ESSENTIALS LALO-OPTICS (02) STATIC WHITE

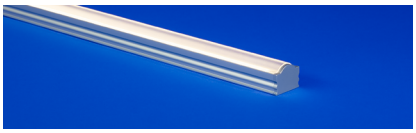
24VDC Linear Fixtures - Surface & Recessed

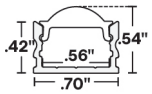
410.2 & 410.16 Closet Rated up to 4.0W/ft

1-BIN 1-STEP SW/SW-HE ONLY

5 YEAR WARRANTY

SW, SW-HE ONLY





- Shallow, low-profile linear fixture for surface or recessed installations
- Produces a 17° beam angle
- Mounting options include stainless steel clips, magnets, and low-profile magnet mounts
- 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 PRODUCT	2 WATTS/ FT	3 CCT	4 RATED	5 EFFICIENCY	6 LENS
				STD	17DEG

ADDITIONAL INFORMATION REQUIRED TO ORDER

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

Sample Part Number: **LL2SW-3.0HE-30-DRY-STD-17-P1-BW-BW-BK-CL2-SST-BK-48"-E**

1 PRODUCT

LL2SW
LL2SW-USA

Select USA option for BAA and BABA projects. SW and SW-HE only. Only DRY or WET ratings apply.

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
9.0HE	9.0W/ft HE

3.0HE+	3.0W/ft HE+
6.0HE+	6.0W/ft HE+

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

1.5	1.5W/ft
3.0	3.0W/ft
4.0	4.0W/ft
5.0	5.0W/ft

3.0HE+	3.0W/ft HE+
6.0HE+	6.0W/ft HE+

3 CCT

18	1800K
20	2000K
22	2200K
24	2400K
27	2700K
30	3000K
35	3500K
40	4000K

27	2700K
30	3000K
35	3500K
40	4000K

18	1800K
20	2000K
22	2200K
24	2400K
27	2700K
30	3000K
35	3500K
40	4000K

18	1800K
20	2000K
22	2200K
24	2400K
27	2700K
30	3000K
35	3500K
40	4000K

27	2700K
30	3000K
35	3500K
40	4000K

4 RATED

DRY	IP20
DMP	IP54
WET	IP67

Can be suitable for exterior use, contact factory for more information

5 EFFICIENCY

STD	Standard

6 LENS

17DEG	Optical 17°

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

PASS THROUGH (Input/output)

P1	End Feed
P2	Bottom Feed

For continuous mounting, consider bottom feed.

8 CONNECTOR/WIRE IN

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"

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	Bare Wire (Standard 24")
BRL	Barrel
CON6	Connector 6"
CON24	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 WIRE COLOR

WH	White
BK	Black
N/A	For Barrel

wet barrel only available in black

11 WIRE TYPE

CL2	Class 2
CL2P	Plenum Rated
N/A	For Barrel

CL2P only available with bare wire leads (BW)

12 MOUNTING

SST	Stainless Steel
M4	Low Profile Magnet
MG	Magnet

13 FINISH

ST	Satin
BK	Black
CU	Custom

Custom finishes require a longer lead time, consult factory

14 LENGTH (IN)

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

15 EXACT/OPTIMAL

O	Optimal Illumination
E	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.

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTLlighting | www.QTLlighting

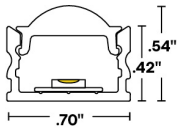
Specification subject to change. Rev-05-07-26

5 year warranty | Warranty only valid with QTL power supplies | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance

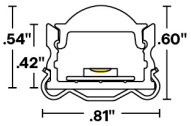
ESSENTIALS LALO-OPTICS (02) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

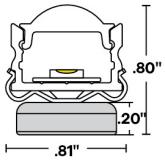
1 PRODUCT - DIMENSIONS



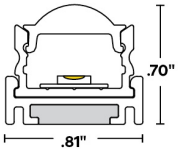
Profile with optical lens



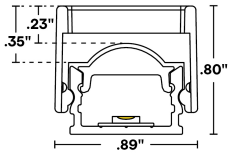
Profile with optical lens and stainless steel mounting clip



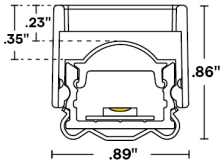
Profile with optical lens magnet mounting clip



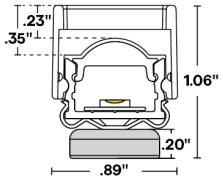
Profile with optical lens and low profile magnet



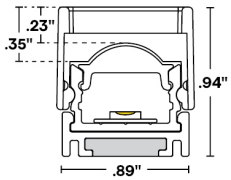
Profile with optical lens and plastic louver



Profile with optical lens, stainless steel mounting clip, and plastic louver



Profile with optical lens, magnet mounting clip, and plastic louver



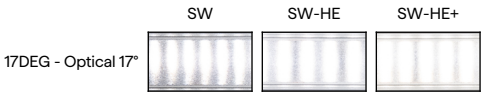
Profile with optical lens, low profile magnet, and plastic louver

2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs, L70 = 50000 for HE+]
Tested with LL2SW-**-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		9.0HEW/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	LM/FT	CRI
17	148	98	193	98	259	98	355	98	506	92	321	98	391	98	672	98	935	92	1049	98

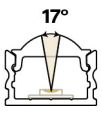
6 DIODE VISIBILITY



PHOTOMETRIC PERFORMANCE

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

17DEG



Optical 17°

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

ESSENTIALS LALO-OPTICS (02) STATIC WHITE

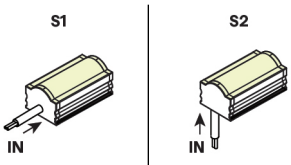
24VDC Linear Fixtures - Surface & Recessed

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		9.0 HE W/FT	
		Min	Max	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	140°F	-4°F	145°F	-4°F	130°F	-4°F	135°F	-13°F	135°F	-4°F	125°F	-4°F	120°F	-4°F	120°F	-13°F	120°F	-4°F	100°F
DMP	Ambient Operating Temp - Surface	-4°F	140°F	-4°F	145°F	-4°F	130°F	-4°F	135°F	—	—	-4°F	125°F	-4°F	120°F	-4°F	120°F	—	—	—	—
WET	Ambient Operating Temp - Surface	-4°F	135°F	—	—	-4°F	125°F	—	—	-13°F	130°F	-4°F	120°F	-4°F	115°F	—	—	-13°F	115°F	—	—

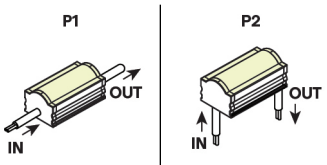
7 WIRE INPUT/OUTPUT

SINGLE (Input only)



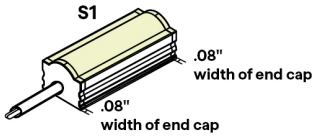
End Feed | Bottom Feed

PASS THROUGH (Input/Output)

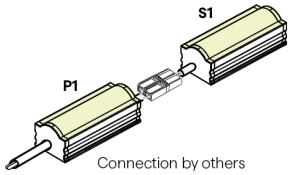


End Feed | Bottom Feed

CONFIGURATION OPTIONS

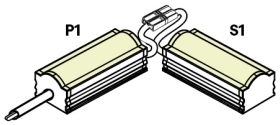


Single End Feed



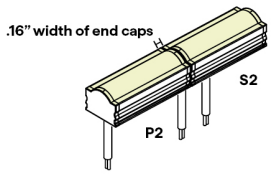
Connection by others

Non-Continuous End Feed

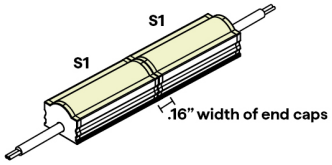


Connection by others

Non-Continuous Corner Feed



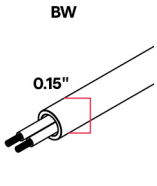
Continuous Bottom Feed



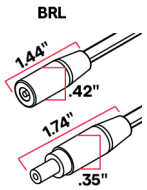
Continuous End to End Feed

8/9 CONNECTOR/WIRE – IN/OUT

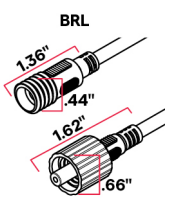
Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out



