-93
KF1L12534	1		120-250VDC	1.10-0.43	1				В				
KF1L19530	1	195	120-277VAC	1.63-0.70	15707	T5	-	-	-	T5	-	-	-

Dimensions







KFL MOUNTS AN	KFL MOUNTS AND ACCESSORIES						
CATALOG NUMBER	DESCRIPTION						
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe						
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion						
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)						
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)						
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting						
KFLG	Wire Guard, 316 Stainless Steel						
VMSC10	10' Stainless Steel Safety Cable with loop grip						
KF1L-DARK	Dark Sky Visor, White Painted Aluminum						
KF1L-D00R	Replacement Door and Lens Assembly						

CABLE GLAND ORDERING OPTIONS



ENTRY	CABLE ACCEPT	ANCE DETAILS				
INKEAD	DIAMETER 'C'					
SIZE (NPT)	MIN.	MAX.				
1/2"	0.51" (13.0)	0.63" (16.0)				
1/2"	0.60" (15.2)	0.82" (20.8)				
3/4"	0.73" (18.5)	1.03" (26.2)				
	THREAD SIZE (NPT) 1/2" 1/2"	THREAD SIZE (NPT) MIN. 1/2" 0.51" (13.0) 1/2" 0.60" (15.2)				

For entire series, please see www.hubbell-killark.com





ALARK

WALLPACK



Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC, IIB, IIA Type 4X



FEATURES-SPECIFICATIONS



Applications

KWPL Wall Luminaires are ideally suited for applications requiring a pleasing aesthetic appearance or hazardous location suitability in a compact energy saving fixture. Units are made of aluminum construction for cool operation with a bronze electrostatically applied powder-coat finish. Suitable for locations such as perimeter security lighting, parking areas, factories and parking garages.

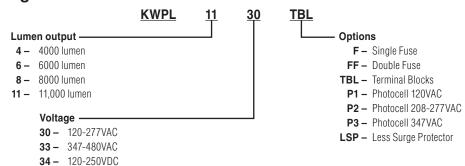
Features

- Aluminum with Bronze finish 1/2" hub on either side for conduit entry
- Suitability for 55°C ambient, 90°C supply wire required (see table)
- Lens thermal shock and impact resistant prismatic borosilicate glass
- Two Hubbell Guard® Corrosion resistant hex head fasteners provide water-tight seal for door gasket
- Options include: factory installed photo cells, fusing

Compliances

- · UL 1598 Standard for Luminaires
- UL 844 Standard for lighting fixtures for hazardous locations
- CSA C22 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- LED Array Life 100,000+ hours with 70% initial lumens
- Long Fixture Life 50,000 55,000 maintenance free hours

Catalog Logic





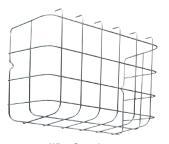


KWPL SERIES

WALLPACK







Clear Shield

Wire Guard

ORDERING INFORMATION

	ORDERIN	C1D2						
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	LUMENS	40°C	55°C	
KWPL430			120-277VAC	0.12 - 0.28		T5	T4A	
KWPL433		34	347-480VAC	0.07 - 0.10	4436	T5	T4A	
KWPL434]		120-250VDC	0.14 - 0.28			T5	T4A
KWPL630			120-277VAC	0.17 - 0.38				
KWPL633]	46	347-480VAC	0.10 - 0.13	5636	T4A	T4	
KWPL634	14.00 / 6.35		120-250VDC	0.18 - 0.38				
KWPL830	14.00 / 6.35		120-277VAC	0.25 - 0.57				
KWPL833]	68	347-480VAC	0.14 - 0.20	8404	T4A	T4	
KWPL834]		120-250VDC	0.27 - 0.57				
KWPL1130]		120-277VAC	0.32 - 0.75				
KWPL1133		90	347-480VAC	0.19 - 0.26	10914	T4	-	
KWPL1134]		120-250VDC	0.36 - 0.75				











Photo Cell Field Kits for Harsh Type 4X and Class I, Div. 2 Locations

PHOTO CELL FIELD KITS						
CATALOG NUMBER	VOLTS					
VMFSPC1	120VAC					
VMFSPC2	208-277VAC					
VMFSPC3	347VAC					

	KWP ACCESSORIES					
CATALOG NUMBER	DESCRIPTION					
PGPS	Clear Shield (Polycarbonate) for Protecting Lens					
PGWG	Wire Guard, Cadnium Plated Steel					
PVLV	Glare Shield Full Cutoff Visor – Formed Bronze Aluminum Forces light to Walkway					
KWPLENS	Replacement Door and Lens					





HUBBELL

NEBS SERIES



EMERGENCY BATTERY SYSTEM



FEATURES-SPECIFICATIONS

Applications

The NEBS Series is a highly versatile superior lumen output, industrial application emergency lighting unit, designed to provide a minimum of 90 minutes illumination when primary power is lost. The NEBS Series provides the same level of lumen output with no light degradation for the full 90 minutes of battery discharge. It has a flame-rated, UV stable thermoplastic housing which is fully gasketed and corrosion resistant with a gray finish. LED based lamp-heads are made of high strength die-cast aluminum with a polycarbonate lens. Includes microcontroller based 3-stage charger and Lithium Iron Phosphate(LiFePO4) battery. The NEBS Series accepts 120 through 277VAC input at 50 or 60Hz. Not designed for self-diagnostic operation at 220-240VAC input. Universal mounting plate made of painted stamped steel. The NEBS is specifically designed for demanding environments, high reliability operation in industrial settings such as wet location or hose-down, food processing, food storage, production facilities, chemical plant and wastewater treatment.

Construction

The NEBS Series housing, covers, remote housing, shield and LED Lenses are made of impact resistant polycarbonate. Lamp-heads are made of die-cast aluminum for thermal dissipation.

Installation

The unit includes a universal mounting plate which facilitates mounting to a truss or I-beam, pole, column, or wall.

Illumination

The NEBS series provides bright and uniform illumination and is specifically designed for higher mounting heights above 9'.
Coverage provided by 2 sealed aluminum lamp-heads using 3 high power LEDs each.
The LEDs are located in a specially designed heat dissipating lamp-head which is fully adjustable and can be locked into position.
The NEBS is designed for full lumen output across the entire 90 minutes of operation.
This ensures maximum visibility of the egress path over the full 90 minute discharge period.

Class I, Division 2, Groups A, B, C, D Class I, Zone 2, Groups IIA, IIB, IIB+H2, IIC Class II, Division 1, Groups E, F, G Class III Suitable for wet locations Type 4, 4X IP66

UL Sanitation Certified with FP Option

Operating Temperature:

C1D2 & C2D1: 50° to 122°F(10° to 50°C) C1D2 & C2D1: with heater option -22° to 122°F (-30° to 50°C)

Electronics

Upon failure of the normal utility power, a LED driver is automatically activated to power the emergency LED lamp-heads. At resumption of normal utility power, the LED driver is turned off. The battery is recharged through a micro-controller based 3-stage charger. The battery is a maintenance-free Lithium Iron Phosphate (LiFePO4) type. The NEBS series accepts dual-voltage input of 120 through 277VAC at 50 or 60 Hz. A low voltage battery disconnect feature protects the battery from severe damage during prolonged power failures. Manual testing is available at any time using the push-to-test button. The NEBS remote can be located up to 100' from the source unit using 75°C minimum rated 12 gage wire.

Spectron Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs
 a 1 minute test once a month and an
 alternating 30-60 minute test once every
 6 months. Multi-color LED indicator
 provides visible fault detection and
 charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)





EMERGENCY BATTERY SYSTEM

<u>NEBS</u> Model

Capacity

6 − 6 Watt 12 - 12 Watt

Self-Diagnostics

Blank-None - Spectron® Self-Diagnostics **Application**

FP - Food Processing Rated **C1D2** – Class 1 Div. 2

C2D1 - Class 2 Div. 1 **HTR** - Heater for Cold Temp 06L

Lamp

Blank - 3 Watt LED lamps **06L** − 6 Watt LED lamps

OPERATING TEMPERATURE IN °C							
AMBIENT °C	CLASS 1 DIV. 2 A, B, C, D	CLASS 2 DIV. 1 E, F, G					
40	T6	T6					
50	T5	T6					

ADDITIONAL PRODUCT INFORMATION										
CATALOG NUMBER	BATTERY	CAPACITY	LAMP(W)	LUMENS PER LAMP	RUNTIME	REMOTE Capable	REMOTE PART Number			
NEBS6I-C1D2		6 watts	3 watts	331	90 min	No	N/A			
NEBS6I-C2D1		0 watts	5 Walls	331	30 111111	140	N/A			
NEBS12I-C1D2	LiFePO4	12 watts	3 watts	331	90 min	Yes	NEBSRS-C1D2 NEBSRD-C1D2			
NEBS12I-C2D1	LIFEFU4						NEBSRS-C2D1 NEBSRD-C2D1			
NEBS12I-C1D2-06L NEBS12I-C2D1-06L		12 watts	6 watts	514	90 min	No	N/A			

INPUT POWER CONSUMPTION							
	INPUT Voltage	AMPS.	MAX. Watts				
NEBS6	120	0.03	3.40				
	277	0.04	3.49				
NEBS12	120	0.05	5.98				
	277	0.04	6.52				

The NEBS Series meets proposed California Energy Commission(CEC) requirements for limits on power consumption in maintenance mode with less than 0.5 watts.

