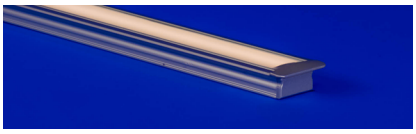
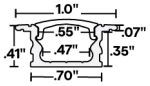
ESSENTIALS LATO-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed





- Shallow flanged recessed fixture
- Choose from diffused, polar, or frosted lens options for varying diode visibility and beam angles
- Flanged design merges light source with surface
- 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
- Used in applications where CCT and brightness need to be controlled separately
- When using DALI and DMX power supplies, LED wattage must be doubled

INFORMATION REQUIRED FOR LIGHTING SCHEDULE

1	2	3	4	5	6
PRODUCT	WATTS/ FT	CCT	RATED	EFFICIENCY	LENS

ADDITIONAL INFORMATION REQUIRED TO ORDER

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

Sample Part Number: **LT1DW-2.5HE-20/30-DRY-WO-DF-P1-BW-BW-BK-CL2-SST-BK-48"-E**

1 PRODUCT

LT1DW
LT1DW-USA

Select USA option for BAA and BABA projects. Only DRY ratings apply.

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

18/30	1800K/3000K
18/35	1800K/3500K
20/27	2000K/2700K
20/30	2000K/3000K
24/40	2400K/4000K
27/40	2700K/4000K
27/55	2700K/5500K

4 RATED

DRY	IP20
DMP	IP54

5 EFFICIENCY

STD	Standard
WO	White Optics

WhiteOptics - Internal coating, greater lumen output

6 LENS

DF	Diffused
PR	Polar
FR	Frosted

For representation of LED visibility, see Diode Visibility section on following pages. For beam angles, see Photometric Performance 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")
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")
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

11 WIRE TYPE

CL2	Class 2
CL2P	Plenum Rated

CL2P only available with bare wire leads (BW)

12 MOUNTING

SST	Stainless Steel

13 FINISH

ST	Satin
BK	Black
BZ	Bronze
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.

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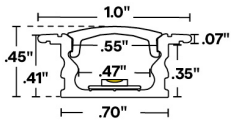
Specification subject to change. Rev-05-07-26

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

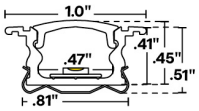
ESSENTIALS LATO-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

1 PRODUCT - DIMENSIONS



Profile with flat lens



Profile with stainless steel mounting clip

2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs]
Tested with LT1DW-**-30-DRY-STD

	1.5HE W/FT		2.5HE W/FT	
	LM/FT	CRI	LM/FT	CRI
FR	137	98	217	98
PR	115	98	181	98
DF	109	98	172	98

[Calculated L70 = 70000 hrs]
Tested with LT1DW-**-30-DRY-WO

	1.5HE W/FT		2.5HE W/FT	
	LM/FT	CRI	LM/FT	CRI
FR	147	98	232	98
PR	137	98	216	98
DF	117	98	185	98

6 DIODE VISIBILITY



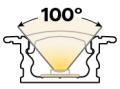
DF - Diffused lens

PR - Polar lens

FR - Frosted lens

PHOTOMETRIC PERFORMANCE

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



100°

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ESSENTIALS LATO-FLAT (01) FOR TUNABLE APPLICATIONS

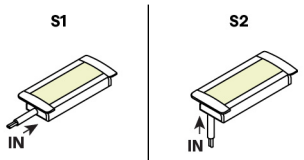
24VDC Linear Fixtures - Recessed

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
DRY	Ambient Operating Temp - Recessed	-4°F	140°F	-4°F	125°F	-4°F	130°F	-4°F	110°F
	Ambient Operating Temp - Surface	**	**	**	**	**	**	**	**
DMP	Ambient Operating Temp - Recessed	-4°F	140°F	-4°F	125°F	-4°F	130°F	-4°F	110°F
	Ambient Operating Temp - Surface	**	**	**	**	**	**	**	**

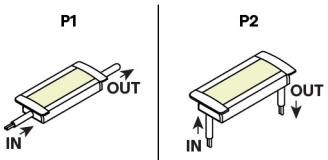
7 WIRE INPUT/OUTPUT

SINGLE (Input only)



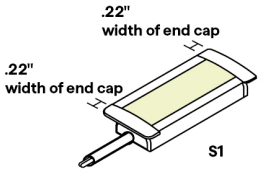
End Feed | Bottom Feed

PASS THROUGH (Input/Output)

