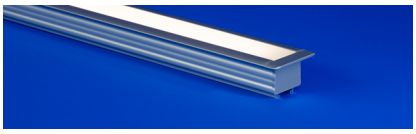
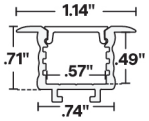
ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

410.2 & 410.16 Closet Rated in 1.5HE





- Recessed flanged fixture designed for dryall and millwork installations
- Choose from diffused, polar, or frosted lens options
- Mounting options include spring or magnet 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
- Can be suitable for exterior use when specified as wet, contact factory for more information
- 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
				STD	

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

Sample Part Number: **EB1DW-2.5HE-20/30-DRY-STD-DF-P1-BW-BW-BK-CL2-SP-ST-48"-E**

1 PRODUCT

EB1DW
EB1DW-USA

Select USA option for BAA and BABA projects. Only DRY or WET 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
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

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

SP	Spring Clip
MG	Magnet

13 FINISH

ST	Satin
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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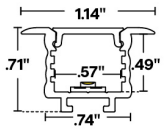
Specification subject to change. Rev-04-01-26

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

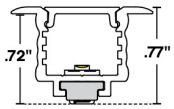
ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

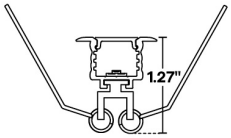
1 PRODUCT - DIMENSIONS



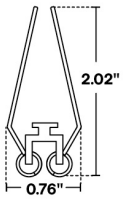
Profile with flat lens



Profile with flat lens and magnet mounting clip



Profile with flat lens and spring mounting clip



Spring mounting clip

2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs]
Tested with EB1DW-**-30-DRY-STD

	1.5HE W/FT		2.5HE W/FT	
	LM/FT	CRI	LM/FT	CRI
FR	127	98	200	98
PR	110	98	174	98
DF	94	98	148	98

6 DIODE VISIBILITY



DF - Diffused lens

PR - Polar lens

FR - Frosted lens

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
DMP	Ambient Operating Temp - Recessed	-4°F	140°F	-4°F	125°F	-4°F	130°F	-4°F	110°F
WET	Ambient Operating Temp - Recessed	-4°F	135°F	-4°F	120°F	-4°F	125°F	-4°F	105°F

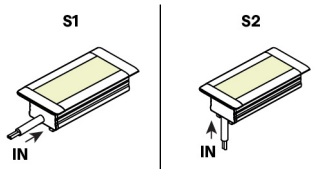
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ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

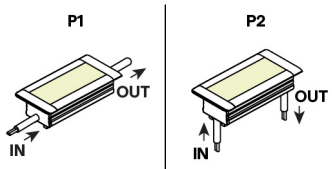
7 WIRE INPUT/OUTPUT

SINGLE (Input only)



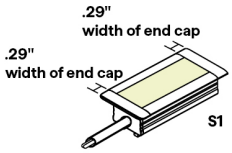
End Feed | Bottom Feed

PASS THROUGH (Input/Output)

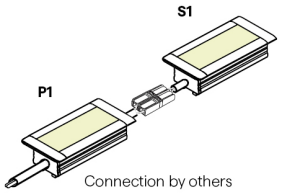


End Feed | Bottom Feed

CONFIGURATION OPTIONS

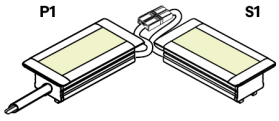


Single End Feed



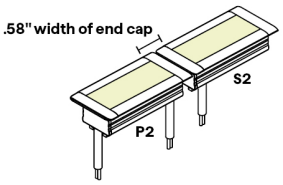
Connection by others

Non-Continuous End Feed

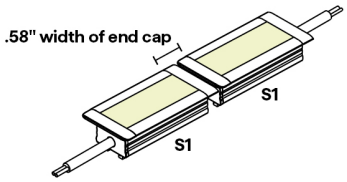


Connection by others

Non-Continuous Corner Feed



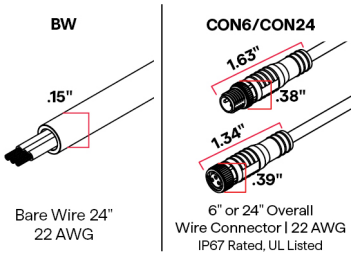
Non-Continuous Bottom Feed



Non-Continuous End to End Feed

8 / 9 CONNECTOR/WIRE – IN/OUT

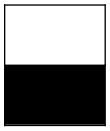
Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out



