

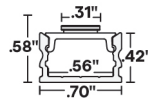
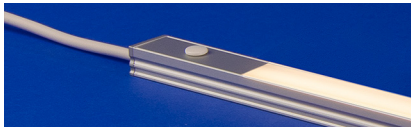


# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed



Declare.



- 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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PRODUCT	WATTS/FT	CCT	RATED	EFFICIENCY	LENS	EXTERNAL LOUVER	WIRE INPUT/ OUTPUT	CONNECTOR / WIRE IN	CONNECTOR / WIRE OUT	WIRE COLOR	WIRE TYPE	MOUNTING	FINISH	LENGTH (IN)	EXACT/ OPTIMAL
LL1SW-ID			DRY	STD											

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

<div>1</div> <div>PRODUCT</div> <div>LL1SW-ID</div> <div>See following pages for compatible power supplies.</div>	<div>2</div> <div>WATTS/FT</div> <div><div><div>1.5</div><div>1.5W/ft</div></div><div><div>3.0</div><div>3.0W/ft</div></div><div><div>4.0</div><div>4.0W/ft</div></div><div><div>5.0</div><div>5.0W/ft</div></div><div><div>1.5HE</div><div>1.5W/ft HE</div></div><div><div>3.0HE</div><div>3.0W/ft HE</div></div><div><div>6.0HE</div><div>6.0W/ft HE</div></div></div> <div><div>3.0HE+</div><div>3.0W/ft HE+</div></div> <div><div>6.0HE+</div><div>6.0W/ft HE+</div></div>	<div>3</div> <div>CCT</div> <div><div><div>20</div><div>2000K</div></div><div><div>22</div><div>2200K</div></div><div><div>24</div><div>2400K</div></div><div><div>27</div><div>2700K</div></div><div><div>30</div><div>3000K</div></div><div><div>35</div><div>3500K</div></div><div><div>40</div><div>4000K</div></div></div> <div><div><div>27</div><div>2700K</div></div><div><div>30</div><div>3000K</div></div><div><div>35</div><div>3500K</div></div><div><div>40</div><div>4000K</div></div></div>	<div>4</div> <div>RATED</div> <div><div>DRY</div><div>IP20</div></div>	<div>5</div> <div>EFFICIENCY</div> <div><div>STD</div><div>Standard</div></div>	<div>6</div> <div>LENS</div> <div><div><div>DF</div><div>Diffused</div></div><div><div>PR</div><div>Polar</div></div><div><div>FR</div><div>Frosted</div></div><div><div>CL</div><div>Clear</div></div></div> <div>For representation of LED visibility, see Diode Visibility section on following pages. For beam angles, see Photometric Performance section on following pages</div>	<div>7</div> <div>EXTERNAL LOUVER</div> <div><div><div>L1-WH</div><div>White Plastic</div></div><div><div>L1-BK</div><div>Black Plastic</div></div><div><div>N/A</div><div>No Louver</div></div></div> <div>Louvers are shipped separately and require field assembly</div>
<div>8</div> <div>WIRE INPUT/OUTPUT</div> <div><div><div>S1</div><div>Single 1 (Input only) - End Feed</div></div><div><div>S2</div><div>Single 2 (Input only) - Bottom Feed</div></div></div> <div>For continuous mounting, consider bottom feed.</div> <div><div><div>P1</div><div>Pass Through 1 (Input/output) - End Feed</div></div><div><div>P2</div><div>Pass Through 2 (Input/output) - Bottom Feed</div></div></div> <div>For continuous mounting, consider bottom feed.</div>	<div>9</div> <div>CONNECTOR/WIRE IN</div> <div><div><div>BW</div><div>Bare Wire (Standard 24")</div></div><div><div>BRL</div><div>Barrel</div></div><div><div>CON6</div><div>Connector 6"</div></div><div><div>CON24</div><div>Connector 24"</div></div></div> <div>Connector/Wire In not needed to specify product. Typical selection is BW. BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)</div> <div><div><div>BW</div><div>Bare Wire (Standard 24")</div></div><div><div>BRL</div><div>Barrel</div></div><div><div>CON6</div><div>Connector 6"</div></div><div><div>CON24</div><div>Connector 24"</div></div></div> <div>Connector/Wire In not needed to specify product. Typical selection is BW. BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)</div>	<div>10</div> <div>CONNECTOR/WIRE OUT</div> <div><div><div>CLS</div><div>Closed End (No feed)</div></div></div> <div><div><div>BW</div><div>Bare Wire (Standard 24")</div></div><div><div>BRL</div><div>Barrel</div></div><div><div>CON6</div><div>Connector 6"</div></div><div><div>CON24</div><div>Connector 24"</div></div></div> <div>Connector/Wire Out not needed to specify product. Typical selection is CLS or BW. BW: Standard length is 24", Max length is 120". Request custom length by writing in part number next to BW (example: BW48)</div>	<div>11</div> <div>WIRE COLOR</div> <div><div><div>WH</div><div>White</div></div><div><div>BK</div><div>Black</div></div><div><div>N/A</div><div>For Barrel</div></div></div> <div>wet barrel only available in black</div>			
<div>12</div> <div>WIRE TYPE</div> <div><div><div>CL2</div><div>Class 2</div></div><div><div>CL2P</div><div>Plenum Rated</div></div><div><div>N/A</div><div>For Barrel</div></div></div> <div>CL2P only available with bare wire leads (BW)</div>	<div>13</div> <div>MOUNTING</div> <div><div><div>SST</div><div>Stainless Steel</div></div><div><div>M4</div><div>Low Profile Magnet</div></div><div><div>MG</div><div>Magnet</div></div></div>	<div>14</div> <div>FINISH</div> <div><div><div>ST</div><div>Satin</div></div><div><div>BK</div><div>Black</div></div><div><div>CU</div><div>Custom</div></div></div>	<div>15</div> <div>LENGTH (IN)</div> <div><div>Fixture length min 12", max 98.43" not including end caps. Tolerance +0 – 1/8". Consult factory for lengths under 12". Max continuous length: 3.0HE+ - 196", 6.0HE+ - 118"</div></div>	<div>16</div> <div>EXACT/OPTIMAL</div> <div><div><div>O</div><div>Optimal Illumination</div></div><div><div>E</div><div>Exact Specified Length</div></div></div> <div>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.</div>		

