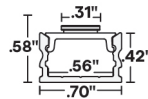
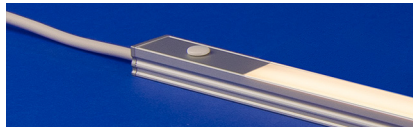




# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed



- 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
- Flanged design merges light source with surface
- Built-in dimming module
- Mounting options include stainless steel clips, magnets, and low-profile magnet mounts
- Features painted end caps to match extrusion finish



410.2 & 410.16  
Closet Rated  
up to 4.0W/ft



SW/SW-HE  
ONLY



SW, SW-HE  
ONLY



## INFORMATION REQUIRED FOR LIGHTING SCHEDULE

1	2	3	4	5	6
PRODUCT	WATTS/ FT	CCT	RATED	EFFICIENCY	LENS
			DRY	STD	

## ADDITIONAL INFORMATION REQUIRED TO ORDER

7	8	9	10	11	12	13	14	15
WIRE INPUT/ OUTPUT	CONNECTOR/ WIRE IN	CONNECTOR/ WIRE OUT	WIRE COLOR	WIRE TYPE	MOUNTING	FINISH	LENGTH (IN)	EXACT/ OPTIMAL

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

<b>1 PRODUCT</b> <b>LL1SW-ID</b> <b>LL1SW-ID-USA</b>  Select USA option for BAA and BABA projects.  See following pages for compatible power supplies.	<b>2 WATTS/FT</b> <table><tr><td>1.5</td><td>1.5W/ft</td></tr><tr><td>3.0</td><td>3.0W/ft</td></tr><tr><td>4.0</td><td>4.0W/ft</td></tr><tr><td>5.0</td><td>5.0W/ft</td></tr><tr><td>1.5HE</td><td>1.5W/ft HE</td></tr><tr><td>3.0HE</td><td>3.0W/ft HE</td></tr><tr><td>6.0HE</td><td>6.0W/ft HE</td></tr></table> <table><tr><td>3.0HE+</td><td>3.0W/ft HE+</td></tr><tr><td>6.0HE+</td><td>6.0W/ft HE+</td></tr></table>	1.5	1.5W/ft	3.0	3.0W/ft	4.0	4.0W/ft	5.0	5.0W/ft	1.5HE	1.5W/ft HE	3.0HE	3.0W/ft HE	6.0HE	6.0W/ft HE	3.0HE+	3.0W/ft HE+	6.0HE+	6.0W/ft HE+	<b>3 CCT</b> <table><tr><td>20</td><td>2000K</td></tr><tr><td>22</td><td>2200K</td></tr><tr><td>24</td><td>2400K</td></tr><tr><td>27</td><td>2700K</td></tr><tr><td>30</td><td>3000K</td></tr><tr><td>35</td><td>3500K</td></tr><tr><td>40</td><td>4000K</td></tr></table> <table><tr><td>27</td><td>2700K</td></tr><tr><td>30</td><td>3000K</td></tr><tr><td>35</td><td>3500K</td></tr><tr><td>40</td><td>4000K</td></tr></table>	20	2000K	22	2200K	24	2400K	27	2700K	30	3000K	35	3500K	40	4000K	27	2700K	30	3000K	35	3500K	40	4000K	<b>4 RATED</b> <table><tr><td>DRY</td><td>IP20</td></tr></table>	DRY	IP20	<b>5 EFFICIENCY</b> <table><tr><td>STD</td><td>Standard</td></tr></table>	STD	Standard	<b>6 LENS</b> <table><tr><td>DF</td><td>Diffused</td></tr><tr><td>PR</td><td>Polar</td></tr><tr><td>FR</td><td>Frosted</td></tr><tr><td>CL</td><td>Clear</td></tr></table> For representation of LED visibility, see Diode Visibility section on following pages. For beam angles, see Photometric Performance section on following pages	DF	Diffused	PR	Polar	FR	Frosted	CL	Clear
1.5	1.5W/ft																																																								
3.0	3.0W/ft																																																								
4.0	4.0W/ft																																																								
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1.5HE	1.5W/ft HE																																																								
