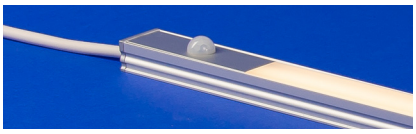
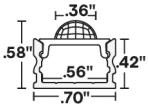
ESSENTIALS LALO-FLAT-OCCUPANCY (01) SW

24VDC Linear Fixtures - Surface & Recessed





- 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
- Flanged design merges light source with surface
- Built-in occupancy sensor
- Detects movement up to 10' away and switches off after no movement is detected for 30 seconds
- Mounting options include stainless steel clips, magnets, and low-profile magnet mounts
- Stainless steel mounting clips
- 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

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
LL1SW-OC			DRY	STD											

Sample Part Number: **LL1SW-OC-5.0-30-DRY-STD-DF-P1-BW-BW-BK-CL2-SST-BK-48"-E**

1 PRODUCT

LL1SW-OC

See following pages for compatible power supplies.

2 WATTS/FT

1.5	1.5W/ft
3.0	3.0W/ft
4.0	4.0W/ft
5.0	5.0W/ft
1.5HE	1.5W/ft HE
3.0HE	3.0W/ft HE
6.0HE	6.0W/ft HE

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

3 CCT

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

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

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.

P1	Pass Through 1 (Input/output) - End Feed
P2	Pass Through 2 (Input/output) - 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)

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)

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)

11 WIRE COLOR

WH	White
BK	Black
N/A	For Barrel

wet barrel only available in black

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".
Max continuous length: 3.0HE+ - 196", 6.0HE+ - 118"

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.

Motion: Auto on | No Motion: 30 second time out | Occupancy Sensor not programmable | Do not install with dimmer | 5 year warranty | Warranty only valid with QTL non-dimming power supplies | Field modifications void warranty | Data subject to change, all data has +/- 5% tolerance

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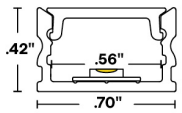
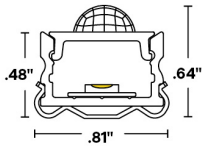
ESSENTIALS LALO-FLAT-OCCUPANCY (01) SW

24VDC Linear Fixtures - Surface & Recessed

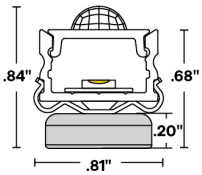
1 PRODUCT - DIMENSIONS



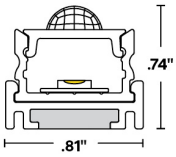
Profile with flat lens



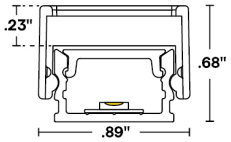
Profile with flat lens, occupancy sensor and stainless steel mounting clip



Profile with flat lens, occupancy sensor, and magnet mounting clip



Profile with flat lens, occupancy sensor, and low profile magnet



Profile with flat lens and plastic louver

2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs, L70 = 50000 for HE+]
Tested with LL1SW-**-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	
	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
CL	143	98	175	98	249	98	321	98	463	92	309	98	376	98	608	98	856	92
FR	142	98	174	98	248	98	320	98	461	92	308	98	375	98	606	98	853	92
PR	134	98	157	98	234	98	288	98	416	92	291	98	354	98	546	98	768	92
DF	120	98	141	98	210	98	259	98	373	92	261	98	318	98	490	98	690	92

6 DIODE VISIBILITY

DF - Diffused lens

PR - Polar lens

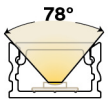
FR - Frosted lens

CL - Clear lens

PHOTOMETRIC PERFORMANCE

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

CL



Clear 78°

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	
		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	130°F	-4	135	-4°F	120°F	-4	125	-13	125	-4°F	115°F	-4°F	110°F	-4	110	-13	110

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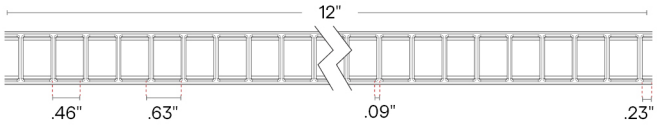
ESSENTIALS LALO-FLAT-OCCUPANCY (01) SW

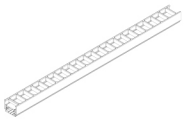
24VDC Linear Fixtures - Surface & Recessed