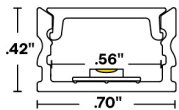
Push Button: On/Off | Press and hold: Dimming | Dimming down to 4% | 5 year warranty | Warranty only valid with QTL non-dimming power supplies | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance



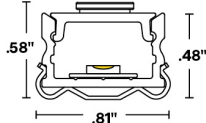
# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

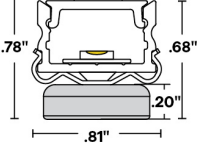
## 1 PRODUCT - DIMENSIONS



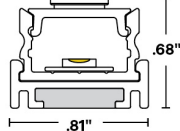
Profile with flat lens



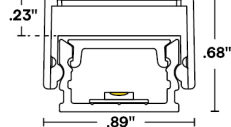
Profile with flat lens, inline dimmer and stainless steel mounting clip



Profile with flat lens, inline dimmer and magnet mounting clip



Profile with flat lens, inline dimmer and low profile magnet



Profile with flat lens and plastic louver

## 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

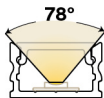


- DF - Diffused lens
- PR - Polar lens
- FR - Frosted lens
- CL - Clear lens

## PHOTOMETRIC PERFORMANCE

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

CL



Clear 78°

## 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

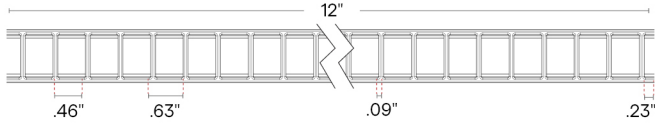


# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE

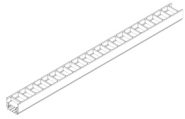
24VDC Linear Fixtures - Surface & Recessed

## 7 EXTERNAL LOUVER

PLASTIC



L1-XX



Lumen Multiplier

WH

BK

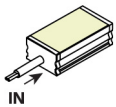
0.72

0.53

## 8 WIRE INPUT/OUTPUT

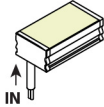
SINGLE (Input only)

S1



End Feed

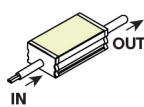
S2



Bottom Feed

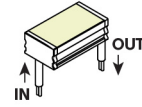
PASS THROUGH (Input/Output)

