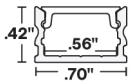
# ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

410.2 & 410.16 Closet Rated up to 4.0W/ft






- Shallow, low-profile linear fixture for surface mount applications
- Choose from diffused, polar, or frosted lens options for varying diode visibility and beam angles
- Three mounting options
- 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
- Optional plastic louver accessory available in white or black for added glare control

**INFORMATION REQUIRED FOR LIGHTING SCHEDULE**

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

**ADDITIONAL INFORMATION REQUIRED TO ORDER**

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

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

## 1 PRODUCT

**LL1SW**
**LL1SW-USA**

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

See following pages for compatible power supplies.

## 2 WATTS/FT

| | |
|---|---|
| **1.5** | 1.5W/ft |
| **3.0** | 3.0W/ft |
| **4.0** | 4.0W/ft |
| **5.0** | 5.0W/ft |

## 3 CCT

| | |
|---|---|
| **18** | 1800K |
| **20** | 2000K |
| **22** | 2200K |
| **24** | 2400K |
| **27** | 2700K |
| **30** | 3000K |
| **35** | 3500K |
| **40** | 4000K |

## 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 For optional snap-on louver ordering, see External Louver Accessory 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") |
| **BRL** | Barrel |
| **CON6** | Connector 6" |
| **CON24** | Connector 24" |

| | |
|---|---|
| **BW** | Bare Wire (Standard 24") |
| **BRL** | Barrel |
| **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") |
| **BRL** | Barrel |
| **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 |
| **N/A** | For Barrel |

wet barrel only available in black

## 11 WIRE TYPE

| | |
|---|---|
| **CL2** | Class 2 |
| **CL2P** | Plenum Rated |
| **N/A** | For Barrel |

CL2P only available with bare wire leads (BW)

## 12 MOUNTING

| | |
|---|---|
| **SST** | Stainless Steel |
| **M4** | Low Profile Magnet |
| **MG** | Magnet |

## 13 FINISH

| | |
|---|---|
| **ST** | Satin |
| **BK** | Black |
| **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 are the exact length specified +0 -1/8". Optimal fixtures' length is rounded down with illumination end to end. See Exact/Optimal Fixture Length charts.

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTLlighting | www.QTLlighting

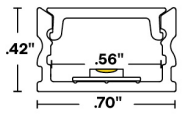
Specification subject to change. Rev-10-05-26

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

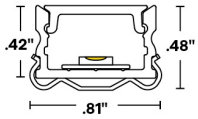
# ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

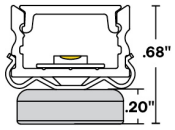
## 1 PRODUCT - DIMENSIONS



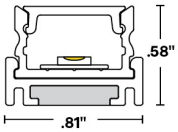

Profile with flat lens



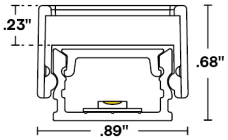

Profile with flat lens and stainless steel mounting clip



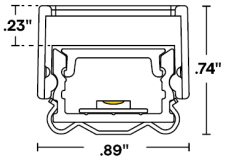

Profile with flat lens and magnet mounting clip



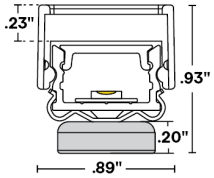

Profile with flat lens and low profile magnet



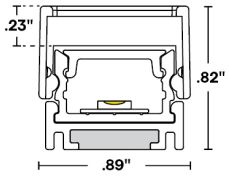

Profile with flat lens and plastic louver




Profile with flat lens, stainless steel mounting clip, and plastic louver




Profile with flat lens, magnet mounting clip, and plastic louver



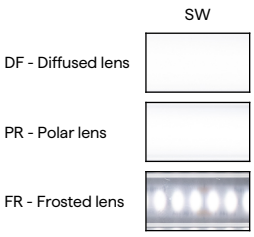

Profile with flat lens, low profile magnet, and plastic louver

## 2 DELIVERED LUMENS

[Calculated L70 = 70000 hrs]
Tested with LL1SW-**-30-DRY-STD

| | 1.5 W/FT | | 3.0 W/FT | | 4.0 W/FT | | 5.0 W/FT | |
|---|---|---|---|---|---|---|---|---|
| | LM/FT | CRI | LM/FT | CRI | LM/FT | CRI | LM/FT | CRI |
| FR | 142 | 98 | 248 | 98 | 308 | 98 | 375 | 98 |
| PR | 134 | 98 | 234 | 98 | 291 | 98 | 354 | 98 |
| DF | 120 | 98 | 210 | 98 | 261 | 98 | 318 | 98 |