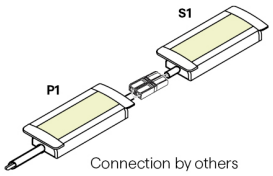


End Feed | Bottom Feed

CONFIGURATION OPTIONS

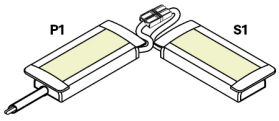


Single End Feed



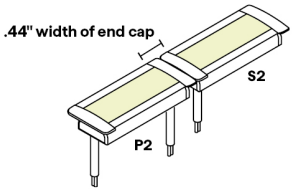
Connection by others

Non-Continuous End Feed

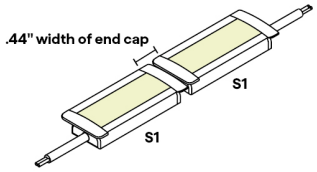


Connection by others

Non-Continuous Corner Feed



Non-Continuous Bottom Feed



Non-Continuous End to End Feed

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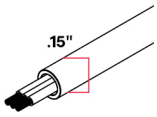
ESSENTIALS LATO-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

8/9 CONNECTOR/WIRE – IN/OUT

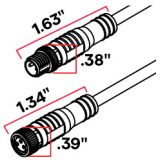
Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out

BW



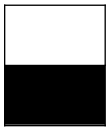
Bare Wire 24"
22 AWG

CON6/CON24



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

10 WIRE COLOR

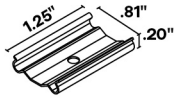


White

Black

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

13 FINISH



Satin

Black

Bronze

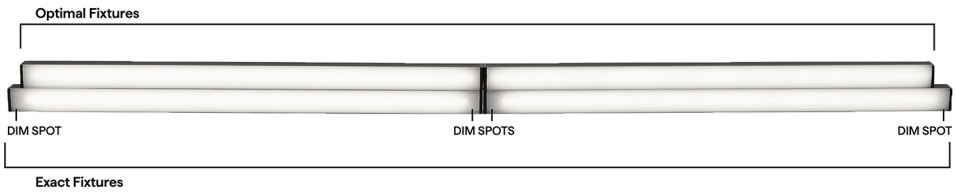
Custom finishes require a longer lead time, consult factory

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.



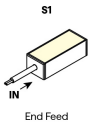
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ESSENTIALS LATO-FLAT (01) FOR TUNABLE APPLICATIONS

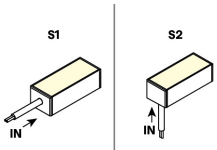
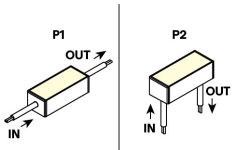
24VDC Linear Fixtures - Recessed

DW-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  End Feed / Bottom Feed	P1 & P2  End Feed / Bottom Feed
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"

COMPATIBLE POWER SUPPLIES

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

DIM TO LEVEL	INDOOR
	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 QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT8 QTM-eLED+DALI-DT8-AWN QTM-eLED+TW QZ-DMX
1%	QZ-DALI-DT8
10%	Non-Dim Power Supply with TW App Dongle

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ESSENTIALS LATO-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

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

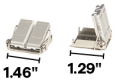
COMPATIBLE MOUNTING ACCESSORIES

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

VHB



Double sided mounting tape

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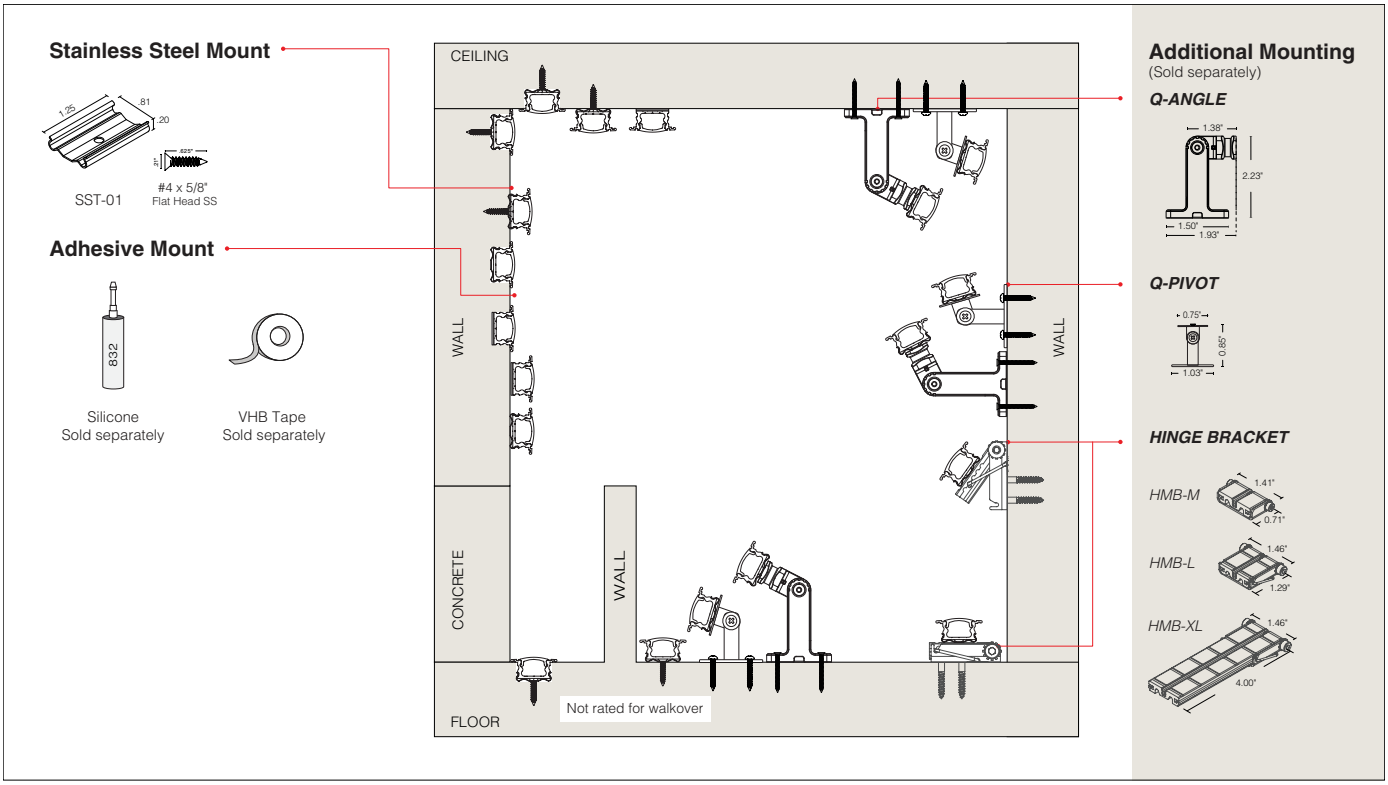
ESSENTIALS LATO

