# EMBD-OPTICS (02) Linear Fixtures

Ideal for recessing in walls and millwork, EMBD is now available as a fully assembled fixture. EMBD Optics is available in a satin finish with an optical lens used to create several different beam patterns when paired with the adjustable tray (12°, 14°, 20°, 30°, 45°, 60°). It is suitable for installation in the storage area of a clothes closet when specified with LEDs at 4.0 watts or less per foot.

## Part Number Builder

### Static White

JA8-2016 | 1-BIN 1-STEP | NEC 410.2 and 410.16 Closet Rated in SW1.5-4.0 | c(UL)us LISTED | RoHS COMPLIANT | 5 YEAR WARRANTY | RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency STD | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish ST | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB2SW | | | | | | | | | | | | | |
| | 1.5 3.0 4.0 5.0 6.0 | 20 22 24 27 30 35 40 | DRY (IP20) | STD Standard | 12 14 20 30 45 60 | S1 S2 Single (Closed exit) | BW BRL CON6 CON24 | CLS | WH BK N/A | CL2 CL2P N/A | SP MG | ST | |
| | 1.5 3.0 4.0 5.0 | 24 27 30 35 40 | DMP (IP54) | | | P1 P2 Pass through | BW BRL CON6 CON24 | BW BRL CON6 CON24 | | | | | |
| | 1.5 3.0 4.0 5.0 | 20 22 24 27 30 35 40 | WET (IP67) | | 12 14 20 | | | | | | | | |

Voltage: 24 VDC

Typical lumens at 5.0W/ft with 12 lens at 3000K: 318 lm/ft

*Available in 1" increments for 1.5W/ft - 5.0W/ft and 2" increments for 6.0W/ft. Maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

### Static White High Efficacy

JA8-2016 | 1-BIN 1-STEP | NEC 410.2 and 410.16 Closet Rated in 1.5HE-3.0HE | c(UL)us LISTED | RoHS COMPLIANT | 5 YEAR WARRANTY | RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency STD | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish ST | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB2SW | | | | | | | | | | | | | |
| | 1.5HE 3.0HE 6.0HE | 20 22 24 27 30 35 40 | DRY (IP20) | STD Standard | 12 14 20 30 45 60 | S1 S2 Single (Closed exit) | BW BRL CON6 CON24 | CLS | WH BK N/A | CL2 CL2P N/A | SP MG | ST | |
| | | 24 27 30 35 40 | DMP (IP54) | | | P1 P2 | BW BRL CON6 CON24 | BW BRL CON6 CON24 | | | | | |

Voltage: 24 VDC

Typical lumens at 6.0W/ft with 12 lens at 3000K: 540 lm/ft

*Available in 2" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

- If selecting **BRL**, select N/A for wire color and type
- **BW** comes in standard 24"- request custom length (Max 120") by writing it in inches next to "BW" in the order code box (ex. BW48)
- **Connector/Wire In or Out** not needed to specify product. Standard configuration is Type S1, Connector/Wire In: BW & Connector/Wire Out: CLS
- Specify **CL2P** for plenum rated wire
- **One Step, One Bin** based on 5W/ft

- • 5 year warranty
- • Field modifications void warranty
- • Data subject to change, all data has +/- 5% tolerance
- • Compatible for use with Q-Tran power supplies
- • Suitable for installation in the storage area of a clothes closet when specified with LEDs at 4.0 watts or less per foot
- • UL 2108: Type IC recessed inherently protected
- • Suitable for installation in drywall

# EMBD-OPTICS (02) Linear Fixtures

## Static White High Efficacy Plus

NEC 410.2 and 410.16 Closet Rated in 3.0HE · cULus LISTED · RoHS COMPLIANT · 5 YEAR WARRANTY · RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB2SW | | | | STD | | | | | | | | ST | |
| | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | |
| | 3.0HE+ 6.0HE+ | 27 30 35 40 | DRY (IP20) | STD Standard | 12 14 20 30 45 60 | S1 S2 — Single (Closed exit) | BW BRL CON6 CON24 | CLS | WH BK N/A | CL2 CL2P N/A | SP MG | ST | Max continuous length: 3.0W - 196" 6.0W - 118" |
| | 3.0HE+ | 27 30 35 40 | WET (IP67) | | 12 14 20 | P1 P2 — Pass through | BW BRL CON6 CON24 | BW BRL CON6 CON24 | | | | | |

