

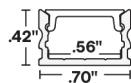


ESSENTIALS LALO-FLAT (01) SW-HE

24VDC Linear Fixtures - Surface & Recessed



410.2 & 410.16
Closet Rated
up to 4.0W/ft



- Shallow, low-profile fixture for surface or recessed installations
- Choose from diffused, polar, frosted, or clear lens options for varying diode visibility and beam angles
- Three mounting options
- Features painted end caps to match extrusion finish
- Suitable for installation in the storage area of a clothes closet when specified with LEDs at 4.0 watts or less per foot per NEC regulations
- Can be suitable for exterior use when specified as wet, contact factory for more information
- Optional plastic louver accessory available in white or black for added glare control

Sample Part Number: **LL1SW-3.0HE-30-DRY-STD-DF-P1-BW-BW-BK-CL2-SST-BK-48"-E**

1 PRODUCT	2 WATTS/FT	3 CCT	4 RATED	5 EFFICIENCY	6 LENS
LL1SW LL1SW-USA Select USA option for BAA and BABA projects. SW-HE only. Only DRY or WET ratings apply. See following pages for compatible power supplies.	1.5HE 1.5W/ft HE 3.0HE 3.0W/ft HE 6.0HE 6.0W/ft HE	20 2000K 22 2200K 24 2400K 27 2700K 30 3000K 35 3500K 40 4000K	DRY IP20	STD Standard	DF Diffused PR Polar FR Frosted CL Clear
	3.0HE+ 3.0W/ft HE+ 6.0HE+ 6.0W/ft HE+	27 2700K 30 3000K 35 3500K 40 4000K			For representation of LED visibility, see Diode Visibility section on following pages. For beam angles, see Photometric Performance section on following pages. For optional snap-on louver ordering, see External Louver Accessory section on following pages
	1.5HE 1.5W/ft HE 3.0HE 3.0W/ft HE 6.0HE 6.0W/ft HE	24 2400K 27 2700K 30 3000K 35 3500K 40 4000K	DMP IP54		
	3.0HE+ 3.0W/ft HE+ 6.0HE+ 6.0W/ft HE+	27 2700K 30 3000K 35 3500K 40 4000K	WET IP67	Can be suitable for exterior use, contact factory for more information	

7	WIRE INPUT/OUTPUT	8	CONNECTOR/WIRE IN	9	CONNECTOR/WIRE OUT	10	WIRE COLOR
S1 S2	Single 1 (Input only) - End Feed Single 2 (Input only) - Bottom Feed	▶	BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24"	▶	CLS Closed End (No feed)		WH White BK Black N/A For Barrel
P1 P2	Pass Through 1 (Input/output) - End Feed Pass Through 2 (Input/output) - Bottom Feed	▶	BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24"	▶	BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24"		wet barrel only available in black

For continuous mounting, consider bottom feed.

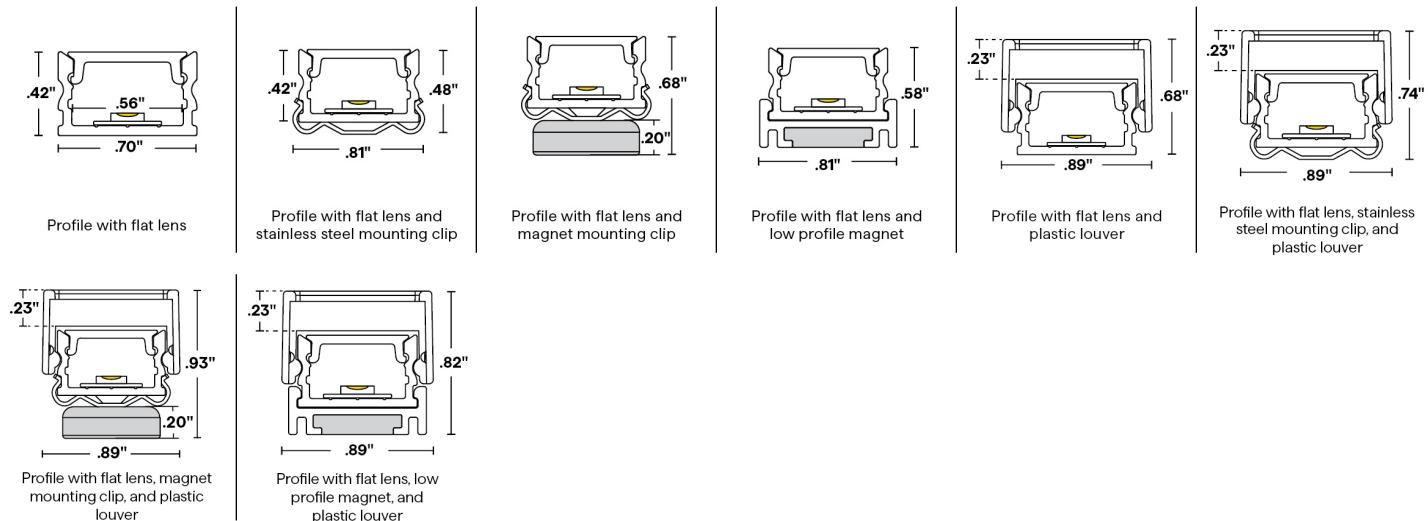
11	WIRE TYPE	12	MOUNTING	13	FINISH	14	LENGTH (IN)	15	EXACT/OPTIMAL
CL2	Class 2	SST	Stainless Steel	13	Satin	14	Minimum length is 12",	O	Optimal Illumination
CL2P	Plenum Rated	M4	Low Profile Magnet	BK	Black	maximum length is 98" not	E	Exact Specified Length	
N/A	For Barrel	MG	Magnet	CU	Custom	including end caps. Contact us			