- Maintenance Mode Power Consumption 120VAC- 0.33W
- Maintenance Mode Power Consumption 277VAC- 0.36W

ACCESSORIES						
NEBSRS Type 4X Rated Single Head Remote						
NEBSRD	Type 4X Rated Double Head Remote					
NEBSRS-FP	Food Processing Rated Single Head Remote					
NEB\$RD-FP	Food Processing Rated Double Head Remote					
NEBSWG	Wire Guard (Does not include Food Processing option) 15"H x 14"L x 7"D					
NEBSRD-C1D2	Class 1, Div. 2 Remote, 3W heads, 1 conduit hub included					
NEBSRD-C2D1	Class 2, Div. 1 Remote, 3W heads with shield, 1 conduit hub included					



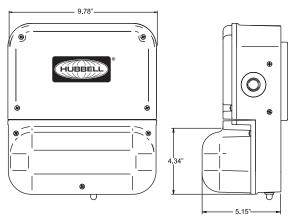


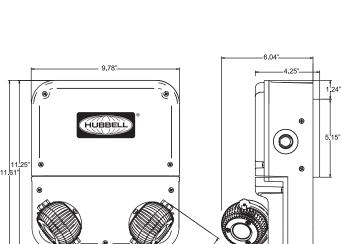


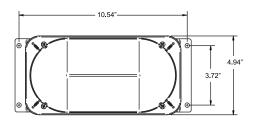


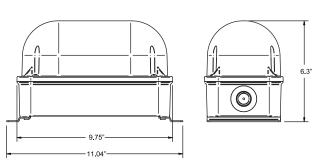


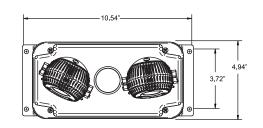
DIMENSIONS

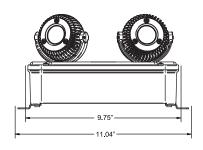


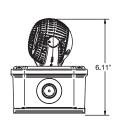






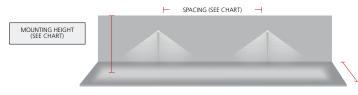






APPLICATION DATA

Ceiling Mount



6' Path

* Multiple unit spacing based on 6' path

INDUSTRIAL PARAMETERS CH=30', R=10/10/10, CEILING MOUNTED (MULTIPLE UNIT SPACING), 6' PATH									
NEBS12I-06L (6 WATT HEAD OPTION) NEBS6I (3 WATT HEADS)									
MOUNTING HEIGHT	20'	18'	16'	14'	12'	10'	7.5'	MOUNTING HEIGHT 20' 18' 16' 14' 12' 10	7.5
MAX SPACING @ 1 FC AVG.	62'	65'	68'	71'	74'	77'	81'	MAX SPACING @ 1 FC AVG. 43' 45' 48' 51' 53' 56	' 59'
MAX SPACING @ 1 FC MIN.	35'	34'	34'	33'	32'	31'	29'	MAX SPACING @ 1 FC MIN. 28' 28' 27' 27' 26' 24	' 22'



EMERGENCY BATTERY SYSTEM - INTRODUCTION



EBS Battery Unit Only

Class I, Div. 1&2, Groups B,C,D Class I, Zone 1&2, Groups IIB+H2, IIA Class II, Div. 1&2, Groups EFG Class III Enclosure Type 4 (Type 4, 7B CD, 9EFG)





FEATURES-SPECIFICATIONS

Applications

Where required by the NEC (or local "Life Safety" code) for safe egress (over doors, aisleways, stairs, walkways, exit paths, and outer perimeter walls) to provide illumination during interruption of normal power to area lighting.

In indoor or outdoor locations made hazardous by the presence of flammable gas, vapors, or dusts. Includes refinery/chemical production and storage, grain processing, waste water treatment facilities and any area requiring heavy-duty dependable emergency lighting.

Exclusive Features

- LED Heads provide clear crisp illumination at 5000° Kelvin
- LED Head L70 value 100,000 hours for minimal maintenance
- Two head models up to 500% brighter than competitive non-LED units
- Enclosure Type 4 (Type 4) for wet and harsh locations
- Group B is standard when using EBSHK type heads
- Automatic Safety Disconnect Removing main cover disconnects battery power
- Ambient Suitability 0°C to 45°C Battery Unit; Heads to 55°
- Compact unit requires only two mounting points
- World Voltage 120-277 VAC 50/60Hz input

Other Features

- High % of lumens maintained during 90 minute egress cycle
- EBSHK type heads are fully adjustable on unit or remote when ordered with RFSL Factory Sealed mounting kits

- EBSEL type heads are factory sealed on their EZ type mounting boxes
- Heads can be remote mounted over 300' from battery unit
- Ni-Cad sealed batteries provide 90 minutes of illumination
- Integral base unit LED pilot light indicates AC power is present
- Choice of Integral or Remote Push-To-Test station to verify system operation
- Vapor Capsule to inhibit corrosion is standard with main enclosure unit
- Terminal Blocks identified for incoming and outgoing connections

Compliances

- UL 1598 Standard for Luminaires
- UL 8750 for LED Lighting
- UL 844 Luminaires for Hazardous Locations
- UL 1203 Explosion-Proof/Dust-Ignition-Proof Electrical Enclosures
- UL 924 Emergency Lighting
- CSA C22.2 no. 137-M1981 Luminaires for Hazardous Locations
- CSA C22.2 no. 30-M1986 C1D1 Enclosures
- CSA 22.2 no. 25-1066 C2D1 EFG Enclosures
- Enclosure Type 4
- Type 4, 7BCD, 9EFG

Materials

- Main Enclosure and Heads Copper Free Aluminum alloy with Baked Powder epoxy/ polyester finish, electrostatically applied for complete, uniform corrosion protection
- · Attachment fittings copper-free aluminum
- · External hardware 316 Stainless Steel
- EBSEL reflectors EXIT accessory aluminum with white paint

Notes

 Main EBS unit is CID1 Grp B (Suitable Zone 1 IIB+H2) with attached EBSHK heads or no heads; with attached EBSEL heads unit is CID1 Groups CD (Suitable Zone 1 IIB, IIA)



EBS Unit with HK Type Heads and Integral Push-To-Test



EBS Unit with EL Type Heads and Integral Push-To-Test







EMERGENCY BATTERY SYSTEM - LOGIC & COMPONENTS

Catalog Number Logic EBS23DH **EBS23DH** Series Constant 120-277V 50/60Hz 23W -Dual-Head (Remote or Attached) **Test Options** -- Push-To-Test on Enclosure R - Remote Push-To-Test Station (EBS-PTT shipped separately) - None - ordered separately or breaker controlled Ν Time Delay Option -Т Power Resumption Emergency Time-delay (Factory set approx. 15 min.) 120 thru 277V Ν - No Time-Delay **Luminaire Head Options** - No heads - For Remote Heads Ordered Separately Ν Α 2 EBSHK1030 Heads Factory Attached R - 2 EBSEL1030 Heads (Less Guards) and Fittings for Attachment BG 2 EBSEL1030 Heads with Guards and Fittings for Attachment BE - 2 EBSEL1030 Heads with 1 Guard and 1 HEXA-100 EXIT and Fittings for Attachment - 1 EBSHK1030 Head Attached and 1 EBSEL1030 Head (Less Guard) and Fittings for Attachment С CG - 1 EBSHK1030 Heads Attached and 1 EBSEL1030 Head with Guard and Fittings for Attachment 1 EBSHK1030 Heads Attached and 1 EBSEL1030 Head with HEXA-100 EXIT and Fittings for Attachment - 1 EBSHK1030 Only (2nd Head Remote - Ordered Separately) D Ε - 1 EBSEL1030 Only Less Guard and Fittings for Attachment (2nd Head Remote - Ordered Separately) EG - 1 EBSEL1030 Only with Guard and Fittings for Attachment (2nd Head Remote - Ordered Separately) EE - 1 EBSEL1030 Only with HEXA100 EXIT and Fittings for Attachment (2nd Head Remote - Ordered Separately)

Group B Drain for Wet Applications including condensation from heat <> cold cycling

Blank - Not included

Drain



Factory Sealed Remote LED Spot Light - Bottom Feed



Remote Push-To-Test Station



Factory Sealed Remote LED Spot Light - Side Feed



Remote LED Luminaire

EBS UNIT - BOTTOM DETAIL



A Optional Push-To-Test

- **B** Optional Group B Drain
- C Standard Pilot Light
- D Entry for Remote P-T-T Station
- E Power Entry (also on top)

The EBS23 System is designed to power 2 Heads for operation (total attached or remote); each Head is approximately 10 Watts.





