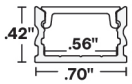
ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

410.2 & 410.16 Closet Rated up to 4.0W/ft





- Shallow, low-profile linear fixture for surface mount applications
- Choose from diffused, polar, or frosted 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

1 PRODUCT	2 WATTS/ FT	3 CCT	4 RATED	5 EFFICIENCY	6 LENS	7 WIRE INPUT/ OUTPUT	8 CONNECTOR/ WIRE IN	9 CONNECTOR/ WIRE OUT	10 WIRE COLOR	11 WIRE TYPE	12 MOUNTING	13 FINISH	14 LENGTH (IN)	15 EXACT/ OPTIMAL
				STD										

Sample Part Number: **LL1SW-5.0-30-DRY-STD-DF-P1-BW-BW-BK-CL2-SST-BK-48"-E**

1 PRODUCT

LL1SW
LL1SW-USA

Select USA option for BAA and BABA projects. Only DRY or WET ratings apply.

See following pages for compatible power supplies.

2 WATTS/FT

1.5	1.5W/ft
3.0	3.0W/ft
4.0	4.0W/ft
5.0	5.0W/ft

3 CCT

18	1800K
20	2000K
22	2200K
24	2400K
27	2700K
30	3000K
35	3500K
40	4000K

4 RATED

DRY	IP20
DMP	IP54
WET	IP67

Can be suitable for exterior use, contact factory for more information

5 EFFICIENCY

STD	Standard

6 LENS

DF	Diffused
PR	Polar
FR	Frosted

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

7 WIRE INPUT/OUTPUT

S1	Single 1 (Input only) - End Feed
S2	Single 2 (Input only) - Bottom Feed
P1	Pass Through 1 (Input/output) - End Feed
P2	Pass Through 2 (Input/output) - Bottom Feed

For continuous mounting, consider bottom feed.

8 CONNECTOR/WIRE IN

BW	Bare Wire (Standard 24")
BRL	Barrel
CON6	Connector 6"
CON24	Connector 24"

BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)

9 CONNECTOR/WIRE OUT

CLS	Closed End (No feed)
BW	Bare Wire (Standard 24")
BRL	Barrel
CON6	Connector 6"
CON24	Connector 24"

BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)

10 WIRE COLOR

WH	White
BK	Black
N/A	For Barrel

wet barrel only available in black

11 WIRE TYPE

CL2	Class 2
CL2P	Plenum Rated
N/A	For Barrel

CL2P only available with bare wire leads (BW)

12 MOUNTING

SST	Stainless Steel
M4	Low Profile Magnet
MG	Magnet

13 FINISH

ST	Satin
BK	Black
CU	Custom

Custom finishes require a longer lead time, consult factory

14 LENGTH (IN)

Minimum length is 12", maximum length is 98" not including end caps. Contact us for lengths under 12".

15 EXACT/OPTIMAL

O	Optimal Illumination
E	Exact Specified Length

Exact fixtures are the exact length specified +0 -1/8". Optimal fixtures' length is rounded down with illumination end to end. See Exact/Optimal Fixture Length charts.

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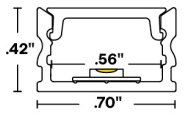
Specification subject to change. Rev-11-11-26

5 year warranty | Warranty only valid with QTL power supplies | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance

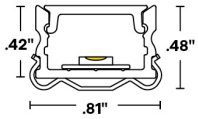
ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

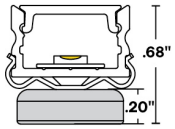
1 PRODUCT - DIMENSIONS



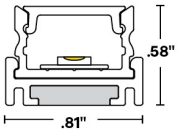
Profile with flat lens



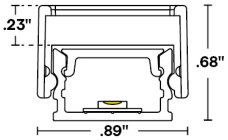
Profile with flat lens and stainless steel mounting clip



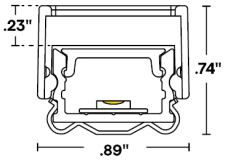
Profile with flat lens and magnet mounting clip



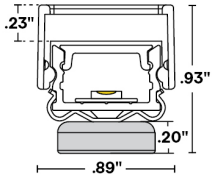
Profile with flat lens and low profile magnet



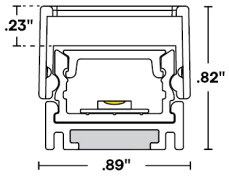
Profile with flat lens and plastic louver