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
- 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 Methods

- VHB Mount (page 4-5)
- Silicone Mount (page 6)
- Screw Mount (page 7)

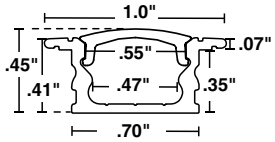
Recessed Mounting Methods

- VHB Mount : Millwork (page 8)
- Silicone Mount : Millwork (page 9)
- Screw Mount : Millwork (page 10)

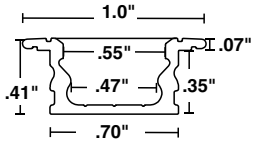
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ESSENTIALS LATO

Linear Fixture Installation Instructions



LATO-01

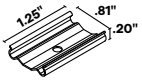


LATO-03

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'

ACCESSORIES SOLD SEPARATELY

HINGE BRACKET; sold individually

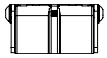
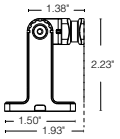


Image shows HMB-M

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
• 4 SS #6x1.25" Flat head wood screws
• 2 SS 4-40 Flat head clip screws
• 2 SS 6-32 Fillister screws

Q-PIVOT; sold in pairs

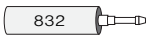


Q-PIVOT

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

ADHESIVE SOLD SEPARATELY

SILICONE



DOWSIL 832

VHB TAPE; sold in 15' increments



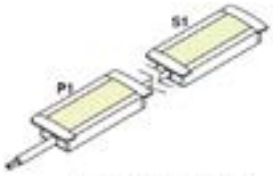
TAPE-VHB-IP20

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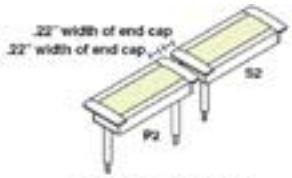
CONTINUOUS WIRING CONFIGURATION OPTIONS



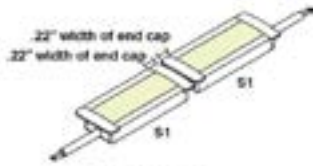
Single End Feed



Non-Continuous End Feed



Non-Continuous Bottom Feed



End to End Feed

Review wire method to ensure clean installation prior to mounting extrusion.

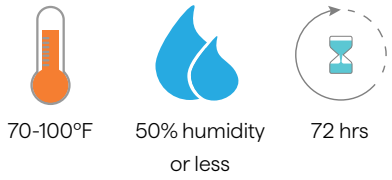
NOTE: Additional wire methods include:
S1, S2: Connector/Wire Input only
P1, P2: Connector/Wire Input and Output

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SURFACE MOUNTING METHOD

SURFACE PREPARATION

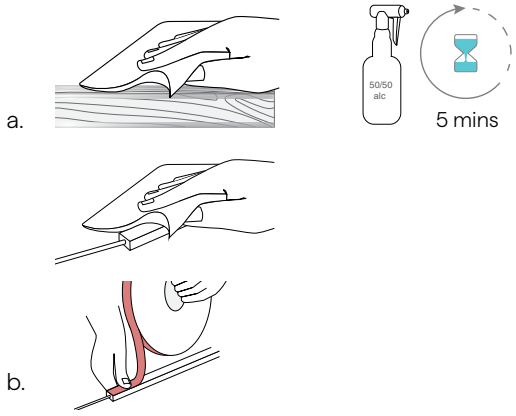
1



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.