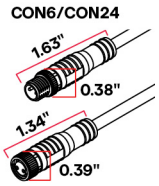
Bare Wire 24"
22 AWG



Barrel 6" - DRY/DMP | 22 AWG

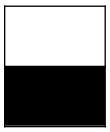


Barrel 6"- WET | 22 AWG



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

10 WIRE COLOR



White

Black

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

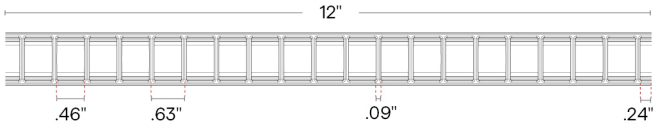
Specification subject to change. Rev-05-07-26

ESSENTIALS LALO-OPTICS (02) STATIC WHITE

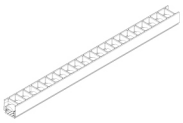
24VDC Linear Fixtures - Surface & Recessed

EXTERNAL LOUVER ACCESSORY

PLASTIC

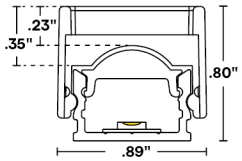


L1-XX



Lumen Multiplier

WH	BK
0.73	0.53

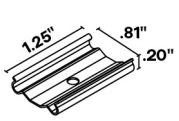


Profile with plastic louver

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

12 MOUNTING

SST



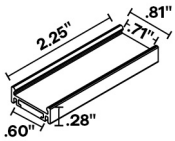
Stainless Steel Clip

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

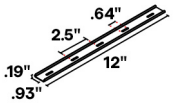


Low Profile Magnet

One M4 provided per foot.

To order separately use MG-04

MMA-04



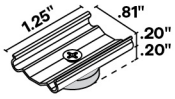
Magnet Mount Accessory for M4

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

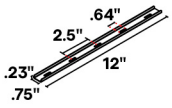


Magnet Clip

One MG provided per foot

To order separately use MG-01

MMA-01



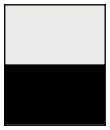
Magnet Mount Accessory of MG-01

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

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

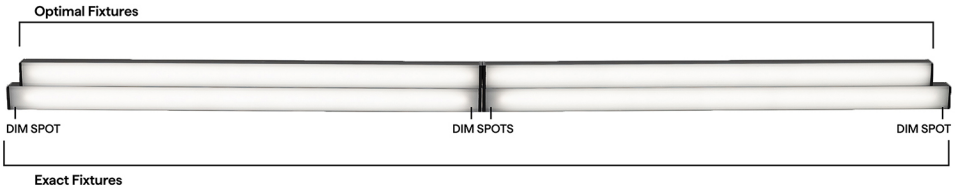
ESSENTIALS LALO-OPTICS (02) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

14 EXACT/OPTIMAL FIXTURE LENGTH

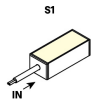
E/O Length Calculator → E/O Explained →

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.

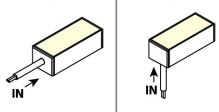
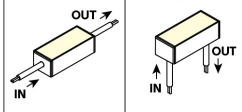


SW DRY DMP LENGTHS BY INCH

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"

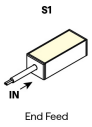
© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTLlighting | www.QTLlighting

ESSENTIALS LALO-OPTICS (02) STATIC WHITE

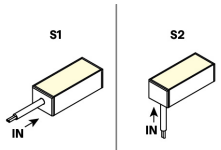
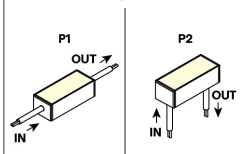
24VDC Linear Fixtures - Surface & Recessed

SW WET LENGTHS BY INCH

EXACT LENGTH

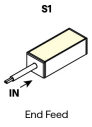
Requested Length	Potential dim spot on either end of a S1 fixture 
12"	0.5"
13"	0.5"
14"	0.5"
15"	0.5"
16"	0.5"
17"	0.5"
18"	0.5"
19"	0.5"
20"	0.5"
21"	0.5"
22"	0.5"
23"	0.5"
24"	0.5"
36"	0.5"
48"	0.5"
60"	0.5"
72"	0.5"
84"	0.5"
96"	0.5"

OPTIMAL LENGTH

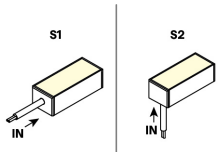
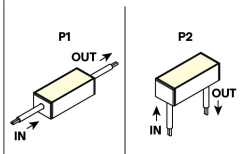
Requested Nominal Length	S1 & S2 	P1 & P2 
12"	11.56"	11.71"
13"	12.56"	12.71"
14"	13.56"	13.71"
15"	14.56"	14.71"
16"	15.56"	15.71"
17"	16.56"	16.71"
18"	17.56"	17.71"
19"	18.56"	18.71"
20"	19.56"	19.71"
21"	20.56"	20.71"
22"	21.56"	21.71"
23"	22.56"	22.71"
24"	23.56"	23.71"
36"	35.56"	35.71"
48"	47.56"	47.71"
60"	59.56"	59.71"
72"	71.56"	71.71"
84"	83.56"	83.71"
96"	95.56"	95.71"

SW-HE, SW-HE+ DRY DMP 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"

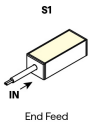
© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

ESSENTIALS LALO-OPTICS (02) STATIC WHITE

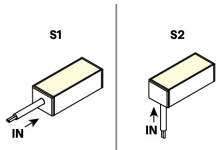
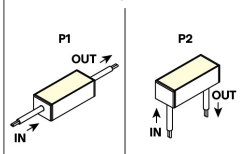
24VDC Linear Fixtures - Surface & Recessed

SW-HE+ WET 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 	
	End Feed	Bottom Feed	End Feed	Bottom Feed
12"	10.61"		10.76"	
13"	12.61"		12.76"	
14"	12.61"		12.76"	
15"	14.61"		14.76"	
16"	14.61"		14.76"	
17"	16.61"		16.76"	
18"	16.61"		16.76"	
19"	18.61"		18.76"	
20"	18.61"		18.76"	
21"	20.61"		20.76"	
22"	20.61"		20.76"	
23"	22.61"		22.76"	
24"	22.61"		22.76"	
36"	34.61"		34.76"	
48"	46.61"		46.76"	
60"	58.61"		58.76"	
72"	70.61"		70.76"	
84"	82.61"		82.76"	
96"	94.61"		94.76"	

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-PRO-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-PRO-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+DALI-DT6-PS QZ-DMX QZ-PRO-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+DALI-DT6-PS QZ-DMX QZ-PRO-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	

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

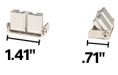
ESSENTIALS LALO-OPTICS (02) STATIC WHITE

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-PRO-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-PRO-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-PRO-PH/0-10V	Q-SET-QZ-PH/0-10V QOM-DC+CAP QOM-PH QZ-PRO-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-PRO-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-PRO-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-PRO-PH/0-10V	Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QZ-PRO-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		

