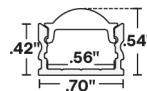
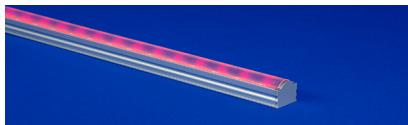




ESSENTIALS LALO-OPTICS (02)

STATIC COLOR

24VDC Linear Fixtures - Surface & Recessed



- 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
- Red, Green, Blue or Amber LEDs available
- 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

1 PRODUCT	2 WATTS/ FT	3 CCT	4 RATED	5 EFFICIENCY	6 LENS	7 EXTERNAL LOUVER	8 WIRE INPUT/ OUTPUT	9 CONNECTOR / WIRE IN	10 CONNECTOR / WIRE OUT	11 WIRE COLOR	12 WIRE TYPE	13 MOUNTING	14 FINISH	15 LENGTH (IN)	16 EXACT/ OPTIMAL
LL2SC	5.0			STD	17DEG										

Sample Part Number: LL2SC-5.0-GR-DRY-STD-17-P1-BW-BW-BK-CL2-SST-BK-48"-E

1 PRODUCT LL2SC 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	5 EFFICIENCY STD Standard	6 LENS 17DEG Optical 17"	7 EXTERNAL LOUVER L1-WH White Plastic L1-BK Black Plastic N/A No Louver Louvers are shipped separately and require field assembly
8 WIRE INPUT/OUTPUT S1 Single 1 (Input only) - End Feed S2 Single 2 (Input only) - Bottom Feed For continuous mounting, consider bottom feed.	9 CONNECTOR/WIRE IN BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24" Connector/Wire In not needed to specify product. Typical selection is BW. BW: Standard length is 24". Max length is 120". Request custom length by writing in part number next to BW (example: BW48)	10 CONNECTOR/WIRE OUT CLS Closed End (No feed)	11 WIRE COLOR WH White BK Black N/A For Barrel wet barrel only available in black			
P1 Pass Through 1 (Input/output) - End Feed P2 Pass Through 2 (Input/output) - Bottom Feed For continuous mounting, consider bottom feed.	BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24" Connector/Wire In not needed to specify product. Typical selection is BW. BW: Standard length is 24". Max length is 120". Request custom length by writing in part number next to BW (example: BW48)	BW Bare Wire (Standard 24") BRL Barrel CON6 Connector 6" CON24 Connector 24" Connector/Wire Out not needed to specify product. Typical selection is CLS or BW. BW: Standard length is 24". Max length is 120". Request custom length by writing in part number next to BW (example: BW48)				
12 WIRE TYPE CL2 Class 2 CL2P Plenum Rated N/A For Barrel CL2P only available with bare wire leads (BW)	13 MOUNTING SST Stainless Steel M4 Low Profile Magnet MG Magnet	14 FINISH ST Satin BK Black CU Custom	15 LENGTH (IN) Fixture length min 12", max 98.43" not including end caps. Tolerance +0 - 1/8". Consult factory for lengths under 12".	16 EXACT/OPTIMAL O Optimal Illumination E Exact Specified Length Exact fixtures are the exact length specified +0 - 1/8". Optimal fixtures' length is rounded down with illumination end to end. See Exact/Optimal Fixture Length charts.		

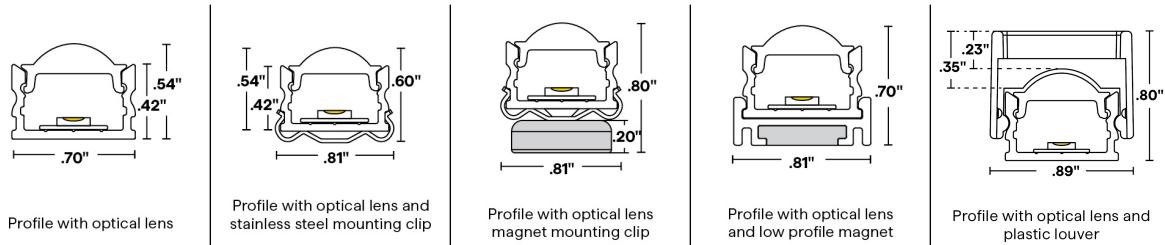
5 year warranty | Warranty only valid with QTL power supplies | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance | FWC rated Strips: DRY and WET rated, Red and Amber



