



ESSENTIALS LALO-FLAT (01)

STATIC COLOR

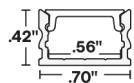
24VDC Linear Fixtures - Surface & Recessed



5 YEAR
WARRANTY



Declare.



- Shallow, low-profile fixture for surface or recessed installations
- Choose from diffused, polar, frosted, or clear lens options for varying diode visibility and beam angles
- Three mounting options
- Features painted end caps to match extrusion finish
- Red, Green, Blue or Amber LEDs available
- FWC Q-Tran Red & Amber LED products are Florida Fish and Wildlife Conservation Commission certified, making them safe for turtles and other wildlife
- 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
LL1SC	5.0			STD	

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: LL1SC-5.0-GR-DRY-STD-DF-P1-BW-BW-BK-CL2-SST-BK-48"-E

1 PRODUCT LL1SC See following pages for compatible power supplies.	2 WATTS/FT 5.0 5.0W/ft	3 CCT A Amber B Blue G Green R Red	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 DF Diffused PR Polar FR Frosted CL Clear 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.	8 CONNECTOR/WIRE IN 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)	10 WIRE COLOR WH White BK Black N/A For Barrel wet barrel only available in black		
PASS THROUGH (Input/output) P1 End Feed P2 Bottom Feed For continuous mounting, consider bottom 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)	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)			
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	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.	

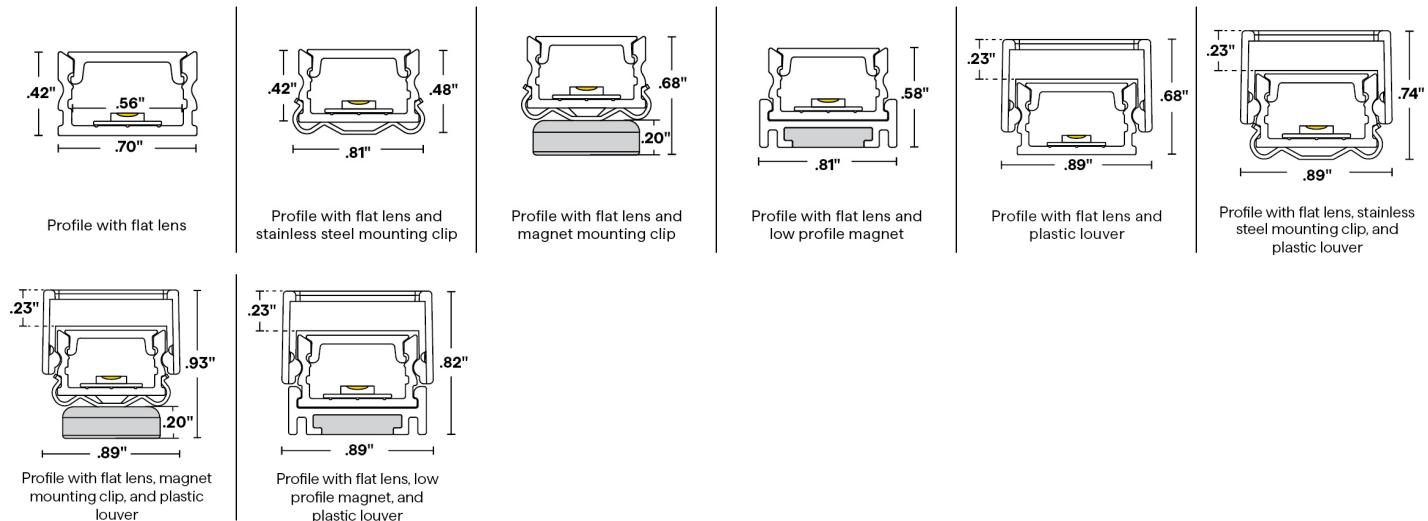
5 year warranty | Warranty only valid with QTL power supplies | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance | FWC rated Strips: DRY and WET rated, Red and Amber



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1 PRODUCT - DIMENSIONS



2 DELIVERED LUMENS

[Calculated L70 = 30000 hrs]
Tested with LL1SC-5.0.**-DRY-STD

	Red		Green		Blue		Amber	
	LM/FT	WAVELENGTH	LM/FT	WAVELENGTH	LM/FT	WAVELENGTH	LM/FT	WAVELENGTH
CL	82	633	444	517	115	466	74	597
FR	82	633	443	517	115	466	74	597
PR	74	633	399	517	103	466	67	597
DF	66	633	358	517	93	466	60	597