Voltage: 24 VDC

Typical lumens at 6.0W/ft with 12 lens at 3000K: 760 lm/ft

*Available in 2" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

## Static White Individually Addressable

cULus LISTED · RoHS COMPLIANT · 5 YEAR WARRANTY · RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB2IA | 5.0 | | DRY | STD | | | | | | | | ST | |
| | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | |
| | 5.0 | 27 30 35 40 | DRY (IP20) | STD Standard | 12 14 20 30 45 60 | S1 S2 — Single (Closed exit) | BW CON6 CON24 | CLS | WH BK | CL2 CL2P | SP MG | ST | |
| | | | | | | P1 P2 — Pass through | BW CON6 CON24 | BW CON6 CON24 | | | | | |

Voltage: 24 VDC

*Available in 4" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

## Warm Dim

cULus LISTED · RoHS COMPLIANT · 5 YEAR WARRANTY · RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB2WD | 6.0 | | | STD | | | | | | | | ST | |
| | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | ^ | |
| | 6.0 | 19/27 19/30 | DRY (IP20) | STD Standard | 12 14 20 30 45 60 | S1 S2 — Single (Closed exit) | BW BRL CON6 CON24 | CLS | WH BK N/A | CL2 CL2P N/A | SP MG | ST | |
| | | | WET (IP67) | | | P1 P2 — Pass through | BW BRL CON6 CON24 | BW BRL CON6 CON24 | | | | | |

Voltage: 24 VDC

*Available in 2" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

- If selecting **BRL**, select N/A for wire color and type
- **BW** comes in standard 24"- request custom length (Max 120") by writing it in inches next to "BW" in the order code box (ex. BW48)
- **Connector/Wire In or Out** not needed to specify product. Standard configuration is Type S1, Connector/Wire In: BW & Connector/Wire Out: CLS
- Specify **CL2P** for plenum rated wire

- 5 year warranty
- Field modifications void warranty
- Data subject to change, all data has +/- 5% tolerance
- Compatible for use with Q-Tran power supplies
- Suitable for installation in the storage area of a clothes closet when specified with LEDs at 4.0 watts or less per foot
- UL 2108: Type IC recessed inherently protected
- Suitable for installation in drywall

# EMBD-OPTICS (02) Linear Fixtures

## Dynamic White

Certifications: cULus LISTED · RoHS COMPLIANT · 5 YEAR WARRANTY · RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB2DW | 6.0 | | | STD | | | | | | | | ST | |

| | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Voltage: 24 VDC | 6.0 | 20/27 20/30 | DRY (IP20) | STD Standard | 12 14 20 30 45 60 | S1 S2 Single (Closed exit) | BW CON6 CON24 | CLS | WH BK | CL2 CL2P | SP MG | ST | |
| Typical lumens at 6.0W/ft with 12 lens at 3000K: 183 lm/ft | | 24/30 | DMP (IP54) | | | | | | | | | | |
| | | 20/27 20/30 | WET (IP67) | | 12 14 20 | P1 P2 Pass through | BW CON6 CON24 | BW CON6 CON24 | | | | | |

*Available in 2" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

## Dynamic White High Efficacy

Certifications: JA8-2019 · NEC 410.2 and 410.16 Closet Rated in 3.0HE · cULus LISTED · RoHS COMPLIANT · 5 YEAR WARRANTY · RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB2DW | | | | STD | | | | | | | | ST | |

| | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Voltage: 24 VDC | 3.0HE 5.0HE | 20/27 20/30 27/40 27/55 | DRY (IP20) | STD Standard | 12 14 20 30 45 60 | S1 S2 Single (Closed exit) | BW CON6 CON24 | CLS | WH BK | CL2 CL2P | SP MG | ST | |
| Typical lumens at 5.0W/ft with 12 lens at 3000K: 197 lm/ft | | 24/30 27/40 | DMP (IP54) | | | | | | | | | | |
| | | 20/27 20/30 27/40 27/55 | WET (IP67) | | 12 14 20 | P1 P2 Pass through | BW CON6 CON24 | BW CON6 CON24 | | | | | |