EMERGENCY BATTERY SYSTEM - PRE-CONFIGURED UNITS



Class I, Div. 1&2, Groups B,C,D Class I, Zone 1&2, Groups IIB+H2, IIA Class II, Div. 1&2, Groups EFG Class III Enclosure Type 4 (Type 4, 7B CD, 9EFG) c∰_{us} File LR11713

ORDERING INFORMATION



INTEGRAL P	USH-TO-TEST		REMOTE PUSH-TO-TEST		
EBS SYSTEM WITH TWO EB	SHK HEADS			CID1BCD	
Integral PTT, Two EBSHK	Integral PTT, TDR , Two EBSHK	Г	Remote PTT, Two EBSHK	Remote PTT, TDR , Two EBSHK	
EBS23DH-PNA	EBS23DH-PTA		EBS23DH-RNA	EBS23DH-RTA	





EBS SYSTEM WITH TWO EBSEL HEADS WITH GUARDS CID1CD						
Integral PTT, Two EBSEL Heads w/ Guards	Integral PTT, TDR , Two EBSEL Heads w/ Guards		Remote PTT, Two EBSEL Heads w/ Guards	Remote PTT, TDR , Two EBSEL Heads w/ Guards		
EBS23DH-PNBG	EBS23DH-PTBG		EBS23DH-RNBG	EBS23DH-RTBG		





EBS SYSTEM WITH ONE EBSHK HEAD & 1 EBSEL HEAD WITH GUARD CID1CD							
Integral PTT, One EBSHK & One EBSEL Head w/ Guard	Integral PTT, TDR , One EBSHK & One EBSEL Head w/ Guard		Remote PTT, One EBSHK & One EBSEL Head w/ Guard	Remote PTT, TDR , One EBSHK & One EBSEL Head w/ Guard			
EBS23DH-PNCG	EBS23DH-PTCG		EBS23DH-RNCG	EBS23DH-RTCG			





EBS SYSTEM WITH TWO EBSEL HEADS ONE WITH EXIT CID1CD						
Integral PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard	Integral PTT, TDR , Two EBSEL Heads One w/ EXIT, One w/ Guard		Remote PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard	Remote PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard		
EBS23DH-PNBE	EBS23DH-PTBE		EBS23DH-RNBE	EBS23DH-RTBE		





EBS SYSTEM WITH ONE EBSHK HEAD & ONE EBSEL HEAD WITH EXIT CID1CD							
Integral PTT, One EBSHK Head, One EBSEL w/ EXIT	Integral PTT, TDR, One EBSHK Head, One EBSEL w/ EXIT EBS23DH-PTCE		Remote PTT, One EBSHK Head, One EBSEL w/ EXIT	Remote PTT, TDR , One EBSHK Head, One EBSEL w/ EXIT			
EBS23DH-PNCE			EBS23DH-RNCE	EB\$23DH-RTCE			



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EBS SYSTEM ONLY FOR REMOTE HEADS (ORDER TWO SEPARATELY) CID1BCD					
Integral PTT, No Heads	Integral PTT, TDR , No Heads		Remote PTT, No Heads	Remote PTT, TDR , No Heads	
EBS23DH-PNN	EBS23DH-PTN		EBS23DH-RNN	EBS23DH-RTN	





EMERGENCY BATTERY SYSTEM - REMOTE HEADS & ACCESSORIES







































MOUNTING BOXE	S			
	HUB SIZE			
PENDANT	CEILING	BRACKET	STANCHION	HOD SIZE
EZA2	EZX2	EZB2	_	3/4"
EZA3	EZX3	EZB3	_	1"
_	_	_	EZD4	1-1/4" / 1-1/2"

EBS23DH SERIES ACCESSORIES – DESCRIPTION	CATALOG NUMBER
Remote Push-To-Test Station Group B 3/4" Feed-Thru w/Close Up Plug	EBS-PTT
Remote Push-To-Test Station with Lock Off, Group B 3/4" Feed-Thru	EBS-PTT-LO
Lock-Off for Integral Push-To-Test	G010502
Sealed Fittings Set for attachment of EBSHK to GEBC-2 or GEBL-2	EBS-AHFS
Replacement Battery Pack and Electronics	KLBP01
Replacement Vapor Capsule for corrosion protection	EBS-VC



HORIZONTAL

EBS-PTT

EBSHK Heads can be aimed up to 45 above horizontal - if flush on wall will require spacing out.



KILLARK

EMERGENCY BATTERY SYSTEM - ELECTRICAL & TEMPERATURE DATA



EBS23DH ELECTRICAL DATA						
CATALOG	INPUT**			OUTPUT**		
NUMBER	VOLTAGE	WATTS	CURRENT	VOLTAGE	WATTS	CURRENT
EBS23DH	120-277VAC	7.5	.1 A	33VDC	23	700mA

^{**} Figures nominal. Current is 350mA to each of 2 heads (2 heads are required for proper operation, remote or attached).

THERMAL PERFORMANCE DATA					
CATALOG NUMBER	AMBIENT	CID1	CIID1	SUITABILITY	SUPPLY WIRE
EB\$23DH	45°C	T6	EFG	0-45°C	75°C
EBSEL1030	55°C	T6	EFG	-40 to 40°C	75°C
EBSHK1030	55°C	T6	EFG	-40 to 40°C	75°C

4 Head EBS option:

with the main EBS unit.

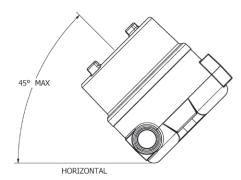
EBS units are designed for 2 head operation and will provide the lumens noted at right. However, 4 heads can be connected and will

operate for 90 minutes at half the published

provide 456 lumens; the EVSEL1030 540 lumens. Instructions for wiring are included

lumen values. The EBSHK1030 would

 $^{^*}$ Heads are $\underline{\it NOT}$ certified for use without EBS Battery Unit



EBSHK Heads can be aimed up to 45 above horizontal – if flush on wall will require spacing out.

LED 10W EBSHK1030



ZONAL LUMEN SUMMARY			
ZONE	LUMENS	FIXT%	
0-30	254	27.9%	
0-40	423	46.3%	
0-60	781	85.5%	
0-90	913	100.0%	
90-120	0	0.0%	
90-130	0	0.0%	
90-150	0	0.0%	
90-180	0	0.0%	
0-180	913	100.0%	

Absolute Photometry Total Luminaire Efficiency = N.A.% Spacing to Mounting Height Ratio 2.1

EMERGENCY MODE LUMENS			
5 Min.	99.1%	905 Lumens	
45 Min.	99.4%	871 Lumens	
90 Min.	95.3%	871 Lumens	

LED 10W EBSEL1030



ZONAL LUMEN SUMMARY			
ZONE	LUMENS	FIXT%	
0-30	180	16.7%	
0-40	344	31.8%	
0-60	758	70.1%	
0-90	1067	98.7%	
90-120	11	1.0%	
90-130	13	1.2%	
90-150	14	1.3%	
90-180	14	1.3%	
0-180	1081	100%	

Absolute Photometry Total Luminaire Efficiency = N.A.% Spacing to Mounting Height Ratio 2.1

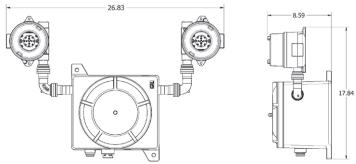
EMERGENCY MODE LUMENS			
5 Min.	94.4%	102 Lumens	
45 Min.	91.3%	987 Lumens	
90 Min.	89.3%	966 Lumens	



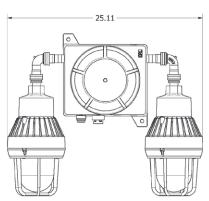




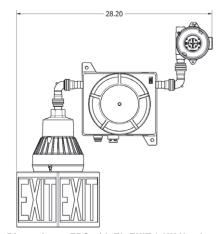
EMERGENCY BATTERY SYSTEM - DIMENSIONS & WEIGHTS



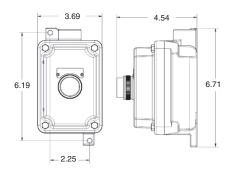
Dimensions - EBS with HK Heads



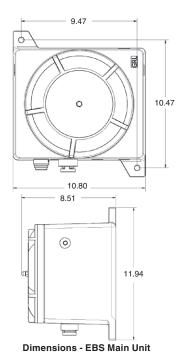
Dimensions - EBS with EL Heads

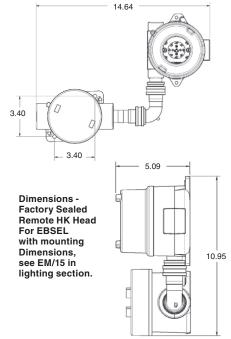


Dimensions - EBS with EL-EXIT & HK Heads



Dimensions - Remote Test Station





WEIGHTS (SHIPPING) INDIVIDUAL AND COMBINATIONS	LBS.
EGS23DH Main Unit Only	36.6
EBSEL1030 Pendant Head Only w/ Fittings Set	12.3
EBSHK1030 Head Only w/ Fittings Set	5.0
EBSHK1030-RFSC (or RFSL)	11.0
EBS-PTT	3.0
EBS-AHFS Factory Sealed Fittings Set	0.6
EBS23DH & 1 EBSHK w/ Fittings	41.6
EBS23DH & 2 EBSHK w/ Fittings	46.6
EBS23DH & 1 EBSEL w/ Fittings	48.9
EBS23DH & 2 EBSEL w/ Fittings	61.2
EBS23DH & 1 EBSEL & 1 EBSHK w/ Fittings	53.9

NON-METALLIC CORROSION RESISTANT HAZARDOUS FIXTURES





Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC, IIB, IIA Class II, Div. 2, Groups F,G Class III **UL Marine Rated (US only)** Type 3, 4, 4X, IP66



Certified - File LR11713

ABS Type Approval



c us to the following standards:

- UL 1598 Standard for luminaires
- UL 1598A Marine type luminaires
- UL 844 Standard for lighting fixtures for hazardous locations
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed

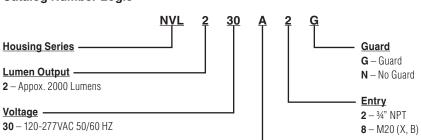
FEATURES - SPECIFICATIONS



Features

- Corrosive resistant body molded from 30% glass-filled thermoset polyester
- Energy and labor-saving LED
- High Efficacy (lumens per watt)
- · Compact Size
- Diffuse polycarbonate globe that softens the light while providing impact protection
- Accessories include polycarbonate dome reflectors and wall extension
- Type 3, 4, & 4X Rated
- IP66
- Marine Rated
- ABS Approved