6 DIODE VISIBILITY



DF - Diffused lens

PR - Polar lens

FR - Frosted lens

CL - Clear lens

PHOTOMETRIC PERFORMANCE

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



Clear 78°



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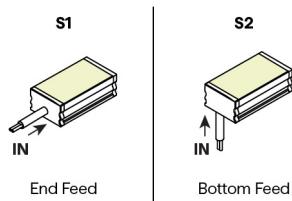
24VDC Linear Fixtures - Surface & Recessed

TEMPERATURE RATINGS

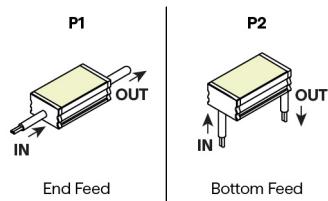
		5.0 W/FT	
		Min	Max
DRY	Ambient Operating Temp - Surface	-4°F	125°F
DMP	Ambient Operating Temp - Surface	-4°F	120°F
WET	Ambient Operating Temp - Surface	-4°F	120°F

7 WIRE INPUT/OUTPUT

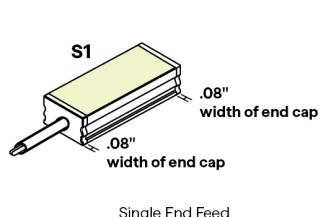
SINGLE (Input only)



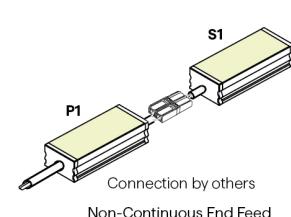
PASS THROUGH (Input/Output)



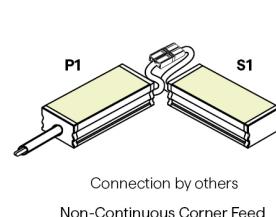
CONFIGURATION OPTIONS



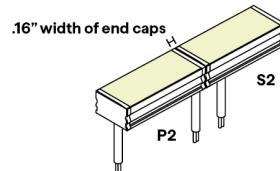
Single End Feed



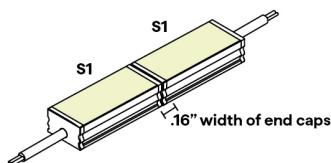
Non-Continuous End Feed



Non-Continuous Corner Feed



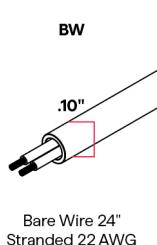
Continuous Bottom Feed



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" Stranded 22 AWG



Barrel 6" - DRY/DMP 22 AWG

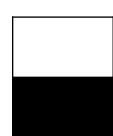


Barrel 6" - WET 22 AWG



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

10 WIRE COLOR



White

Black

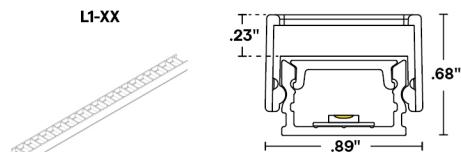
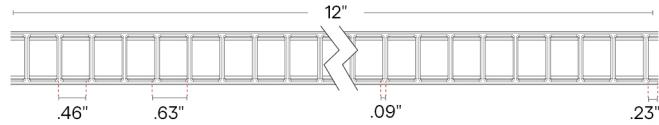


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EXTERNAL LOUVER ACCESSORY

PLASTIC

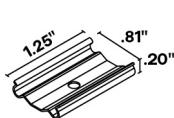


Lumen Multiplier
WH BK
0.72 0.51

Profile with plastic louver
To order separately use
LALO-L1-FLAT-KIT-WH or
LALO-L1-FLAT-KIT-BK

12 MOUNTING

SST



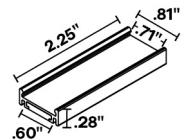
Stainless Steel Clip

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

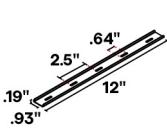


Low Profile Magnet

One M4 provided per foot.