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<b>7 WIRE INPUT/OUTPUT</b> <table><tr><td><b>SINGLE (Input only)</b></td></tr><tr><td><b>S1</b> End Feed</td></tr><tr><td><b>S2</b> Bottom Feed</td></tr></table> <table><tr><td><b>PASS THROUGH (Input/output)</b></td></tr><tr><td><b>P1</b> End Feed</td></tr><tr><td><b>P2</b> Bottom Feed</td></tr></table>	<b>SINGLE (Input only)</b>	<b>S1</b> End Feed	<b>S2</b> Bottom Feed	<b>PASS THROUGH (Input/output)</b>	<b>P1</b> End Feed	<b>P2</b> Bottom Feed	<b>8 CONNECTOR/WIRE IN</b> <table><tr><td><b>BW</b></td><td>Bare Wire (Standard 24")</td></tr><tr><td><b>BRL</b></td><td>Barrel</td></tr><tr><td><b>CON6</b></td><td>Connector 6"</td></tr><tr><td><b>CON24</b></td><td>Connector 24"</td></tr></table> <table><tr><td><b>BW</b></td><td>Bare Wire (Standard 24")</td></tr><tr><td><b>BRL</b></td><td>Barrel</td></tr><tr><td><b>CON6</b></td><td>Connector 6"</td></tr><tr><td><b>CON24</b></td><td>Connector 24"</td></tr></table>	<b>BW</b>	Bare Wire (Standard 24")	<b>BRL</b>	Barrel	<b>CON6</b>	Connector 6"	<b>CON24</b>	Connector 24"	<b>BW</b>	Bare Wire (Standard 24")	<b>BRL</b>	Barrel	<b>CON6</b>	Connector 6"	<b>CON24</b>	Connector 24"	<b>9 CONNECTOR/WIRE OUT</b> <table><tr><td><b>CLS</b></td><td>Closed End (No feed)</td></tr></table> <table><tr><td><b>BW</b></td><td>Bare Wire (Standard 24")</td></tr><tr><td><b>BRL</b></td><td>Barrel</td></tr><tr><td><b>CON6</b></td><td>Connector 6"</td></tr><tr><td><b>CON24</b></td><td>Connector 24"</td></tr></table>	<b>CLS</b>	Closed End (No feed)	<b>BW</b>	Bare Wire (Standard 24")	<b>BRL</b>	Barrel	<b>CON6</b>	Connector 6"	<b>CON24</b>	Connector 24"	<b>10 WIRE COLOR</b> <table><tr><td><b>WH</b></td><td>White</td></tr><tr><td><b>BK</b></td><td>Black</td></tr><tr><td><b>N/A</b></td><td>For Barrel</td></tr></table> wet barrel only available in black	<b>WH</b>	White	<b>BK</b>	Black	<b>N/A</b>	For Barrel																
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<b>11 WIRE TYPE</b> <table><tr><td><b>CL2</b></td><td>Class 2</td></tr><tr><td><b>CL2P</b></td><td>Plenum Rated</td></tr><tr><td><b>N/A</b></td><td>For Barrel</td></tr></table> CL2P only available with bare wire leads (BW)	<b>CL2</b>	Class 2	<b>CL2P</b>	Plenum Rated	<b>N/A</b>	For Barrel	<b>12 MOUNTING</b> <table><tr><td><b>SST</b></td><td>Stainless Steel</td></tr><tr><td><b>M4</b></td><td>Low Profile Magnet</td></tr><tr><td><b>MG</b></td><td>Magnet</td></tr></table>	<b>SST</b>	Stainless Steel	<b>M4</b>	Low Profile Magnet	<b>MG</b>	Magnet	<b>13 FINISH</b> <table><tr><td><b>ST</b></td><td>Satin</td></tr><tr><td><b>BK</b></td><td>Black</td></tr><tr><td><b>CU</b></td><td>Custom</td></tr></table> Custom finishes require a longer lead time, consult factory	<b>ST</b>	Satin	<b>BK</b>	Black	<b>CU</b>	Custom	<b>14 LENGTH (IN)</b> <p>Minimum length is 12", maximum length is 98" not including end caps. Contact us for lengths under 12".</p>	<b>15 EXACT/OPTIMAL</b> <table><tr><td><b>O</b></td><td>Optimal Illumination</td></tr><tr><td><b>E</b></td><td>Exact Specified Length</td></tr></table> Exact fixtures match the exact length you specify, but they may have dim spots at the ends. Optimal fixtures are slightly shorter than the length specified, but provide full illumination from end to end. See Exact/Optimal Fixture Length charts.	<b>O</b>	Optimal Illumination	<b>E</b>	Exact Specified Length																															
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For continuous mounting, consider bottom feed.

