

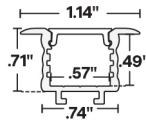
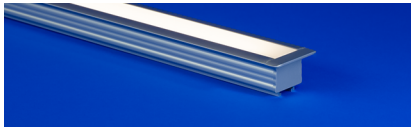


# ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

## 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**

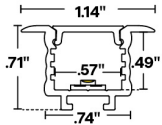
|  |  |  |   |  |   |  |   |   |
|--|--|--|---|--|---|--|---|---|
| <b>1 PRODUCT</b><br><b>EB1DW</b><br><b>EB1DW-USA</b><br><br>Select USA option for BAA and BABA projects. Only DRY or WET ratings apply.<br><br>LED engine is built with 3 wires requiring 0-10V, DMX or DALI control. Using DALI, DMX, or non QTL power supplies may double watts/ft. See following pages for compatible power supplies. | <b>2 WATTS/FT</b><br><br><b>1.5HE</b> 1.5W/ft HE<br><b>2.5HE</b> 2.5W/ft HE<br><br><br><br><br><br><br><b>1.5HE</b> 1.5W/ft HE<br><b>2.5HE</b> 2.5W/ft HE  | <b>3 CCT</b><br><br><b>20/27</b> 2000K/2700K<br><b>20/30</b> 2000K/3000K<br><b>27/40</b> 2700K/4000K<br><b>27/55</b> 2700K/5500K<br><br><br><br><br><b>24/30</b> 2400K/3000K<br><b>27/40</b> 2700K/4000K   | <b>4 RATED</b><br><br><b>DRY</b> IP20<br><b>WET</b> IP67<br><br>Can be suitable for exterior use, contact factory for more information<br><br><br><br><br><b>DMP</b> IP54 | <b>5 EFFICIENCY</b><br><br><b>STD</b> Standard   | <b>6 LENS</b><br><br><b>DF</b> Diffused<br><b>PR</b> Polar<br><b>FR</b> Frosted<br><br>For representation of LED visibility, see Diode Visibility section on following pages. For beam angles, see Photometric Performance section on following pages |  |   |   |
| <b>7 WIRE INPUT/OUTPUT</b><br><br><b>SINGLE (Input only)</b><br><b>S1</b> End Feed<br><b>S2</b> Bottom Feed<br><br><b>PASS THROUGH (Input/output)</b><br><b>P1</b> End Feed<br><b>P2</b> Bottom Feed<br><br>For continuous mounting, consider bottom feed.   | <b>8 CONNECTOR/WIRE IN</b><br><br><b>BW</b> Bare Wire (Standard 24")<br><b>CON6</b> Connector 6"<br><b>CON24</b> Connector 24"<br><br><b>BW</b> Bare Wire (Standard 24")<br><b>CON6</b> Connector 6"<br><b>CON24</b> Connector 24"<br><br>BW: Standard length is 24". Max length is 120". Request custom length by writing in part number next to BW (example: BW48) | <b>9 CONNECTOR/WIRE OUT</b><br><br><b>CLS</b> Closed End (No feed)<br><br><b>BW</b> Bare Wire (Standard 24")<br><b>CON6</b> Connector 6"<br><b>CON24</b> Connector 24"<br><br>BW: Standard length is 24". Max length is 120". Request custom length by writing in part number next to BW (example: BW48) | <b>10 WIRE COLOR</b><br><br><b>WH</b> White<br><b>BK</b> Black  | <b>11 WIRE TYPE</b><br><br><b>CL2</b> Class 2<br><b>CL2P</b> Plenum Rated<br><br>CL2P only available with bare wire leads (BW) | <b>12 MOUNTING</b><br><br><b>SP</b> Spring Clip<br><b>MG</b> Magnet   | <b>13 FINISH</b><br><br><b>ST</b> Satin<br><b>CU</b> Custom<br><br>Custom finishes require a longer lead time, consult factory | <b>14 LENGTH (IN)</b><br><br>Minimum length is 12", maximum length is 98" not including end caps. Contact us for lengths under 12". | <b>15 EXACT/OPTIMAL</b><br><br><b>O</b> Optimal Illumination<br><b>E</b> Exact Specified Length<br><br>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. |



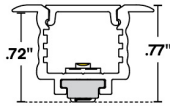
# ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

24VDC Linear Fixtures - Recessed

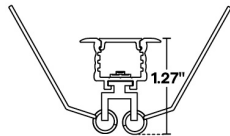
## 1 PRODUCT - DIMENSIONS



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                                  | 135°F | -4°F                               | 120°F | -4°F                                  | 125°F | -4°F                               | 105°F |
| WET | Ambient Operating Temp - Recessed | -4°F                                  | 135°F | -4°F                               | 120°F | -4°F                                  | 125°F | -4°F                               | 105°F |

