

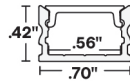
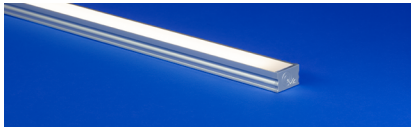


# ESSENTIALS LALO-FLAT (01) STATIC WHITE

## 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, 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

### INFORMATION REQUIRED FOR LIGHTING SCHEDULE

1	2	3	4	5	6
PRODUCT	WATTS/ FT	CCT	RATED	EFFICIENCY	LENS
				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-5.0-30-DRY-STD-DF-P1-BW-BW-BK-CL2-SST-BK-48"-E**

<b>1 PRODUCT</b> <b>LL1SW</b> <b>LL1SW-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></table> <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></table>	1.5	1.5W/ft	3.0	3.0W/ft	4.0	4.0W/ft	5.0	5.0W/ft	1.5	1.5W/ft	3.0	3.0W/ft	4.0	4.0W/ft	5.0	5.0W/ft	<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>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>	20	2000K	22	2200K	24	2400K	27	2700K	30	3000K	35	3500K	40	4000K	24	2400K	27	2700K	30	3000K	35	3500K	40	4000K	<b>4 RATED</b> <table><tr><td>DRY</td><td>IP20</td></tr><tr><td>WET</td><td>IP67</td></tr></table> Can be suitable for exterior use, contact factory for more information  <table><tr><td>DMP</td><td>IP54</td></tr></table>	DRY	IP20	WET	IP67	DMP	IP54	<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. For optional snap-on louver ordering, see External Louver Accessory section on following pages.	DF	Diffused	PR	Polar	FR	Frosted	CL	Clear
1.5	1.5W/ft																																																												
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<b>7 WIRE INPUT/OUTPUT</b>  <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>BW</td><td>Bare Wire (Standard 24")</td></tr><tr><td>BRL</td><td>Barrel</td></tr><tr><td>CON6</td><td>Connector 6"</td></tr><tr><td>CON24</td><td>Connector 24"</td></tr></table> <table><tr><td>BW</td><td>Bare Wire (Standard 24")</td></tr><tr><td>BRL</td><td>Barrel</td></tr><tr><td>CON6</td><td>Connector 6"</td></tr><tr><td>CON24</td><td>Connector 24"</td></tr></table>	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"	<b>9 CONNECTOR/WIRE OUT</b> <table><tr><td>CLS</td><td>Closed End (No feed)</td></tr></table> <table><tr><td>BW</td><td>Bare Wire (Standard 24")</td></tr><tr><td>BRL</td><td>Barrel</td></tr><tr><td>CON6</td><td>Connector 6"</td></tr><tr><td>CON24</td><td>Connector 24"</td></tr></table>	CLS	Closed End (No feed)	BW	Bare Wire (Standard 24")	BRL	Barrel	CON6	Connector 6"	CON24	Connector 24"	<b>10 WIRE COLOR</b> <table><tr><td>WH</td><td>White</td></tr><tr><td>BK</td><td>Black</td></tr><tr><td>N/A</td><td>For Barrel</td></tr></table> wet barrel only available in black	WH	White	BK	Black	N/A	For Barrel																										
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<b>11 WIRE TYPE</b> <table><tr><td>CL2</td><td>Class 2</td></tr><tr><td>CL2P</td><td>Plenum Rated</td></tr><tr><td>N/A</td><td>For Barrel</td></tr></table> CL2P only available with bare wire leads (BW)	CL2	Class 2	CL2P	Plenum Rated	N/A	For Barrel	<b>12 MOUNTING</b> <table><tr><td>SST</td><td>Stainless Steel</td></tr><tr><td>M4</td><td>Low Profile Magnet</td></tr><tr><td>MG</td><td>Magnet</td></tr></table>	SST	Stainless Steel	M4	Low Profile Magnet	MG	Magnet	<b>13 FINISH</b> <table><tr><td>ST</td><td>Satin</td></tr><tr><td>BK</td><td>Black</td></tr><tr><td>CU</td><td>Custom</td></tr></table> Custom finishes require a longer lead time, consult factory	ST	Satin	BK	Black	CU	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>O</td><td>Optimal Illumination</td></tr><tr><td>E</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.	O	Optimal Illumination	E	Exact Specified Length																																			
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E	Exact Specified Length																																																												

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 (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

## 1 PRODUCT - DIMENSIONS

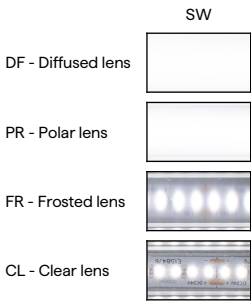


## 2 DELIVERED LUMENS

[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
CL	143	98	249	98	309	98	376	98
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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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.