To order separately use
MG-04

MMA-04

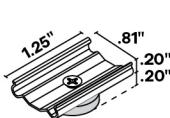


Magnet Mount
Accessory for M4

Sold separately, to order use
MMA-04

Each bracket comes with 2 #6
x 5/8" Flat Head SS

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 color available



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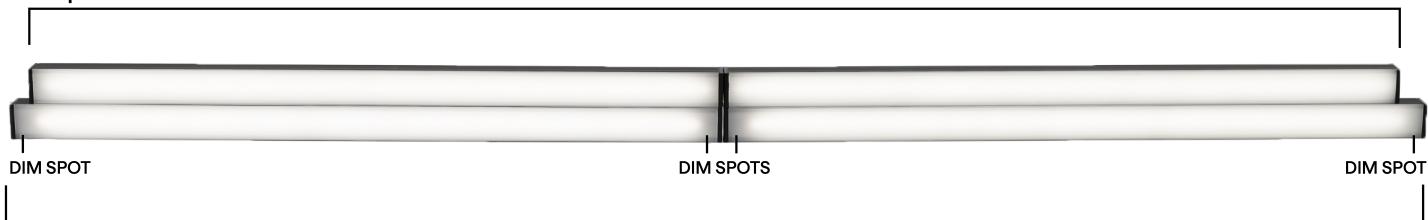
15 EXACT/OPTIMAL FIXTURE LENGTH

[E/O Length Calculator →](#)

[E/O Explained →](#)

Exact fixtures are the exact length specified. Optimal fixtures' length is rounded down based on LED cut points to allow the fixture to be illuminated end to end. For runs with multiple fixtures that need to fill a specific length, it's recommended to order all optimal fixtures with an exact fixture at the end of the run.

Optimal Fixtures



Exact Fixtures

SC DRY, DMP LENGTHS BY INCH

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

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

OPTIMAL LENGTH: highlighted rows are closest to requested nominal length

Requested Nominal Length	S1 & S2		P1 & P2	
	S1 End Feed	S2 Bottom Feed	P1 End Feed	P2 Bottom Feed
12"	10.41"		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"	



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SC WET LENGTHS BY INCH

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

EXACT LENGTH

Requested Length	Potential dim spot on either end of fixture
12"	1"
13"	0.5"
14"	1"
15"	0.5"
16"	1"
17"	0.5"
18"	1"
19"	0.5"
20"	1"
21"	0.5"
22"	1"
23"	0.5"
24"	1"
36"	1"
48"	1"
60"	1"
72"	1"
84"	1"
96"	1"

OPTIMAL LENGTH: highlighted rows are closest to requested nominal length

Requested Nominal Length	S1 & S2		P1 & P2	
	S1 End Feed	S2 Bottom Feed	P1 End Feed	P2 Bottom Feed
12"	10.61"	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	
	SC	SC	SC	SC
Dim to Black	Q6M-DC+CAP QTM-DC+CAP iQ-PH iQ-PH+QD1			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			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			Q-SET+QZ-DALI-DT6
10%	Non-Dim Power Supply with SW App Dongle			

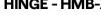


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DIMMING PROTOCOL	INDOOR	OUTDOOR
	SC	SC
Non-Dim	QT-CAB-eLED-ND QTM-eLED-ND QZ-ND	Q-SET-QZ-ND Q-SET-eLED-ND QOM-eLED-ND QZ-ND iQ-ND-50-65
Phase	Q6M-DC+CAP QT-CAB-QZ-PH/0-10V QTM-DC+CAP QTM-eLED(E) QZ-BOWTIE+DIMMER QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP iQ-PH iQ-PH+QD1	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	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	
ECO System	QTM-eLED(E)	
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	Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6
SCENE App Dimmed	Non-Dim Power Supply with SW App Dongle	

COMPATIBLE MOUNTING ACCESSORIES

HINGE - HMB-M	HINGE - HMB-L	HINGE - HMB-XL	Q-PIVOT	Q-ANGLE	QUOVA-STANDARD	VHB	NJ-MEDIUM	SD-L-MEDIUM
 1.41"	 .71"	 1.46" 1.29"	 4" 1.46"	 .75" 1.03"	 2.23" 1.38"			
Adjustable mounting bracket - Medium	Adjustable mounting bracket - Large	Adjustable mounting bracket - XLarge	Small mounting accessory	Adjustable mounting accessory	QUOVA Knife Edge	Double sided mounting tape	J Mounting Bracket	L Mounting Bracket

COMPATIBLE WIRING ACCESSORIES

Q-mini-J  UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)	Q-mini-J5  UL Listed, miniature junction box, DRY/DMP (WET rated with silicone)	BARREL-EXT 	BARREL FOUR-FER 	CON120-EXT 	CON FOUR-FER 	CON M - BARREL F 
2" 1.25"	2.80" 2.27"					