7 EXTERNAL LOUVER

PLASTIC



L1-XX

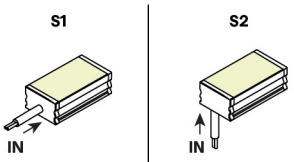


Lumen Multiplier

WH	BK
0.72	0.53

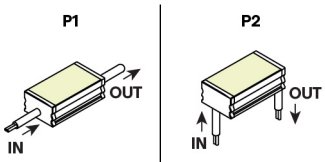
8 WIRE INPUT/OUTPUT

SINGLE (Input only)



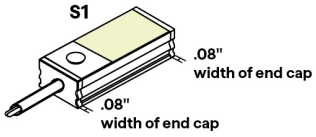
End Feed | Bottom Feed

PASS THROUGH (Input/Output)

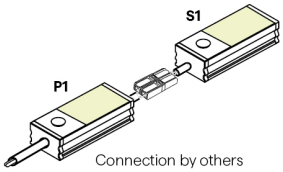


End Feed | Bottom Feed

CONFIGURATION OPTIONS

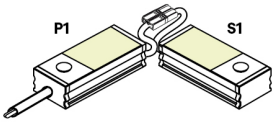


Single End Feed



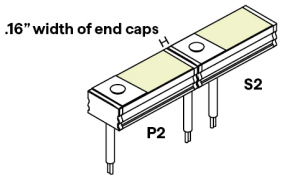
Connection by others

Non-Continuous End Feed

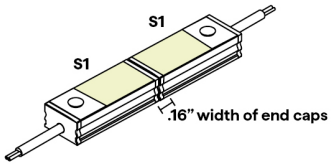


Connection by others

Non-Continuous Corner Feed



Continuous Bottom Feed



Continuous End to End Feed

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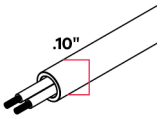
ESSENTIALS LALO-FLAT-OCCUPANCY (01) SW

24VDC Linear Fixtures - Surface & Recessed

9 / 10 CONNECTOR/WIRE – IN/OUT

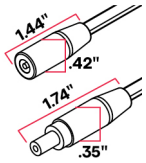
Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out

BW



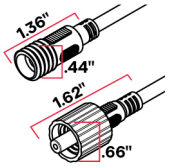
Bare Wire 24"
Stranded 22 AWG

BRL



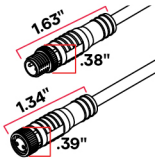
Barrel 6" - DRY/DMP | 22 AWG

BRL



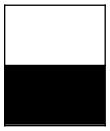
Barrel 6"- WET | 22 AWG

CON6/CON24



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

11 WIRE COLOR

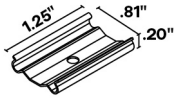


White

Black

13 MOUNTING

SST



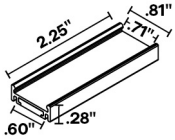
Stainless Steel Clip

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

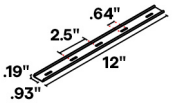


Low Profile Magnet

One M4 provided per foot.

To order separately use MG-04

MMA-04



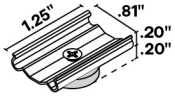
Magnet Mount
Accessory for M4

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

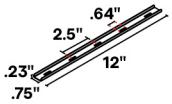


Magnet Clip

One MG provided per foot

To order separately use MG-01

MMA-01



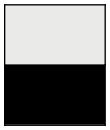
Magnet Mount
Accessory of MG-01

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

14 FINISH



Satin

Black

Custom color available

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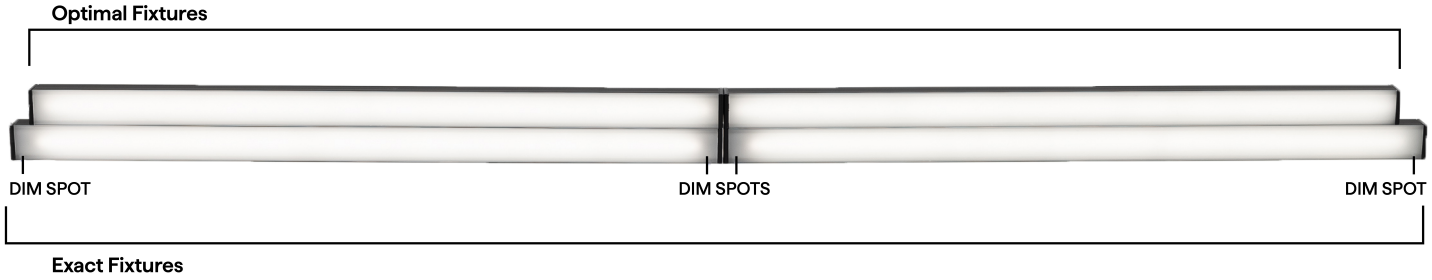
ESSENTIALS LALO-FLAT-OCCUPANCY (01) SW

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.