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

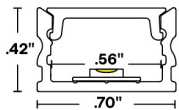
BW: Standard length is 24". Max length is 120". Request custom length by writing in part number next to BW (example: BW48)



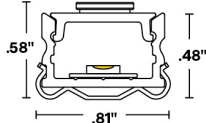
# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

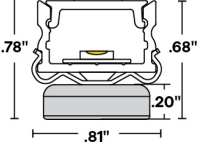
## 1 PRODUCT - DIMENSIONS



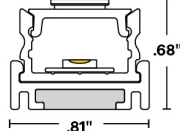
Profile with flat lens



Profile with flat lens, inline dimmer and stainless steel mounting clip



Profile with flat lens, inline dimmer and magnet mounting clip



Profile with flat lens, inline dimmer and low profile magnet

## 2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs, L70 = 50000 for HE+]  
Tested with LL1SW-\*\*-30-DRY-STD

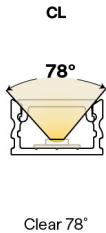
	1.5 W/FT		1.5HE W/FT		3.0 W/FT		3.0HE W/FT		3.0HE+ W/FT		4.0 W/FT		5.0 W/FT		6.0HE W/FT		6.0HE+ W/FT	
	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI	LM/FT	CRI
CL	143	98	175	98	249	98	321	98	463	92	309	98	376	98	608	98	856	92
FR	142	98	174	98	248	98	320	98	461	92	308	98	375	98	606	98	853	92
PR	134	98	157	98	234	98	288	98	416	92	291	98	354	98	546	98	768	92
DF	120	98	141	98	210	98	259	98	373	92	261	98	318	98	490	98	690	92

## 6 DIODE VISIBILITY

	SW	SW-HE	SW-HE+
DF - Diffused lens			
PR - Polar lens			
FR - Frosted lens			
CL - Clear lens			

## PHOTOMETRIC PERFORMANCE

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





# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE

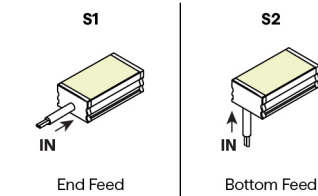
24VDC Linear Fixtures - Surface & Recessed

## TEMPERATURE RATINGS

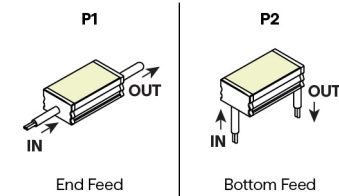
		1.5 W/FT		1.5 HE W/FT		3.0 W/FT		3.0 HE W/FT		3.0 HE+ W/FT		4.0 W/FT		5.0 W/FT		6.0 HE W/FT		6.0 HE+ W/FT	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
DRY	Ambient Operating Temp - Surface	-4°F	130°F	-4	135	-4°F	120°F	-4	125	-13	125	-4°F	115°F	-4°F	110°F	-4	110	-13	110