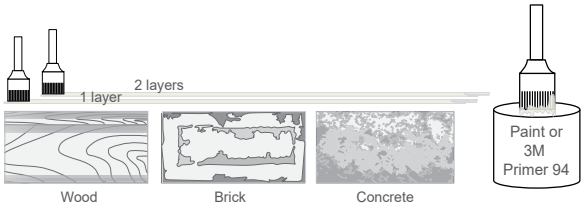
2



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



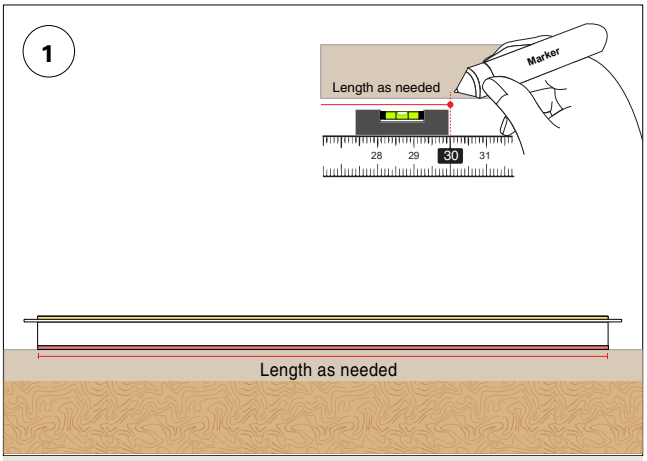
For porous materials (Wood, Brick, Concrete etc.) apply two layers of paint or primer to the surface. This will help create a better bonding surface for these materials. These can be purchased from a local hardware store.

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

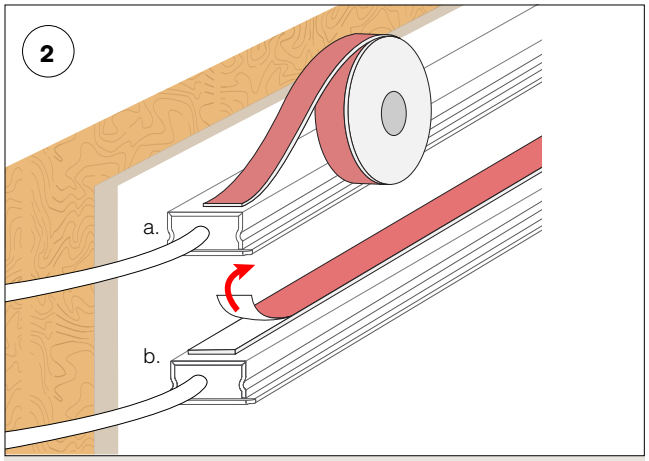
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SURFACE MOUNTING METHOD: **VHB ADHESIVE MOUNT**

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

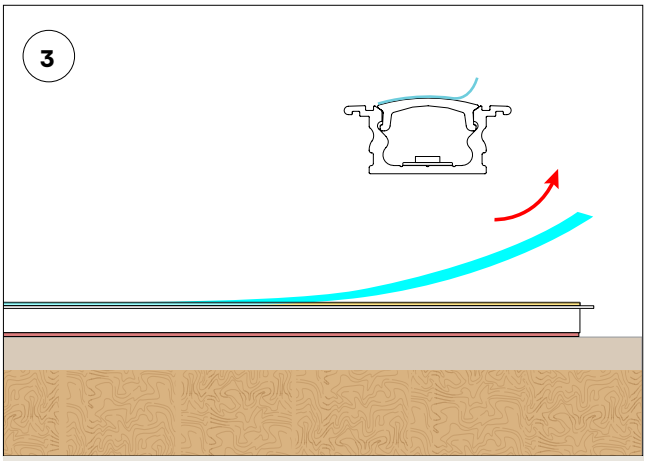


Determine the LATO fixture(s) location and positioning on desired surface before adhering fixture to surface. Make any necessary reference markings to indicate fixture placement.



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).



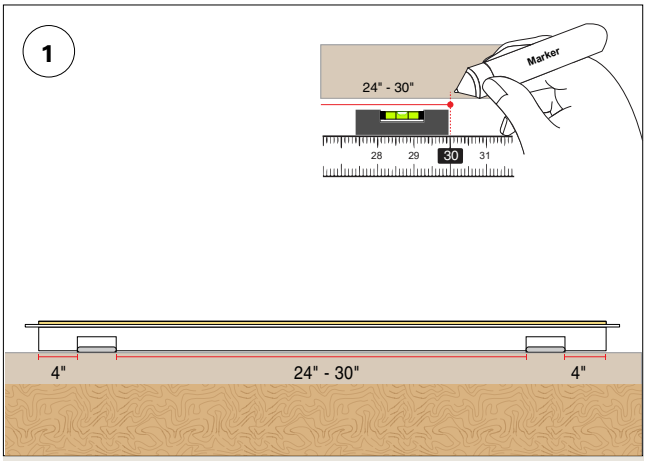
Remove protective film from the surface of the fixture's lens.