Catalog Number Logic



Mounting Type -

- A Pendant
- **X** Ceiling
- **B** Wall Bracket

NVL COMPONENTS AND ACCESSORIES			
CATALOG NUMBER	DESCRIPTION		
NV2AG	Pendant	3/4" NPT	Pendant splice box with 316 stainless steel set screw at the conduit connection
NV2XG	Ceiling Box	3/4" NPT	Ceiling box vol. 24 cu. inches
NV2MG	Genning Box	M20	offilling box vol. 24 ca. filcites
NV2BG	Wall Bracket		Use with NV2XG or NV2MG for wall mount
NVPSD12	Reflector		White Polycarbonate Reflector (secured by guard)
NVEXTG	Extension		Extension for wall mount fixture with reflector
NV2CG	Gray Cover		Blank covers for NV2XG & NV2MG Ceiling Boxes
NV2CC	Clear Cover		
NV2GG-S	Compact Guard		Low Profile Non-Metallic Guard that is also used to secure reflector





NVL SERIES



NON-METALLIC CORROSION RESISTANT HAZARDOUS FIXTURES

COMPONENT PARTS



















Pendent

Ceiling/Wall (Interior Detail)

Ceiling/Wall

Wall Elbow

NV2GG-S **Compact Guard**

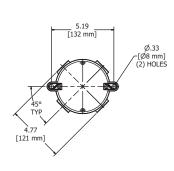
Extension

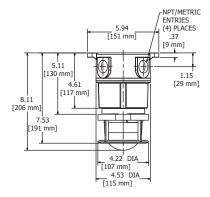
Reflector

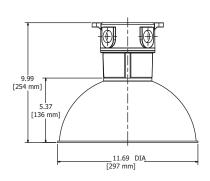
Gray Blank

Clear

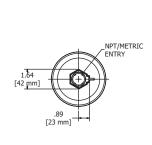
Ceiling Mount

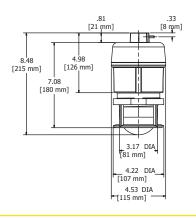


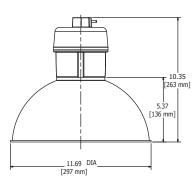




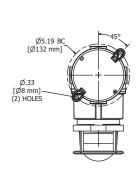
Pendant Mount

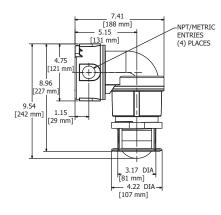


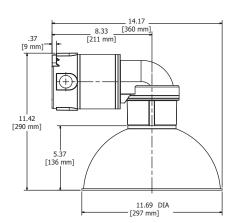


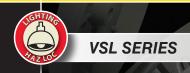


Wall Mount









UTILITY LIGHT - INTRODUCTION



Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC, IIB, IIA Class II, Div. 2, Groups F,G Class III Suitable for wet locations **Enclosure Type 4**



certified - File LR11713

V SERIES LED

FEATURES-SPECIFICATIONS

Introduction

Killark 'VSL' Series LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present. or Type 3 and 4 areas where wind, water, snow or high ambients can be expected. VSL's are sized to replace "Utility" type fixtures (incandescent or CFL's) in hallways, closets, elevator pits, docks, stairwells, access tunnels, and mechanical rooms. These fixtures can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC. Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, and garage areas.

LED Lumminaire Features and Standards

- Compact in Size with Traditional Industrial Appearance and Suitability
- Wide variety of optics including glass globes (clear and tempered, color) plus polycarbonate globes in clear and colors (Polycarbonate globes are suitable to
- **Optional Mounting arrangements** including Pendant, Wall, Ceiling, Stanchion and Adapters
- Fixtures available unit packed, order option CP
- VSL LED Housings can be retrofitted to existing V Series splice boxes; upgrade from CFL or incandescent
- Energy Savings less than 13 Watts of Power; less than 16 Watts for VSL1630. Replaces 75W or higher incandescent

- Long Fixture Life 50,000 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000°K (CCT): **70 CRI**
- Integral driver maintains fixture's compact profile to fit in existing spaces
- Ambient suitability -40°C to 55°C
- Instant on including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections Vibration Resistant

Compliances

- UL-8750 for LED lighting
- UL 1598 standard for luminaires
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Division 2; Class III, Division 2
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4

Materials. Weights

- Body, splice box and guards are corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- Reflectors Polypropylene for pendant or ceiling applications
- Heavy-duty silicone gasketing for Type 4 requirements

Optic Selection Examples

- Broadest COLOR globe offering for Hazardous Locations in the industry
- Use as status lights or specialty/ emergency indicators







VSL SERIES



UTILITY LIGHT - CATALOG LOGIC











Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC, IIB, IIA Class II, Div. 2, Groups F,G Class III Suitable for wet locations **Enclosure Type 4**



Clear Glass w/Guard White Glass w/ Guard

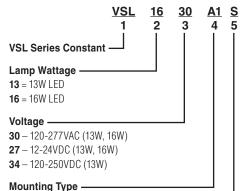
Blue Glass

5 6

<u>G</u> - <u>B</u>

Clear Polycarbonate Red Polycarbonate

V SERIES LED Catalog Number Logic



NN - Mounr Ordered Separately

A1 – 1/2" Pendant (VGA-1)

A2 - 3/4" Pendant (VGA-2)

F1 – 1/2" Ceiling w/Feet & Adapter (VBC-1 w/VBA)

F2 - 3/4" Ceiling w/Feet & Adapter (VBC-2 w/VBA)

X1 – 1/2" Ceiling (VGX-1)

X2 - 3/4" Ceiling (VGX-2)

C1 - 1/2" Ceiling (VGC-1)

C2 – 3/4" Ceiling (VGC-2)

H1 - 1/2" Ceiling Dead End (VGH-1)

H2 - 3/4" Ceiling Dead End (VGH-2)

D1 - 1/2" Ceiling Deep (VXA-1)

D2 - 3/4" Ceiling Deep (VXA-2)

D4 – 1-1/4" Stanchion (VD-4)

RA – Round (Box) Adapter (VBA)

SA – Square (Box) Adapter (VFPS)

W1 - 1/2" Wall w/Feet (VBC-1 w/VB-1)

W2 - 3/4" Wall w/Feet (VBC-2 w/VB-2)

V1 – 1/2" Wall Elbow (VB-1)

V2 - 3/4" Wall Elbow (VB-2)

FL - Elbow for "V" Box (VFL)

8 L Reflector

S – Standard Reflector (Pendant or Ceiling Use Only)

CP - Component Pack

Optic Color (Optic Type)

A - Amber (S, H, P)

B – Blue (S, H)

R – Red (S, H, P)

G - Green (S, P)

P – Purple (S)

BG – Blue Green (S, H)

W - White (S)

Guard

G – Guard (For Glass Globes Only)

N – No Guard (Standard on Polycarbonate Globes

R – Guard Red (For Glass Globes Only) Can Signify Emergency UPS Circuits



W

Optics**

WHITE

S – Standard Globe (Clear)

H - Heat Resistant (Tempered) Globe (Clear)

P – Polycarbonate (Clear)

COLORED GLOBE OPTIONS** EXAMPLE VSL1330A1SG-A							
SUFF	SUFFIX AND AVAILABLE COMBINATIONS						
COLOR Number	STANDARD Globe	TEMPERED Globe	POLYCARBONATE				
AMBER	А	A	А				
BLUE	В	В	_				
RUBY	R	R	R				
GREEN	G	_	G				
PURPLE	Р	_	_				
BLUE-GREEN	BG	BG	_				

Use tempered glass or poly globe for wet location applications.











UTILITY LIGHT - COMPONENTS



VSL Fixture Bodies Only

Fixture bodies contain the LED driver and array, heat sink plus gaskets, and are threaded to accept globes, guards and reflectors. Users with KILLARK "V" Series vapor tight fixtures from the 1960's onward can up-grade to the latest technology and, in many cases, reuse existing mounts, globes and guards. VSL bodies are designed for metallic boxes and mount directly to V Series splice boxes or adapters as indicated.

	VSL FIXTURE BODIES					
CATALOG NUMBER	DESCRIPTION					
VSL1330	VSL1330 13W 120-277VAC 50/60Hz Body with LEDs and Driver					
VSL1630	16W 120-277VAC 50/60Hz Body with LEDs and Driver					





VGH





VGC

VGX





VXA

VBC

VSL Splice Boxes

For use with VSL Series fixture bodies.