P1



End Feed

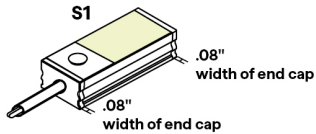
P2



Bottom Feed

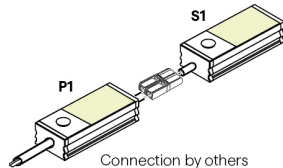
## CONFIGURATION OPTIONS

S1



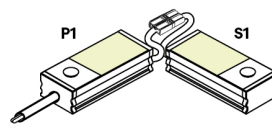
Single End Feed

S1



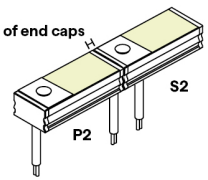
Connection by others  
Non-Continuous End Feed

P1



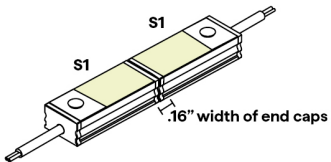
Connection by others  
Non-Continuous Corner Feed

.16" width of end caps



Continuous Bottom Feed

S1



Continuous End to End Feed

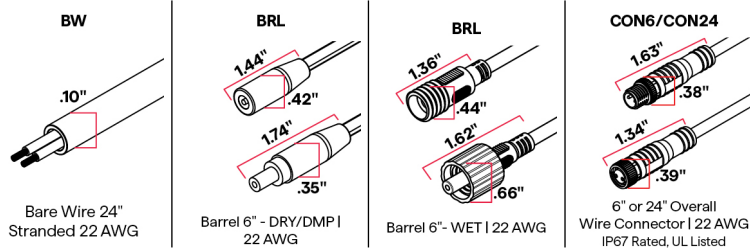


# ESSENTIALS LALO-FLAT-DIMMER (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

## 9 / 10 CONNECTOR/WIRE - IN/OUT

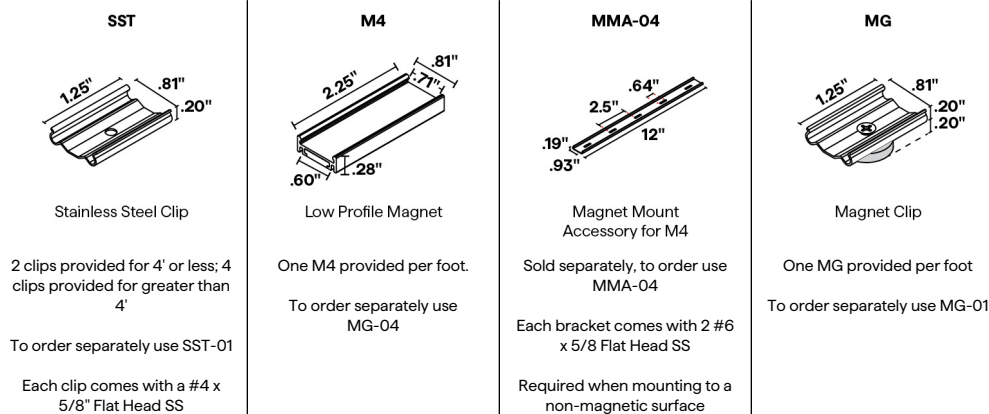
Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out



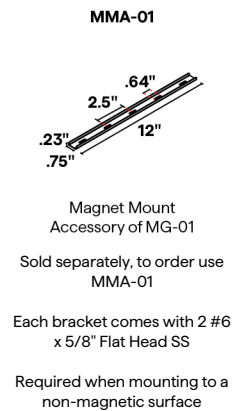
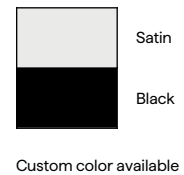
## 11 WIRE COLOR



