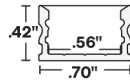
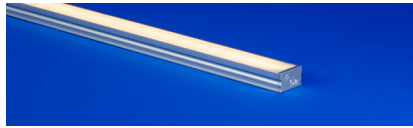




ESSENTIALS LALO- ENCAPSULATED (03) FOR TUNABLE APPLICATIONS

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
- Used in applications where CCT and brightness need to be controlled separately
- When using DALI and DMX power supplies, LED wattage must be doubled
- Optional plastic louver accessory available in white or black for added glare control



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PRODUCT	WATTS/ FT	CCT	RATED	EFFICIENCY	LENS	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
			ENC	STD												

Sample Part Number: LL3DW-6.0-24/30-ENC-STD-TL-P1-BW-BW-STD-STD-BK-CL2-SST-ST-48"-E

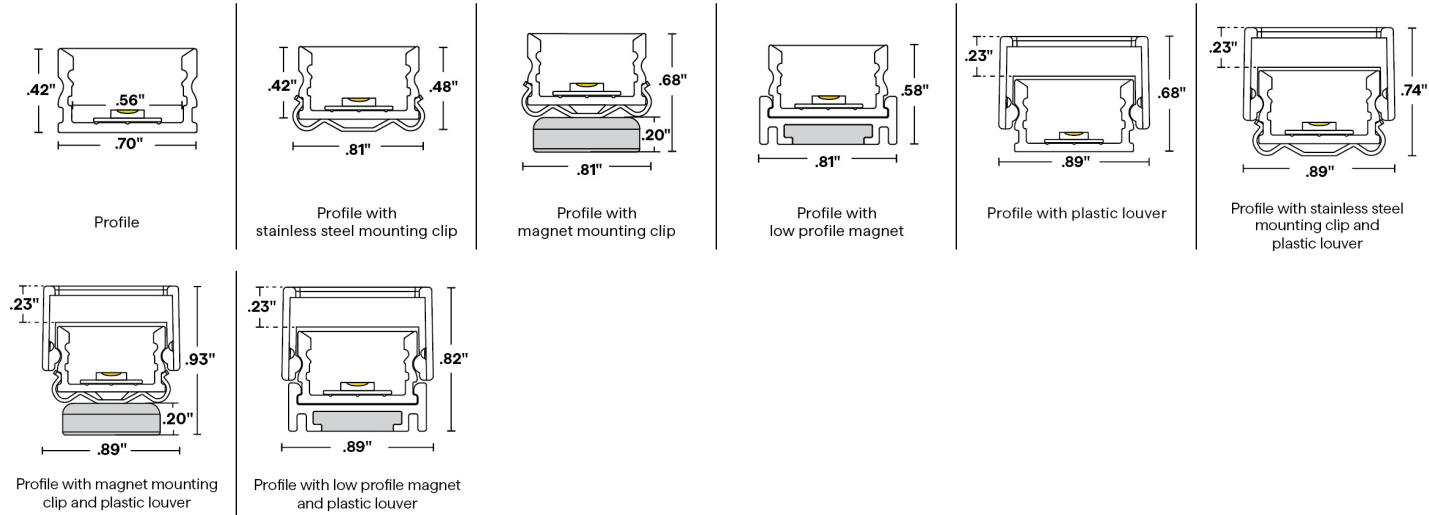
1 PRODUCT LL3DW LL3DW-USA Select USA option for BAA and BABA projects. LED engine is built with 3 wires requiring 0-10V, DMX or DALI control. Using DALI, DMX, or non QTL power supplies may double watts/ft. See following pages for compatible power supplies.	2 WATTS/FT 1.5HE 1.5W/ft HE 2.5HE 2.5W/ft HE	3 CCT 24/30 2400K/3000K 27/40 2700K/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 S1 Single 1 (Input only) - End Feed S2 Single 2 (Input only) - Bottom Feed P1 Pass Through 1 (Input/output) - End Feed P2 Pass Through 2 (Input/output) - Bottom Feed	8 CONNECTOR/WIRE IN BW Bare Wire (Standard 24") CON6 Connector 6" CON24 Connector 24" BW Bare Wire (Standard 24") CON6 Connector 6" CON24 Connector 24"	9 CONNECTOR/WIRE OUT CLS Closed End (No feed) BW Bare Wire (Standard 24") CON6 Connector 6" CON24 Connector 24"	For continuous mounting, consider bottom feed BW: Standard length is 24". Max length is 120". Request custom length by writing in part number next to BW (example: BW48) 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 White BK Black	13 WIRE TYPE CL2 Class 2 CL2P Plenum Rated CL2P only available with bare wire leads (BW)		
14 MOUNTING SST Stainless Steel M4 Low Profile Magnet MG Magnet	15 FINISH ST Satin BK Black CU 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 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.		