			VSL	SPLICE BOXES		
CATALOG NUMBER	HUB SIZE	QTY.	LOGIC CODE	DESCRIPTION		
VGA-1	1/2"	1	A1	Pendant mount		
VGA-2	3/4"	1	A2	rendant mount		
VGH-1	1/2"	1	H1	Cailing mount		
VGH-2	3/4"	1	H2	Ceiling mount		
VGC-1	1/2"	2	C1	Cailing mount		
VGC-2	3/4"	2	C2	Ceiling mount		
VGX-1	1/2"	4	X1	Cailing mount		
VGX-2	3/4"	4	X2	Ceiling mount		
VXA-1	1/2"	5	D1	Ceiling mount, deep box		
VXA-2	3/4"	5	D2	Cenning mount, deep box		
VBC-1	1/2"	4	F1	Ceiling mount, with 3 close-up plugs (requires VBA Adapter)		
VBC-2	3/4"	4	F2	or wall mount with VB elbow		
VXAB	-	-	_	Blank close-up plate (less gasket)		





VSL Adapters

	VSL ADAPTER MOUNTING PLATES					
CATALOG NUMBER	DESCRIPTION					
VBA	Adapts fixture body to VB, VJ or steel 3-1/2" & 4" splice boxes. Supplied with gasket.					
VFPS	Adapts fixture body to steel 4" square outlet boxes or 3-1/2" or 4" octagon boxes					

VSL Wall/Stanchion Mounts







	VSL MOUNTING BRACKETS						
CATALOG NUMBER	THIR SIZE I HILL I HEST RIPTION						
VB-1	VB-1 1/2" 1 Wall mount to VJ or VB boxes						
VB-2	3/4"	1	Wall mount to VJ or VB boxes				
VFL	-	-	Wall mount to V boxes directly or to VJ, VB boxes with VBA adapter				
VD-4	1-1/4"	1	Stanchion mount				







UTILITY LIGHT - COMPONENTS, RATINGS & WEIGHTS



VSL Globes

	VSL GLOBES – ORDERING INFORMATION AND SUFFIX GRID*								
COLOR	GLASS	OPTIC LOGIC	TEMPERED GLASS	OPTIC LOGIC	POLYCARBONATE	OPTIC LOGIC			
Clear	VCG-100	S*	VCGP-100	H*	VPLCG-100	P*			
Amber	AMG-100	А	VAMGP-100	Α	VPLCG-100A	Α			
Blue	VBG-100	В	VBGP-100	В	-	-			
Ruby (Red)	VRG-100	R	VRGP-100	R	VPLCG-100R	R			
Green	VRSG-100	G	-	-	VPLCG-100G	G			
Purple	VPG-100	Р	-	-	_	-			
Blue-Green	VGG-100	BG	VGGP-100	BG	-	-			
White	VWG-100	W	VWGP-100	W	VPLCG-100W	W			

^{*} Use tempered glass or polycarbonate globes for wet location applications.









VPRSD-100 16-3/8" Dia. 5-5/8" High

VSL Components

	VSL COMPONENT PARTS AND ACCESSORIES					
CATALOG NUMBER	DESCRIPTION					
VAG-100	Aluminum Guard for use with Glass Globe					
VAG-100R	Red Aluminum Guard for use with Glass Globe					
VTG-S	Body to Splice Box Gasket – Silicone					
VTGG1-S	Globe Gasket – Silicone					
VPRSD-100	White polypropylene for pendant & ceiling applications. Not for use with wall or stanchion models.					

Typical Weights	(lbs.) w/Standa	rd Globe and Gua	
Pendant 7.03	Ceiling 7.51	Wall 8.09	Stanchion 7.61

VSL Thermal Ratings

VSL THERMAL PERFORMANCE DATA INCLUDING VPRSD-100 REFLECTOR								
CATALOG NUMBER	AMBIENT	C1D2		C2D2		SUPPLY		
GATALUG NUMBER		GLASS GLOBE	POLY GLOBE	GLASS GLOBE	POLY GLOBE	WIRE		
VSL1330	40°C	T6	T5	T5 (F,G)	T5 (F,G)	90°		
VSL1330	55°C	T5	-	-	-	90°		
VSL1630	40°C	T5	-	T5 (F,G)	-	90°		

VSL Electrical Ratings

V:	VSL LED BODY WITH DRIVERSJAND LEDS – ELECTRICAL RATINGS								
CATALOG NUMBER	WALLS I TIMENS I TELEVISION								
VSL1330	120-277VAC	12.42	.108/.047	1300	5.0				
VSL1630	120-277VAC	15.64	.156/.067	1625	5.0				

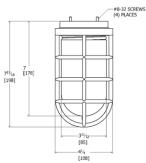
DELIVERED LUMENS						
WATTS	W/ GLOBE VCG-100	W/GLOBE VPLCG-100	W/GLOBE VWG100			
13W	13W 1211		905			
16W	1328	1308	1072			



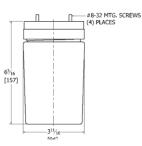


KULARK

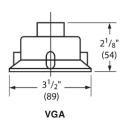
UTILITY LIGHT - DIMENSIONS



VSL Body w/Globe & Guard, No Splice Box



VSL Body w/Polycarbonate Globe, No Splice Box



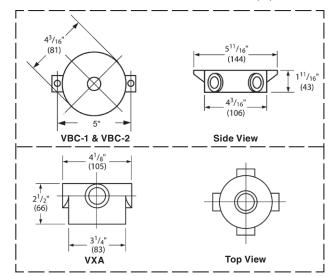
3³/₄" (95) (95) (95) (38) VGC or VGX *VGH is 3-5/8" (92)

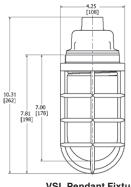
3¹¹/₁₂, (84.9)

3¹¹/₁₆, (80.56)

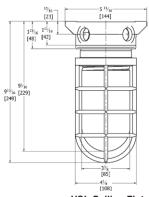
3³/₁₆ [80]

Polycarbonate Globe

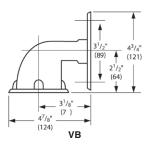


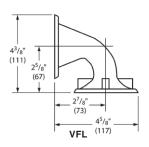


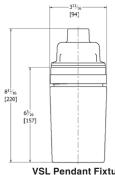
VSL Pendant Fixture w/Globe & Guard



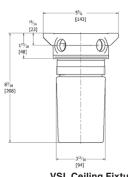
VSL Ceiling Fixture w/Globe & Guard



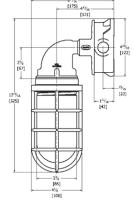




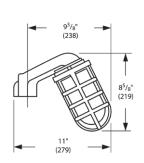
VSL Pendant Fixture w/ Polycarbonate Globe



VSL Ceiling Fixture w/Polycarbonate Globe



VSL Wall Mounted Fixture w/Globe & Guard



VSL Stanchion Fixture w/Globe & Guard





CLASS II UTILITY LIGHT - INTRODUCTION & ORDERING INFORMATION





Class II, Div. 1 & 2, Groups E, F, G Class I, Div. 2, Groups A, B, C, D



Certified - File LR11713

DV SERIES LED FEATURES-SPECIFICATIONS Introduction

Killark 'DVL' Series LED fixtures are designed for hazardous locations where suspended metal, carbon (such as coal) and grain dusts create explosive or ignitable mixture with the air.

LED Luminaire Features and Standards

- Compact in Size with Traditional Industrial Appearance and Suitability
- DVL LED Housings can be retrofitted to existing DV Series splice boxes; upgrade from incandescent housing 100 Series components
- Long Fixture Life 50,000 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering Chromaticity 5000°K (CCT); 70 CRI
- Integral driver maintains fixture's compact profile to fit in existing spaces
- Instant on including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections -Vibration Resistant

Compliances

- UL-8750 for LED lighting
- UL 1598 standard for luminaires
- · UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Division 2; Class III, Division 2
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations

Materials, Weights

- · Body and splice box are corrosion resistant copper-free aluminum alloy. Steel guard.
- · Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection

DVL 100 SERIES							
MODEL	LAMP	HUB	PENDANT	CEILING	WALL	DELIVERED Lumens	
Type 100	Included	1/2"	DVL1330A1G	DVL1330X1G	DVL1330B1G	1144	
13Watt	IIIciuueu	3/4"	DVL1330A2G	DVL1330X2G	DVL1330B2G	1144	
Type 100	In aludad	1/2"	DVL1630A1G	DVL1630X1G	DVL1630B1G	1355	
16Watt Included	3/4"	DVL1630A2G	DVL1630X2G	DVL1630B2G	1300		

DVL Series LED Catalog Logic

DVL 13 30 **Series Constant** Guard N - No Guard **G** - Guard Wattage -**Conduit Entry Size** 13 - 13W LED **1** - 1/2" **16** - 16W LED **2** - 3/4" **Mounting Style** Voltage -**30** - 120-277VAC 50/60 Hz

27 - 12-24VDC input

DCGE-10

ACCESSORIES/COMPONENTS					
BODIES MOUNTS					
DVL 1330	LED 13W	DVA1	1/2" Pendant Mount		
DVL 1327	LED 13W	DVA2	3/4" Pendant Mount		
DVL 1630	LED 16W	DVX1	1/2" Ceiling Mount		
DVL 1627	LED 16W	DVX2	3/4" Ceiling Mount		
		DVB1	1/2" Wall Mount		
		DVB2	3/4" Wall Mount		
GLORE		GHARD			

DVL THERMAL RATINGS					
CAT. NO.	AMBIENT	WATTS	C2D1 EFG	C1D2 ABCD	SUPPLY WIRE
DVL1330	40°C	13	T3B	T6	90°C
DVL1630	40°C	16	T3B	T6	90°C
DVL1330	55°C	13	-	T5	90°C
DVL1630	55°C	16	-	T5	90°C

DAG-100

DVL Electrical and L70 Ratings

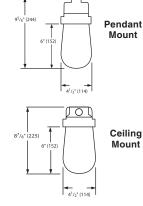
Same as VSL Series - See page 73

A - Pendant

X - Ceiling

- Bracket & Fittings for Wall Mount

Dimensions



Wall Mount overall dimensions Height = 13.125" (333mm) Outward from wall = 7.4" (188mm)



FKA

FIXTURE HANGERS





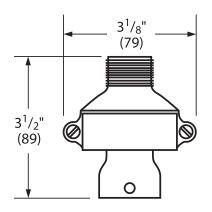
HOOKLOOP

FEATURES-SPECIFICATIONS FKA

Features

- · Ball joint permits fixture to hang plumb. Fixture may swing up to 20° from vertical in any direction
- Cast of aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Set screw locks fixture stem in place. Cannot accidently loosen - intended for use with threaded metal conduit
- Joint cannot twist conductor
- Suitable for fixtures up to 125 pounds

FKA				
CATALOG Number	MALE Thread	FIXTURE STEM SIZE		
FKA- 22	3/4"	3/4"		



For replacement ball only catalog number 00890545

Listed - File E27731

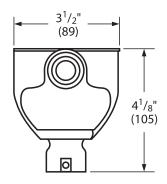
Certified - File LR11851 See files for details or call Killark.