Bare Wire 24"
22 AWG

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

10 WIRE COLOR



White

Black

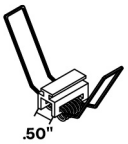
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ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

12 MOUNTING

SP



Spring Clip

2 clips provided for 4' or less. 4 clips provided for greater than 4'.

To order separately use SP-01

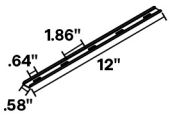
MG



Magnet Clip

One MG provided per foot
To order separately use MG-02

MMA-02



Magnet Mount
Accessory for MG-02

Sold separately, to order use MMA-02

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

Required when mounting to a non-magnetic surface

13 FINISH

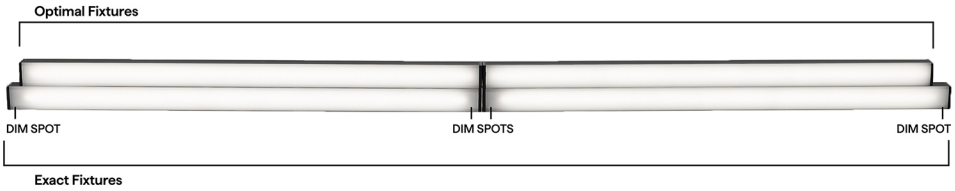
Satin

Custom finishes require a longer lead time, consult factory

14 EXACT/OPTIMAL FIXTURE LENGTH

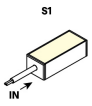
E/O Length Calculator → E/O Explained →

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.

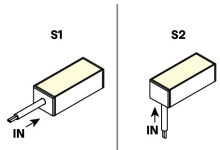
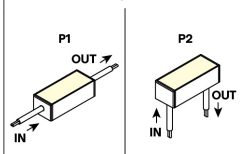


DW-HE DRY DMP LENGTHS BY INCH

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 	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"

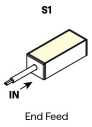
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ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

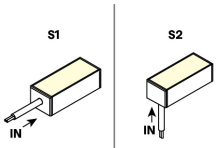
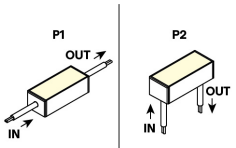
24VDC Linear Fixtures - Recessed

DW-HE WET 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 		P1 & P2 	
12"	10.66"		11.06"	
13"	12.66"		11.06"	
14"	12.66"		13.06"	
15"	14.66"		13.06"	
16"	14.66"		15.06"	
17"	16.66"		15.06"	
18"	16.66"		17.06"	
19"	18.66"		17.06"	
20"	18.66"		19.06"	
21"	20.66"		19.06"	
22"	20.66"		21.06"	
23"	22.66"		21.06"	
24"	22.66"		23.06"	
36"	34.66"		35.06"	
48"	46.66"		47.06"	
60"	58.66"		59.06"	
72"	70.66"		71.06"	
84"	82.66"		83.06"	
96"	94.66"		95.06"	

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 QTM-eLED+DALI-DT6 QTM-eLED+DALI-DT8 QTM-eLED+DALI-DT8-AWN QTM-eLED+TW 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	

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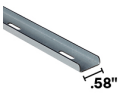
ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

DIMMING PROTOCOL	INDOOR	OUTDOOR
	DW-HE Tunable Applications	DW-HE Tunable Applications
0-10V	QT-CAB-eLED+TW QTM-eLED+TW	QOM-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	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