ESSENTIALS LALO-ENCAPSULATED (03) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Surface & Recessed

1 PRODUCT - DIMENSIONS

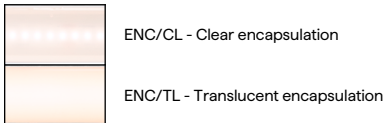


2 DELIVERED LUMENS

[Calculated L70 = 40000 hrs]
Tested with LL3DW-**-30-ENC-STD

	1.5HE W/FT		2.5HE W/FT	
	LM/FT	CRI	LM/FT	CRI
CL	105	98	166	98
TL	60	98	94	98

6 DIODE VISIBILITY



TEMPERATURE RATINGS

	DW 1.5 HE W/FT		DW 3.0 HE W/FT		DW 2.5 HE W/FT		DW 5.0 HE W/FT	
	QTL power supply other than DALI, DMX		DALI, DMX, or non-QTL power supply		QTL power supply other than DALI, DMX		DALI, DMX, or non-QTL power supply	
	Min	Max	Min	Max	Min	Max	Min	Max
Ambient Operating Temp - Surface	-4°F	135°F	-4°F	120°F	-4°F	125°F	-4°F	105°F

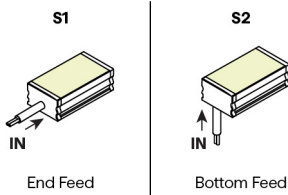


ESSENTIALS LALO-ENCAPSULATED (03) FOR TUNABLE APPLICATIONS

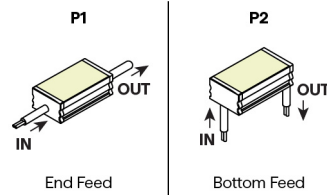
24VDC Linear Fixtures - Surface & Recessed

7 WIRE INPUT/OUTPUT

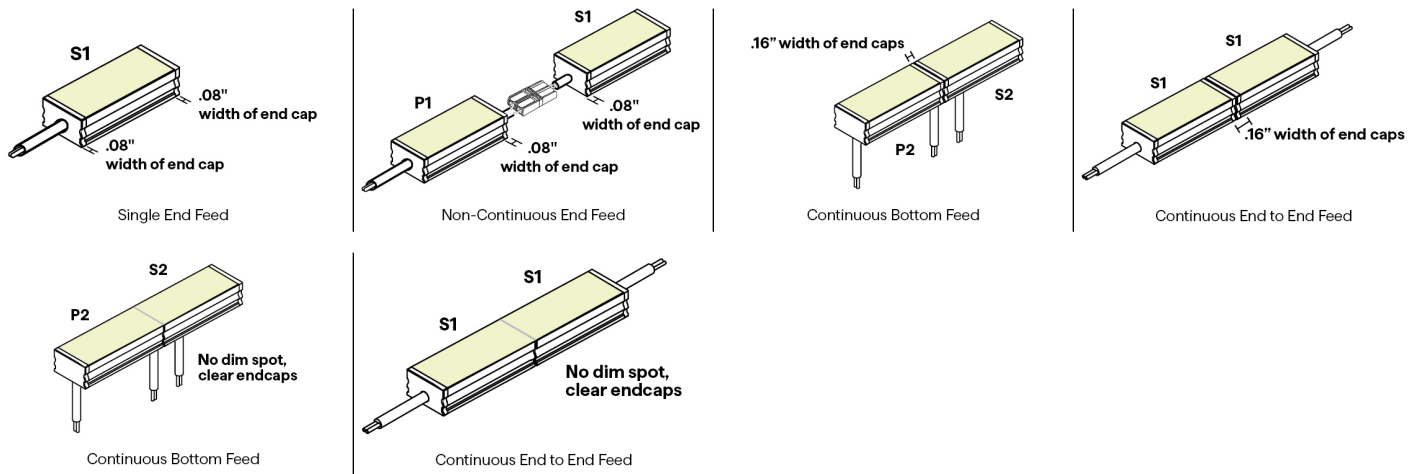
SINGLE (Input only)