Profile with flat lens, stainless steel mounting clip, and plastic louver



Profile with flat lens, magnet mounting clip, and plastic louver



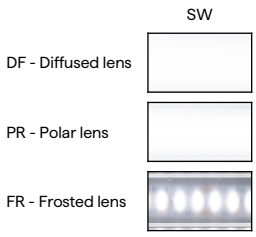
Profile with flat lens, low profile magnet, and plastic louver

2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs]
Tested with LL1SW-**-30-DRY-STD

	1.5 W/FT		3.0 W/FT		4.0 W/FT		5.0 W/FT	
	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI
FR	142	98	248	98	308	98	375	98
PR	134	98	234	98	291	98	354	98
DF	120	98	210	98	261	98	318	98

6 DIODE VISIBILITY



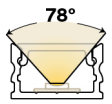
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ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

PHOTOMETRIC PERFORMANCE

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



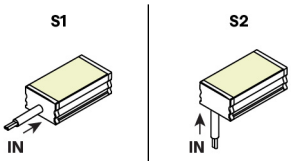
78°

TEMPERATURE RATINGS

		1.5 W/FT		3.0 W/FT		4.0 W/FT		5.0 W/FT	
		Min	Max	Min	Max	Min	Max	Min	Max
DRY	Ambient Operating Temp - Surface	-4°F	140°F	-4°F	130°F	-4°F	125°F	-4°F	120°F
DMP	Ambient Operating Temp - Surface	-4°F	140°F	-4°F	130°F	-4°F	125°F	-4°F	120°F
WET	Ambient Operating Temp - Surface	-4°F	135°F	-4°F	125°F	-4°F	120°F	-4°F	115°F

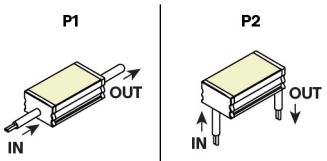
7 WIRE INPUT/OUTPUT

SINGLE (Input only)



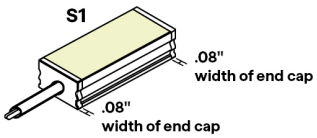
End Feed | Bottom Feed

PASS THROUGH (Input/Output)

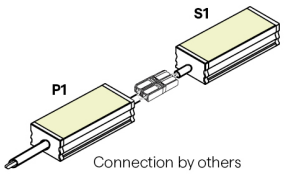


End Feed | Bottom Feed

CONFIGURATION OPTIONS

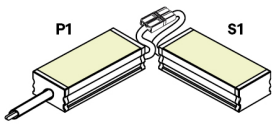


Single End Feed



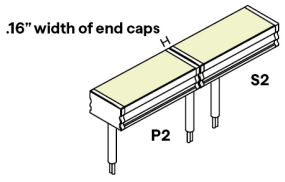
Connection by others

Non-Continuous End Feed

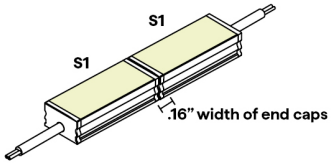


Connection by others

Non-Continuous Corner Feed



Continuous Bottom Feed



Continuous End to End Feed

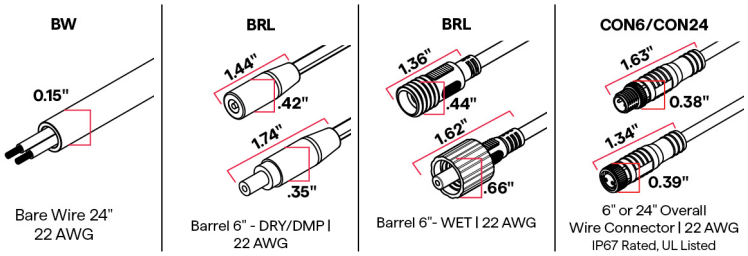
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ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