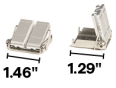
COMPATIBLE MOUNTING ACCESSORIES

HINGE - HMB-M



Adjustable mounting bracket - Medium

HINGE - HMB-L



Adjustable mounting bracket - Large

HINGE - HMB-XL



Adjustable mounting bracket - XLarge

Q-PIVOT



Small mounting accessory

Q-ANGLE



Adjustable mounting accessory

NU-GRAZER



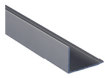
U Mounting Bracket

NJ-GRAZER



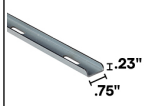
J Mounting Bracket

BL-GRAZER



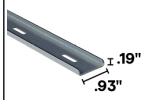
Backwards L Mounting Bracket

MMA-01



Magnet Mount Accessory of MG-01

MMA-04



Magnet Mount Accessory of MG-04

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

Specification subject to change. Rev-05-07-26

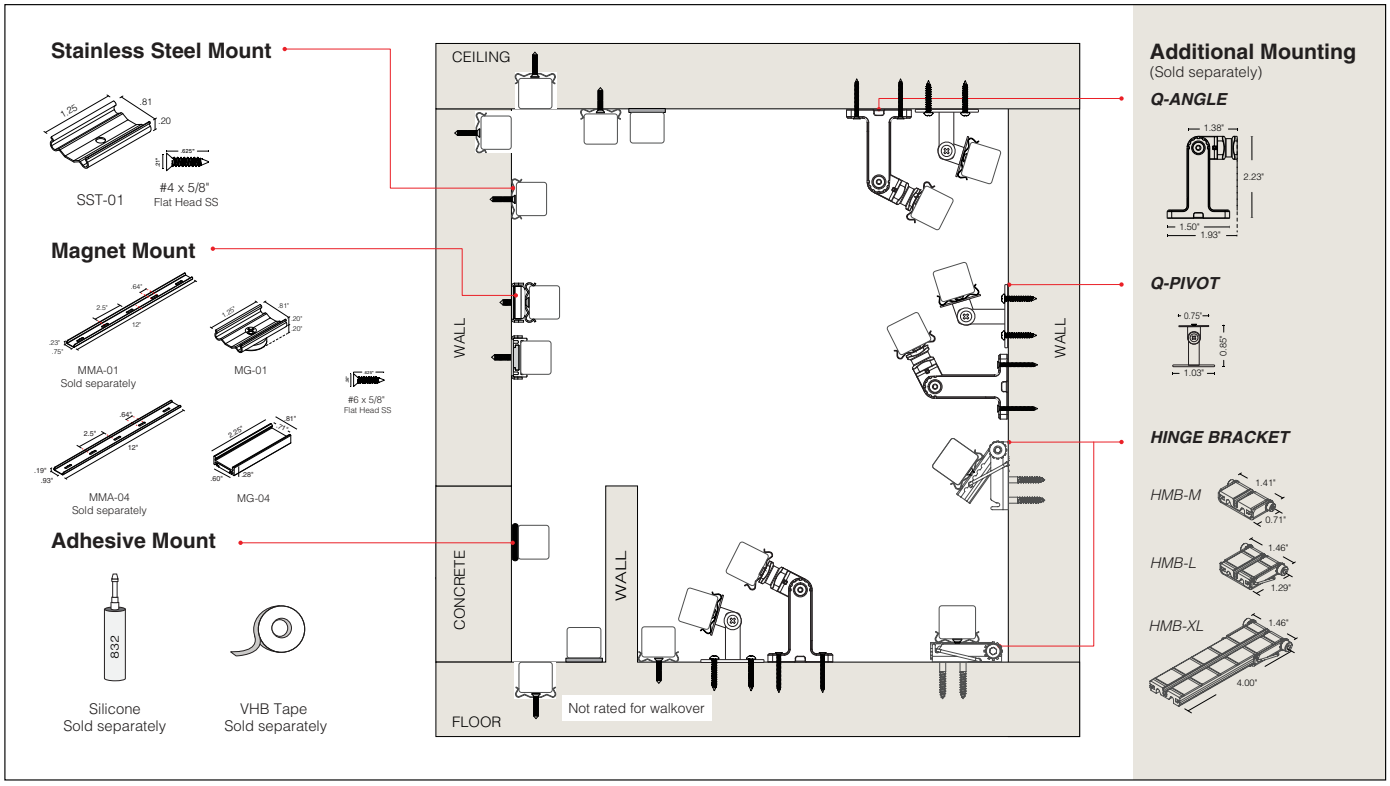
ESSENTIALS LALO

Linear Fixture Installation Instructions

ATTENTION: Please read all instructions BEFORE installation

- Product to be installed by a licensed electrician - Field modifications void warranty
- Use only with Class 2 power supply unit — Warranty only valid with QTL power supplies
- Surface mount or recessed in millwork
- Suitable for installation in storage area of a clothes closet when assembled as a finished fixture up to 4W/ft at QTL facility
- Not rated for walkover
- Input Voltage: 24VDC
- Diagrams for representation only and not to scale.

METHODS OF INSTALLATION:



Surface Mounting Method

- VHB Mount (page 5-6)
- Silicone Mount (page 7)
- Screw Mount (page 8)
- Magnet Mount (page 9)
- Low Profile Magnet Mount (page 10)

Recessed Mounting Method

- Magnet Mount : Millwork (page 11)

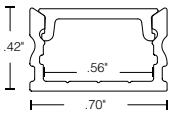
Louver Install Method

- Install Louver (page 12)
- Install Gasket For Vertical Louver (page 13)

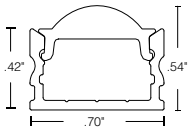
© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

ESSENTIALS LALO

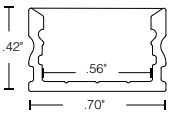
Linear Fixture Installation Instructions



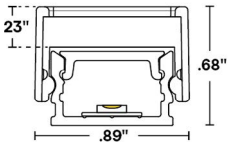
LALO-FLAT (01)



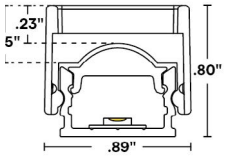
LALO-OPTICS (02)



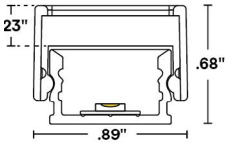
LALO-ENCAPSULATED (03)



LALO-FLAT (01)
With Louver



LALO-OPTICS (02)
With Louver

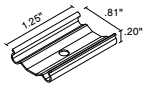


LALO-ENCAPSULATED (03)
With Louver

COMPONENTS & HARDWARE

Alternate screw lengths can be used in installation as long as the screw diameter size is consistent with the included screw diameter size

STAINLESS STEEL CLIP

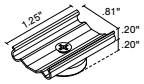


SST-01

Included	
	Flat Head Screw #4x5/8"

- 2 clips provided for 4' or less; 4 clips provided for greater than 4'

MAGNET CLIP

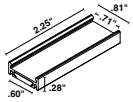


MG-01

Included	
	Flat Head Screw #6x5/8"

- One magnet clip per foot

LOW PROFILE MAGNET CLIP



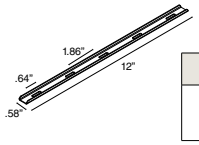
MG-04

Included	
	Flat Head Screw #6x5/8"

- One magnet clip per foot

ACCESSORIES SOLD SEPARATELY

MAGNET MOUNT ACCESSORY; sold individually



MMA-01

Included
Flat Head Screw #6x5/8"

- MMA-01 comes in 12" pieces; use at least one clip per MMA-01 accessory
- MMA-01 can be cut into smaller pieces, if desired

HINGE BRACKET; sold individually

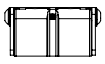
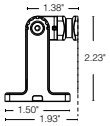


Image shows HMB-M

HMB-M
HMB-L
HMB-XL

Included
• 3/4" long mount screw • 1/4" #4 clip mount screw

Q-ANGLE; sold in pairs



Q-ANGLE

Included
• 3/4" long mount screw • 1/4" #4 clip mount screw

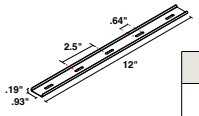
Q-PIVOT; sold in pairs



Q-PIVOT

Included
• SS #4-40x3/16 Flat head screw • 2 #4x3/4 Pan head screws

LOW PROFILE MAGNET MOUNT ACCESSORY; sold Individually

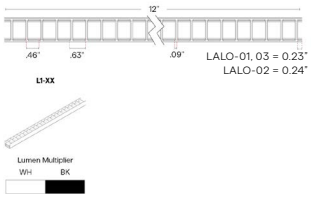


MMA-04

Included
2 #6x5/8" Flat Head screws

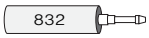
- MMA-04 comes in 12" pieces; use at least one clip per MMA-04 accessory
- MMA-04 can be cut into smaller pieces, if desired

EXTERNAL LOUVER



- L1-WH - White Plastic
- L1-BK - Black plastic

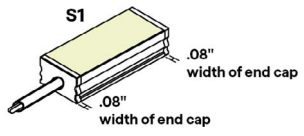
© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

ADHESIVE SOLD SEPARATELY	
SILICONE	VHB TAPE; sold in 15' increments
 DOWSIL 832	 TAPE-VHB-IP20

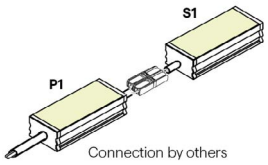
© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