PASS THROUGH (Input/Output)

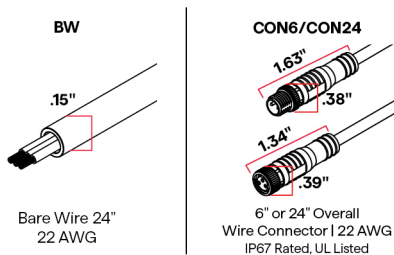


CONFIGURATION OPTIONS

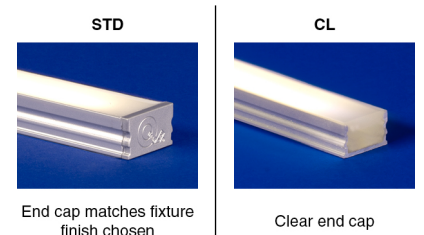


8 / 9 CONNECTOR/WIRE - IN/OUT

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



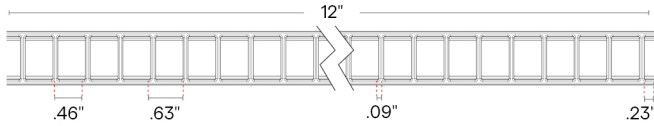


ESSENTIALS LALO-ENCAPSULATED (03) FOR TUNABLE APPLICATIONS

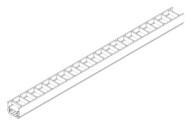
24VDC Linear Fixtures - Surface & Recessed

EXTERNAL LOUVER ACCESSORY

PLASTIC



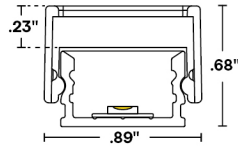
L1-XX



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

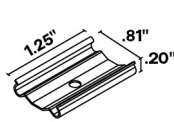


White

Black

14 MOUNTING

SST



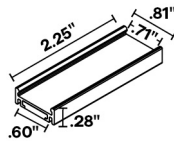
Stainless Steel Clip

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

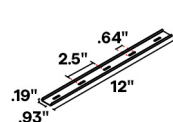


Low Profile Magnet

One M4 provided per foot.

To order separately use
MG-04

MMA-04



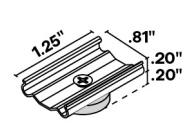
Magnet Mount
Accessory for M4

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

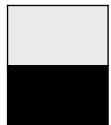


Magnet Clip

One MG provided per foot

To order separately use MG-01

15 FINISH

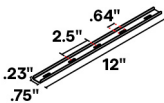


Satin

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) FOR TUNABLE APPLICATIONS

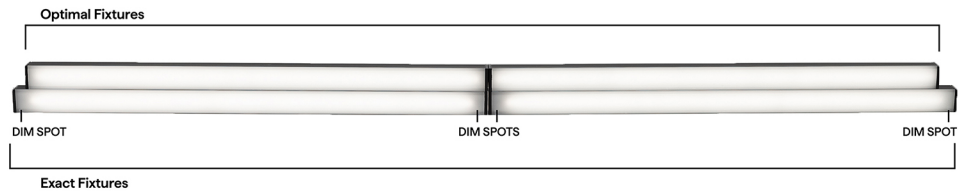
24VDC Linear Fixtures - Surface & Recessed

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.