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1 PRODUCT - DIMENSIONS



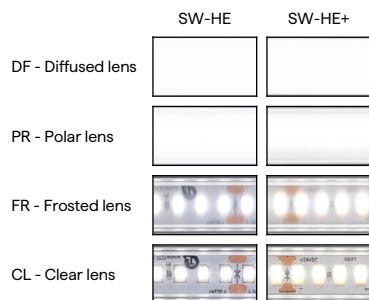
2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs, L70 = 50000 for HE+]

Tested with LL1SW-**-30-DRY-STD

	1.5HE W/FT	3.0HE W/FT	3.0HE+ W/FT	6.0HE W/FT	6.0HE+ W/FT		
	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT
CL	175	98	321	98	463	92	608
FR	174	98	320	98	461	92	606
PR	157	98	288	98	416	92	546
DF	141	98	259	98	373	92	490
							98
							768
							92

6 DIODE VISIBILITY





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PHOTOMETRIC PERFORMANCE

Nominal beam spread shown, beam spread varies based on light engine. For more detailed information, see photometric data.

CL



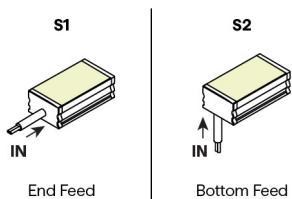
Clear 78°

TEMPERATURE RATINGS

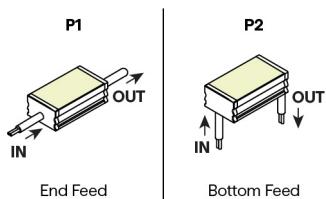
		1.5 HE W/FT		3.0 HE W/FT		3.0 HE+ W/FT		6.0 HE W/FT		6.0 HE+ W/FT	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
DRY	Ambient Operating Temp - Surface	-4°F	145°F	-4°F	135°F	-13°F	135°F	-4°F	120°F	-13°F	120°F
DMP	Ambient Operating Temp - Surface	-4°F	140°F	-4°F	130°F	**	**	-4°F	115°F	**	**
WET	Ambient Operating Temp - Surface	**	**	**	**	-13°F	130°F	**	**	-13°F	115°F

7 WIRE INPUT/OUTPUT

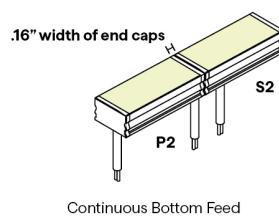
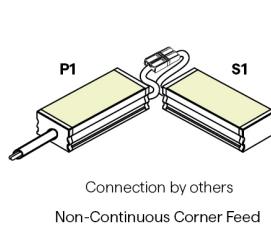
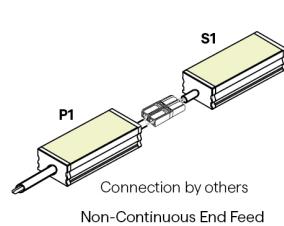
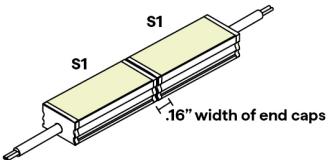
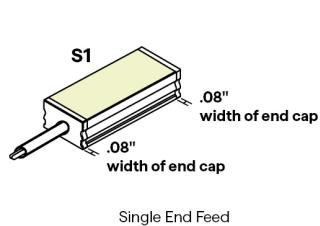
SINGLE (Input only)



PASS THROUGH (Input/Output)