FΗ

Features

- · Combination splice box and flexible fixture hanger
- Ball joint permits fixture to hang plumb. Fixture may swing up to 20°from vertical
- Cast of aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Set screw locks fixture stem in placeintended for use with threaded metal conduit
- Joint cannot twist conductors
- Cover may be removed for easy wiring- 11 cu. inches
- Mounts directly to metal conduit
- Suitable for fixtures up to 125 pounds

FH				
TWO HUBS	THREE HUBS	CONDUIT SIZE	FIXTURE STEM SIZE	
FEED THRU	T	SIZE	STEWN SIZE	
FHC-21	FHT- 21	3/4"	1/2"	
FHC-22	FHT-22	3/4"	3/4"	



For replacement ball only catalog number 00890545



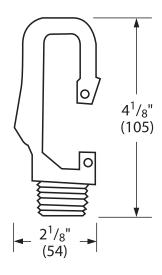
Listed - File E27731

HOOKLOOP

Features

- Pendant fixture hanger consists of a "HOOK" and safety bar which allows conversion to a "LOOP" configuration as necessary
- 3/4" male thread
- Maximum load 125 pounds

HOOKLOOP
CATALOG NUMBER
HOOKLOOP





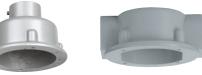
FH/VX SERIES



FIXTURE HANGERS







VGC

VGX

Covers



Flexible Hanger Covers



Hub Covers (for Rigid Mounting)



Hook

FEATURES-SPECIFICATIONS

FH HOOK

Features

- · Economical hanger for pendant fixtures
- Fixtures may absorb minor bumps and vibration through free swinging action
- Hub provided with a set screw to pre-vent accidental loosening of fixture stem
- A 1/2 inch hole in body is for flexible cable. Cord may be assembled with plug for quick removal of fixtures
- Cast of aluminum alloy (copper-free—less than 4/10 of 1%)
- · FH supports up to 125 pounds

FH HOOK, LOOP				
CATALOG NUMBER	DESCRIPTION	FIXTURE STEM SIZE		
FH- 2	Hook	3/4"		

⁹/₁₆" (14)¹³/₃₂" (10)¹/₂" (13)

(VL) LISTED - File E27731 or E3397 See files for details or call Killark

V SERIES

VGA

VGH

Features

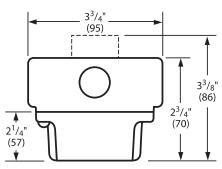
- · Flexible fixture hanger for threaded fixture stem. +120° from vertical
- · Enclosed and gasketed, suitable for wet locations
- · Permits angular displacement of fixture without twisting wires
- Cushioned—absorbs shock and vibration. Internal strap assures ground continuity
- Combines splice box and hanger in one unit. Splice box available in four configurations
- Cast of corrosion resistant aluminum alloy (copper-free—less than 4/10 of 1%)
- · Supports up to 125 pounds



(**VL)**usted - File E27731 or E3397

FLEXIBLE HANGERS, V SERIES ENCLOSED AND GASKETED			
CATALOG NUMBER		HUB SIZE	FIXTURE STEM SIZE
HANGER W/SPLICE BOX	SPLICE BOX ONLY	HOD SIZE	LIVIANE SIEM SITE
VPFHA-12	VGA-1	1/2"	3/4"
VPFHA-22	VGA-2	3/4"	3/4"
VPFHC-12	VGC-1	1/2"	3/4"
VPFHC-22	VGC-2	3/4"	3/4"
VPFHH-12	VGH-1	1/2"	3/4"
VPFHH-22	VGH-2	3/4"	3/4"
VPFHX-12	VGX-1	1/2"	3/4"
VPFHX-22	VGX-2	3/4"	3/4"

FIXTURE HANGERS ONLY				
CATALOG NUMBER	DESCRIPTION	FIXTURE STEM SIZE		
VPFH-2	Flexible hanger cover, maximum load 125 Lbs.	3/4"		
VG-2	Hub cover for rigid mounting	3/4"		



Flexible cover with box, dotted line is VGA pendant

HXB

FEATURES-SPECIFICATIONS **HXB**

Class I, Div. 1 & 2, Groups C,D Class I, Zones 1 & 2, Groups IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III

Features

- Fixture hanger for hazardous locations combining splice box and hanger
- Set screws in female hub prevents accidental loosening of fixture stem; set screws in hub cover lock cover to the splice box
- Four hubs in "X" configuration up to 3/4"
- Flange mounting ring cast as integral part of box
- Splice box wiring hole with cover for access to box interior
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports to 125 pounds; vol. 16 cu."



HXB SPLICE BOX AND HANGER			
CATALOG Number	CONDUIT FIXTURE HUB SIZE STEM SIZE		
HXB-11	1/2"	1/2"	
HXB-12	1/2" 3/4"		
HXB-21	3/4" 1/2"		
HXB-22	3/4"	3/4"	
HXBC	Blank Cover		
HIC-SILVER	Replacement Wiring Plug		

FIXTURE HANGERS





EKJ

XFH

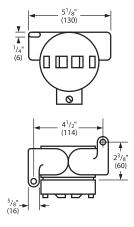
Class I, Div. 1 & 2, Groups C,D Class I, Zones 1 & 2, Groups IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III

Features

- Fixture hanger for hazardous locations combining splice box and hanger
- Set screws in female hub prevents accidental loosening of fixture
- Straight through conduit hubs for through feed. 20 cu"
- Mounting lugs are standard
- Cast of corrosion resistant aluminum allov (copper-free aluminum; less than 4/10 of 1%)
- Supports to 125 pounds



XFH SPLICE BOX AND HANGER				
CATALOG Number	CONDUIT Hub Size	FIXTURE Stem Size		
XFH-21	3/4"	1/2"		
XFH-22	3/4"	3/4"		



EKJ

Class I, Div. 1 & 2, Groups A,B,C,D Class I, Zones 1 & 2, Groups IIC, IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III

Features

- Fixture pendant hanger for hazardous locations
- Permits free swing and plumb hand
- Set screws in each hub prevents accidental loosening of fixture
- Constructed of seamless bronze hose with brass outer braid. Asphaltum impregnated jute inner insulates and protects wire from abrasion. Brass female end fittings are supplied with short nipples
- Electrical ground continuity without bonding jumper
- Suitable for wet locations as well as hazardous locations
- Flexible lengths 4 to 18 inches
- Supports to 125 pounds



EKJ FLEXI	BLE PENDANT	HANGER *
CATALOG Number	CONDUIT Hub Size	FIXTURE Stem Size
EKJ-14 EKJ-24	1/2" 3/4"	4"
EKJ-16 EKJ-26	1/2" 3/4"	6"
EKJ-18 EKJ-28	1/2" 3/4"	8"
EKJ-110 EKJ-210	1/2" 3/4"	10"
EKJ-112 EKJ-212	1/2" 3/4"	12"
EKJ-115 EKJ-215	1/2" 3/4"	15"
EKJ-118 EKJ-218	1/2" 3/4"	18"



FIXTURE HANGERS





FEATURES-SPECIFICATIONS

Class I, Div. 1 & 2, Groups C,D Class I, Zones 1 & 2, Group IIB Class II, Div. 1 & 2, Groups E,F,G Class III

Features

- Splice box and hub cover for mounting pendant fixtures in hazardous locations
- Conduit openings in two configurations



JAL

- · Flange type cover. Set screw in hub prevents accidental loosenings of fixture
- · Integral lugs for mounting box to ceiling
- Cast of corrosion resistant aluminum allov (copper-free aluminum; less than 4/10 of
- Supports up to 125 pounds



(VL) LISTED - File E10514



SP · Certified - File LR11716

JL/JAL SPLICE BOX AND HUB COVER FIXTURE HANGER					
CATALOG NUMBER					
JL SERIES W/HUB COVER	JAL SERIES W/HUB COVER	CONDUIT BOX	COVER	ТҮРЕ	
JLC-11	_	1/2"	1/2"		
JLC-12	_	1/2"	3/4"	CS Straight	
JLC-21	_	3/4"	1/2"	Through	
JLC-22	_	3/4"	3/4"		
JLX-11	JALX-11	1/2"	1/2"		
JLX-12	JALX-12	1/2"	3/4"		
JLX-21	JALX-21	3/4"	1/2"	XF O	
JLX-22	JALX-22	3/4"	3/4"	our Hubs	
_	JALX-31	1"	1/2"		
_	JALX-32	1"	3/4"		



ENY Pendant Seal

ENY PENDANT SEALS

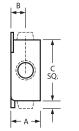
Class I, Div. 1 & 2, Groups A,B,C,D Class I, Zones 1 & 2, Groups IIC, IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III

