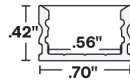




ESSENTIALS LALO- ENCAPSULATED (03) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed



- Shallow, low-profile fixture for surface or recessed installations
- Features high quality LED strips encapsulated in polyurethane in a rigid extrusion providing a robust fixture
- Encapsulation available in clear or translucent
- Suitable for indoor and outdoor locations (IK10)
- Three mounting options
- Features painted end caps to match extrusion finish or clear end caps to achieve seamless appearance of long runs
- 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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PRODUCT	WATTS/ FT	CCT	RATED	EFFICIENCY	LENS	EXTERNAL LOUVER	WIRE INPUT/ OUTPUT	CONNECTOR / WIRE IN	CONNECTOR / WIRE OUT	INPUT END CAP	OUTPUT END CAP	WIRE COLOR	WIRE TYPE	MOUNTING	FINISH	LENGTH (IN)	EXACT/ OPTIMAL
LL3SW			ENC	STD													

Sample Part Number: LL3SW-5.0-30-ENC-STD-TL-P1-BW-BW-STD-STD-BK-CL2-SST-ST-48"-E

<div><div>1</div><div>PRODUCT</div></div> <div><div>LL3SW</div><div>See following pages for compatible power supplies.</div></div>	<div><div>2</div><div>WATTS/FT</div></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</div><div>CCT</div></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>4</div><div>RATED</div></div> <div><div>ENC</div><div>IP67</div></div>	<div><div>5</div><div>EFFICIENCY</div></div> <div><div>STD</div><div>Standard</div></div>	<div><div>6</div><div>LENS</div></div> <div><div><div>CL</div><div>Clear</div></div><div><div>TL</div><div>Translucent</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>	<div><div>7</div><div>EXTERNAL LOUVER</div></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>Louvers are shipped separately and require field assembly</div></div>
<div><div>8</div><div>WIRE INPUT/OUTPUT</div></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>For continuous mounting, consider bottom feed</div></div>	<div><div>9</div><div>CONNECTOR/WIRE IN</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>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>10</div><div>CONNECTOR/WIRE OUT</div></div> <div><div><div>CLS</div><div>Closed End (No feed)</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>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>				
<div><div>11</div><div>INPUT END CAP</div></div> <div><div><div>STD</div><div>Standard</div></div><div><div>CL</div><div>Clear</div></div><div>STD - End cap matches fixture finish chosen Select CL for continuous runs</div></div>	<div><div>12</div><div>OUTPUT END CAP</div></div> <div><div><div>STD</div><div>Standard</div></div><div><div>CL</div><div>Clear</div></div><div>STD - End cap matches fixture finish chosen Select CL for continuous runs</div></div>	<div><div>13</div><div>WIRE COLOR</div></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><div>14</div><div>WIRE TYPE</div></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>CL2P only available with bare wire leads (BW)</div></div>			
<div><div>15</div><div>MOUNTING</div></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><div>16</div><div>FINISH</div></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><div>17</div><div>LENGTH (IN)</div></div> <div><div>Fixture length min 12", max 98.43" not including end caps. Tolerance +0 - 1/8". Consult factory for lengths under 12".</div></div>	<div><div>18</div><div>EXACT/OPTIMAL</div></div> <div><div><div>O</div><div>Optimal Illumination</div></div><div><div>E</div><div>Exact Specified Length</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></div>			

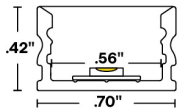
5 year warranty | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance | Compatible for use with QTL power supplies | Florida Fish and Wildlife Conservation Commission (FWC) rated Strips: Red and Amber | IK10 rated



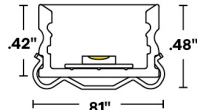
ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

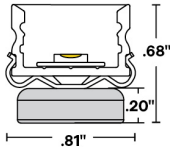
1 PRODUCT - DIMENSIONS



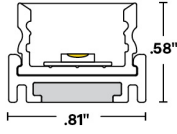
Profile



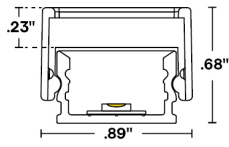
Profile with stainless steel mounting clip