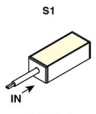
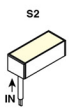
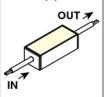
SW DRY, DMP LENGTHS BY INCH

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"	.5"
13"	.5"
14"	.5"
15"	.5"
16"	.5"
17"	.5"
18"	.5"
19"	.5"
20"	.5"
21"	.5"
22"	.5"
23"	.5"
24"	.5"
36"	.5"
48"	.5"
60"	.5"
72"	.5"
84"	.5"
96"	.5"

OPTIMAL LENGTH

Requested Nominal Length	S1 & S2		P1 & P2	
	S1  End Feed	S2  Bottom Feed	P1  End Feed	P2 Bottom Feed
12"	11.5"		11.75"	
13"	12.5"		12.75"	
14"	13.5"		13.75"	
15"	14.5"		14.75"	
16"	15.5"		15.75"	
17"	16.5"		16.75"	
18"	17.5"		17.75"	
19"	18.5"		18.75"	
20"	19.5"		19.75"	
21"	20.5"		20.75"	
22"	21.5"		21.75"	
23"	22.5"		22.75"	
24"	23.5"		23.75"	
36"	35.5"		35.75"	
48"	47.5"		47.75"	
60"	59.5"		59.75"	
72"	71.5"		71.75"	
84"	83.5"		83.75"	
96"	95.5"		95.75"	

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ESSENTIALS LALO-FLAT-OCCUPANCY (01) SW

24VDC Linear Fixtures - Surface & Recessed

SW-HE, SW-HE+ DRY 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 (IN, End Feed)	S2 (IN, Bottom Feed)	P1 (IN, OUT, End Feed)	P2 (IN, OUT, Bottom Feed)
12"	10.5"		10.75"	
13"	12.5"		12.75"	
14"	12.5"		12.75"	
15"	14.5"		14.75"	
16"	14.5"		14.75"	
17"	16.5"		16.75"	
18"	16.5"		16.75"	
19"	18.5"		18.75"	
20"	18.5"		18.75"	
21"	20.5"		20.75"	
22"	20.5"		20.75"	
23"	22.5"		22.75"	
24"	22.5"		22.75"	
36"	34.5"		34.75"	
48"	46.5"		46.75"	
60"	58.5"		58.75"	
72"	70.5"		70.75"	
84"	82.5"		82.75"	
96"	94.5"		94.75"	

COMPATIBLE POWER SUPPLIES

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

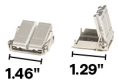
DIMMING PROTOCOL	INDOOR	
	SW24/1.5-4.0	SW24/5.0, SW-HE, SW-HE+
Non-Dim	QTM-eLED-ND QZ-ND	QTM-eLED-ND QZ-ND

COMPATIBLE MOUNTING ACCESSORIES

HINGE - HMB-M

Adjustable mounting bracket - Medium

HINGE - HMB-L



Adjustable mounting bracket - Large

HINGE - HMB-XL

Adjustable mounting bracket - XLarge

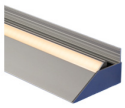
Q-PIVOT

Small mounting accessory

Q-ANGLE

Adjustable mounting accessory

QUOVA-STANDARD



QUOVA Knife Edge

NJ-MEDIUM

J Mounting Bracket

SD-L-MEDIUM

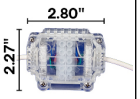
L Mounting Bracket

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

8ft barrel cable extender
DRY ONLY

BARREL FOUR-FER

Splits lead from one to four LED Barrel connector fixtures, DRY/DMP

CON120-EXT

10ft Con cable extender
DRY/DMP/WET

CON FOUR-FER

Splits lead from one to four LED Con connectors
DRY/DMP/WET

CON M - BARREL F

Male con to barrel cable adaptor
DRY/DMP

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