NOTES: *EPOXY ALTERNATIVE: For improved bonding strength, apply a small amount of epoxy at each end. Refer to table on* page 4 *for suggested epoxies. These can be purchased at a local hardware store. Please follow all manufacturer instructions for suggested epoxy.*

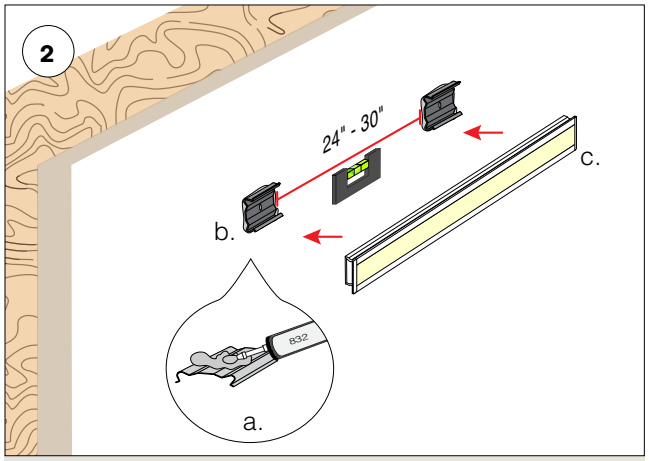
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SURFACE MOUNTING METHOD: **SILICONE MOUNT**

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



Determine the LATO 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".

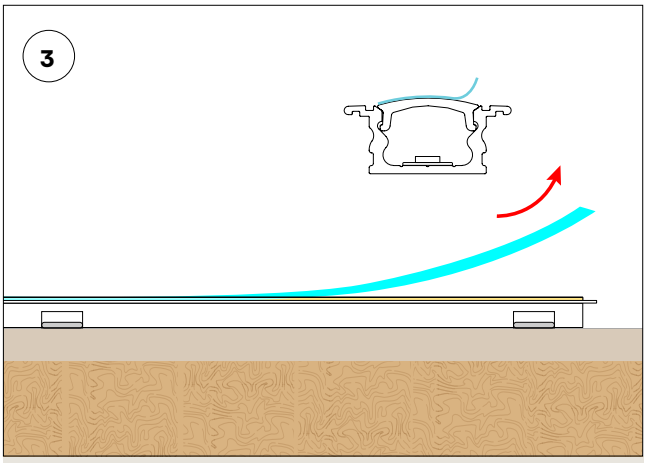


a. Coat the back of the clip with silicone adhesive and firmly press on to the marked reference points.

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

b. 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.

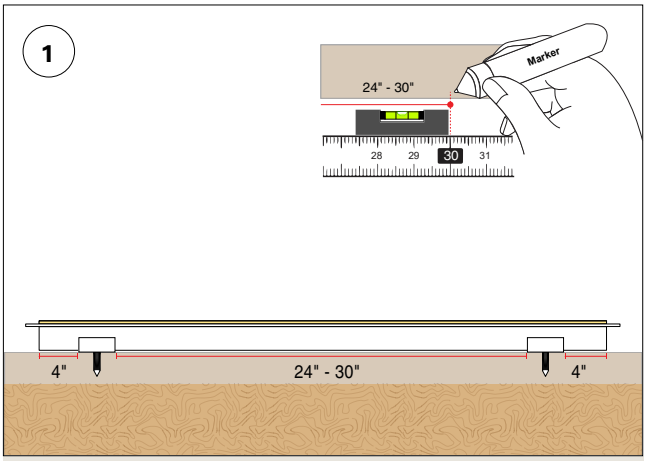


Remove protective film from the surface of the fixture's lens.

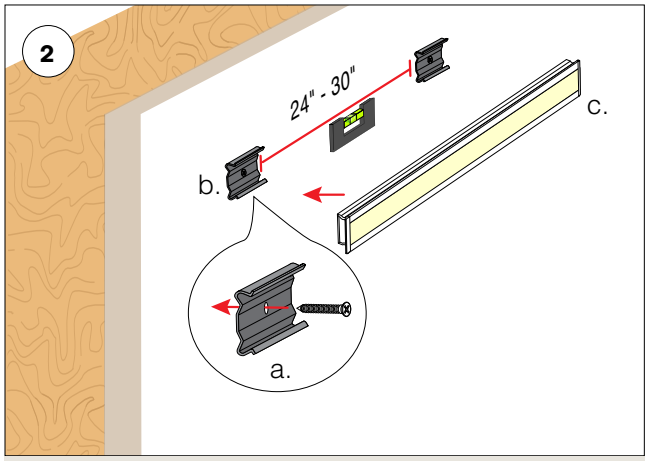
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SURFACE MOUNTING METHOD: **SCREW MOUNT**

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



Determine the LATO 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".