MMA-02



Magnet Mount Accessory of MG-02

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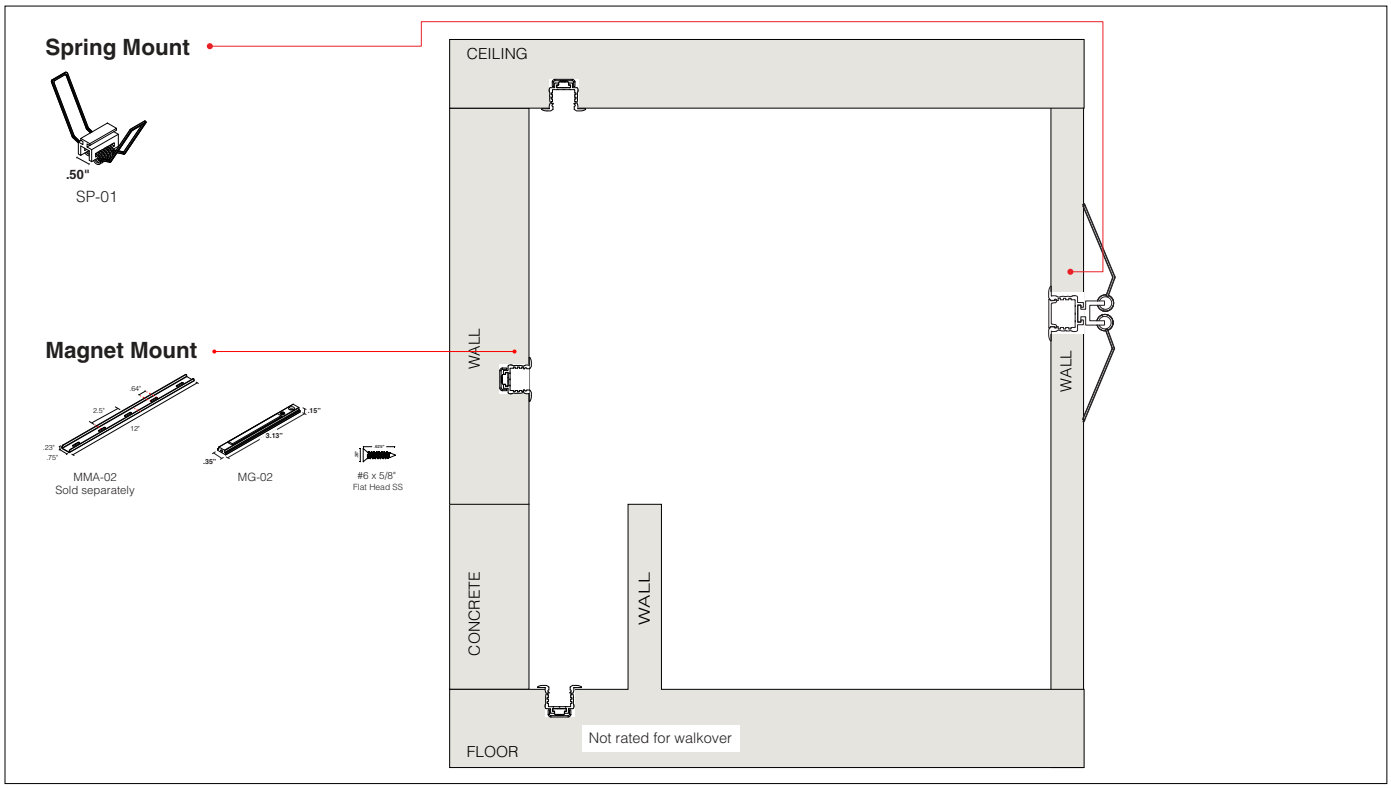
ESSENTIALS EMBD

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:



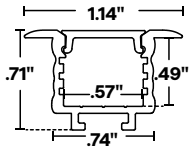
Recessed Mounting Method

- Spring Mount : Millwork (page 4)
- Magnet Mount : Millwork (page 5)

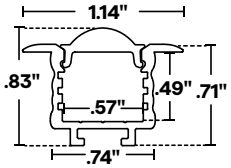
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ESSENTIALS EMBD

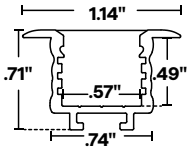
Linear Fixture Installation Instructions



