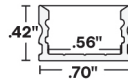
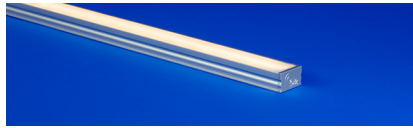




ESSENTIALS LALO- ENCAPSULATED (03) STATIC WHITE

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
- 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
			ENC	STD	

ADDITIONAL INFORMATION REQUIRED TO ORDER

7	8	9	10	11	12	13	14	15	16	17
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

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

1

PRODUCT

LL3SW

LL3SW-USA

Select USA option for BAA and BABA projects.

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

1.5HE

1.5W/ft HE

3.0HE

3.0W/ft HE

6.0HE

6.0W/ft HE

3

CCT

24

2400K

27

2700K

30

3000K

35

3500K

40

4000K

4

RATED

ENC

IP67

5

EFFICIENCY

STD

Standard

6

LENS

CL

Clear

TL

Translucent

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

SINGLE (Input only)

S1

End Feed

S2

Bottom Feed

For continuous mounting, consider bottom feed

PASS THROUGH (Input/output)

P1

End Feed

P2

Bottom Feed

For continuous mounting, consider bottom feed

8

CONNECTOR/WIRE IN

BW

BRL

CON6

CON24

Bare Wire (Standard 24")

Barrel

Connector 6"

Connector 24"

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

BW

BRL

CON6

CON24

Bare Wire (Standard 24")

Barrel

Connector 6"

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

BRL

CON6

CON24

Bare Wire (Standard 24")

Barrel

Connector 6"

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

INPUT END CAP

STD

Standard

CL

Clear

STD - End cap matches fixture finish chosen

Select CL for continuous runs

11

OUTPUT END CAP

STD

Standard

CL

Clear

STD - End cap matches fixture finish chosen

Select CL for continuous runs

12

WIRE COLOR

WH

BK

N/A

White

Black

For Barrel

13

WIRE TYPE

CL2

CL2P

N/A

Class 2

Plenum Rated

For Barrel

CL2P only available with bare wire leads (BW)

14

MOUNTING

SST

M4

MG

Stainless Steel

Low Profile Magnet

Magnet

15

FINISH

ST

BK

CU

Satin

Black

Custom

Custom finishes require a longer lead time, consult factory

16

LENGTH (IN)

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

17

EXACT/OPTIMAL

O

E

Optimal Illumination

Exact Specified Length

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.

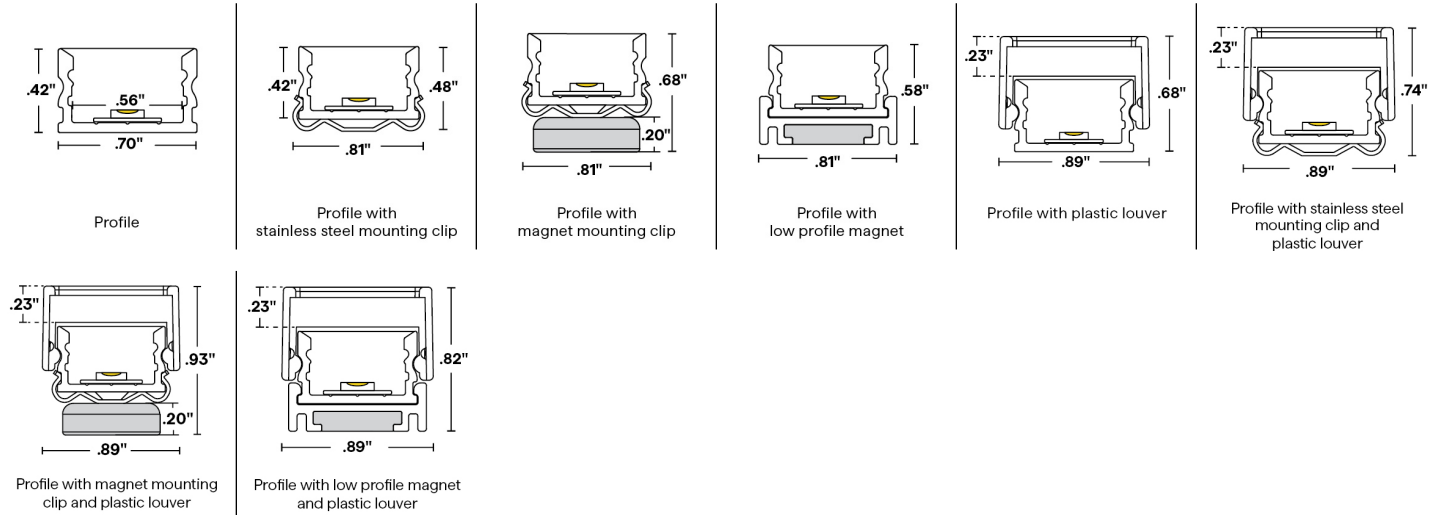
5 year warranty | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance | Compatible for use with QTL power supplies | Florida Fish and Wildlife Conservation Commission (FWC) rated Strips: Red and Amber | IK10 rated



ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

1 PRODUCT - DIMENSIONS



2 DELIVERED LUMENS

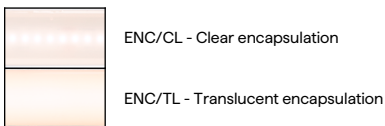
[Calculated L70 = 40000 hrs]
Tested with LL3SW-**-30-ENC-STD

	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



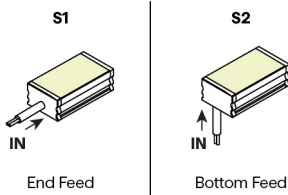


ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

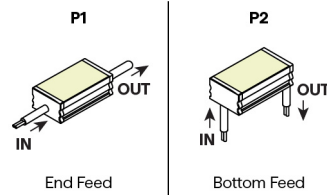
24VDC Linear Fixtures - Surface & Recessed

7 WIRE INPUT/OUTPUT

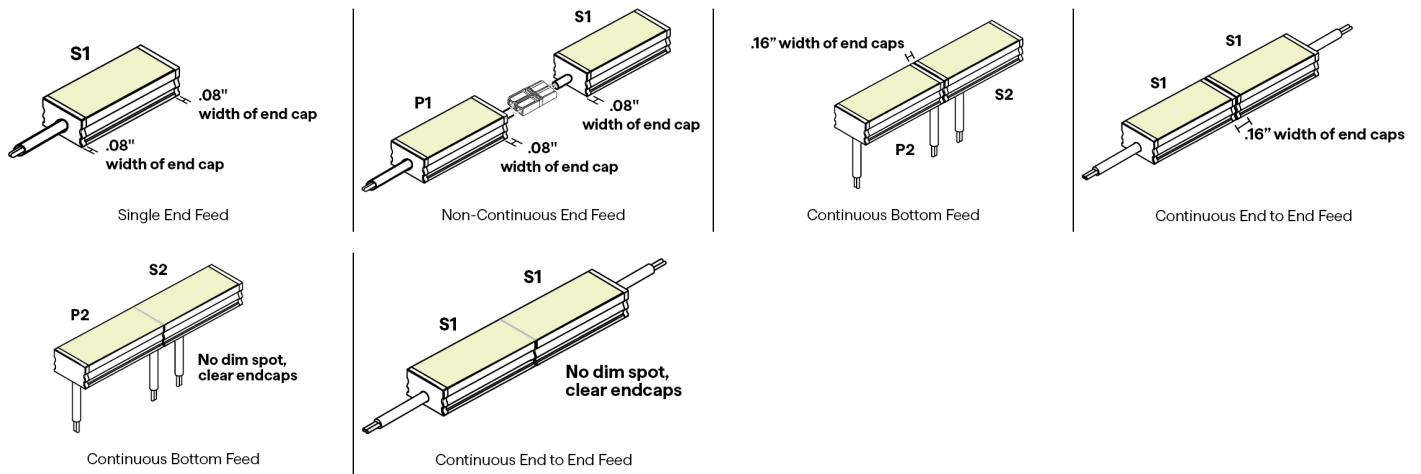
SINGLE (Input only)



PASS THROUGH (Input/Output)