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



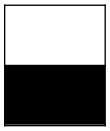
Bare Wire 24"
22 AWG

Barrel 6" - DRY/DMP | 22 AWG

Barrel 6"- WET | 22 AWG

6" or 24" Overall
Wire Connector | 22 AWG
IP67 Rated, UL Listed

10 WIRE COLOR

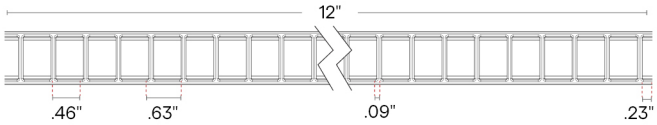


White

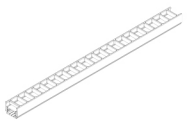
Black

EXTERNAL LOUVER ACCESSORY

PLASTIC

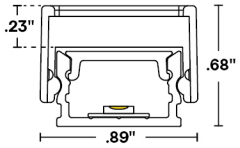


L1-XX



Lumen Multiplier

WH	BK
0.72	0.51



Profile with plastic louver

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

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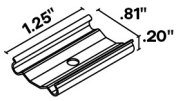
Specification subject to change. Rev-11-11-26

ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

12 MOUNTING

SST



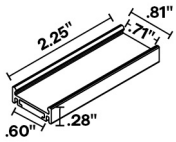
Stainless Steel Clip

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

M4

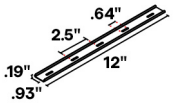


Low Profile Magnet

One M4 provided per foot.

To order separately use MG-04

MMA-04



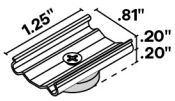
Magnet Mount Accessory for M4

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

MG

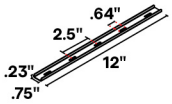


Magnet Clip

One MG provided per foot

To order separately use MG-01

MMA-01



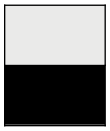
Magnet Mount Accessory of MG-01

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

13 FINISH



Satin

Black

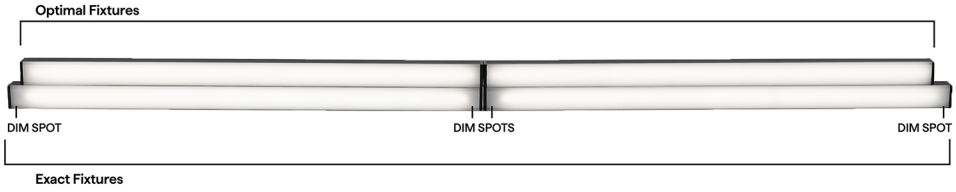
Custom finishes require a longer lead time, consult factory

14 EXACT/OPTIMAL FIXTURE LENGTH

E/O Length Calculator →

E/O Explained →

Exact fixtures are the exact length specified +0 -1/8". 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.



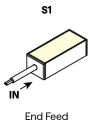
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ESSENTIALS LALO-FLAT (01) STATIC WHITE

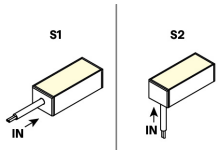
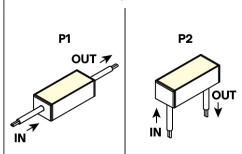
24VDC Linear Fixtures - Surface & Recessed

SW DRY DMP LENGTHS BY INCH

EXACT LENGTH

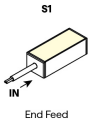
Requested Length	Potential dim spot on either end of a S1 fixture 
12"	0.5"
13"	0.5"
14"	0.5"
15"	0.5"
16"	0.5"
17"	0.5"
18"	0.5"
19"	0.5"
20"	0.5"
21"	0.5"
22"	0.5"
23"	0.5"
24"	0.5"
36"	0.5"
48"	0.5"
60"	0.5"
72"	0.5"
84"	0.5"
96"	0.5"

OPTIMAL LENGTH

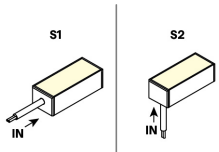
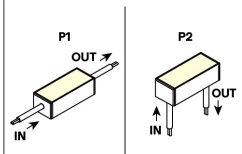
Requested Nominal Length	S1 & S2 	P1 & P2 
12"	11.41"	11.66"
13"	12.41"	12.66"
14"	13.41"	13.66"
15"	14.41"	14.66"
16"	15.41"	15.66"
17"	16.41"	16.66"
18"	17.41"	17.66"
19"	18.41"	18.66"
20"	19.41"	19.66"
21"	20.41"	20.66"
22"	21.41"	21.66"
23"	22.41"	22.66"
24"	23.41"	23.66"
36"	35.41"	35.66"
48"	47.41"	47.66"
60"	59.41"	59.66"
72"	71.41"	71.66"
84"	83.41"	83.66"
96"	95.41"	95.66"