CONFIGURATION OPTIONS

LALO-FLAT & LALO-ENC

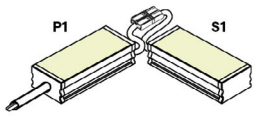


Single End Feed



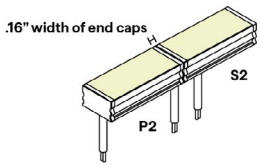
Connection by others

Non-Continuous End Feed

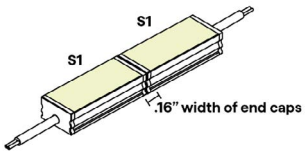


Connection by others

Non-Continuous Corner Feed

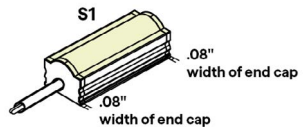


Continuous Bottom Feed

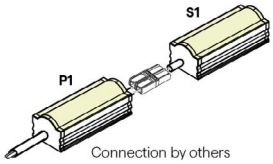


Continuous End to End Feed

LALO-OPTICS

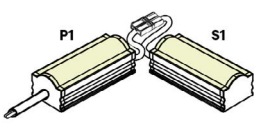


Single End Feed



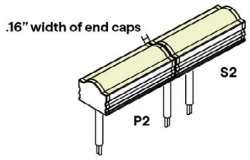
Connection by others

Non-Continuous End Feed

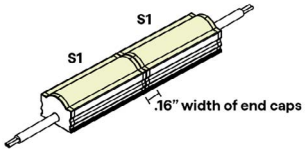


Connection by others

Non-Continuous Corner Feed



Continuous Bottom Feed



Continuous End to End Feed

Review wire method to ensure clean installation prior to mounting finished Fixture.

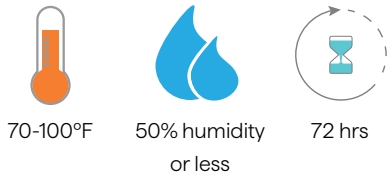
NOTE: Additional wire methods include:
S1 & S2: Connector/Wire Input only
P1 & P2: Connector/Wire Input and Output

© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

SURFACE MOUNTING METHOD

SURFACE PREPARATION

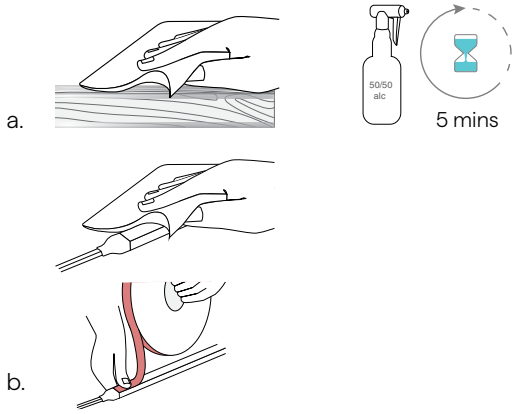
1



Temperature and environmental concerns:

- Ideal application environment is 70-100°F in 50% humidity or less.
- Minimum application temperature: 50°F
- This temperature and humidity should be maintained for 72 hours after application for maximum bond strength.

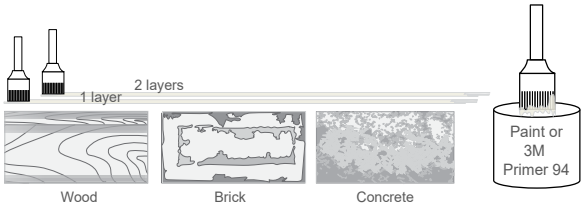
2



a. Using a 50/50 alcohol mix, thoroughly clean the backside of the Fixture and the surface area where Fixture will be installed. Allow 5 minutes to dry.

b. Peel back 0.5" of the VHB tape's protective film on one end and use firm pressure to adhere it to the desired surface, avoiding air bubbles. Continue peeling the film and adhering the tape in small sections until the entire length is installed.

3



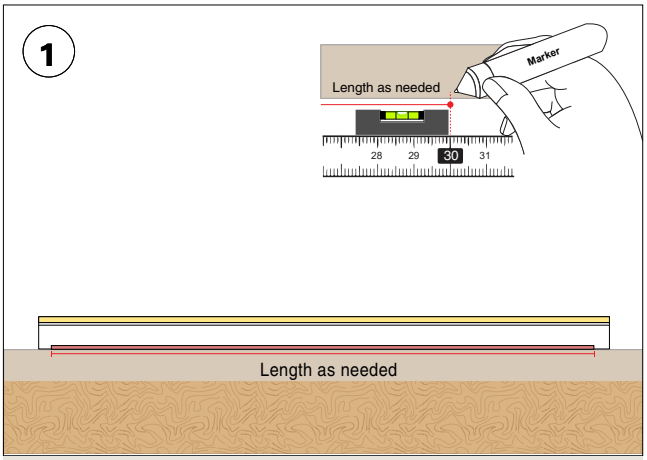
For porous materials (Wood, Brick, Concrete etc.) apply two layers of paint or primer to the surface. This will help create a better bonding surface for these materials. These can be purchased from a local hardware store.

MATERIALS	SUGGESTED EPOXIES
Concrete, Stone, Cinderblock, Metal, and Brick	Loctite Metal and Concrete Two-Part Epoxy
ABS, Fiberglass, Plastic, and PVC	Loctite Plastic Two-Part Epoxy
Tile, Wood, Ceramic, Glass, or Metal	Loctite Clear Two-Part Epoxy
All Purpose	Strong Stik

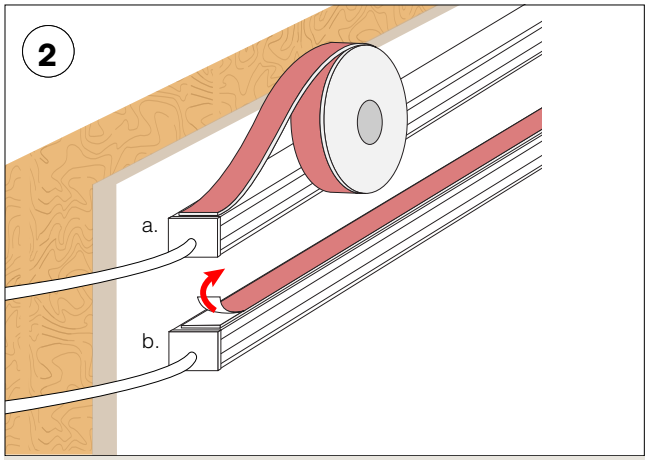
© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

SURFACE MOUNTING METHOD: **VHB ADHESIVE MOUNT**

BEFORE installation, the surface must be thoroughly cleaned and dried for maximum bond strength.

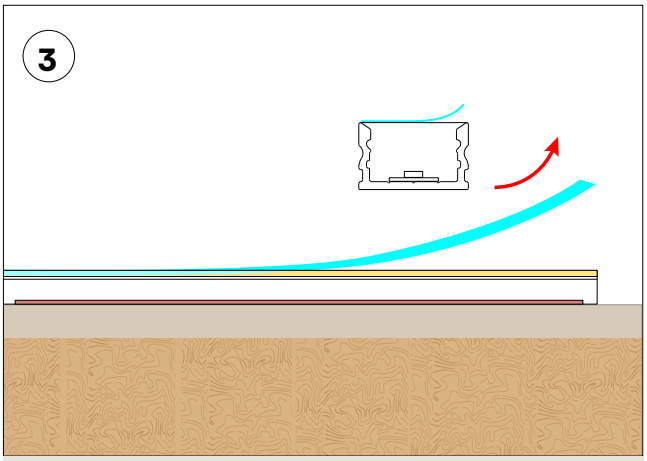


Determine the LALO fixture(s) location and positioning on desired surface before adhering Fixture to surface. Make any necessary reference markings to indicate fixture placement.



a. To adhere the VHB adhesive, peel the white film back while evenly applying the tape to the mounting side of the fixture. The red side should be visible.

b. Remove the red film and position fixture in place according to your previous reference marking(s).



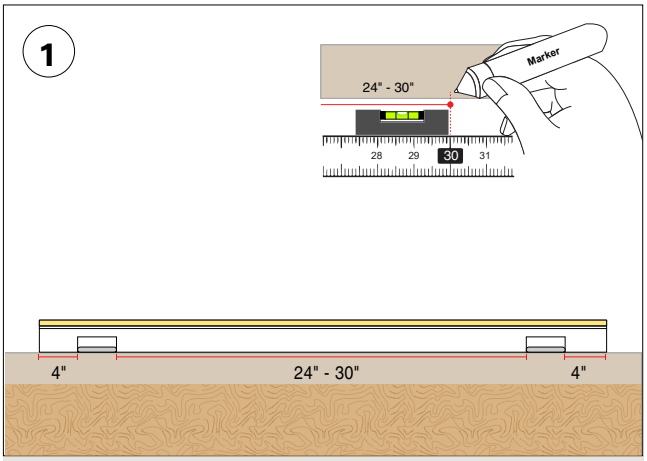
Remove protective film from the surface of the fixture's lens.