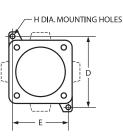
Features

- · ENY Pendant Seals are designed for hazardous locations and meet code requirements for a safety set-screw when hanging fixtures. Common applications are for Class I Division I Group B or Class I Zone 2 Ex nR restricted breathing fixtures
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports up to 125 pounds

CATALOG NUMBER	SIZE
ENY-2SET	3/4"

JL/JAL DIMENSIONS										
SERIES	A	В	C	D	E	F				
JL	1-15/16"	11/16"	3-1/4"	4-7/32"	2-3/8"	5/16"				
	(49)	(17)	(95)	(107)	(60)	(8)				
JAL	2-3/8"	15/32"	4-5/8"	5-1/4"	4-1/8"	5/16"				
	(60)	(12)	(117)	(133)	(105)	(8)				





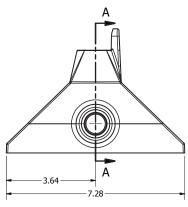
FLOODLIGHT MOUNTS

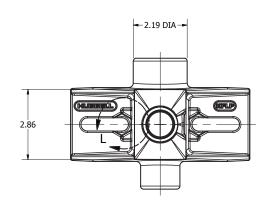


Class I, Div. 1&2, Groups A, B, C, D Class II, Div. 1&2, Groups E, F, G Class III Suitable for wet locations Types 3, 4 IP66

Features:

- · Zinc Plated ductile iron
- Stainless Steel Set Screw prevents accidental loosening due to vibration
- Indention in slot to prevent the nut from moving for one handed tightening during installation
- 1" or 3/4" NPT Conduit
- ¾" NPT Cord Connector or Flexible Coupling
- Splice box wiring hole with cover for wiring access
- Earthquake tab
- · Supports 125 lbs.







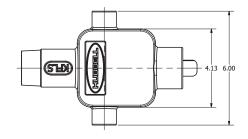
Suitable for wet locations when used with gasketed covers.

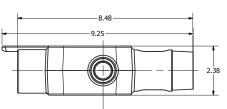
Federal Specification W-C-586D/A-A

Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

Features:

- · Zinc Plated ductile iron
- Stainless Steel Set Screw prevents accidental loosening due to vibration
- 1.5", 1" or 34" NPT Conduit
- (2) 3/4" NPT Cord Connector or Flexible Coupling
- Stackable; allowing up-to 4 positions to mount a floodlight
- Splice box wiring hole with cover for wiring access
- · Supports 125 lbs.













GLENGHER"

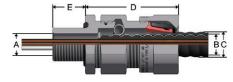
FEATURES-SPECIFICATIONS

Applications

Designed for use with jacketed interlocked, continuously corrugated and welded armor cable (all types shown in chart below). Install where it is essential to provide positive grounding to the cable and for a Type 3,4 connection.

Features

- 360° armor grounding spring is reusable.
- Robust threads and world class seal enables <u>easy installation</u> with minimal torque required.
- Design meets and exceeds third party requirements for <u>cable retention</u>.
- Provides sealing back nut plus inner
 O-ring seal to <u>prevent moisture ingress</u> to the cable armor and enclosure.
- Copper free aluminum construction for <u>hostile, corrosive</u> and certain hazardous locations



Materials

- Body Copper free aluminum (less than 4/10 of 1%)
- Ground Spring Stainless Steel
- Backnut Seal Thermoplastic elastomer (silicone)

Class II, Div. 1 & 2, Groups E, F, G Class III Class I, Zone 2†, Group IIC, Zone 20 Suitable for wet locations Types 3, 4X IP66 MC5 thru MC0: IPX8 6ft 1hr Suitable for use in hazardous location

applications when installed according to



· Backnut Clamp - Nylon

NEC Articles 501.10

Inner and Outer O-rings – Nitrile

Operating Temperature Range

-50°C to +60°C

Construction Details



SUITABLE ARMORED/METAL CLAD CABLE TYPES								
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90							
MC-	MCC, MCI, MCI-A, MC-HL							
RA-	RA90, RA90-HL							
TECK-	TECK90, TECK90-HL							

	ENTRY	CABLE ACCEPTANCE DETAILS							NPT	HEXAGON D	HEXAGON DIMENSIONS	
CATALOG	THREAD	MAX	THROUGH	ARMOR DIA	AMETER 'B'	DIAMETER 'C'		MAX Length	LENGTH	ACROSS	ACROSS	
NUMBER	SIZE (NPT)	NUMBER OF CORES	DIAMETER 'A'	MIN.	MAX.	MIN.	MAX.	'D'	'É'	FLATS	CORNERS	
MC1B	1/2"	6	.47" (11.9)	0.43" (10.9)	0.55" (14.0)	0.51" (13.0)	0.63" (16.0)	1.7" (43)	0.83" (21.1)	1.06" (26.9)	1.12" (28.4)	
MC1C	1/2"	10	0.56" (14.2)	0.52" (13.2)	0.74" (18.8)	0.60" (15.2)	0.82" (20.8)	2.3" (58)	0.83" (21.1)	1.42" (36)	1.50" (38.1)	
MC2	3/4"	21	0.80" (20.3)	0.65" (16.5)	0.95" (24.1)	0.73" (18.5)	1.03" (26.2)	2.5" (64)	0.84" (21.3)	1.61" (41)	1.69" (42.9)	
MC3	1"	42	1.04" (26.4)	0.89" (22.6)	1.23" (31.2)	0.97" (24.6)	1.31" (33.3)	2.6" (66)	1.03" (26.2)	1.97" (50)	2.13" (254.1)	
MC4	1 1/4"	73	1.28" (32.5)	1.15" (29.2)	1.48" (37.6)	1.23" (31.2)	1.56" (39.6)	3.1" (79)	1.05" (26.7)	2.36" (60)	2.50" (63.5)	
MC5	1 ½"	80	1.66" (42.2)	1.39" (35.3)	1.62" (41.1)	1.47" (37.3)	1.78" (45.2)	4.5" (114.3)	1.07" (27.2)	2.95" (74.9)	3.06" (77.7)	
MC6	2"	80	1.98" (50.3)	1.39" (35.3)	1.89" (48)	1.47" (37.3)	2.04" (51.8)	4.5" (114.3)	1.10" (27.9)	2.95" (74.9)	3.06" (77.7)	
MC7	2 ½"	100	2.46" (62.5)	1.85" (47)	2.36" (60)	1.93" (49)	2.51" (63.8)	4.7" (119.4)	1.62" (41.1)	3.54" (89.1)	3.65" (92.7)	
MC8	3"	120	2.93" (74.4)	2.19" (55.6)	2.81" (71.4)	2.27" (57.7)	3.01" (76.5)	4.8" (121.9)	1.68" (42.7)	4.06" (103.1)	4.22" (107.2)	
MC9	3 ½"	120	3.40" (86.4)	2.69" (68.3)	3.28" (83.3)	2.77" (70.4)	3.46" (87.9)	4.8" (121.9)	1.73" (43.9)	4.53" (115.1)	4.69" (119.1)	
MCO	4"	120	3.92" (99.6)	3.28" (83.3)	3.82" (97)	3.46" (87.9)	4.07" (103.4)	5.1" (129.5)	1.78" (45.2)	5.12" (130)	5.33" (135.4)	

Cable armor diameter and cable jacket diameter refer to the dimensions across the crest.

[†] Where explosion proof/flameproof enclosures are being used the MC must be installed in conjunction with an approved sealing fitting. In Division 2 areas the MC can be fitted directly to an enclosure which has no source of ignition.





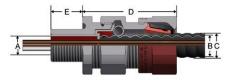
FEATURES-SPECIFICATIONS

Applications

Designed for use with jacketed interlocked. continuously corrugated and welded armor cable (all types shown in chart below). Install where it is essential to provide positive grounding to the cable with a complete gas block/explosion proof seal. Also for a Type 3, 4X connection.

Features

- 360° armor grounding spring is reusable.
- Robust threads and world class seal enables easy installation with minimal torque required.
- Provides a barrier seal between the individual insulated cores within the cable and prevents entry of the pro-ducts of an explosion into the cable.
- Assembly of the cable gland compresses and distributes the compound evenly to create a barrier seal at the point of entry into the enclosure.



· Provides cable retention and a low smoke and fume, zero halogen seal onto the cables outer sheath.

- · Provides sealing back nut plus inner O-ring seal to prevent moisture ingress to the cable armor and enclosure
- Copper free aluminum construction for harsh, corrosive and hazardous duty
- Back nut is RED to indicate HAZARDOUS area product

Class I, Div. 1 & 2, Groups A, B, C, D Class II, Div. 1 & 2, Groups E, F, G Class III Class I, Zones 1 & 2, Group IIC, Zone 20 **Types 3, 4X IP66** MCX5-MCX0: IPX8 6ft/1hr.