DW-HE ENC LENGTHS BY INCH

EXACT LENGTH

Requested Length	Potential dim spot on either end of a S1 fixture
	S1
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	
	S1	S2	P1	P2
12"	10.51"		10.86"	
13"	12.51"		12.86"	
14"	12.51"		12.86"	
15"	14.51"		14.86"	
16"	14.51"		14.86"	
17"	16.51"		16.86"	
18"	16.51"		16.86"	
19"	18.51"		18.86"	
20"	18.51"		18.86"	
21"	20.51"		20.86"	
22"	20.51"		20.86"	
23"	22.51"		22.86"	
24"	22.51"		22.86"	
36"	34.51"		34.86"	
48"	46.51"		46.86"	
60"	58.51"		58.86"	
72"	70.51"		70.86"	
84"	82.51"		82.86"	
96"	94.51"		94.86"	



ESSENTIALS LALO-ENCAPSULATED (03) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Surface & Recessed

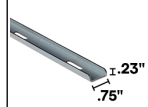
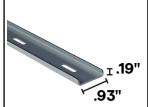
COMPATIBLE POWER SUPPLIES

See power supplies cut sheets for more information. Data subject to change, all data has +/- 5% tolerance.

DIM TO LEVEL	INDOOR	OUTDOOR
	DW-HE Tunable Applications	DW-HE Tunable Applications
0.1%	QT-CAB-eLED+DALI-DT6 QT-CAB-eLED+DALI-DT8 QT-CAB-eLED+DALI-DT8-AWN QT-CAB-eLED+TW QT-CAB-eLED+TW-AWN QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT8 QTM-eLED+DALI-DT8-AWN QTM-eLED+TW QTM-eLED+TW-AWN QZ-DMX	Q-SET-QZ-DMX QOM-eLED+DALI-DT6 QOM-eLED+DALI-DT8 QOM-eLED+PS-DALI-DT6 QOM-eLED+PS-DALI-DT8 QOM-eLED+TW QZ-DMX
1%	QZ-DALI-DT8	Q-SET+QZ-DALI-DT8 QZ-DALI-DT8
10%	Non-Dim Power Supply with TW App Dongle	

DIMMING PROTOCOL	INDOOR	OUTDOOR
	DW-HE Tunable Applications	DW-HE Tunable Applications
0-10V	QT-CAB-eLED+TW QT-CAB-eLED+TW-AWN QTM-eLED+TW QTM-eLED+TW-AWN	QOM-eLED+TW
Lutron Athena	QT-CAB-eLED+DALI-DT8-AWN QT-CAB-eLED+TW-AWN QTM-eLED+DALI-DT8-AWN QTM-eLED+TW-AWN	
DMX LED wattage must be doubled for DW-HE products	QZ-DMX	Q-SET-QZ-DMX QZ-DMX
DALI-2: DT6 LED wattage must be doubled for DW-HE products except for AWN	QT-CAB-eLED+DALI-DT6 QTM-eLED+DALI-DT6	QOM-eLED+DALI-DT6
DALI-2: DT8 LED wattage must be doubled for DW-HE products except for AWN	QT-CAB-eLED+DALI-DT8 QT-CAB-eLED+DALI-DT8-AWN QTM-eLED+DALI-DT8 QTM-eLED+DALI-DT8-AWN QZ-DALI-DT8	Q-SET+QZ-DALI-DT8 QOM-eLED+DALI-DT8 QZ-DALI-DT8
SCENE App Dimmed	Non-Dim Power Supply with TW App Dongle	

COMPATIBLE MOUNTING ACCESSORIES

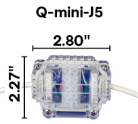
HINGE - HMB-M  1.41" .71" Adjustable mounting bracket - Medium	HINGE - HMB-L  1.46" 1.29" Adjustable mounting bracket - Large	HINGE - HMB-XL  4" 1.46" Adjustable mounting bracket - XLarge	Q-PIVOT  .75" 1.03" Small mounting accessory	Q-ANGLE  2.23" 1.38" Adjustable mounting accessory	NJ-MEDIUM  J Mounting Bracket	MMA-01  1.23" .75" Magnet Mount Accessory of MG-01	MMA-04  1.19" .93" Magnet Mount Accessory of MG-04	SD-L-MEDIUM  L Mounting Bracket
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ESSENTIALS LALO-ENCAPSULATED (03) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Surface & Recessed

COMPATIBLE WIRING ACCESSORIES



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

COMPATIBLE CONTROL ACCESSORIES

SCENE APP DONGLE



Wi-Fi or Bluetooth
Connectivity

COMPATIBLE APPS

NFC APP



Read and write
DMX addresses and
adjust voltage