CONFIGURATION OPTIONS



Continuous End to End Feed

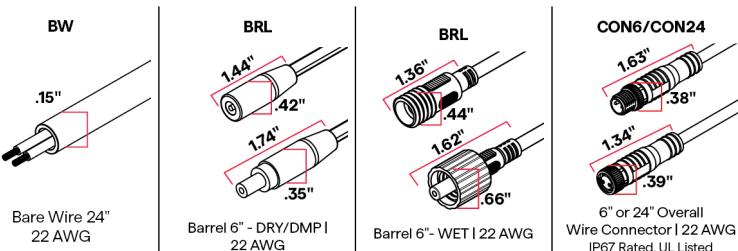


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8 / 9 CONNECTOR/WIRE – IN/OUT

Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out

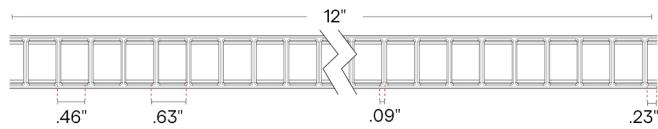


10 WIRE COLOR

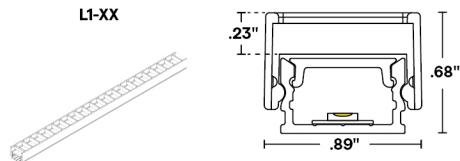


EXTERNAL LOUVER ACCESSORY

PLASTIC



L1-XX



Lumen Multiplier

WH BK

Profile with plastic louver

To order separately use
LALO-L1-FLAT-KIT-WH or
LALO-L1-FLAT-KIT-BK

0.72 0.51



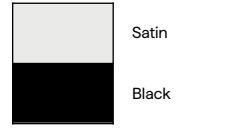
ESSENTIALS LALO-FLAT (01) SW-HE

24VDC Linear Fixtures - Surface & Recessed

12 MOUNTING

SST	M4	MMA-04	MG
Satin Stainless Steel Clip	Low Profile Magnet	Magnet Mount Accessory for M4	Magnet Clip
2 clips provided for 4' or less; 4 clips provided for greater than 4' To order separately use SST-01 Each clip comes with a #4 x 5/8" Flat Head SS	One M4 provided per foot. To order separately use MG-04	Sold separately, to order use MMA-04 Each bracket comes with 2 #6 x 5/8" Flat Head SS Required when mounting to a non-magnetic surface	One MG provided per foot To order separately use MG-01

13 FINISH



Custom finishes require a longer lead time, consult factory

MMA-01

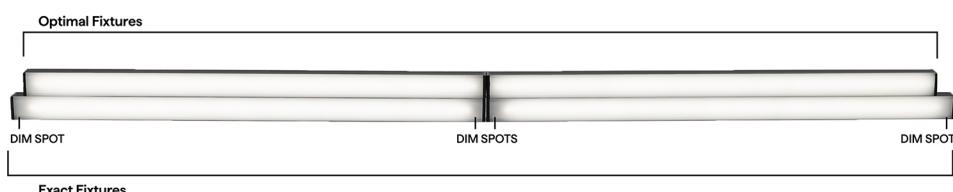
Magnet Mount Accessory of MG-01
Sold separately, to order use MMA-01
Each bracket comes with 2 #6 x 5/8" Flat Head SS Required when mounting to a non-magnetic surface

14 EXACT/OPTIMAL FIXTURE LENGTH

[E/O Length Calculator →](#)

[E/O Explained →](#)

Exact fixtures are the exact length specified. Optimal fixtures' length is rounded down based on LED cut points to allow the fixture to be illuminated end to end. For runs with multiple fixtures that need to fill a specific length, it's recommended to order all optimal fixtures with an exact fixture at the end of the run.





ESSENTIALS LALO-FLAT (01) SW-HE

24VDC Linear Fixtures - Surface & Recessed

SW-HE, SW-HE+ DRY DMP LENGTHS BY INCH

EXACT LENGTH

Requested Length	Potential dim spot on either end of a S1 fixture	
	S1	End Feed
12"	1"	
13"	0.5"	
14"	1"	
15"	0.5"	
16"	1"	
17"	0.5"	
18"	1"	
19"	0.5"	
20"	1"	
21"	0.5"	
22"	1"	
23"	0.5"	
24"	1"	
36"	1"	
48"	1"	
60"	1"	
72"	1"	
84"	1"	
96"	1"	

OPTIMAL LENGTH

Requested Nominal Length	S1 & S2		P1 & P2	
	S1	S2	P1	P2
12"	10.41"		10.66"	
13"	12.41"		12.66"	
14"	12.41"		12.66"	
15"	14.41"		14.66"	
16"	14.41"		14.66"	
17"	16.41"		16.66"	
18"	16.41"		16.66"	
19"	18.41"		18.66"	
20"	18.41"		18.66"	
21"	20.41"		20.66"	
22"	20.41"		20.66"	
23"	22.41"		22.66"	
24"	22.41"		22.66"	
36"	34.41"		34.66"	
48"	46.41"		46.66"	
60"	58.41"		58.66"	
72"	70.41"		70.66"	
84"	82.41"		82.66"	
96"	94.41"		94.66"	