Materials

- Body Copper free aluminum (less than 4/10 of 1%)
- · Ground Spring Stainless Steel
- Backnut Seal Thermoplastic elastomer (silicone)
- Backnut Clamp Nylon
- Inner and Outer O-rings Nitrile

Operating Temperature Range

-50°C to +60°C

Construction Details Sealing chamber Inner O-ring Seal NEMA 4 Sealing Backnut Reusable **Grounding Spring**

SUITABLE ARMORED/METAL CLAD CABLE TYPES							
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90						
MC-	MCC, MCI, MCI-A, MC-HL						
RA-	RA90, RA90-HL						
TECK-	TECK90, TECK90-HL						

	ENTRY		CABLE ACCEPTANCE DETAILS							HEXAGON DIMENSIONS	
CATALOG NUMBER	THREAD SIZE	MAX	THROUGH DIAMETER 'A'	ARMOR DIA	AMETER 'B'	DIAMETER 'C'		MAX LENGTH	NPT LENGTH	ACROSS	ACROSS
NUMBER	(NPT)	NUMBER OF CORES		MIN.	MAX.	MIN.	MAX.	U	E	FLATS	CORNERS
MCX1B	1/2"	6	0.39" (9.9)	0.43" (10.9)	0.55" (14.0)	0.51" (13.0)	0.63" (16.0)	2.1" (53.3)	0.83" (21.1)	1.06" (26.9)	1.12" (28.4)
MCX1C	1/2"	10	0.48" (12.2)	0.52" (13.2)	0.74" (18.8)	0.60" (15.2)	0.82" (20.8)	2.4" (61)	0.83" (21.1)	1.42" (36)	1.50" (38.1)
MCX2	3/4"	21	0.71" (18.1)	0.65" (16.5)	0.95" (24.1)	0.73" (18.5)	1.03" (26.2)	2.6" (66)	0.84" (21.3)	1.61" (41)	1.69" (42.9)
MCX3	1"	42	0.96" (26.4)	0.89" (22.6)	1.23" (31.2)	0.97" (24.6)	1.31" (33.3)	2.7" (69)	1.03" (26.2)	1.97" (50)	2.13" (254.1)
MCX4	1 1/4"	73	1.16" (29.5)	1.15" (29.5)	1.48" (37.6)	1.23" (31.2)	1.56" (39.6)	3.2" (81)	1.05" (26.7)	2.36" (60)	2.50" (63.5)
MCX5	1 1/2"	80	1.35" (34.3)	1.39" (35.3)	1.62" (41.1)	1.47" (37.3)	1.78" (45.2)	4.5" (114.3)	1.07" (27.2)	2.95" (75)	3.06" (77.8)
MCX6	2"	80	1.62" (41.1)	1.39" (35.3)	1.89" (48.0)	1.47" (37.3)	2.04" (51.8)	4.5" (114.3)	1.10" (27.9)	2.95" (75)	3.06" (77.8)
MCX7	2 1/2"	100	2.09" (53.1)	1.85" (47.0)	2.36" (59.9)	1.93" (49.0)	2.51" (63.8)	4.7" (119.4)	1.62" (41.1)	3.54" (90)	3.65" (92.8)
MCX8	3"	120	2.52" (64.0)	2.19" (55.6)	2.81" (71.4)	2.27" (57.7)	3.01" (76.5)	4.8" (121.9)	1.68" (42.7)	4.06" (103)	4.22" (107.2)
MCX9	3 1/2"	120	3.01" (76.5)	2.69" (68.3)	3.28" (83.3)	2.77" (70.4)	3.46" (87.9)	4.8" (121.9)	1.73" (43.9)	4.53" (115)	4.69" (119.2)
MCXO	4"	120	3.50" (88.9)	3.28" (83.3)	3.82" (97.0)	3.46" (87.9)	4.07" (103.4)	5.1" (129.5)	1.78" (45.2)	5.12" (130)	5.33" (135.3)

Cable armor diameter and cable jacket diameter refer to the dimensions across the crest.







FEATURES-SPECIFICATIONS

Applications:

Designed for use with jacketed interlock, continuously corrugated and welded armor cable where it is essential to prevent explosive vapors from passing through electrical devices. This series provides a 45 and 90 degree bend for the most compact space. It is rated for indoor and outdoor use.

Features:

- 360° armor grounding spring is reusable
- Provides a barrier seal between the individual insulated cores within the cable
- Assembly of the cable gland compresses and distributes the compound evenly to create a barrier seal at the point of entry into the enclosure.
- · Provides a cable retention and low smoke fume, zero halogen seal onto the cables outer sheath
- · Copper-free aluminum construction for harsh, corrosive and hazardous areas



- Patent pending combination union elbow that allows proper 360° alignment where space is limited
- Compact 45° & 90° bends for optimized wiring configurations
- Armor is terminated prior to bend allowing for minimal bending radius
- Backnut is anodized RED to indicate HAZARDOUS area product

Class I, Div. 1, Groups A, B, C, D Class II, Div. 1, Groups E, F, G Class III, CL. I Zone 1 GR. IIC. Zone 20 Types 3, 4X, IP66



Materials:

- Body: Copper-free aluminum (less than 4/10 of 1%)
- Backnut Seal: Thermoplastic elastomer (silicone)
- Backnut Clamp: Nylon
- Inner and Outer O-rings: Nitrile

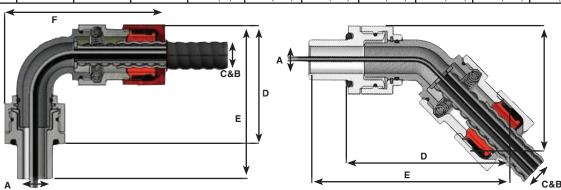
Operating Temperature:

-50°C to +60°C



	SUITABLE ARMORED/METAL CLAD CABLE TYPES								
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90								
MC-	MCC, MCI, MCI-A, MC-HL								
RA-	RA90, RA90-HL								
TECK-	TECK90, TECK90-HL								

	ENTRY		CABLE ACCEPTANCE DETAILS								
CATALOG # THREAD SIZ		BEND	MAX	THROUGH	ARMOR DIAMETER 'B'		DIAMETER 'C'		MAX LENGTH	MAX LENGTH	MAX LENGTH
	(NPT)		NUMBER OF CORES	DIAMETER 'A'	MIN.	MAX.	MIN.	MAX.	, 'ט'	'E'	147
MCX14C	1/2"	45°	10	.48" (12.2)	.52" (13.2)	.74" (18.8)	.60" (15.2)	.82" (20.8)	3.25" (82.6)	4.35" (110.5)	2.05" (52)
MCX24	3/4"	45°	21	.71" (18)	.65" (16.5)	.95" (24.1)	.73" (18.5)	1.03" (26.2)	3.43" (87.1)	4.55" (115.6)	2.19" (55.6)
MCX19C	1/2"	90°	10	.48" (12.2)	.52" (13.2)	.74" (18.8)	.60" (15.2)	.82" (20.8)	2.51" (63.8)	3.62" (91.9)	3.51" (89.2)
MCX29	3/4"	90°	21	.71" (18)	.65" (16.5)	.95" (24.1)	.73" (18.5)	1.03" (26.2)	2.61" (66.3)	3.73" (94.7)	3.60" (91.4)







Class II, Div. 1, Groups E, F, G Class III. Zone 20, IP66, Types 3, 4X Suitable for use in hazardous location application when installed according to **NEC Articles 501.10**



FEATURES-SPECIFICATIONS

Applications:

Designed for use with jacketed interlock. continuously corrugated and welded armor cable. Rated for indoor and outdoor use and allows for a 45 and 90 degree bend where space is limited.

Features:

- 360° armor grounding spring is reusable
- Provides sealing backnut plus inner O-ring seal to prevent moisture ingress to the cable armor and enclosure
- Copper-free aluminum construction for harsh, corrosive and hazardous duty
- Patent pending combination union elbow that allows proper 360° alignment where space is limited
- Compact 45° & 90° bends for optimized wiring configurations
- Armor is terminated prior to bend allowing for minimal bending radius

Materials:

- · Body: Copper-free aluminum (less than 4/10 of 1%)
- · Backnut Seal: Thermoplastic elastomer (silicone)
- Backnut Clamp: Nylon
- Inner and Outer O-rings: Nitrile

Operating Temperature:

-50°C to +60°C

AC-

MC-RA-

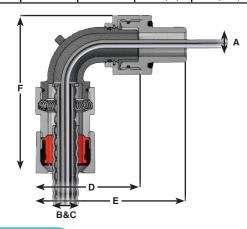
TECK-

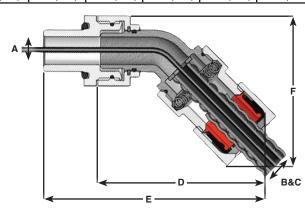
Silicone O-ring for moisture protection



SUITABLE ARMORED/METAL CLAD CABLE TYPES
AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90
MCC, MCI, MCI-A, MC-HL
RA90, RA90-HL
TECK90, TECK90-HL

		ENTRY		CABLE ACCEPTANCE DETAILS								
ı	CATALOG	THREAD SIZE	BEND	MAX THROUGH ARMOR DIAMETER 'B'		DIAMETER 'C'		MAX LENGTH	MAX LENGTH	MAX LENGTH		
	NUMBER	(NPT)		NUMBER OF CORES	DIAMETER 'A'	MIN.	MAX.	MIN.	MAX.	'D'	'E'	·F′
ſ	MC14C	1/2"	45°	10	.48" (12.2)	.52" (13.2)	.74" (18.8)	.60" (15.2)	.82" (20.8)	3.25" (82.6)	4.35" (110.5)	2.05" (52)
	MC24C	3/4"	45°	21	.71" (18)	.65" (16.5)	.95" (24.1)	.73" (18.5)	1.03" (26.2)	3.43" (87.1)	4.55" (115.6)	2.19" (55.6)
	MC19C	1/2"	90°	10	.48" (12.2)	.52" (13.2)	.74" (18.8)	.60" (15.2)	.82" (20.8)	2.51" (63.8)	3.62" (91.9)	3.51" (89.2)
ſ	MC29	3/4"	90°	21	.71" (18)	.65" (16.5)	.95" (24.1)	.73" (18.5)	1.03" (26.2)	2.61" (66.3)	3.73" (94.7)	3.60" (91.4)









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