## 6 DIODE VISIBILITY



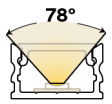

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTLlighting | www.QTLlighting

# ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

## PHOTOMETRIC PERFORMANCE

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



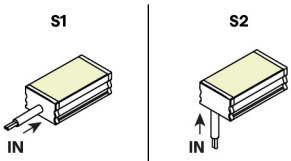

78°

## TEMPERATURE RATINGS

| | | 1.5 W/FT | | 3.0 W/FT | | 4.0 W/FT | | 5.0 W/FT | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min | Max | Min | Max | Min | Max | Min | Max |
| DRY | Ambient Operating Temp - Surface | -4°F | 140°F | -4°F | 130°F | -4°F | 125°F | -4°F | 120°F |
| DMP | Ambient Operating Temp - Surface | -4°F | 140°F | -4°F | 130°F | -4°F | 125°F | -4°F | 120°F |
| WET | Ambient Operating Temp - Surface | -4°F | 135°F | -4°F | 125°F | -4°F | 120°F | -4°F | 115°F |

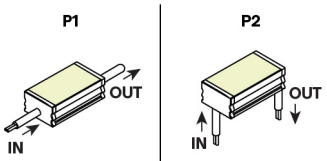
## 7 WIRE INPUT/OUTPUT

SINGLE (Input only)



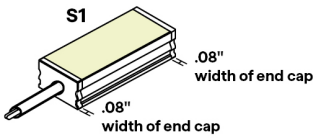

End Feed | Bottom Feed

PASS THROUGH (Input/Output)

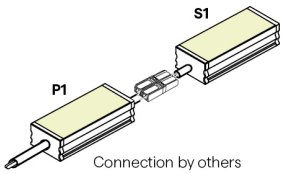



End Feed | Bottom Feed

## CONFIGURATION OPTIONS

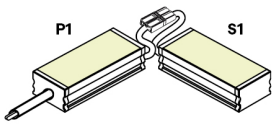



Single End Feed



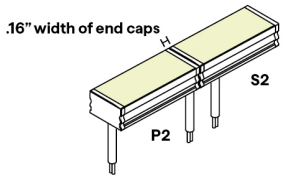

Connection by others

Non-Continuous End Feed

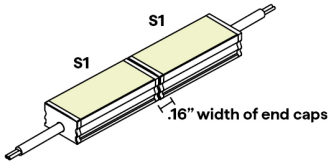



Connection by others

Non-Continuous Corner Feed




Continuous Bottom Feed




Continuous End to End Feed

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

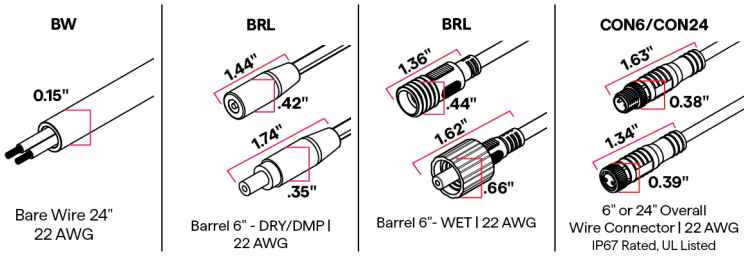
Specification subject to change. Rev-10-05-26

# ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & 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



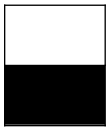

Bare Wire 24"
22 AWG

Barrel 6" - DRY/DMP | 22 AWG

Barrel 6"- WET | 22 AWG

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

## 10 WIRE COLOR

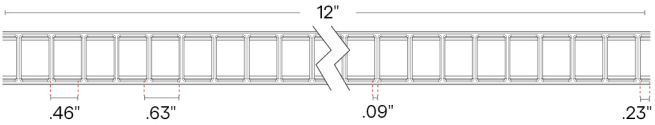


White

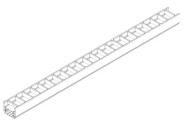
Black

## EXTERNAL LOUVER ACCESSORY

**PLASTIC**

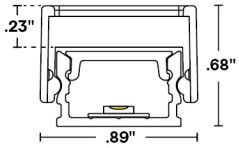



**L1-XX**



Lumen Multiplier

| WH | BK |
|---|---|
| 0.72 | 0.51 |




Profile with plastic louver

To order separately use
LALO-L1-FLAT-KIT-WH or
LALO-L1-FLAT-KIT-BK

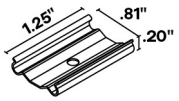
© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTLlighting | www.QTLlighting

# ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

## 12 MOUNTING

**SST**



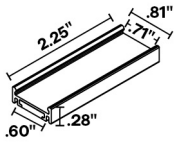

Stainless Steel Clip

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

**M4**

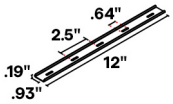



Low Profile Magnet

One M4 provided per foot.

To order separately use MG-04

**MMA-04**



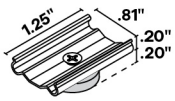

Magnet Mount Accessory for M4

Sold separately, to order use MMA-04

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

Required when mounting to a non-magnetic surface

**MG**

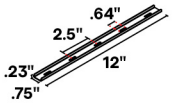



Magnet Clip

One MG provided per foot

To order separately use MG-01

**MMA-01**



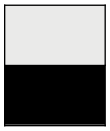

Magnet Mount Accessory of MG-01

Sold separately, to order use MMA-01

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

Required when mounting to a non-magnetic surface

## 13 FINISH



Satin

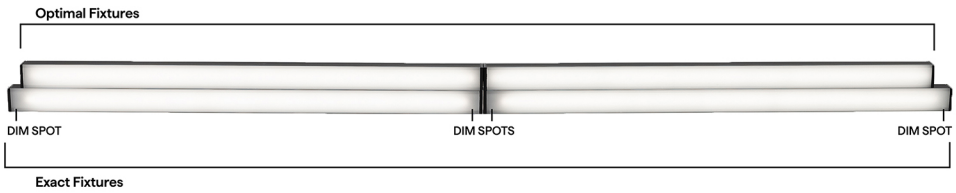
Black

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 +0 -1/8". 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.



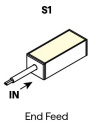

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

# ESSENTIALS LALO-FLAT (01) STATIC WHITE

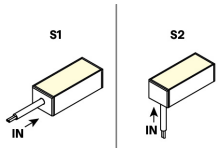
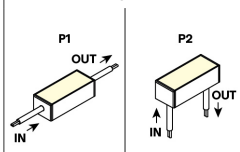
24VDC Linear Fixtures - Surface & Recessed

## SW DRY DMP LENGTHS BY INCH

### EXACT LENGTH

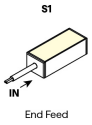
| Requested Length | Potential dim spot on either end of a S1 fixture   |
|---|---|
| 12" | 0.5" |
| 13" | 0.5" |
| 14" | 0.5" |
| 15" | 0.5" |
| 16" | 0.5" |
| 17" | 0.5" |
| 18" | 0.5" |
| 19" | 0.5" |
| 20" | 0.5" |
| 21" | 0.5" |
| 22" | 0.5" |
| 23" | 0.5" |
| 24" | 0.5" |
| 36" | 0.5" |
| 48" | 0.5" |
| 60" | 0.5" |
| 72" | 0.5" |
| 84" | 0.5" |
| 96" | 0.5" |

### OPTIMAL LENGTH

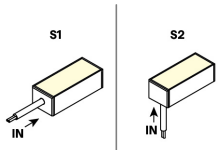
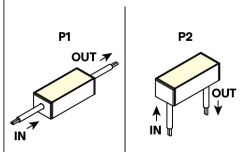
| Requested Nominal Length | S1 & S2   | P1 & P2   |
|---|---|---|
| 12" | 11.41" | 11.66" |
| 13" | 12.41" | 12.66" |
| 14" | 13.41" | 13.66" |
| 15" | 14.41" | 14.66" |
| 16" | 15.41" | 15.66" |
| 17" | 16.41" | 16.66" |
| 18" | 17.41" | 17.66" |
| 19" | 18.41" | 18.66" |
| 20" | 19.41" | 19.66" |
| 21" | 20.41" | 20.66" |
| 22" | 21.41" | 21.66" |
| 23" | 22.41" | 22.66" |
| 24" | 23.41" | 23.66" |
| 36" | 35.41" | 35.66" |
| 48" | 47.41" | 47.66" |
| 60" | 59.41" | 59.66" |
| 72" | 71.41" | 71.66" |
| 84" | 83.41" | 83.66" |
| 96" | 95.41" | 95.66" |