*Available in 2" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

## Static Color

Certifications: cULus LISTED · RoHS COMPLIANT · 5 YEAR WARRANTY · RECESSABLE · Certified with Red & Amber

| Product | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EB2SC | 5.0 | | | STD | | | | | | | | ST | |

| | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Voltage: 24 VDC | 5.0 | GR BL RD AB | DRY (IP20) | STD Standard | 12 14 20 30 45 60 | S1 S2 Single (Closed exit) | BW BRL CON6 CON24 | CLS | WH BK N/A | CL2 CL2P N/A | SP MG | ST | |
| Typical lumens at 5.0W/ft with 12 lens in green: 394 lm/ft | | | DMP (IP54) | | | | | | | | | | |
| | | | WET (IP67) | | 12 14 20 | P1 P2 Pass through | BW BRL CON6 CON24 | BW BRL CON6 CON24 | | | | | |

*Available in 2" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

- If selecting **BRL**, select N/A for wire color and type
- **BW** comes in standard 24"- request custom length (Max 120") by writing it in inches next to "BW" in the order code box (ex. BW48)
- **Connector/Wire In or Out** not needed to specify product. Standard configuration is Type S1, Connector/Wire In: BW & Connector/Wire Out: CLS
- Specify **CL2P** for plenum rated wire

- 5 year warranty
- Field modifications void warranty
- Data subject to change, all data has +/- 5% tolerance
- Compatible for use with Q-Tran power supplies
- Suitable for installation in drywall

- Florida Fish and Wildlife Conservation Commission (FWC) rated Strips: DRY and WET rated, Red and Amber
- Suitable for installation in the storage area of a clothes closet when specified with LEDs at 4.0 watts or less per foot
- UL 2108: Type IC recessed inherently protected

# EMBD-OPTICS (02) Linear Fixtures

## RGB

UL LISTED c us | RoHS COMPLIANT | 5 YEAR WARRANTY | RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EB2RGB** | **6.0** | **RGB** | | **STD** | | | | | | | | **ST** | |
| | 6.0 | RGB | **DRY** (IP20) | STD Standard | 12 14 20 30 45 60 | **S1 S2** Single (Closed exit) | **BW CON6 CON24** | **CLS** | **WH BK** | **CL2 CL2P** | **SP MG** | **ST** | |
| | | | **DMP** (IP54) | | | | | | | | | | |
| | | | **WET** (IP67) | | 12 14 20 | **P1 P2** Pass through | **BW CON6 CON24** | **BW CON6 CON24** | | | | | |

Voltage: 24 VDC

Typical lumens at 6.0W/ft with 12 lens in green: 141 lm/ft

*Available in 2" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

## RGBW

UL LISTED c us | RoHS COMPLIANT | 5 YEAR WARRANTY | RECESSABLE

| Product | W/FT | CCT | Rated | Efficiency | Lens | Input/Output | Connector/Wire In | Connector/Wire Out | Wire Color | Wire Type | Mounting | Finish | Length* (in) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EB2RGBW** | **6.0** | | | **STD** | | | | | | | | **ST** | |
| | 6.0 | 27 30 | **DRY** (IP20) | STD Standard | 12 14 20 30 45 60 | **S1 S2** Single (Closed exit) | **BW CON6 CON24** | **CLS** | **WH BK** | **CL2 CL2P** | **SP MG** | **ST** | |
| | | | **DMP** (IP54) | | | **P1 P2** Pass through | **BW CON6 CON24** | **BW CON6 CON24** | | | | | |

Voltage: 24 VDC

Typical lumens at 6.0W/ft with 12 lens at 3000K: 69 lm/ft

*Available in 4" increments, maximum length of 98.43" not including end caps. Tolerance +0.0"/-0.5. Minimum fixture length 6".