SW-HE+ WET LENGTHS BY INCH

EXACT LENGTH

Requested Length	Potential dim spot on either end of a S1 fixture	
	S1	End Feed
12"	1"	
13"	0.5"	
14"	1"	
15"	0.5"	
16"	1"	
17"	0.5"	
18"	1"	
19"	0.5"	
20"	1"	
21"	0.5"	
22"	1"	
23"	0.5"	
24"	1"	
36"	1"	
48"	1"	
60"	1"	
72"	1"	
84"	1"	
96"	1"	

OPTIMAL LENGTH

Requested Nominal Length	S1 & S2		P1 & P2	
	S1	S2	P1	P2
12"	10.61"		10.76"	
13"	12.61"		12.76"	
14"	12.61"		12.76"	
15"	14.61"		14.76"	
16"	14.61"		14.76"	
17"	16.61"		16.76"	
18"	16.61"		16.76"	
19"	18.61"		18.76"	
20"	18.61"		18.76"	
21"	20.61"		20.76"	
22"	20.61"		20.76"	
23"	22.61"		22.76"	
24"	22.61"		22.76"	
36"	34.61"		34.76"	
48"	46.61"		46.76"	
60"	58.61"		58.76"	
72"	70.61"		70.76"	
84"	82.61"		82.76"	
96"	94.61"		94.76"	



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COMPATIBLE POWER SUPPLIES

See power supplies cut sheets for more information. Data subject to change, all data has +/- 5% tolerance.

DIM TO LEVEL	INDOOR	OUTDOOR
	SW24/5.0, SW-HE, SW-HE+	SW24/5.0, SW-HE, SW-HE+
Dim to Black	Q6M-DC+CAP QTM-DC+CAP iQ-PH+QD1	QOM-DC+CAP QOM-PH
0.1%	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QT-CAB-eLED+0-10V-AWN QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+0-10V QTM-eLED+0-10V-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-BOWTIE+DIMMER QZ-DMX QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-DMX Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QOM-eLED+DALI-DT6 QOM-eLED+PS-DALI-DT6 QZ-DMX QZ-PH/0-10V
1%	QTM-eLED(E) QZ-DALI-DT6	Q-SET+QZ-DALI-DT6 QZ-DALI-DT6
10%	Non-Dim Power Supply with SW App Dongle	

DIMMING PROTOCOL	INDOOR	OUTDOOR
	SW24/5.0, SW-HE, SW-HE+	SW24/5.0, SW-HE, SW-HE+
Non-Dim	QT-CAB-eLED-ND QTM-eLED-ND QZ-ND	Q-SET-QZ-ND Q-SET-eLED-ND QOM-eLED-ND QZ-ND
Phase	Q6M-DC+CAP QT-CAB-QZ-PH/0-10V QTM-DC+CAP QTM-eLED(E) QZ-BOWTIE+DIMMER QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP iQ-PH+QD1	Q-SET-QZ-PH/0-10V QOM-DC+CAP QOM-PH QZ-PH/0-10V
0-10V	QT-CAB-QZ-PH/0-10V QT-CAB-eLED+0-10V QT-CAB-eLED+0-10V-AWN QTM-eLED+0-10V QTM-eLED+0-10V-AWN QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QZ-PH/0-10V
Lutron Athena	QT-CAB-eLED+0-10V-AWN QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+0-10V-AWN QTM-eLED+DALI-DT6-AWN	
ECO System	QTM-eLED(E)	
DMX	QZ-DMX	Q-SET-QZ-DMX QZ-DMX
DALI-2: DT6	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-DALI-DT6	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6 QZ-DALI-DT6
SCENE App Dimmed	Non-Dim Power Supply with SW App Dongle	



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COMPATIBLE MOUNTING ACCESSORIES

HINGE - HMB-M  1.41" .71"	HINGE - HMB-L  1.46" 1.29"	HINGE - HMB-XL  1.46" 4"	Q-PIVOT  .75" 1.03"	Q-ANGLE  2.23" 1.38"	QUOVA-STANDARD 	NJ-MEDIUM 	SD-L-MEDIUM 	MMA-01  .23" .75"	MMA-04  .19" .93"
Adjustable mounting bracket - Medium	Adjustable mounting bracket - Large	Adjustable mounting bracket - XLarge	Small mounting accessory	Adjustable mounting accessory	QUOVA Knife Edge	J Mounting Bracket	L Mounting Bracket	Magnet Mount Accessory of MG-01	Magnet Mount Accessory of MG-04