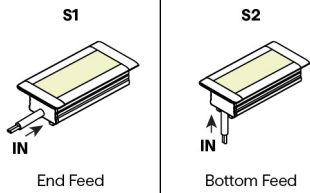


# ESSENTIALS EMBD-FLAT (01) FOR TUNABLE APPLICATIONS

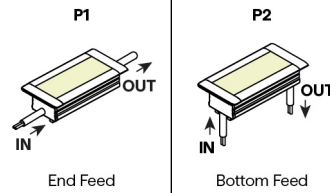
24VDC Linear Fixtures - Recessed

## 7 WIRE INPUT/OUTPUT

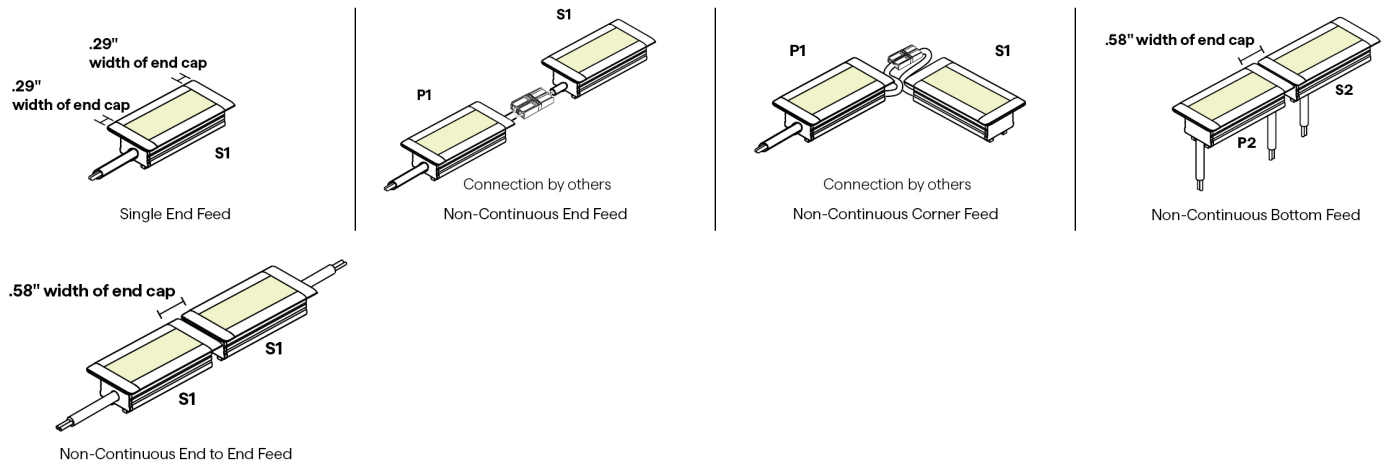
SINGLE (Input only)



PASS THROUGH (Input/Output)

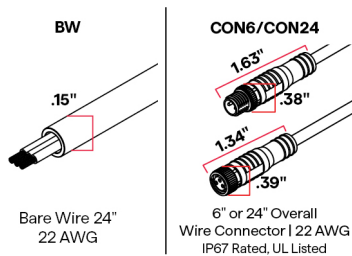


## CONFIGURATION OPTIONS



## 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 WIRE COLOR






# 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

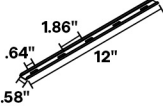
**MG**



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.

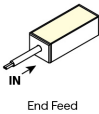
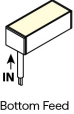
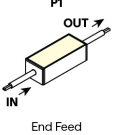
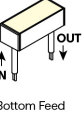


## DW-HE DRY DMP LENGTHS BY INCH

### EXACT LENGTH

| Requested Length | Potential dim spot on either end of a S1 fixture<br> |
|------------------|---|
| 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  |  |
|--------------------------|--|---|--|--|
|                          |  End Feed |  Bottom Feed |  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"   |  |



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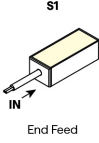
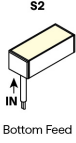
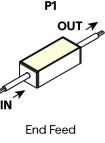
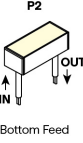
24VDC Linear Fixtures - Recessed

## DW-HE WET LENGTHS BY INCH

### EXACT LENGTH

| Requested Length | Potential dim spot on either end of a S1 fixture<br> |
|------------------|---|
| 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   |   |
|--------------------------|---|--|---|---|
|                          | <br>End Feed | <br>Bottom Feed | <br>End Feed | <br>Bottom Feed |
| 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<br>QT-CAB-eLED+DALI-DT8<br>QT-CAB-eLED+DALI-DT8-AWN<br>QT-CAB-eLED+TW<br>QT-CAB-eLED+TW-AWN<br>QTM-eLED+DALI-DT6<br>QTM-eLED+DALI-DT8<br>QTM-eLED+DALI-DT8-AWN<br>QTM-eLED+TW<br>QTM-eLED+TW-AWN<br>QZ-DMX | Q-SET-QZ-DMX<br>QOM-eLED+DALI-DT6<br>QOM-eLED+DALI-DT8<br>QOM-eLED+PS-DALI-DT6<br>QOM-eLED+PS-DALI-DT8<br>QOM-eLED+TW<br>QZ-DMX |
| 1%           | QZ-DALI-DT8   | Q-SET+QZ-DALI-DT8<br>QZ-DALI-DT8  |
| 10%          | Non-Dim Power Supply with TW App Dongle   |   |



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24VDC Linear Fixtures - Recessed

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

## COMPATIBLE MOUNTING ACCESSORIES