- **BW** comes in standard 24"- request custom length (Max 120") by writing it in inches next to "BW" in the order code box (ex. BW48)
- **Connector/Wire In or Out** not needed to specify product. Standard configuration is Type S1, Connector/Wire In: BW & Connector/Wire Out: CLS
- Specify **CL2P** for plenum rated wire

- 5 year warranty
- Field modifications void warranty
- Data subject to change, all data has +/- 5% tolerance
- Compatible for use with Q-Tran power supplies
- UL 2108: Type IC recessed inherently protected
- Suitable for installation in drywall

## Technical Information

### Static White [Calculated L70 = 70000 hrs]
Tested with EB2SW-**-30-DRY-STD

|    | 1.5W/FT | 3.0W/FT | 4.0W/FT | 5.0W/FT | 6.0W/FT |
|----|---------|---------|---------|---------|---------|
|    | LM/FT   | LM/FT   | LM/FT   | LM/FT   | LM/FT   |
| 12 | 120     | 210     | 261     | 318     | 368     |
| 14 | 138     | 240     | 298     | 363     | 421     |
| 20 | 141     | 246     | 306     | 372     | 431     |
| 30 | 157     | 273     | 339     | 413     | 479     |
| 45 | 160     | 279     | 347     | 422     | 489     |
| 60 | 160     | 279     | 347     | 422     | 489     |

### Static White High Efficacy
[Calculated L70 = 70000 hrs]
Tested with EB2SW-**-30-DRY-STD

|    | 1.5HEW/FT | 3.0HEW/FT | 6.0HEW/FT |
|----|-----------|-----------|-----------|
|    | LM/FT     | LM/FT     | LM/FT     |
| 12 | 155       | 285       | 540       |
| 14 | 178       | 326       | 617       |
| 20 | 182       | 334       | 632       |
| 30 | 202       | 370       | 702       |
| 45 | 206       | 379       | 717       |
| 60 | 206       | 379       | 717       |

### Static White High Efficacy Plus
[Calculated L70 = 50000 hrs]
Tested with EB2SW-**-30-DRY-STD

|    | 3.0HE+W/FT | 6.0HE+W/FT |
|----|------------|------------|
|    | LM/FT      | LM/FT      |
| 12 | 411        | 760        |
| 14 | 470        | 868        |
| 20 | 481        | 890        |
| 30 | 534        | 987        |
| 45 | 546        | 1009       |
| 60 | 546        | 1009       |

### Dynamic White [Calculated L70 = 70000 hrs]
Tested with EB2DW-6.0-**-DRY-STD

|    | 3000K |
|----|-------|
|    | LM/FT |
| 12 | 183   |
| 14 | 209   |
| 20 | 214   |
| 30 | 238   |
| 45 | 243   |
| 60 | 243   |

### Dynamic White High Efficacy [Calculated L70 = 70000 hrs]
Tested with EB2DW-**-30-DRY-STD

|    | 3.0W/FT | 5.0W/FT |
|----|---------|---------|
|    | LM/FT   | LM/FT   |
| 12 | 125     | 197     |
| 14 | 142     | 225     |
| 20 | 146     | 230     |
| 30 | 162     | 256     |
| 45 | 166     | 261     |
| 60 | 166     | 261     |

### Static Color [Calculated L70 = 30000 hrs]
Tested with EB2SC-5.0-**-DRY-STD

|    | Red   | Green | Blue  | Amber |
|----|-------|-------|-------|-------|
|    | LM/FT | LM/FT | LM/FT | LM/FT |
| 12 | 73    | 394   | 102   | 66    |
| 14 | 83    | 450   | 117   | 75    |
| 20 | 85    | 462   | 120   | 77    |
| 30 | 95    | 512   | 133   | 86    |
| 45 | 97    | 524   | 136   | 87    |
| 60 | 97    | 524   | 136   | 87    |

### RGB [Calculated L70 = 55000 hrs]
Tested with EB2RGB-6.0-RGB-DRY-STD

|    | Red   | Green | Blue  |
|----|-------|-------|-------|
|    | LM/FT | LM/FT | LM/FT |
| 12 | 70    | 141   | 40    |
| 14 | 80    | 162   | 46    |
| 20 | 82    | 166   | 47    |
| 30 | 91    | 184   | 52    |
| 45 | 93    | 188   | 53    |
| 60 | 93    | 188   | 53    |

### RGBW [Calculated L70 = 30000 hrs]
Tested with EB2RGBW-6.0-30-DRY-STD

|    | Red   | Green | Blue  | 3000K |
|----|-------|-------|-------|-------|
|    | LM/FT | LM/FT | LM/FT | LM/FT |
| 12 | 26    | 87    | 22    | 69    |
| 14 | 30    | 99    | 26    | 79    |
| 20 | 30    | 102   | 26    | 81    |
| 30 | 34    | 113   | 29    | 90    |
| 45 | 34    | 115   | 30    | 92    |
| 60 | 34    | 115   | 30    | 92    |