## 7 WIRE INPUT/OUTPUT

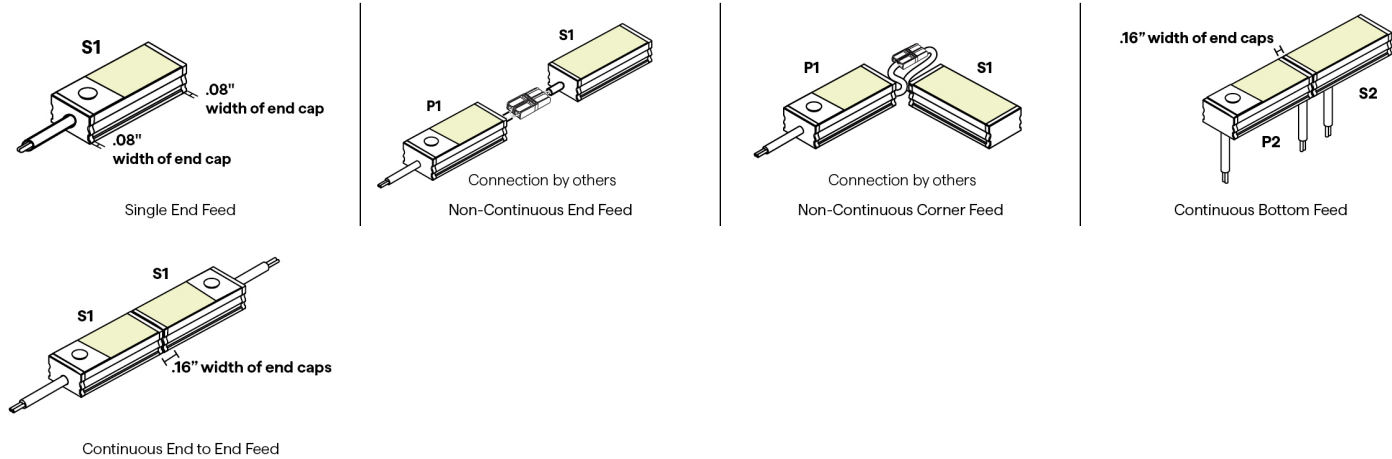
SINGLE (Input only)



PASS THROUGH (Input/Output)

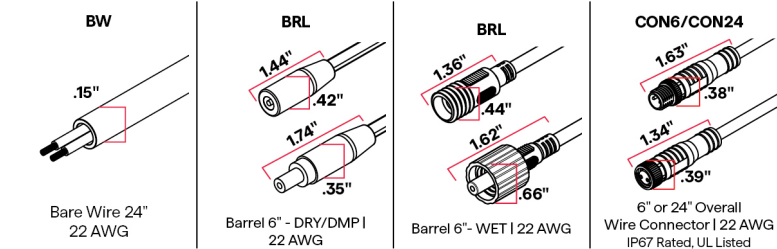


## CONFIGURATION OPTIONS

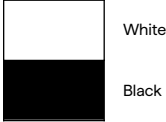


## 8 / 9 CONNECTOR/WIRE - IN/OUT

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



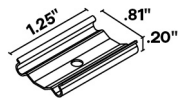


# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE

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

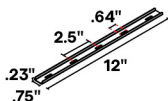


Magnet Clip

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

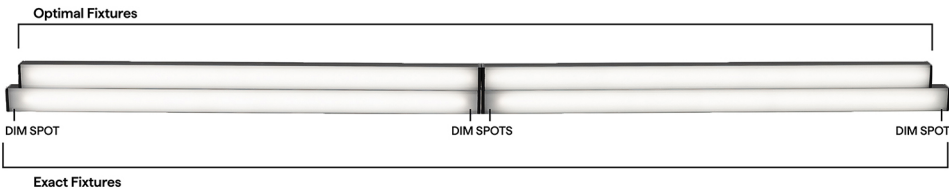
Custom finishes require a longer lead time, consult factory