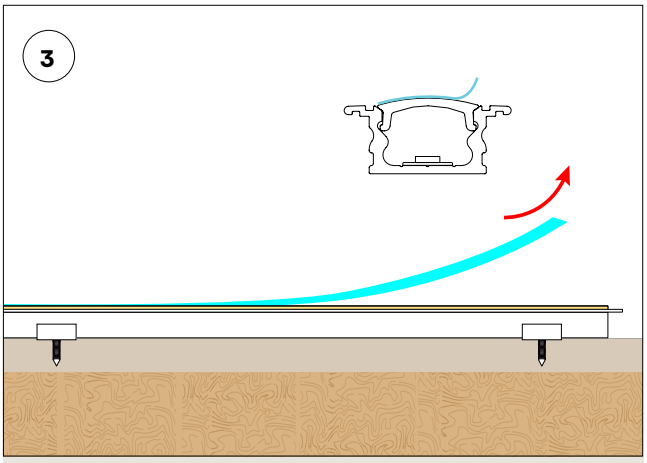


a. Secure clips using the #4 flat head screw provided.

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.

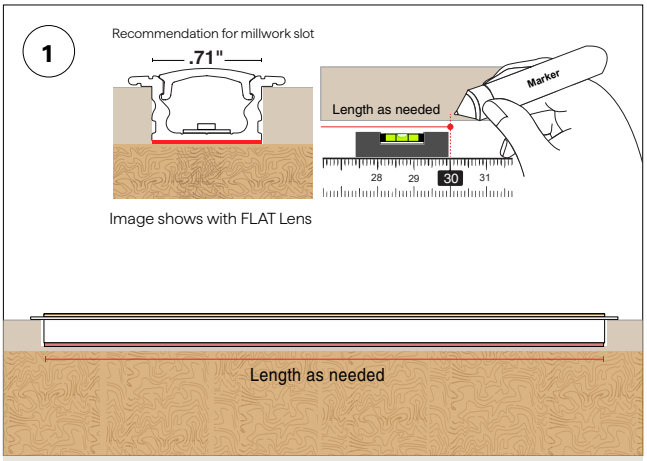


Remove protective film from the surface of the fixture's lens.

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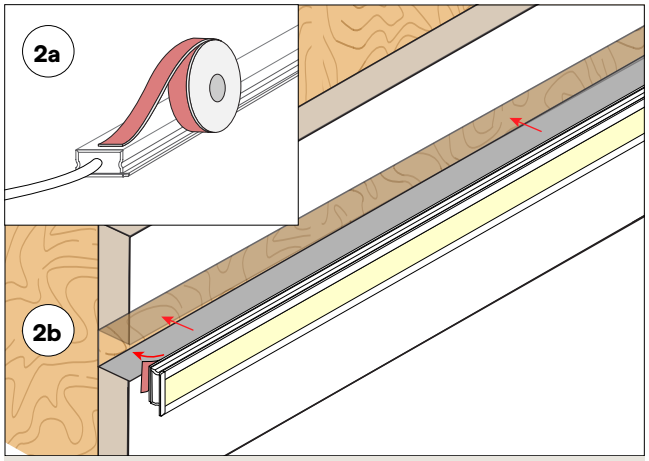
SURFACE MOUNTING METHOD: **MILLWORK VHB ADHESIVE MOUNT**

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



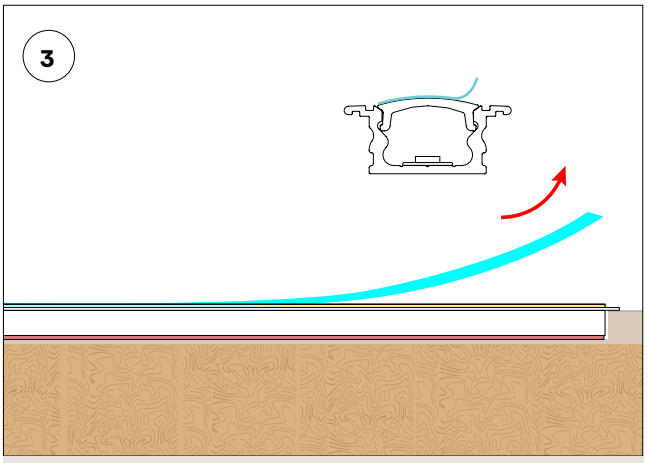
Determine the LATO fixture(s) location and positioning on desired surface before adhering fixture to surface. Make any necessary reference markings to indicate fixture placement.

NOTE: Depth of the channel in the millwork is dependent on overall height.