ESSENTIALS LALO-OPTICS (02) STATIC COLOR

24VDC Linear Fixtures - Surface & Recessed

1 PRODUCT - DIMENSIONS



2 DELIVERED LUMENS

[Calculated L70 = 30000 hrs]
Tested with LL2SC-5.0-**-DRY-STD

	Red		Green		Blue		Amber	
	LM/FT	WAVELENGTH	LM/FT	WAVELENGTH	LM/FT	WAVELENGTH	LM/FT	WAVELENGTH
17	90	633	485	517	126	466	81	597

6 DIODE VISIBILITY

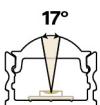


Optical lens

PHOTOMETRIC PERFORMANCE

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

17DEG



Optical 17°

TEMPERATURE RATINGS

	Ambient Operating Temp - Surface	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

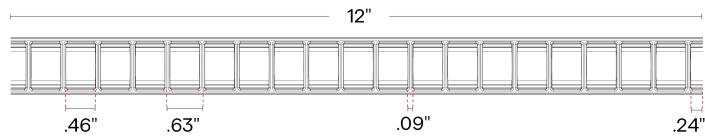


ESSENTIALS LALO-OPTICS (02) STATIC COLOR

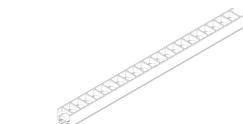
24VDC Linear Fixtures - Surface & Recessed

7 EXTERNAL LOUVER

PLASTIC



L1-XX



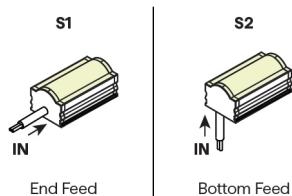
Lumen Multiplier

WH BK

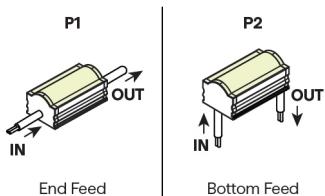
0.72 0.53

8 WIRE INPUT/OUTPUT

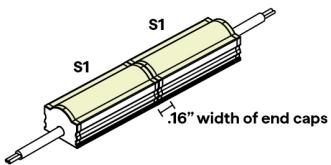
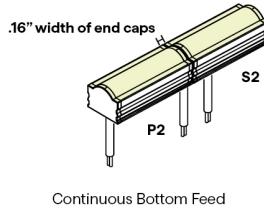
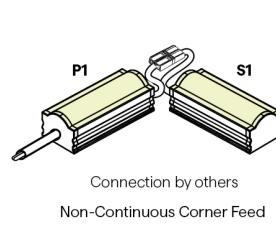
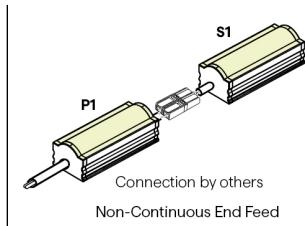
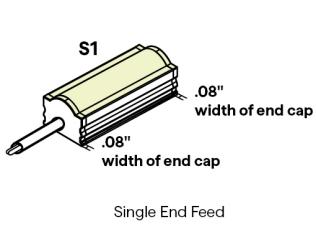
SINGLE (Input only)



PASS THROUGH (Input/Output)



CONFIGURATION OPTIONS



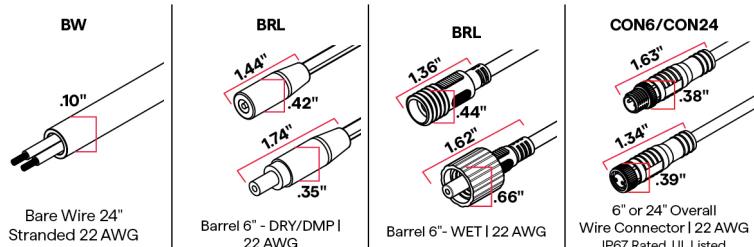


ESSENTIALS LALO-OPTICS (02) STATIC COLOR

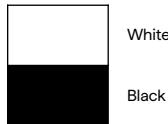
24VDC Linear Fixtures - Surface & Recessed