## 14 EXACT/OPTIMAL FIXTURE LENGTH

[E/O Length Calculator →](#)

[E/O Explained →](#)

Exact fixtures are the exact length specified. 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-DIMMER (01) STATIC WHITE

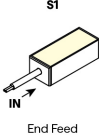
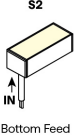
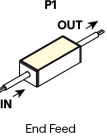
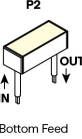
24VDC Linear Fixtures - Surface & Recessed

## SW DRY 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

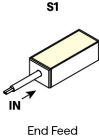
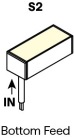
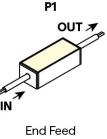
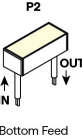
Requested Nominal Length	S1 & S2		P1 & P2	
				
12"	11.41"		11.66"	
13"	12.41"		12.66"	
14"	13.41"		13.66"	
15"	14.41"		14.66"	
16"	15.41"		15.66"	
17"	16.41"		16.66"	
18"	17.41"		17.66"	
19"	18.41"		18.66"	
20"	19.41"		19.66"	
21"	20.41"		20.66"	
22"	21.41"		21.66"	
23"	22.41"		22.66"	
24"	23.41"		23.66"	
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-HE DRY LENGTHS BY INCH

### EXACT LENGTH

Requested Length	Potential dim spot on either end of a S1 fixture
	
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	
				
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"	



# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE


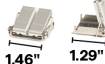



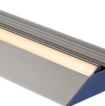


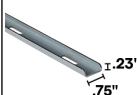
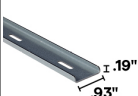
24VDC Linear Fixtures - Surface & Recessed

## COMPATIBLE POWER SUPPLIES

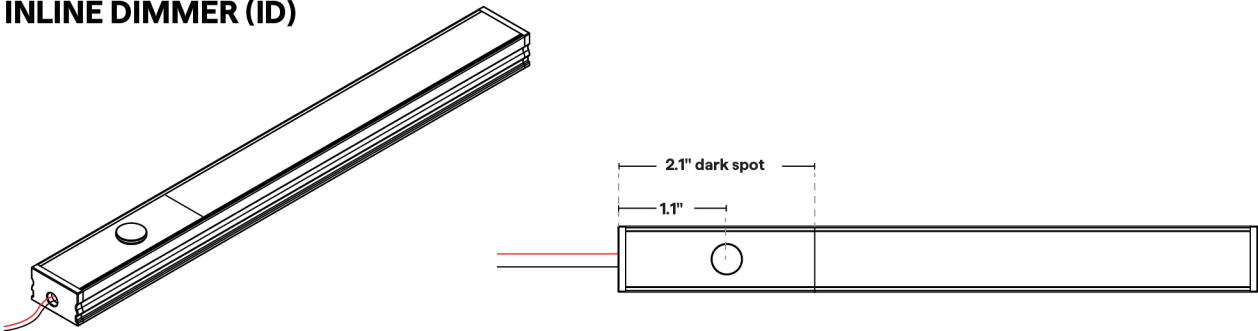
See power supplies cut sheets for more information. Data subject to change, all data has +/- 5% tolerance.

DIMMING PROTOCOL	INDOOR	
	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+
Non-Dim	QTM-eLED-ND QZ-ND	QTM-eLED-ND QZ-ND

## COMPATIBLE MOUNTING ACCESSORIES

HINGE - HMB-M	HINGE - HMB-L	HINGE - HMB-XL	Q-PIVOT	Q-ANGLE	QUOVA-STANDARD	NJ-MEDIUM	SD-L-MEDIUM	MMA-01	MMA-04
 1.41" .71"	 1.46" 1.29"	 1.46" 4"	 .75" 1.03"	 2.23" 1.38"				 1.23" .75"	 1.19" .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

## INLINE DIMMER (ID)



- On/off and dimming functionality
- 24VDC
- 4A DC max / 96W
- Dimming down to 4%
- Use with non-dimming driver