NOTES: *EPOXY ALTERNATIVE: For improved bonding strength, apply a small amount of epoxy at each end. Refer to table on* page 5 *for suggested epoxies. These can be purchased at a local hardware store. Please follow all manufacturer instructions for suggested epoxy.*

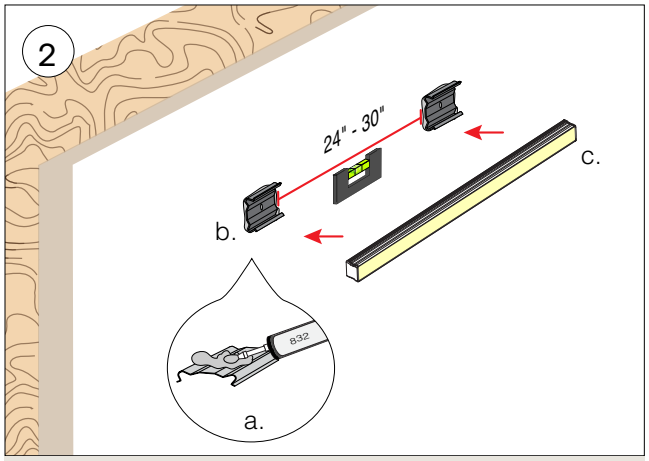
© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

SURFACE MOUNTING METHOD: **SILICONE**

- 2 clips provided for 4’ or less; 4 clips provided for greater than 4’



Determine the LALO fixture(s) location and positioning on desired surface; evenly distribute clips. Make any necessary reference markings to indicate where each clip is to be secured in place. Recommended every 24” - 30”.

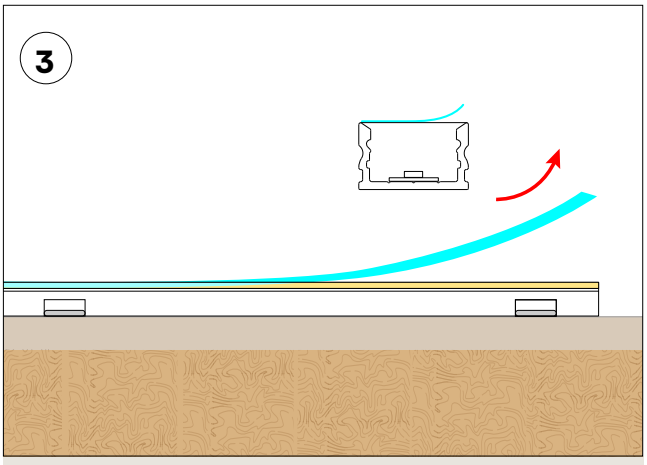


a. Firmly press the silicone-coated clips on the marked reference points.

b. Wait for silicone adhesive to cure completely before snapping fixture into place.

c. Snap fixture onto clips.

NOTE: Cure time is dependent on the type of silicone adhesive used. Refer to silicone product manufacturer for accurate drying time.

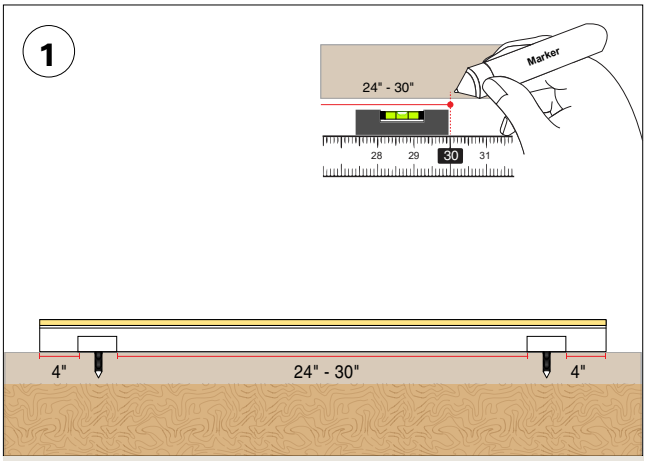


Remove protective film from the surface of the fixture’s lens.

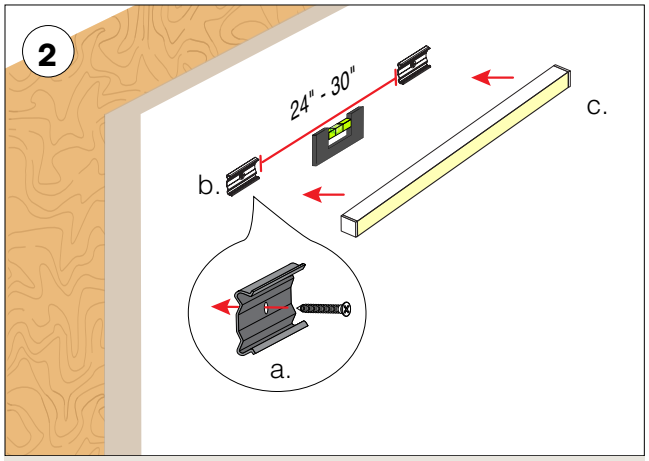
© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

SURFACE MOUNTING METHOD: **SCREW MOUNT**

- 2 clips provided for 4’ or less; 4 clips provided for greater than 4’



Determine the LALO fixture(s) location and positioning on desired surface; evenly distribute clips. Make any necessary reference markings to indicate where each clip is to be secured in place. Recommended every 24” - 30”.

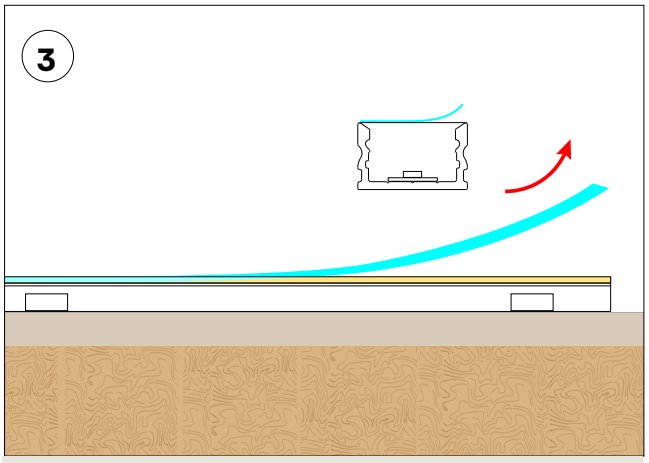


a. Secure clips using the #4 flat head hardware provided.

b. Ensure the screw head is flush with the clip’s base.

c. Snap fixture onto clips.

NOTE: Flat head screw type is dependent on surface/application material. Alternative flat head screws may be required. Refer to the surface material manufacturer for suggested screw type.

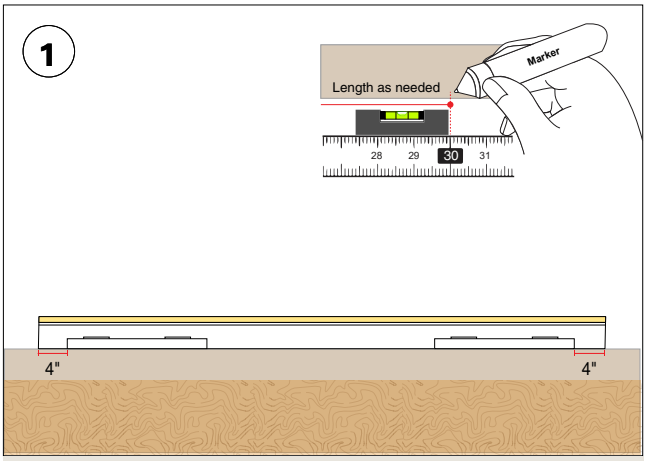


Remove protective film from the surface of the fixture’s lens.