Profile with magnet mounting clip



Profile with low profile magnet



Profile with plastic louver

2 DELIVERED LUMENS

[Calculated L70 = 40000 hrs]
Tested with LL3SW-**-30-ENC-STD

	1.5 W/FT		1.5HE W/FT		3.0 W/FT		3.0HE W/FT		4.0 W/FT		5.0 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
CL	101	98	140	98	177	98	257	98	220	98	268	98	486	98
TL	58	98	97	98	101	98	178	98	125	98	152	98	337	98

TEMPERATURE RATINGS

	1.5 W/FT		1.5 HE W/FT		3.0 W/FT		3.0 HE W/FT		4.0 W/FT		5.0 W/FT		6.0 HE W/FT	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Ambient Operating Temp - Surface	-4°F	130°F	-4°F	135°F	-4°F	120°F	-4°F	125°F	-4°F	115°F	-4°F	105°F	-4°F	105°F

6 DIODE VISIBILITY



ENC/CL - Clear encapsulation

ENC/TL - Translucent encapsulation

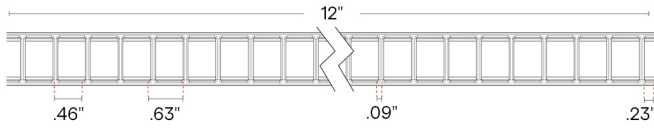


ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

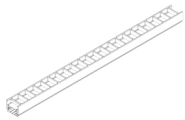
24VDC Linear Fixtures - Surface & Recessed

7 EXTERNAL LOUVER

PLASTIC



L1-XX



Lumen Multiplier

WH

BK

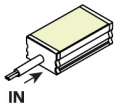
0.72

0.53

8 WIRE INPUT/OUTPUT

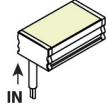
SINGLE (Input only)

S1



End Feed

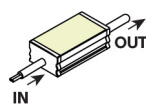
S2



Bottom Feed

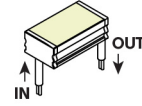
PASS THROUGH (Input/Output)

P1



End Feed

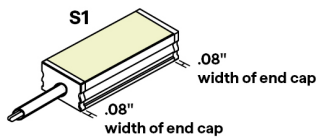
P2



Bottom Feed

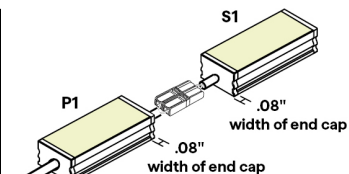
CONFIGURATION OPTIONS

S1



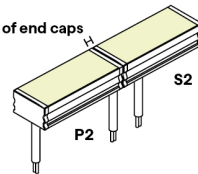
Single End Feed

S1



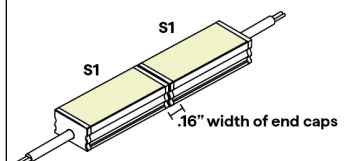
Non-Continuous End Feed

.16" width of end caps



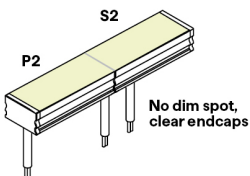
Continuous Bottom Feed

S1



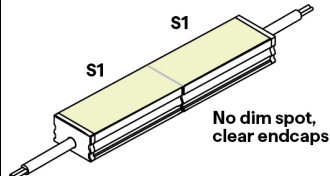
Continuous End to End Feed

S2



Continuous Bottom Feed

S1



Continuous End to End Feed

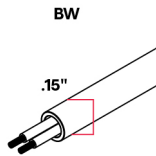


ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

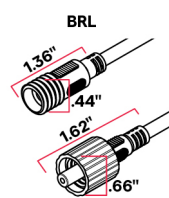
24VDC Linear Fixtures - Surface & Recessed

9 / 10 CONNECTOR/WIRE - IN/OUT

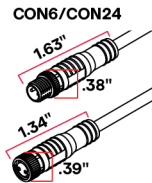
Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out



Bare Wire 24"
22 AWG



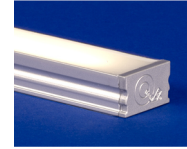
Barrel 6" - WET | 22 AWG



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

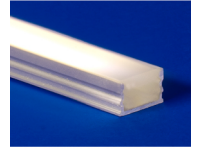
11 / 12 END CAP - IN/OUT

STD



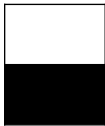
End cap matches fixture
finish chosen

CL



Clear end cap

13 WIRE COLOR

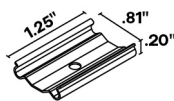


White

Black

15 MOUNTING

SST



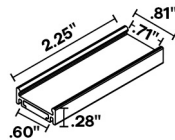
Stainless Steel Clip

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 screw

M4

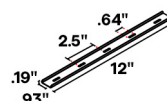


Low Profile Magnet

One M4 provided per foot.