EMBD-01



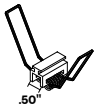
EMBD-02

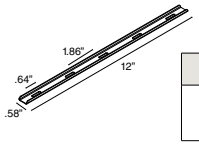


EMBD-03

COMPONENTS & HARDWARE

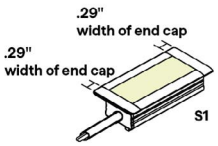
Alternate screw lengths can be used in installation as long as the screw diameter size is consistent with the included screw diameter size

SPRING CLIP	MAGNET CLIP
 SP-01	 MG-02 Included: Flat Head Screw #6x5/8"
• 2 clips provided for 4' or less; 4 clips provided for greater than 4'	• One magnet clip per foot

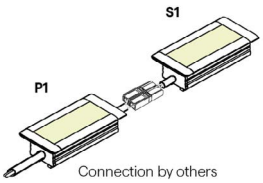
ACCESSORIES SOLD SEPARATELY
MAGNET MOUNT ACCESSORY; sold individually
 MMA-02   Included: Flat Head Screw #6x5/8"
• MMA-02 comes in 12" pieces; use at least one clip per MMA-02 accessory   • MMA-02 can be cut into smaller pieces, if desired

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CONFIGURATION OPTIONS

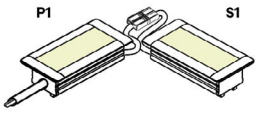


Single End Feed



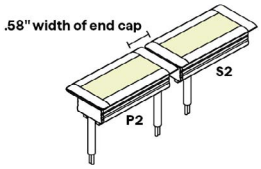
Connection by others

Non-Continuous End Feed

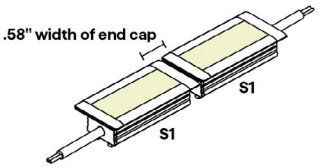


Connection by others

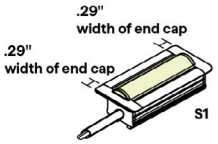
Non-Continuous Corner Feed



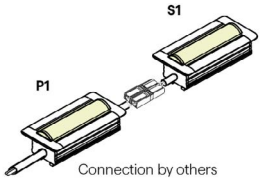
Continuous Bottom Feed



Continuous End to End Feed

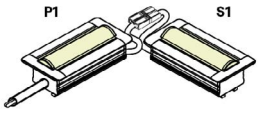


Single End Feed



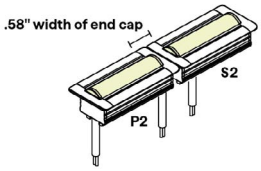
Connection by others

Non-Continuous End Feed

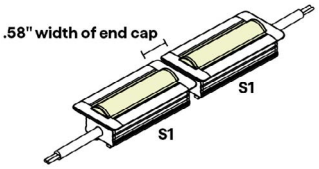


Connection by others

Non-Continuous Corner Feed



Continuous Bottom Feed



Continuous End to End Feed

Review wire method to ensure clean installation prior to mounting finished Fixture.

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

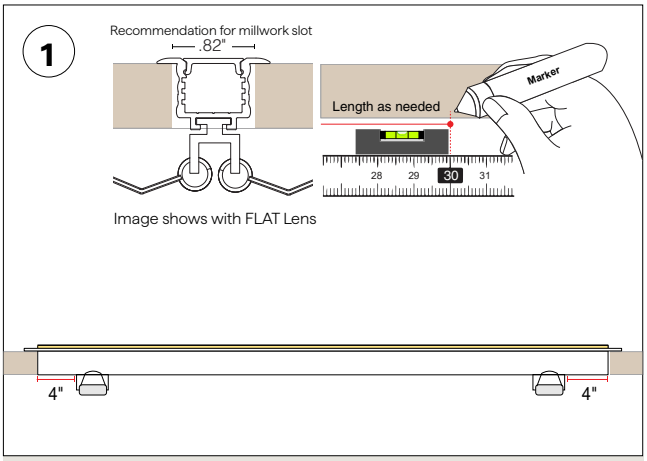
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ESSENTIALS EMBD