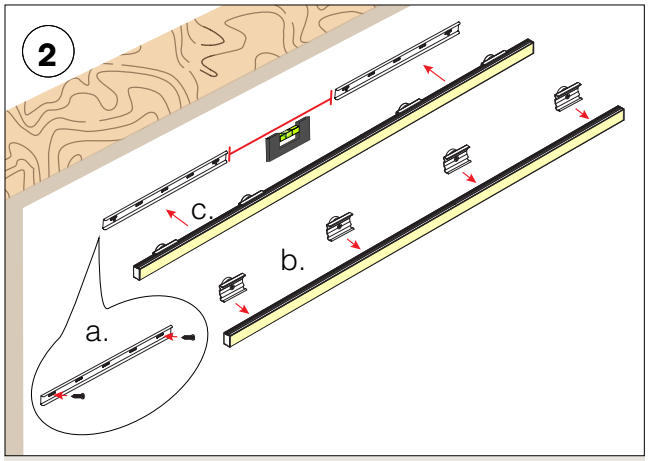
© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

SURFACE MOUNTING METHOD: **MAGNET MOUNT**

- One magnet clip per foot
- MMA-01 comes in 12" pieces; use at least one clip per MMA-01 accessory
- MMA-01 can be cut into smaller pieces, if desired



Determine the LALO fixture(s) location and positioning on desired surface. Make any necessary reference markings to indicate where the magnet mount accessory bracket is to be secured in place.

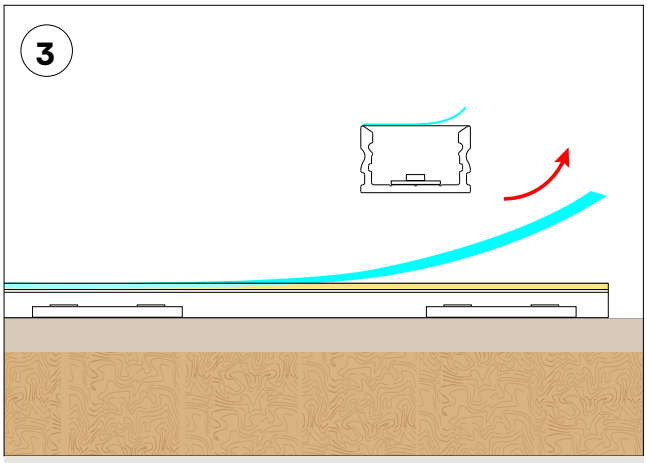


a. Mount the two #6 flat head screws into the 12" magnet mount accessory bracket through the slotted holes at each end. Ensure the screw head is flush with the magnet mount bracket.

b. Snap the magnet clips onto the backside of the fixture. They should be offset to the accessory bracket screws to maximize magnetic connection.

c. Place the assembled fixture into the magnet mount bracket.

NOTE: If surface application requires a longer screw, the screw size must be a #6 Flat Head.

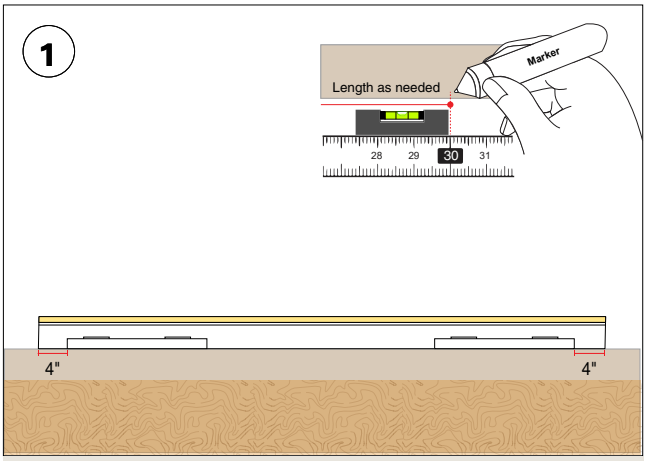


Remove protective film from the surface of the fixture's lens.

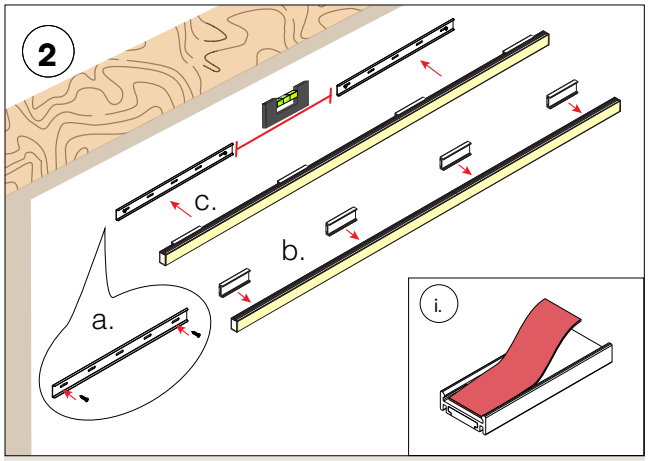
© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

SURFACE MOUNTING METHOD: **LOW PROFILE MAGNET MOUNT**

- One magnet clip per foot
- MMA-04 comes in 12" pieces; use at least one clip per MMA-04 accessory
- MMA-04 can be cut into smaller pieces, if desired



Determine the LALO fixture(s) location and positioning on desired surface. Make any necessary reference markings to indicate where the magnet mount accessory bracket is to be secured in place.

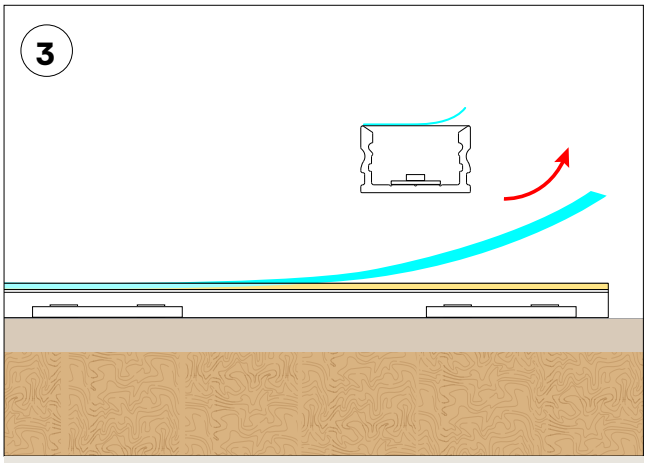


a. Mount the two #6 flat head screws into the magnet mount accessory bracket through the slotted holes at each end. Ensure the screw head is flush with the magnet mount bracket.

b. Snap the magnet clips onto the backside of the fixture. They should be offset to the accessory bracket screws to maximize magnetic connection.
i. If the clip does not fit securely onto the extrusion, apply the provided foam onto the inner face of the magnet clip.

c. Place the assembled fixture into the magnet mount bracket.

NOTE: If surface application requires a longer screw, the screw size must be a #6 Flat Head.

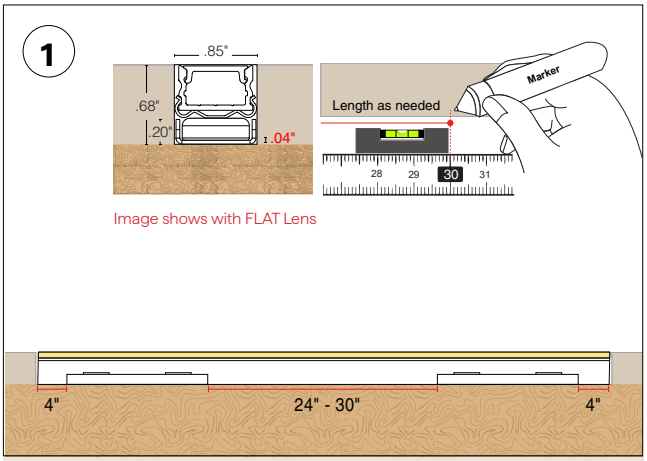


Remove protective film from the surface of the fixture's lens.

© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

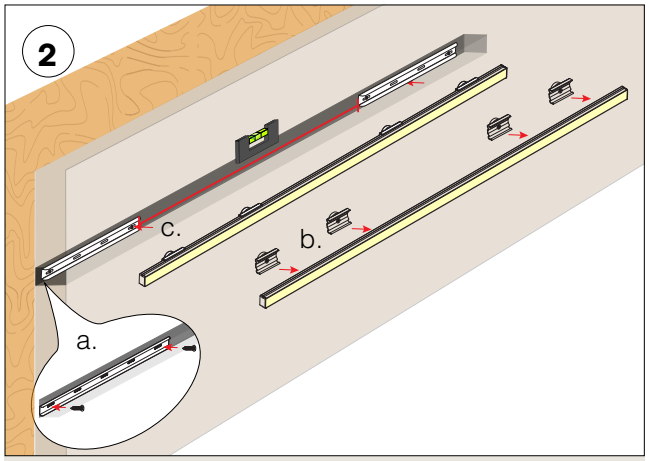
RECESSED MOUNTING METHOD: **MILLWORK**

- One magnet clip per foot
- MMA-01 comes in 12" pieces; use at least one clip per MMA-01 accessory
- MMA-01 can be cut into smaller pieces, if desired



Determine the LALO fixture(s) location and positioning on desired surface. Make any necessary reference markings to indicate where the magnet mount accessory bracket is to be secured in place.