To order separately use
MG-04

MMA-04



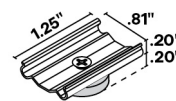
Magnet Mount
Accessory for M4

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

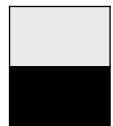


Magnet Clip

One MG provided per foot

To order separately use MG-01

16 FINISH

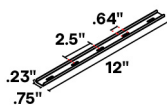


Satin

Black

Custom color
available

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



ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

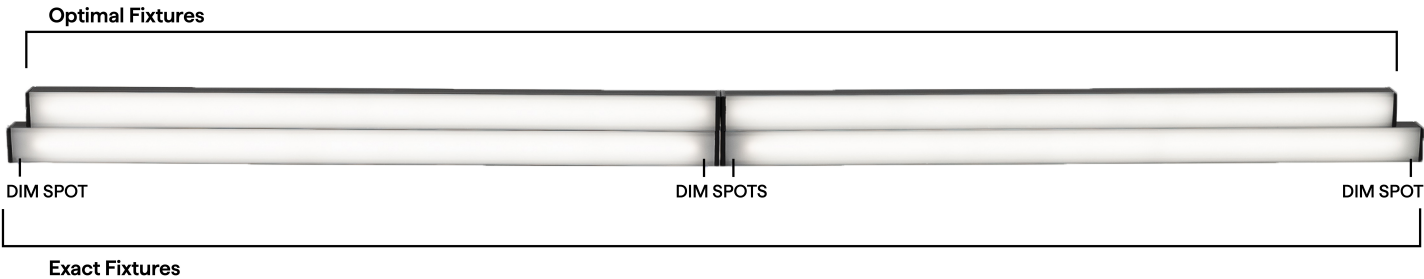
18

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.



SW ENC 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	
	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"



ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

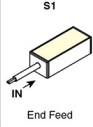
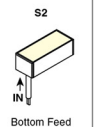
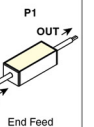

SW-HE ENC LENGTHS BY INCH

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	
				
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"	

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 iQ-PH+QD1	Q6M-DC+CAP QTM-DC+CAP iQ-PH 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 QTM-eLED+0-10V QTM-eLED+0-10V-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 QTM-eLED+0-10V QTM-eLED+0-10V-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 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 QZ-DMX QZ-PH/0-10V
1%	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED(E) 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(E) QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-DALI-DT6	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6 QOM-eLED+PS-DALI-DT6	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6 QOM-eLED+PS-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-ENCAPSULATED (03) 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 iQ-ND-50-65	Q-SET-QZ-ND Q-SET-eLED-ND QOM-eLED-ND QZ-ND iQ-ND-50-65
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 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 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	Q-SET+QZ-DALI-DT6 QOM-eLED+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

1.41" .71"

Adjustable mounting bracket - Medium

HINGE - HMB-L

1.46" 1.29"

Adjustable mounting bracket - Large

HINGE - HMB-XL

4" 1.46"

Adjustable mounting bracket - XLarge

Q-PIVOT

.75" 1.03"

Small mounting accessory

Q-ANGLE

2.23" 1.38"

Adjustable mounting accessory

QUOVA-STANDARD

QUOVA Knife Edge

NJ-MEDIUM

J Mounting Bracket

QUOVA-STANDARD

QUOVA Knife Edge

SD-L-MEDIUM

L Mounting Bracket

COMPATIBLE WIRING ACCESSORIES

Q-mini-J5

2.80" 2.27"

UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)

Q-mini-J

2" 1.25"

UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)

BARREL-EXT

8ft barrel cable extender DRY ONLY

BARREL FOUR-FER

Splits lead from one to four LED Barrel connector fixtures, DRY/DMP



ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

COMPATIBLE APPS

NFC APP



Read and write
DMX addresses and
adjust voltage