



LALFP Series Linear LED Technology

for Harsh and Hazardous Environments





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 (2017)

c∰°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

LED VS FLUORESCENT WATTAGE & DELIVERED LUMENS							
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	



LALFP SERIES



ORDERING INFORMATION

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2 A,B,C,D/ ZONE 2 IIC, IIB, IIA		C1D2 E, F, G Simultaneous		C2D1 E, 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	10	18 32.6 / 828 51 / 1295	120/277 VAC - 50/60	0.15 - 0.06	2272 / 2479	T6	T6	T6	T4A	T4A	T4A	T4A	T4A	T4A	Т6	Т6	T5	T4	T4
LALFP230L4D	12.90 / 9.9	10																		14
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	Т6	T5		T4A	T4A	$oxed{oxed}$	T4A	T4A	Т6	Т6	T5	T4	T4
LALFP430L4D	12.90 / 9.9	20	51 / 1295						10						17/1					'-
LALFP630L1D	12.03 / 4.49	45	18.73 / 476		0.38-0.17	5136 / 5604	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	-
LALFP630L3D	17.90 / 8.1	45	32.6 / 828		0.38 - 0.16	5054 / 5515	T6	T5	-	T4A	T4A	-	T4A	T4A	-	Т6	T5	T5	T4	T4
LALFP630L4D	12.90 / 9.9	70	51 / 1295																	
LALFP830L3D	17.90 / 8.1	60	32.6 / 828		0.50 - 0.22	7064 / 7709	Т6	T5	_	T4A	T4A	_	_{T4A}	T4A	_	T ₆	T5	_	T4	
LALFP830L4D	12.90 / 9.9	00	51 / 1295																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	-
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	0.15 - 0.06	2272 / 2479														
WLALFP230L4D	12.90 / 9.9	"	51 / 1295		0.10 0.00	2212/2413														
WLALFP430L1D	12.03 / 4.49	35	18.73 / 476		0.30-0.13	3261 / 3558	A.													
WLALFP430L3D	17.90 / 8.1	28	32.6 / 828		0.23 - 0.10	3321 / 3624	6/													
VLALFP430L4D	12.90 / 9.9	20	51 / 1295	120/277	0.23 - 0.10	3321/3024	1											149		1

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

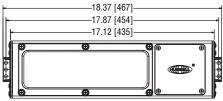
WLALFP1130L5D 36.50 / 16.6

WLALFP1630L5D 36.50 / 16.6

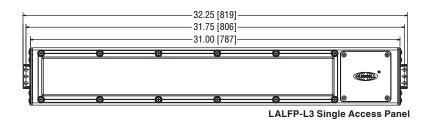
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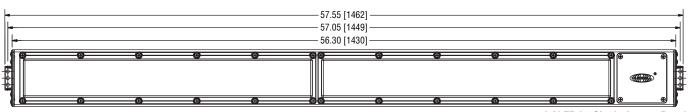


DIMENSIONS

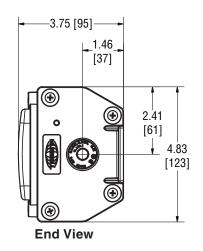


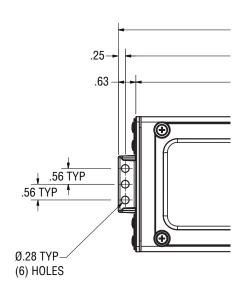
LALFP-L1 Single Access Panel





LALFP-L5 Single Access Panel





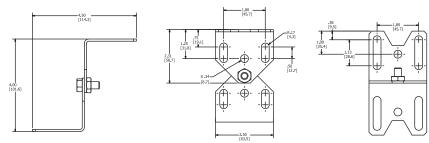






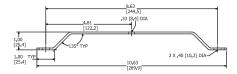
ACCESSORIES AND REPLACEMENT PARTS

	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 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)









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- Modern "Ribbon" Windows Interface with "Real Time" Calculations
- Easily import/export of CAD files (DWG/DXF/PDF)
- Enhanced photometric database with luminaire images and wireframes
- Ability to draw round or complex rooms and grids
- False Colors to indicate "Relative Brightness"

See "Lighting Software link" at www.hubbell-killark.com to download

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