## Temperature Ratings Dependent on LED Strip W/FT

| Light Engine (LED Strip) | W/FT | Minimum Limit (°F) | Maximum Limit (°F) |
|--------------------------|------|--------------------|--------------------|
| Static White             | 1.5  | -40                | 138                |
|                          | 3.0  | -40                | 124                |
|                          | 4.0  | -40                | 115                |
|                          | 5.0  | -40                | 108                |
| Static White High-Efficacy | 1.5HE | -40             | 152                |
|                          | 3.0HE | -40               | 140                |
|                          | 6.0HE | -40               | 118                |

# EMBD-OPTICS (02) Linear Fixtures
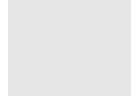
## Lens
with LED visibility

**12, 14, 20, 30, 45, 60**
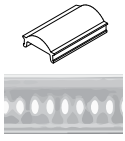
Optical

## Mounting

**SP**

Spring clip

**MG**

.15"
3.13"
.35"
.50"
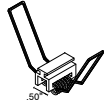
Magnet clip

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

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

## Finish

**ST**

Satin

## Type

### SINGLE (Input only)

**S1**

IN

End feed

**S2**

IN

Bottom feed

### PASS THROUGH (Input/Output)

**P1**

IN
OUT

End feed

**P2**

IN
OUT
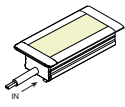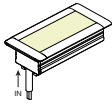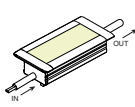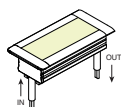
Bottom feed

## Cut Off

**12DEG**
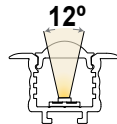
12°

**14DEG**
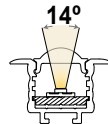
14°

**20DEG**

20°

DRY and DMP rated LEDS only

**30DEG**
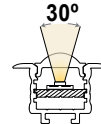
30°

DRY and DMP rated LEDS only

**45DEG**
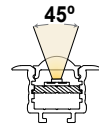
45°

DRY and DMP rated LEDS only

**60DEG**
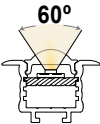
60°

## Connector/Wire – In/Out

**BW**

.15"

Bare Wire 24"

**BRL**

.42"
.35"
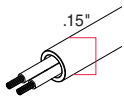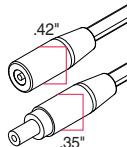
Barrel 6"

**CON6 / CON24**

.38"
.39"
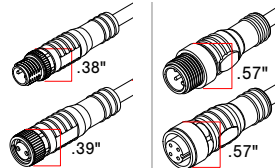
SW, SW-HE, SW-HE+, SW-IA, DW, DW-HE, WD, SC

.57"
.57"

RGB, RGBW

6" or 24" wire connector

## End Caps

Optical end caps

.72"
.74"
.29"

.54"
.74"
.72"
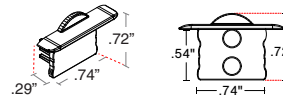
No feed

Feed

## Dimensions

1.14"
.83"
.49"
.71"
.57"
.74"

Profile with optical lens

1.38"
1.27"
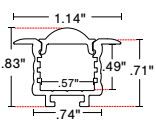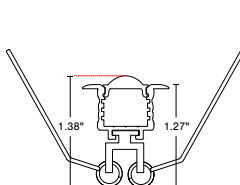
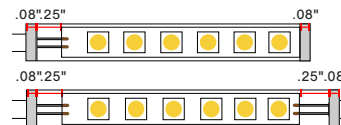Profile with optical lens spring mounting clip

2.02"
0.76"

Spring mounting clip

.89"
.72"
.77"
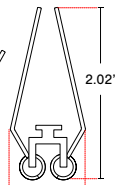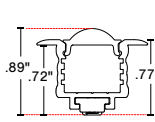
Profile with optical lens magnet mounting clip

## Length (in) Add to nominal LED length for fixture length

.08" .25"
.08"

.08" .25"
.25" .08"

Endcap#1
Endcap#2
Space to solder wire

**S1** .08" + .08" + .25" = .41"

**P1** .08" + .08" + 2(.25") = .66"

Specification subject to change. **Rev-05-10-22**