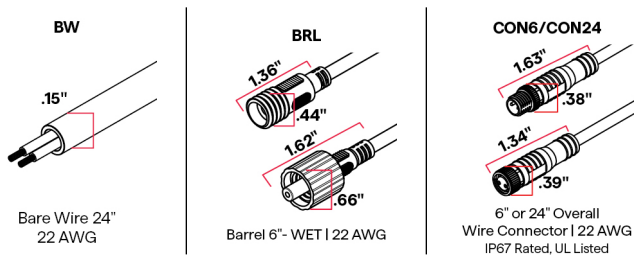


CONFIGURATION OPTIONS

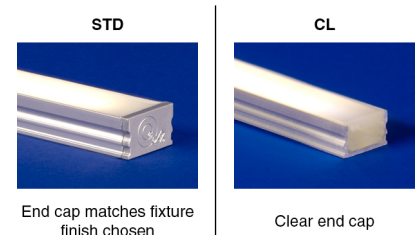


8 / 9 CONNECTOR/WIRE - IN/OUT

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



10 / 11 END CAP - IN/OUT



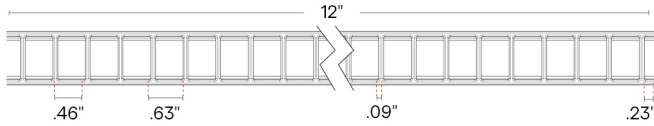


ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

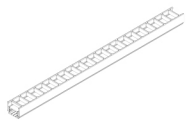
24VDC Linear Fixtures - Surface & Recessed

EXTERNAL LOUVER ACCESSORY

PLASTIC



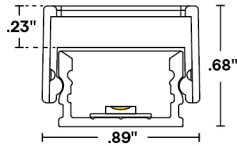
L1-XX



Lumen Multiplier

WH BK

0.71 0.48



Profile with plastic louver

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

12 WIRE COLOR

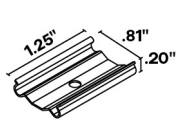


White

Black

14 MOUNTING

SST



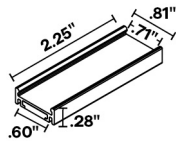
Stainless Steel Clip

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

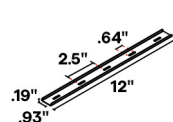


Low Profile Magnet

One M4 provided per foot.

To order separately use
MG-04

MMA-04



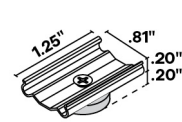
Magnet Mount
Accessory for M4

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

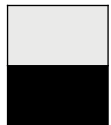


Magnet Clip

One MG provided per foot

To order separately use MG-01

15 FINISH

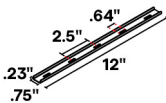


Satin

Black

Custom finishes
require a longer lead
time, consult factory

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

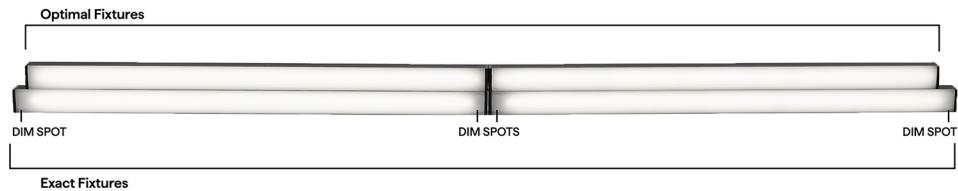
24VDC Linear Fixtures - Surface & Recessed

17 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 IN End Feed	S2 IN Bottom Feed	P1 IN End Feed	P2 IN Bottom Feed
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

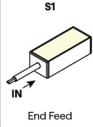
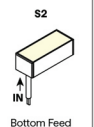
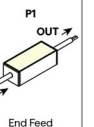

SW-HE ENC LENGTHS BY INCH

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 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-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 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

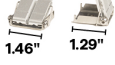
HINGE - HMB-M



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

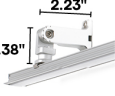
Q-PIVOT



.75"
1.03"

Small mounting accessory

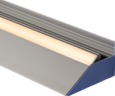
Q-ANGLE



2.23"
1.38"


Adjustable mounting accessory

QUOVA-STANDARD



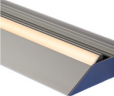
QUOVA Knife Edge

NJ-MEDIUM




J Mounting Bracket

QUOVA-STANDARD



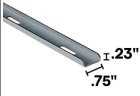
QUOVA Knife Edge

SD-L-MEDIUM



L Mounting Bracket

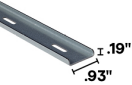
MMA-01



1.23"
.75"

Magnet Mount Accessory of MG-01

MMA-04



1.19"
.93"

Magnet Mount Accessory of MG-04

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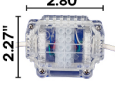




Specification subject to change. Rev-10-21-25



ESSENTIALS LALO-ENCAPSULATED (03) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

COMPATIBLE WIRING ACCESSORIES

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

COMPATIBLE APPS

NFC APP

Read and write
DMX addresses and
adjust voltage