NOTE: Depth of the channel in the millwork is dependent on overall height with the magnet clip and Magnet Mount Accessory.

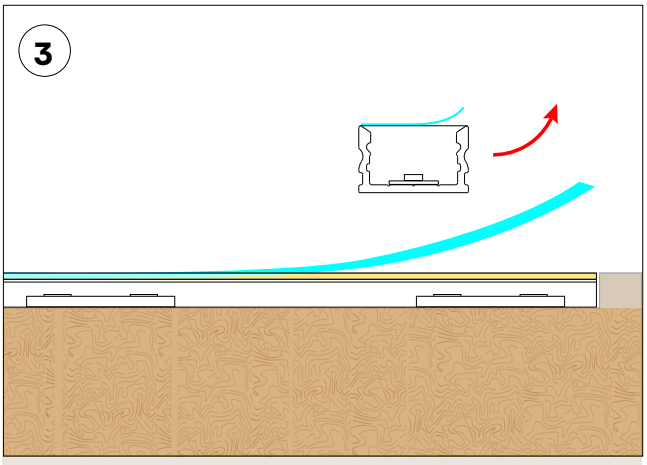


a. Mount the two #6 flat head screws into the 12" magnet mount accessory bracket through the slotted holes at each end. Ensure the screw head is flush with the magnet mount bracket.

b. Snap the magnet clips onto the backside of the fixture. They should be offset to the accessory bracket screws to maximize magnetic connection.

c. Place the assembled fixture into the magnet mount bracket.

NOTE: If surface application requires a longer screw, the screw size must be a #6 Flat Head.

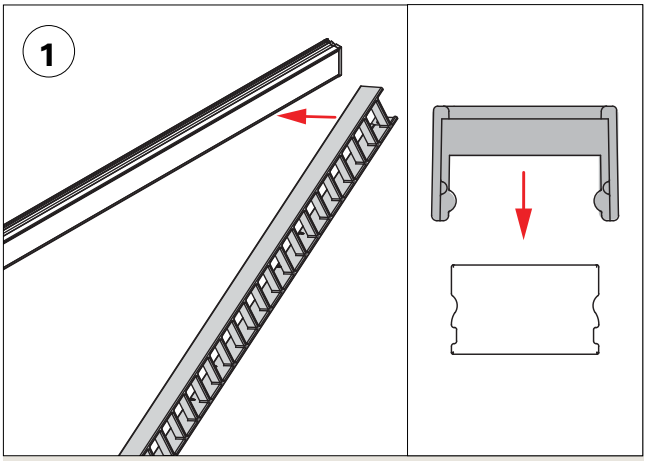


Remove protective film from the surface of the fixture's lens.

© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

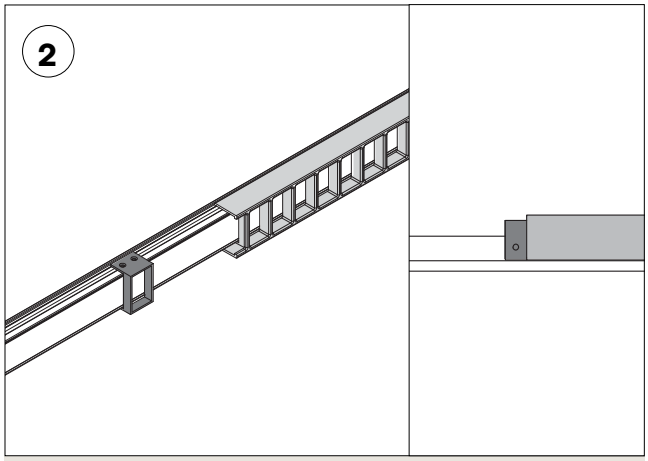
INSTALL METHOD: **LOUVER**

Louvers can be snapped onto the fixture either before or after it is mounted to the surface using the provided mounting clip.

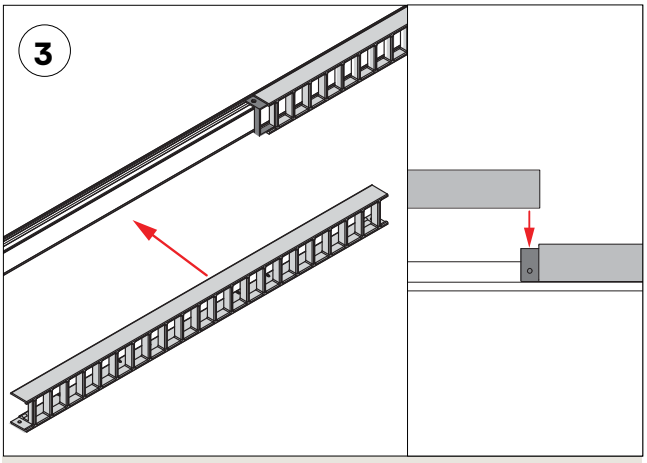


Snap the louver onto the fixture.

NOTE: Tilting the louver and snapping on one end first, then pressing down on the remaining length makes for an easier install.



Snap the louver connector onto the fixture, then slide it into the end of the mounted louver.



Snap the next louver onto the fixture and over the connector, the louver can also be slid into the connector.

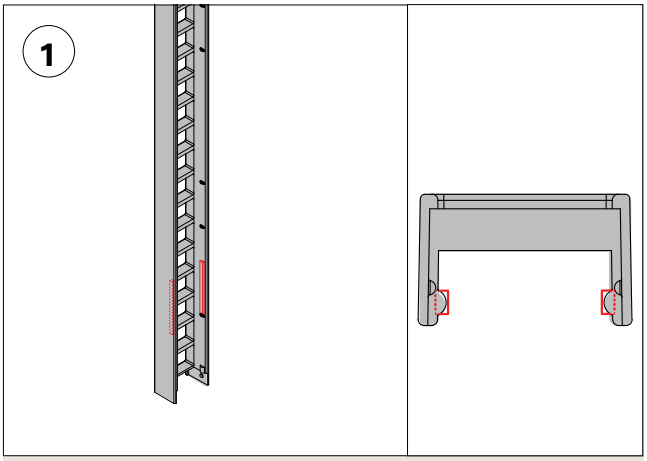
NOTE: These plastic louvers are field-cuttable. We recommend trimming the last segment as needed and positioning the cut end at the fixture's edge for a clean finish.

© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

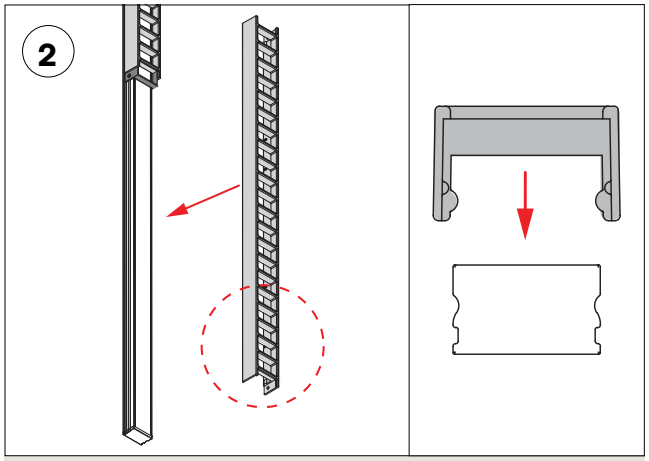
INSTALL METHOD: **LOUVER-GASKET**

Louvers can be snapped onto the fixture either before or after it is mounted to the surface using the provided mounting clip.

- When the fixture is mounted vertically, install a pair of gaskets on the inner side of the lowest louver to act as a stopper.



Remove the adhesive backing on the gasket, then place one on each side of the louver's inner walls, towards the bottom edge.