Linear Fixture Installation Instructions

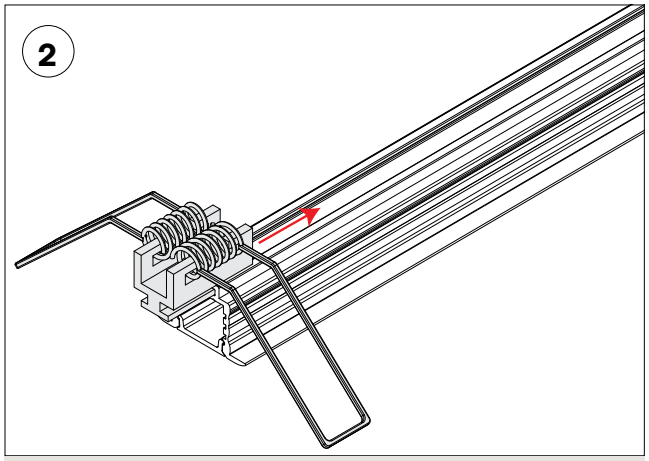
SURFACE MOUNTING METHOD: **SPRING MOUNT**

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

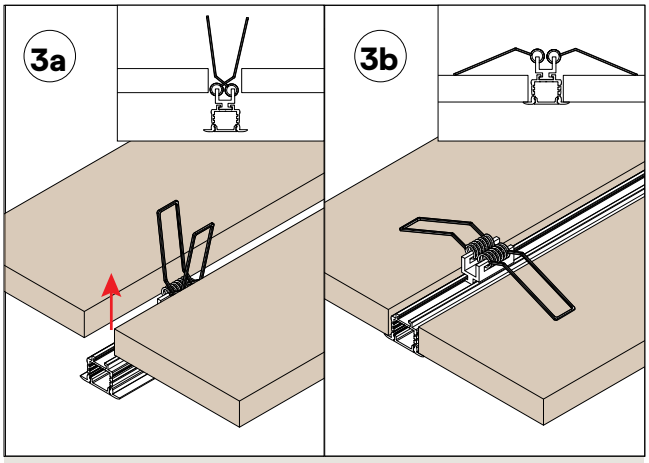


Determine the EMBD fixture(s) location and positioning on desired surface; evenly distribute clips. Make any necessary reference markings to indicate where each clip is to be secured in place. Recommended every 24" - 30".

NOTE: the drywall cut out should be 0.82 wide.

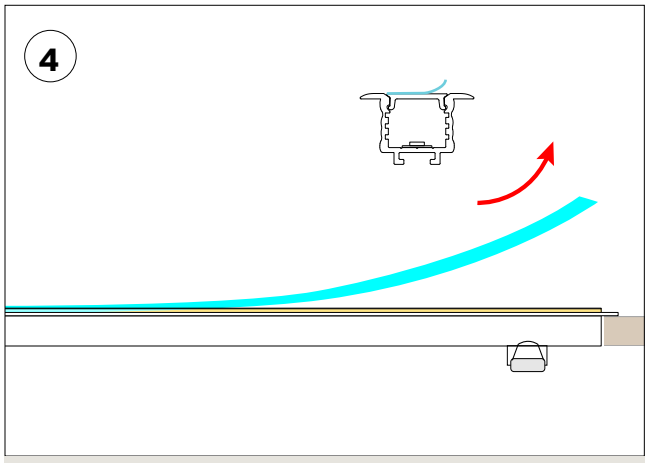


Slide in the spring clip from each end of the fixture.



a. Squeeze the spring clip's arms together and push it through the drywall cut out.

b. Once the spring arms have cleared the top of the drywall, they will snap back and secure the extrusion in place.



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

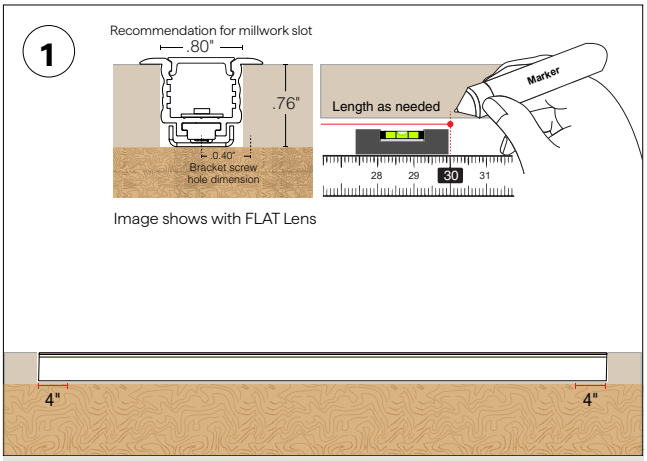
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ESSENTIALS EMBD