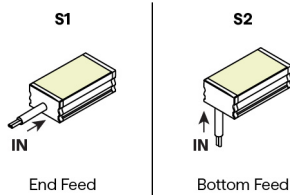
Clear 78°

## TEMPERATURE RATINGS

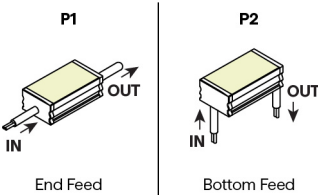
		1.5 W/FT		3.0 W/FT		4.0 W/FT		5.0 W/FT	
		Min	Max	Min	Max	Min	Max	Min	Max
DRY	Ambient Operating Temp - Surface	-4°F	140°F	-4°F	130°F	-4°F	125°F	-4°F	120°F
DMP	Ambient Operating Temp - Surface	-4°F	135°F	-4°F	125°F	-4°F	120°F	-4°F	115°F
WET	Ambient Operating Temp - Surface	-4°F	135°F	-4°F	125°F	-4°F	120°F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

## 7 WIRE INPUT/OUTPUT

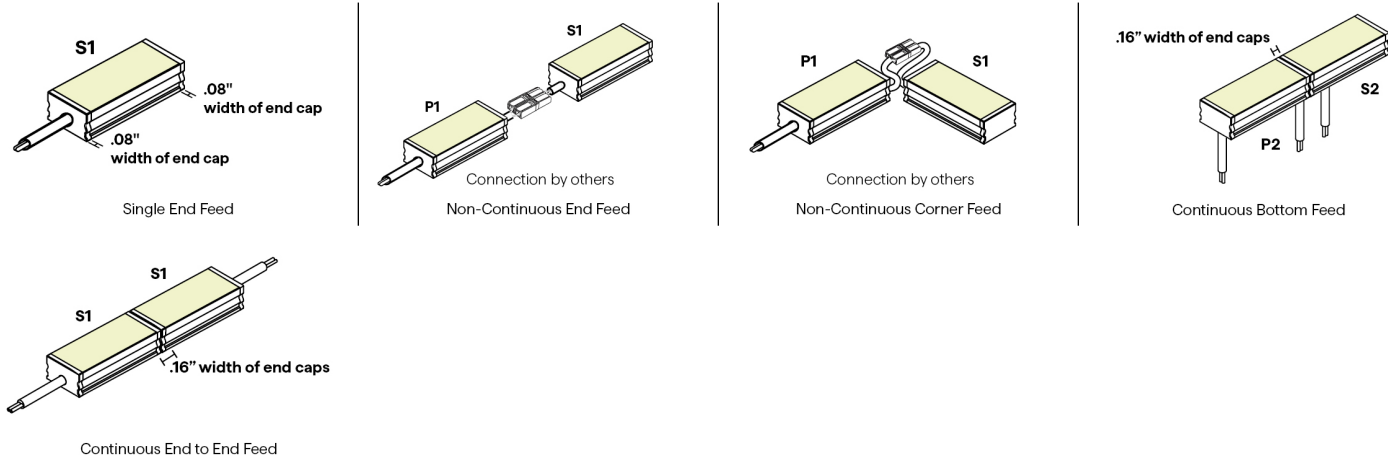
SINGLE (Input only)



PASS THROUGH (Input/Output)



## CONFIGURATION OPTIONS



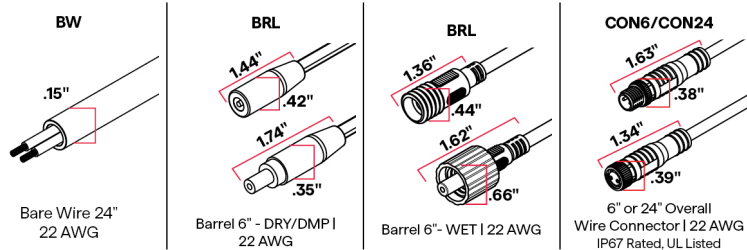


# ESSENTIALS LALO-FLAT (01) STATIC WHITE

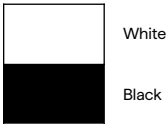
24VDC Linear Fixtures - Surface & Recessed