9 / 10 CONNECTOR/WIRE - IN/OUT

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



11 WIRE COLOR



13 MOUNTING

SST	M4	MMA-04	MG
1.25" x .81" x .20" (dimensions)	2.25" x .71" x .28" (dimensions)	.64" x 12" (dimensions)	1.25" x .81" x .20" (dimensions)
Stainless Steel Clip	Low Profile Magnet	Magnet Mount Accessory for M4	Magnet 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	One M4 provided per foot. To order separately use MG-04	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	One MG provided per foot To order separately use MG-01

14 FINISH



Custom color available

MMA-01

.64" x 12" (dimensions)	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-OPTICS (02) STATIC COLOR

24VDC Linear Fixtures - Surface & Recessed

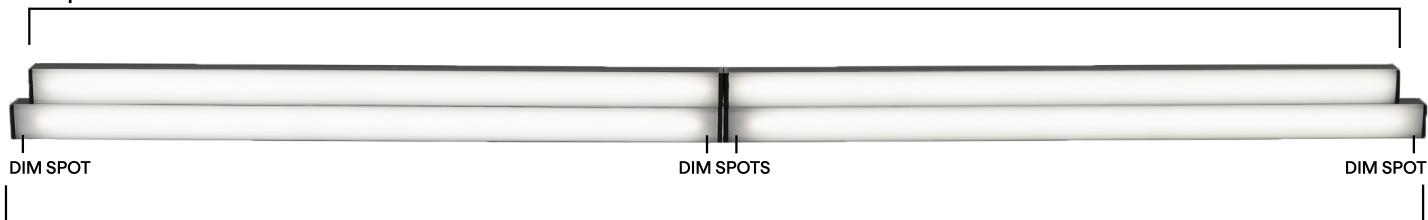
16 EXACT/OPTIMAL FIXTURE LENGTH

[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"	



ESSENTIALS LALO-OPTICS (02) STATIC COLOR

24VDC Linear Fixtures - Surface & Recessed

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	
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 QTM-eLED+0-10V QTM-eLED+0-10V-AWN QZ-BOWTIE+DIMMER QZ-DMX QZ-PH/0-10V QZ-STICK-PH/0-10V QZLP			Q-SET-QZ-DMX Q-SET-QZ-PH/0-10V Q-SET-eLED+0-10V QOM-eLED+0-10V QZ-DMX QZ-PH/0-10V
1%	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT6-AWN QTM-eLED(E) QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT6-AWN QZ-DALI-DT6			Q-SET+QZ-DALI-DT6 QOM-eLED+DALI-DT6 QOM-eLED+PS-DALI-DT6
10%	Non-Dim Power Supply with SW App Dongle			

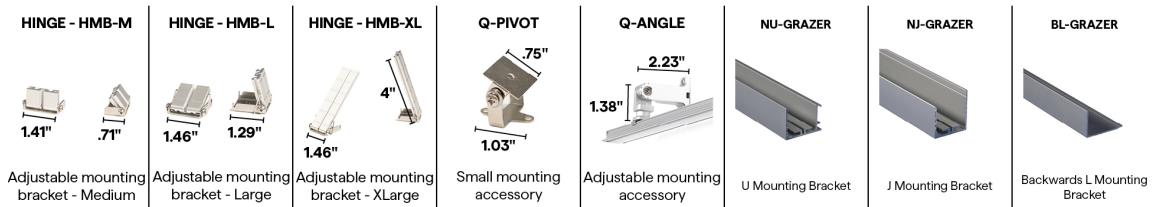


ESSENTIALS LALO-OPTICS (02) STATIC COLOR

24VDC Linear Fixtures - Surface & Recessed

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



COMPATIBLE WIRING ACCESSORIES