Linear Fixture Installation Instructions

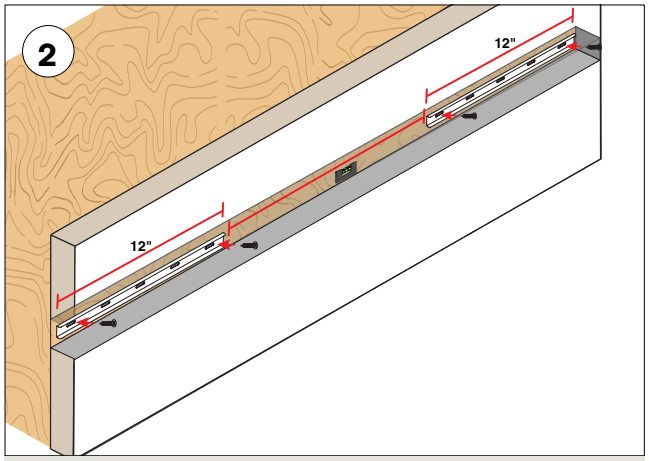
RECESSED MOUNTING METHOD: **MAGNET MILLWORK**

- One magnet clip per foot
- MMA-02 comes in 12" pieces; use at least one clip per MMA-02 accessory
- MMA-02 can be cut into smaller pieces, if desired



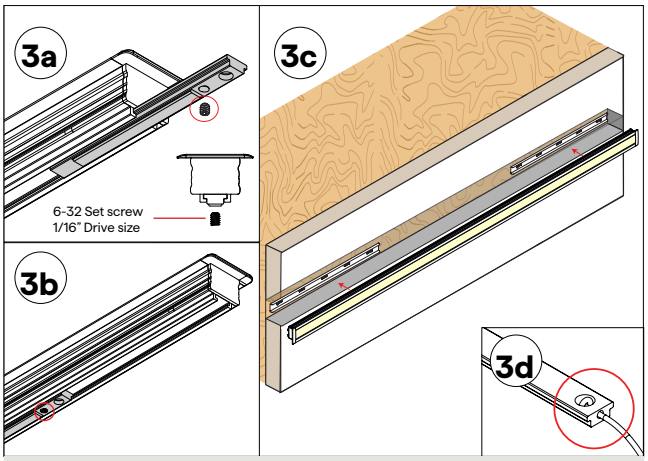
Determine the EMBD fixture(s) location and positioning on desired surface. Make any necessary reference markings to indicate where the magnet mount accessory bracket is to be secured in place.

NOTE: Depth of the channel in the millwork is dependent on overall height with the magnet clip and Magnet Mount Accessory.



Mount the two #6 flat head screws into the 12" magnet mount accessory brackets through the slotted holes at each end. Ensure the screw head is flush with the magnet mount bracket.

NOTE: If surface application requires a longer screw, the screw size must be a #6 Flat Head.



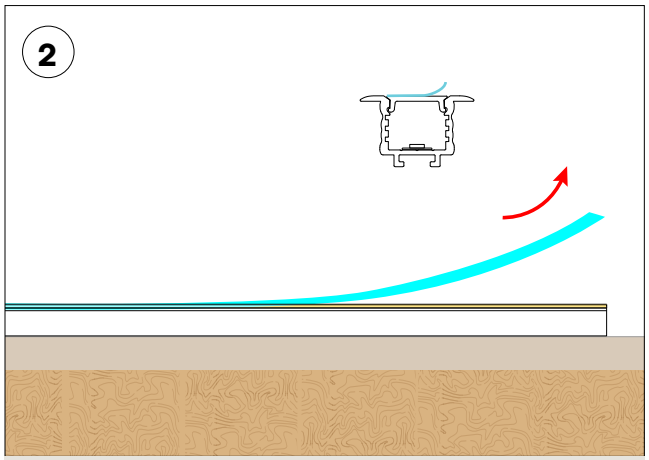
a. Slide magnet into the mounting track

b. Using the supplied set screw fasten the Non-Feed endcap that was removed, and secure the magnet clips into your desired location.

c. Place the assembled fixture onto the magnet mount bracket.

d. For installations requiring seismic precautions, monofiliment may be used with magnet clips as pictured.