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 4 *for suggested epoxies. These can be purchased at a local hardware store. Please follow all manufacturer instructions for suggested epoxy.*

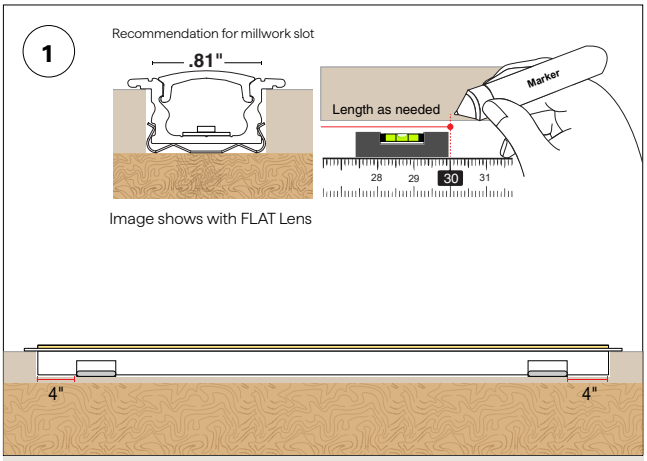
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ESSENTIALS LATO

Linear Fixture Installation Instructions

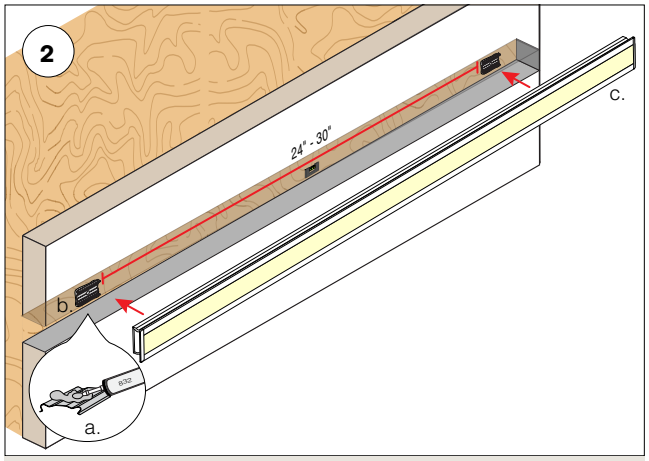
RECESSED MOUNTING METHOD: **MILLWORK SILICONE**

- Apply silicone in well ventilated area



Determine the LATO 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".

NOTE: Depth of the channel in the millwork is dependent on overall height.

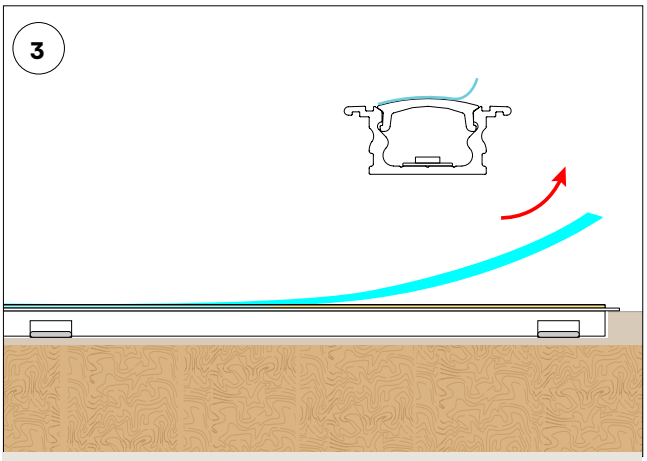


a. Coat the back of the clip with silicone adhesive and firmly press on to the marked reference points.

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

b. 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.

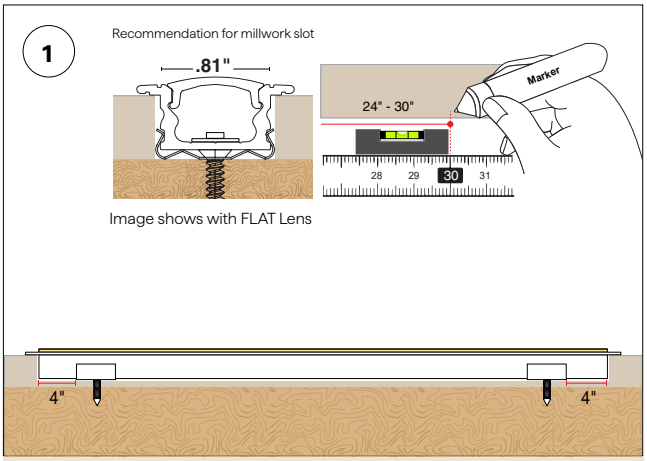


Remove protective film from the surface of the fixture's lens.