## 13 MOUNTING



## 14 FINISH





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

## 24VDC Linear Fixtures - Surface & Recessed

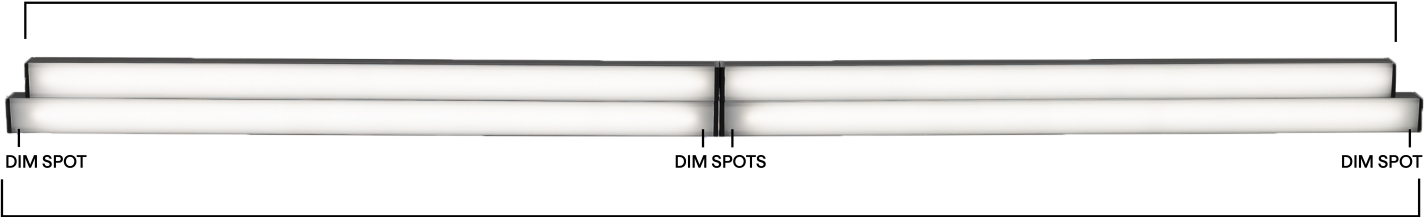
### 16 EXACT/OPTIMAL FIXTURE LENGTH

[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.

Optimal Fixtures



Exact Fixtures

### SW DRY, DMP LENGTHS BY INCH

Available in any length in between 12" and 98.43", chart below shows example lengths. Exact fixtures are the length specified. Optimal fixtures' length is rounded down with illumination end to end. All fixtures' tolerance is +0 - 1/8". Consult factory for lengths under 12".

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	.5"
13"	.5"
14"	.5"
15"	.5"
16"	.5"
17"	.5"
18"	.5"
19"	.5"
20"	.5"
21"	.5"
22"	.5"
23"	.5"
24"	.5"
36"	.5"
48"	.5"
60"	.5"
72"	.5"
84"	.5"
96"	.5"

OPTIMAL LENGTH

Requested Nominal Length	S1 & S2		P1 & P2	
12"		11.5"		11.75"
13"		12.5"		12.75"
14"		13.5"		13.75"
15"		14.5"		14.75"
16"		15.5"		15.75"
17"		16.5"		16.75"
18"		17.5"		17.75"
19"		18.5"		18.75"
20"		19.5"		19.75"
21"		20.5"		20.75"
22"		21.5"		21.75"
23"		22.5"		22.75"
24"		23.5"		23.75"
36"		35.5"		35.75"
48"		47.5"		47.75"
60"		59.5"		59.75"
72"		71.5"		71.75"
84"		83.5"		83.75"
96"		95.5"		95.75"



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

24VDC Linear Fixtures - Surface & Recessed

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

Available in any length in between 12" and 98.43", chart below shows example lengths. Exact fixtures are the length specified. Optimal fixtures' length is rounded down with illumination end to end. All fixtures' tolerance is +0 - 1/8". Consult factory for lengths under 12".

### EXACT LENGTH

Requested Length	Potential dim spot on either end of 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: highlighted rows are closest to requested nominal length


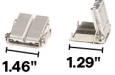



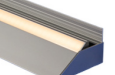
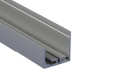

Requested Nominal Length	S1 & S2		P1 & P2	
	S1 End Feed	S2 Bottom Feed	P1 End Feed	P2 Bottom Feed
12"		10.5"		10.75"
13"		12.5"		12.75"
14"		12.5"		12.75"
15"		14.5"		14.75"
16"		14.5"		14.75"
17"		16.5"		16.75"
18"		16.5"		16.75"
19"		18.5"		18.75"
20"		18.5"		18.75"
21"		20.5"		20.75"
22"		20.5"		20.75"
23"		22.5"		22.75"
24"		22.5"		22.75"
36"		34.5"		34.75"
48"		46.5"		46.75"
60"		58.5"		58.75"
72"		70.5"		70.75"
84"		82.5"		82.75"
96"		94.5"		94.75"

## COMPATIBLE POWER SUPPLIES


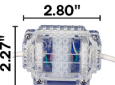





See power supplies cut sheets for more information. Data subject to change, all data has +/- 5% tolerance.

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
 1.41" .71"	 1.46" 1.29"	 1.46" 4"	 .75" 1.03"	 2.23" 1.38"			
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

## COMPATIBLE WIRING ACCESSORIES

Q-mini-J	Q-mini-J5	BARREL-EXT	BARREL FOUR-FER	CON120-EXT	CON FOUR-FER	CON M - BARREL F
 2" 1.25"	 2.80" 2.27"					
UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)	UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)	8ft barrel cable extender DRY ONLY	Splits lead from one to four LED Barrel connector fixtures, DRY/DMP	10ft Con cable extender DRY/DMP/WET	Splits lead from one to four LED Con connectors DRY/DMP/WET	Male con to barrel cable adaptor DRY/DMP