NOTE: The magnet clips should be offset to the flat heads used to secure the bracket, to maximize magnetic connection.



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

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ESSENTIALS EMBD-FLAT-DW-HE(01)

Linear Fixtures Color Data

EB1DW-2.5HE-30-DRY-STD-PR

3007 K

CRI: 98.0

CRI R9: 96.9

TM30 Rf: 94.0

TM30 Rg: 99.7

CQS: 95.4

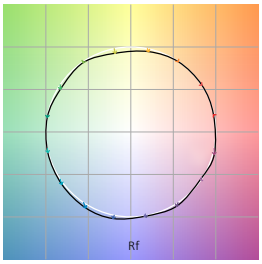
X: 0.436

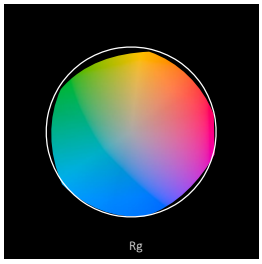
Y: 0.403

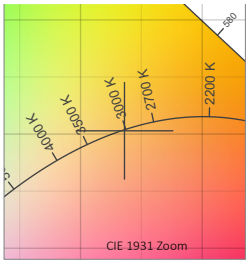
U: 0.251

V: 0.347

Δuv: -0.0004







R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97.9	99.0	97.4	98.7	98.1	97.1	97.9	97.9	96.9	99.9	97.2	84.4	98.0	97.4	98.1
Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Q12**	**Q13**	**Q14**	**Q15**
92.2	96.2	93.6	93.1	94.5	96.4	97.2	97.9	97.5	98.1	98.2	97.4	97.5	96.1	94.9
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**	**C12**	**C13**	**C14**	**C15**	**C16**
95.5	97.5	96.8	93.9	93.4	97.1	91.9	96.6	92.8	90.6	91.3	93.1	94.7	93.5	92.2	91.4

TM30			
Hue Bin	R_f	Chroma	Hue
1	96	-1%	1%
2	98	0%	-1%
3	97	0%	-1%
4	94	-3%	-2%
5	93	-6%	0%
6	97	-1%	1%
7	92	-3%	4%
8	97	0%	2%
9	93	1%	5%
10	91	2%	6%
11	91	4%	5%
12	93	4%	-1%
13	95	1%	-4%
14	94	3%	-4%
15	92	-1%	-1%
16	91	1%	-7%

EB1DW-2.5HE-30-DRY-STD-DF

3005 K

CRI: 97.9

CRI R9: 97.1

TM30 Rf: 94.1

TM30 Rg: 99.9

CQS: 95.5

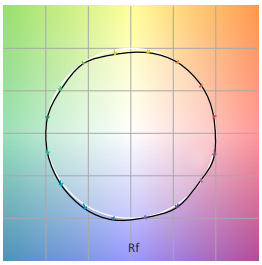
X: 0.436

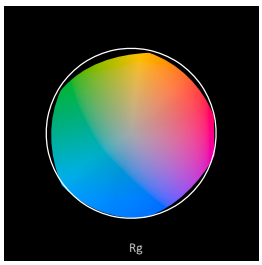
Y: 0.401

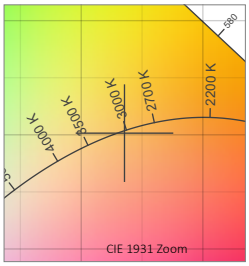
U: 0.251

V: 0.347

Δuv: -0.0009







R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97.7	98.6	97.9	98.7	97.9	96.6	97.7	97.9	97.1	99.1	97.1	84.8	97.7	97.7	98.0
Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**	**Q11**	**Q12**	**Q13**	**Q14**	**Q15**
92.4	96.2	93.6	93.3	94.7	96.6	97.0	97.6	97.7	98.1	98.3	97.7	97.9	95.9	94.9
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**C9**	**C10**	**C11**	**C12**	**C13**	**C14**	**C15**	**C16**
95.6	97.5	96.8	94.1	93.7	97.2	92.3	96.8	92.9	91.0	91.6	93.0	94.5	93.4	92.3	91.4