SW WET LENGTHS BY INCH

EXACT LENGTH

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

OPTIMAL LENGTH

Requested Nominal Length	S1 & S2 	P1 & P2 
12"	11.56"	11.71"
13"	12.56"	12.71"
14"	13.56"	13.71"
15"	14.56"	14.71"
16"	15.56"	15.71"
17"	16.56"	16.71"
18"	17.56"	17.71"
19"	18.56"	18.71"
20"	19.56"	19.71"
21"	20.56"	20.71"
22"	21.56"	21.71"
23"	22.56"	22.71"
24"	23.56"	23.71"
36"	35.56"	35.71"
48"	47.56"	47.71"
60"	59.56"	59.71"
72"	71.56"	71.71"
84"	83.56"	83.71"
96"	95.56"	95.71"

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ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

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	
	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+
Dim to Black	Q6M-DC+CAP QTM-DC+CAP iQ-PH+QD1	Q6M-DC+CAP QTM-DC+CAP iQ-PH+QD1	QOM-DC+CAP QOM-PH	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-PRO-PH/0-10V QZ-STICK-PH/0-10V QZLP	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-PRO-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+DALI-DT6-PS QZ-DMX QZ-PRO-PH/0-10V	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+DALI-DT6-PS QZ-DMX QZ-PRO-PH/0-10V
1%	Q-DIM QTM-eLED(E) QZ-DALI-DT6	Q-DIM QTM-eLED(E) QZ-DALI-DT6	Q-SET+QZ-DALI-DT6 QZ-DALI-DT6	Q-SET+QZ-DALI-DT6 QZ-DALI-DT6
10%	Non-Dim Power Supply with SW App Dongle	Non-Dim Power Supply with SW App Dongle	Q-HEX-mini-DC Q-SET-mLED	

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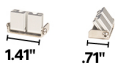
ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

DIMMING PROTOCOL	INDOOR		OUTDOOR	
	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+
Non-Dim	QT-CAB-eLED-ND QTM-eLED-ND QZ-ND	QT-CAB-eLED-ND QTM-eLED-ND QZ-ND	Q-SET-QZ-ND Q-SET-eLED-ND QOM-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-PRO-PH/0-10V QZ-STICK-PH/0-10V QZLP iQ-PH+QD1	Q6M-DC+CAP QT-CAB-QZ-PH/0-10V QTM-DC+CAP QTM-eLED(E) QZ-BOWTIE+DIMMER QZ-PRO-PH/0-10V QZ-STICK-PH/0-10V QZLP iQ-PH+QD1	Q-HEX-mini-DC Q-SET-QZ-PH/0-10V Q-SET-mLED QOM-DC+CAP QOM-PH QZ-PRO-PH/0-10V	Q-SET-QZ-PH/0-10V QOM-DC+CAP QOM-PH QZ-PRO-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-PRO-PH/0-10V QZ-STICK-PH/0-10V QZLP	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-PRO-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-PRO-PH/0-10V	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QZ-PRO-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	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)	QTM-eLED(E)		
DMX	QZ-DMX	QZ-DMX	Q-SET-QZ-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	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	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6 QZ-DALI-DT6
SCENE App Dimmed	Non-Dim Power Supply with SW App Dongle	Non-Dim Power Supply with SW App Dongle		

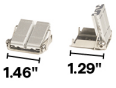
COMPATIBLE MOUNTING ACCESSORIES

HINGE - HMB-M



Adjustable mounting bracket - Medium

HINGE - HMB-L



Adjustable mounting bracket - Large

HINGE - HMB-XL



Adjustable mounting bracket - XLarge

Q-PIVOT



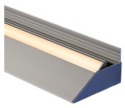
Small mounting accessory

Q-ANGLE



Adjustable mounting accessory

QUOVA-STANDARD



QUOVA Knife Edge

NJ-MEDIUM



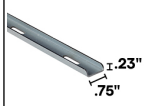
J Mounting Bracket

SD-L-MEDIUM



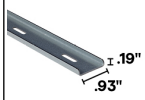
L Mounting Bracket

MMA-01



Magnet Mount Accessory of MG-01

MMA-04



Magnet Mount Accessory of MG-04

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Specification subject to change. Rev-11-11-26