## 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

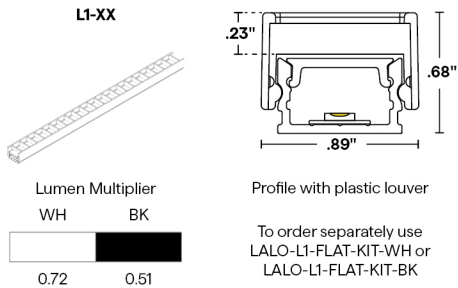
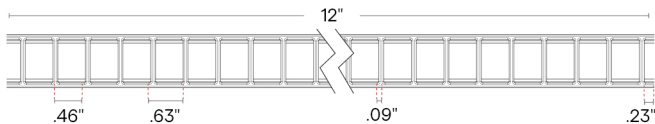


## 10 WIRE COLOR



## EXTERNAL LOUVER ACCESSORY

PLASTIC



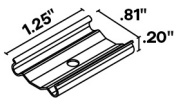


# ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

## 12 MOUNTING

SST



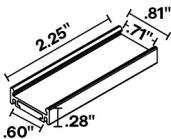
Stainless Steel Clip

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

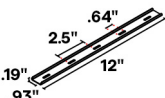


Low Profile Magnet

One M4 provided per foot.

To order separately use MG-04

MMA-04



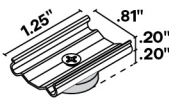
Magnet Mount Accessory for M4

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

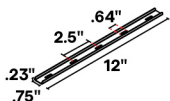


Magnet Clip

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

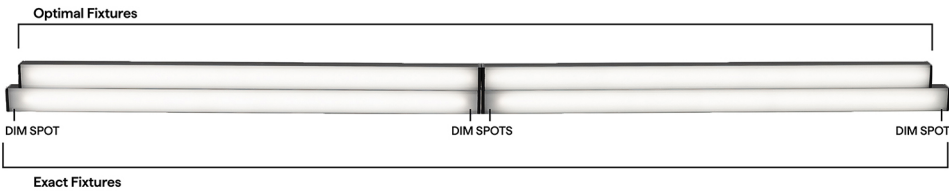
Custom finishes require a longer lead time, consult factory

## 14 EXACT/OPTIMAL FIXTURE LENGTH

[E/O Length Calculator →](#)

[E/O Explained →](#)

Exact fixtures are the exact length specified. 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.



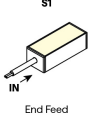


# ESSENTIALS LALO-FLAT (01) STATIC WHITE

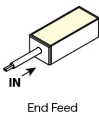
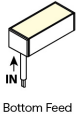
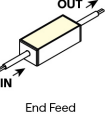
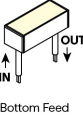
24VDC Linear Fixtures - Surface & Recessed

## SW DRY DMP LENGTHS BY INCH

### EXACT LENGTH

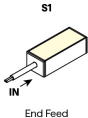
Requested Length	Potential dim spot on either end of a S1 fixture
	S1 
12"	0.5"
13"	0.5"
14"	0.5"
15"	0.5"
16"	0.5"
17"	0.5"
18"	0.5"
19"	0.5"
20"	0.5"
21"	0.5"
22"	0.5"
23"	0.5"
24"	0.5"
36"	0.5"
48"	0.5"
60"	0.5"
72"	0.5"
84"	0.5"
96"	0.5"

### OPTIMAL LENGTH

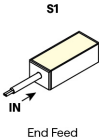
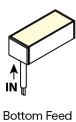
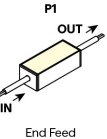
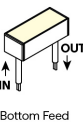
Requested Nominal Length	S1 & S2		P1 & P2	
	S1 	S2 	P1 	P2 
12"	11.41"		11.66"	
13"	12.41"		12.66"	
14"	13.41"		13.66"	
15"	14.41"		14.66"	
16"	15.41"		15.66"	
17"	16.41"		16.66"	
18"	17.41"		17.66"	
19"	18.41"		18.66"	
20"	19.41"		19.66"	
21"	20.41"		20.66"	
22"	21.41"		21.66"	
23"	22.41"		22.66"	
24"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



# 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-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-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	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	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	


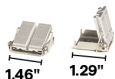


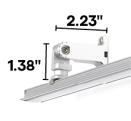
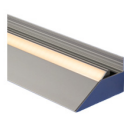
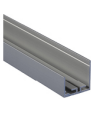





# ESSENTIALS LALO-FLAT (01) STATIC WHITE

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-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-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-PH/0-10V	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	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	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	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

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