TM30			
Hue Bin	R_f	Chroma	Hue
1	96	-1%	1%
2	98	0%	0%
3	97	0%	0%
4	94	-3%	-2%
5	94	-5%	0%
6	97	-1%	1%
7	92	-3%	4%
8	97	0%	2%
9	93	1%	5%
10	91	2%	6%
11	92	4%	5%
12	93	4%	-1%
13	95	1%	-4%
14	93	3%	-4%
15	92	-1%	-1%
16	91	1%	-7%

NOTES:
- CRI R values, only R1-R8 are used to calculate RA CRI values
- TM30 C values, 16 binned values out of total of 99 C values
- CQS Q values
- Data subject to change, all data has +/- 5% tolerance

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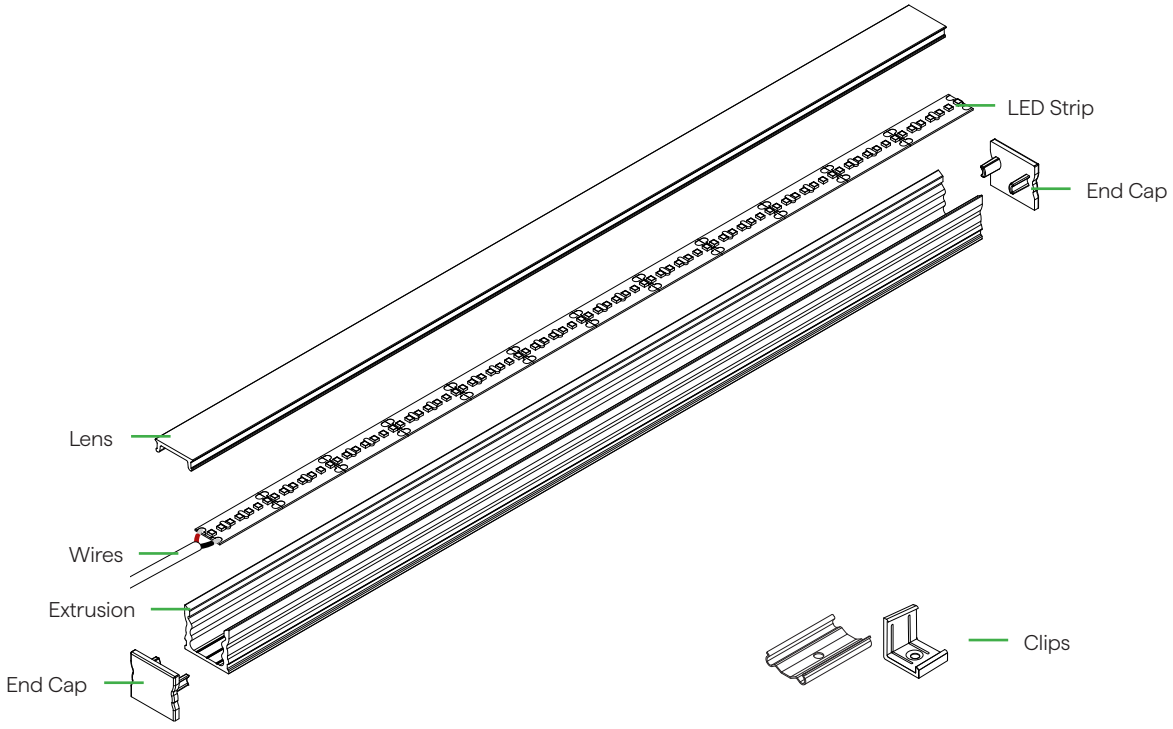
Specification subject to change. Rev-03-04-24

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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