Snap last louver onto the fixture (should be lowest louver on fixture, when mounted vertically).

© 2025 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

ESSENTIALS LALO-OPTICS-SW(02)

Linear Fixtures Color Data

LL2SW-5.0-30-DRY-STD-17

3118 K

CRI: 98.2

CRI R9: 96.9

TM30 Rf: 94.2

TM30 Rg: 101.0

CQS: 95.3

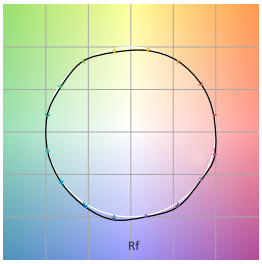
X: 0.427

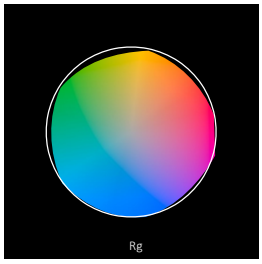
Y: 0.397

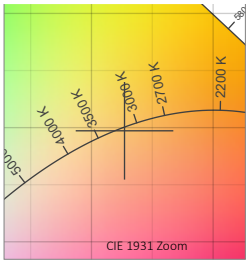
U: 0.247

V: 0.345

Δuv: -0.0014







R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98.0	99.2	96.9	98.8	98.5	96.9	98.4	98.4	96.9	99.2	96.4	82.9	98.1	97.2	98.2
Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Q12**	**Q13**	**Q14**	**Q15**
93.8	97.0	91.6	92.2	95.3	98.3	95.3	97.0	97.3	97.1	97.6	98.4	98.5	96.3	95.7
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**	**C12**	**C13**	**C14**	**C15**	**C16**
96.1	97.8	96.7	95.2	93.6	97.2	93.3	98.0	93.8	90.8	90.7	92.0	95.3	92.9	92.4	90.0

TM30			
Hue Bin	R_f	Chroma	Hue
1	96	-1%	1%
2	98	0%	0%
3	97	0%	0%
4	95	-2%	-1%
5	94	-4%	1%
6	97	0%	1%
7	93	-2%	3%
8	98	0%	1%
9	94	0%	4%
10	91	1%	6%
11	91	3%	6%
12	92	5%	0%
13	95	1%	-3%
14	93	4%	-4%
15	92	0%	-2%
16	90	2%	-8%

NOTES:
- CRI R values, only R1-R8 are used to calculate RA CRI values
- TM30 C values, 16 binned values out of total of 99 C values
- CQS Q values
- Data subject to change, all data has +/- 5% tolerance

© 2024 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

Specification subject to change. Rev-03-04-24

ESSENTIALS LALO-OPTICS-SW-HE(02)

Linear Fixtures Color Data

LL2SW-6.0HE-30-DRY-STD-17

3130 K

CRI: 97.9

CRI R9: 95.5

TM30 Rf: 93.3

TM30 Rg: 100.1

CQS: 94.9

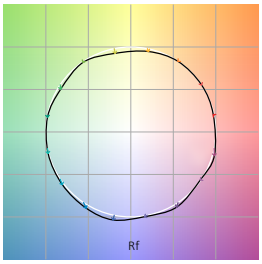
X: 0.426

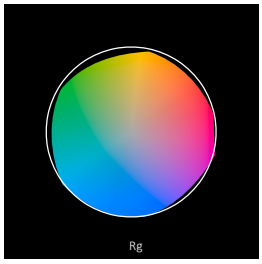
Y: 0.397

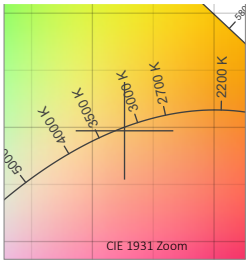
U: 0.247

V: 0.345

Δuv: -0.0013







R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98.1	98.9	97.9	99.3	98.1	96.6	97.3	97.3	95.5	99.7	97.7	81.5	98.1	97.8	98.0
Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Q12**	**Q13**	**Q14**	**Q15**
92.2	96.6	91.9	91.4	93.7	96.5	96.2	97.0	97.7	97.6	97.7	98.3	98.2	96.0	94.9
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**	**C12**	**C13**	**C14**	**C15**	**C16**
95.0	97.2	96.7	93.6	92.8	97.1	91.8	96.8	91.9	88.7	90.1	91.7	94.6	92.5	91.4	89.9

TM30			
Hue Bin	R_f	Chroma	Hue
1	95	-1%	1%
2	97	0%	0%
3	97	0%	0%
4	94	-3%	-2%
5	93	-6%	0%
6	97	-1%	1%
7	92	-3%	4%
8	97	0%	2%
9	92	0%	6%
10	89	1%	7%
11	90	4%	6%
12	92	6%	0%
13	95	1%	-4%
14	92	4%	-4%
15	91	-1%	-2%
16	90	2%	-8%

NOTES:
- CRI R values, only R1-R8 are used to calculate RA CRI values
- TM30 C values, 16 binned values out of total of 99 C values
- CQS Q values
- Data subject to change, all data has +/- 5% tolerance

© 2024 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting

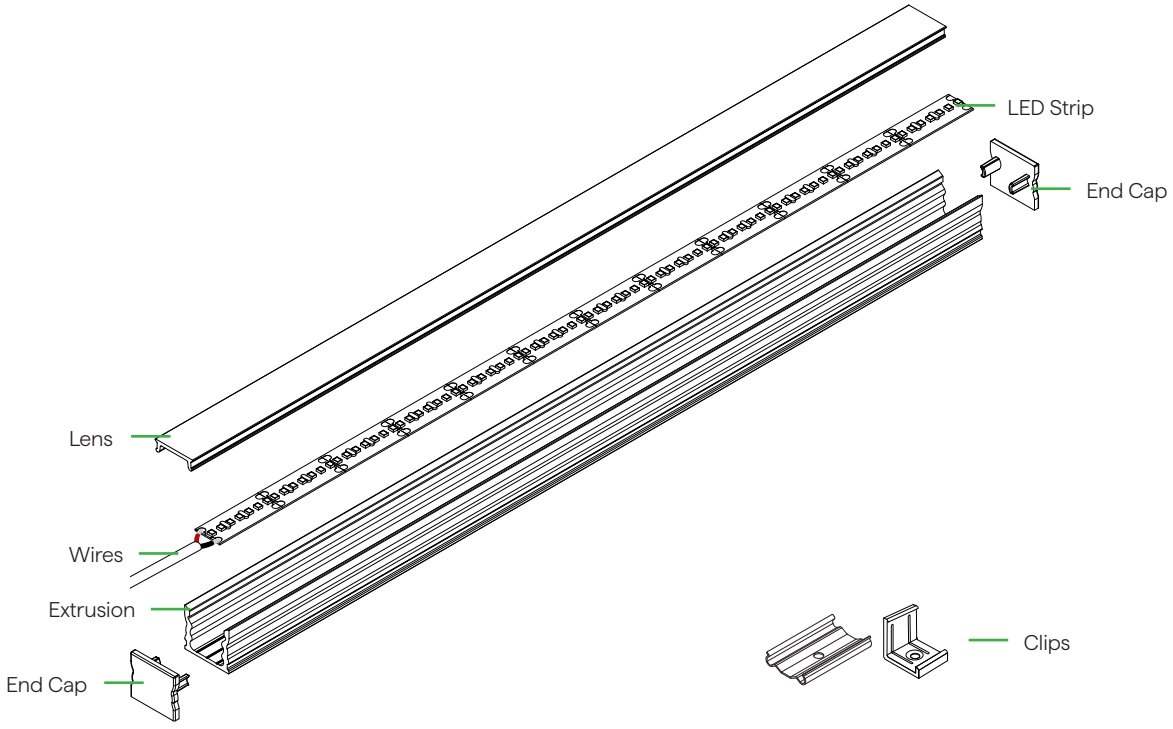
Specification subject to change. Rev-03-04-24

MATERIAL RECYCLING

LINEAR FIXTURES/EXTRUSIONS

You may be done with your products, but chances are they still have more to give. Follow these instructions to break down and sort recyclable components. Check with local recycling collection to ensure they accept the materials listed below.

Additionally, Q-Tran offers a Takeback Program. Contact factory for information.



7	E	41	40
Lens Plastic End Caps Plastic Clips	LED Strip Wires	Extrusion Metal End Caps	Stainless Steel Clips

© 2024 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | QTL.lighting