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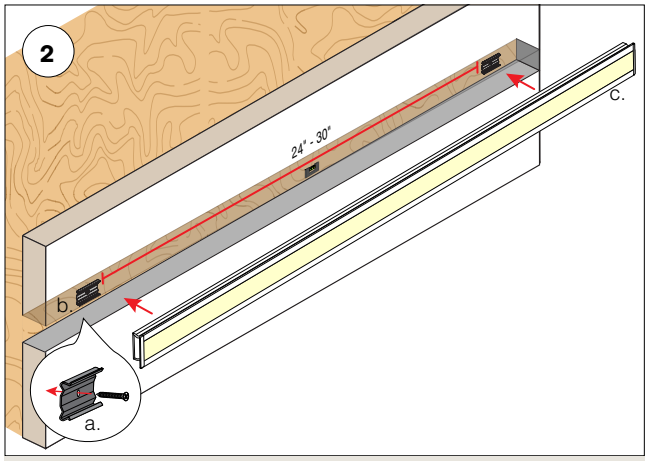
RECESSED MOUNTING METHOD: **MILLWORK SCREW MOUNT**

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



Determine the LATO 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".

NOTE: Depth of the channel in the millwork is dependent on overall height.

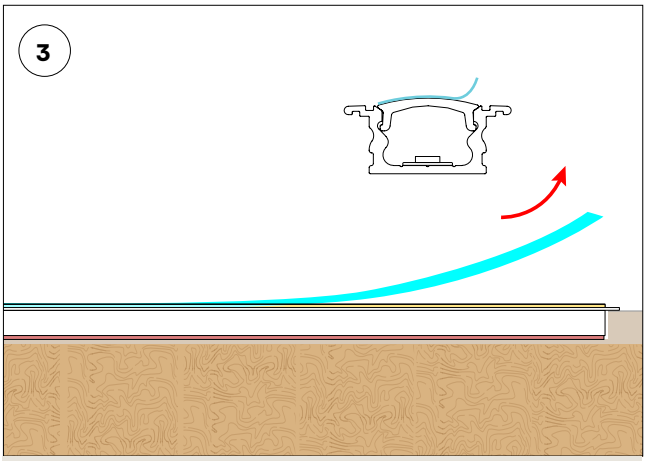


a. Mount the #4 flat head screw into the clip.

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

c. Snap the fixture onto the clips.

NOTE: If surface application requires a longer screw, the screw size must be a #4 Flat Head. 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.

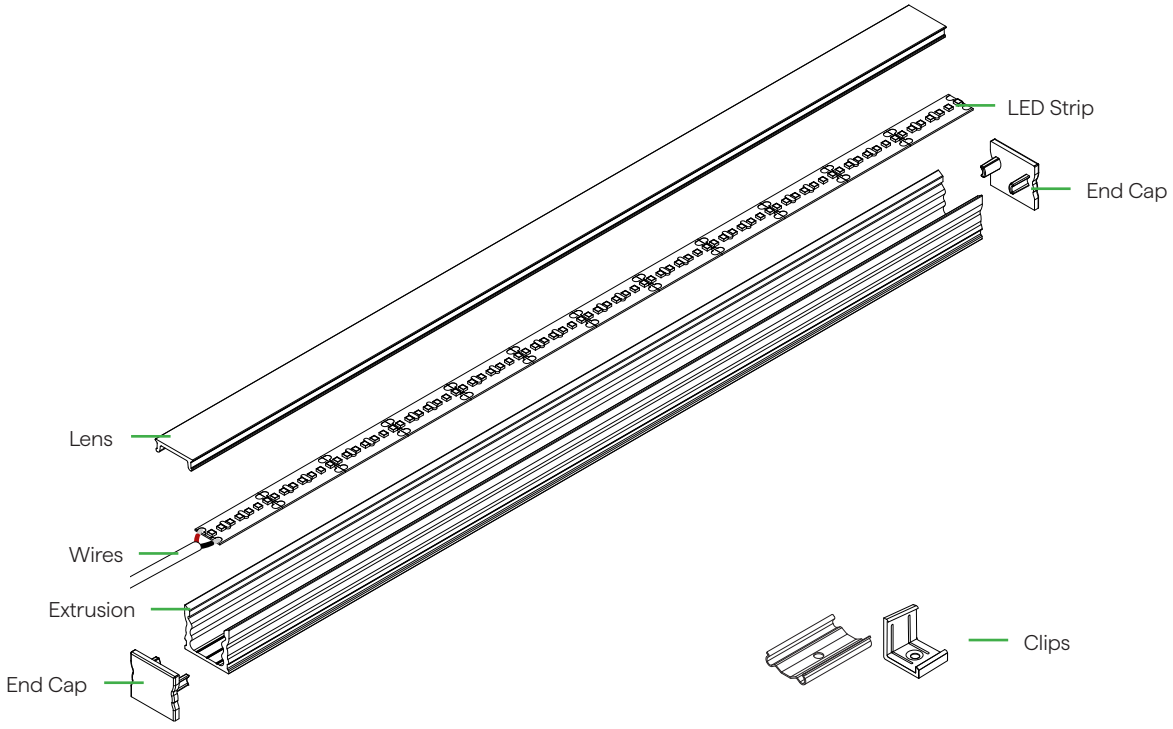
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MATERIAL RECYCLING

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

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