## SW WET LENGTHS BY INCH

### EXACT LENGTH

| Requested Length | Potential dim spot on either end of a S1 fixture   |
|---|---|
| 12" | 0.5" |
| 13" | 0.5" |
| 14" | 0.5" |
| 15" | 0.5" |
| 16" | 0.5" |
| 17" | 0.5" |
| 18" | 0.5" |
| 19" | 0.5" |
| 20" | 0.5" |
| 21" | 0.5" |
| 22" | 0.5" |
| 23" | 0.5" |
| 24" | 0.5" |
| 36" | 0.5" |
| 48" | 0.5" |
| 60" | 0.5" |
| 72" | 0.5" |
| 84" | 0.5" |
| 96" | 0.5" |

### OPTIMAL LENGTH

| Requested Nominal Length | S1 & S2   | P1 & P2   |
|---|---|---|
| 12" | 11.56" | 11.71" |
| 13" | 12.56" | 12.71" |
| 14" | 13.56" | 13.71" |
| 15" | 14.56" | 14.71" |
| 16" | 15.56" | 15.71" |
| 17" | 16.56" | 16.71" |
| 18" | 17.56" | 17.71" |
| 19" | 18.56" | 18.71" |
| 20" | 19.56" | 19.71" |
| 21" | 20.56" | 20.71" |
| 22" | 21.56" | 21.71" |
| 23" | 22.56" | 22.71" |
| 24" | 23.56" | 23.71" |
| 36" | 35.56" | 35.71" |
| 48" | 47.56" | 47.71" |
| 60" | 59.56" | 59.71" |
| 72" | 71.56" | 71.71" |
| 84" | 83.56" | 83.71" |
| 96" | 95.56" | 95.71" |

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

# ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

## 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 | |
|---|---|---|---|---|
| | SW24/1.5-4.0 | SW24/5.0, SW-HE, SW-HE+ | SW24/1.5-4.0 | SW24/5.0, SW-HE, SW-HE+ |
| Dim to Black | Q6M-DC+CAP<br>QTM-DC+CAP<br>iQ-PH+QD1 | Q6M-DC+CAP<br>QTM-DC+CAP<br>iQ-PH+QD1 | QOM-DC+CAP<br>QOM-PH | QOM-DC+CAP<br>QOM-PH |
| 0.1% | QT-CAB-QZ-PH/0-10V<br>QT-CAB-eLED+0-10V<br>QT-CAB-eLED+0-10V-AWN<br>QT-CAB-eLED+DALI-DT6<br>QT-CAB-eLED+DALI-DT6-AWN<br>QTM-eLED+0-10V<br>QTM-eLED+0-10V-AWN<br>QTM-eLED+DALI-DT6<br>QTM-eLED+DALI-DT6-AWN<br>QZ-BOWTIE+DIMMER<br>QZ-DMX<br>QZ-PRO-PH/0-10V<br>QZ-STICK-PH/0-10V<br>QZLP | QT-CAB-QZ-PH/0-10V<br>QT-CAB-eLED+0-10V<br>QT-CAB-eLED+0-10V-AWN<br>QT-CAB-eLED+DALI-DT6<br>QT-CAB-eLED+DALI-DT6-AWN<br>QTM-eLED+0-10V<br>QTM-eLED+0-10V-AWN<br>QTM-eLED+DALI-DT6<br>QTM-eLED+DALI-DT6-AWN<br>QZ-BOWTIE+DIMMER<br>QZ-DMX<br>QZ-PRO-PH/0-10V<br>QZ-STICK-PH/0-10V<br>QZLP | Q-SET-QZ-DMX<br>Q-SET-QZ-PH/0-10V<br>Q-SET-eLED+0-10V<br>QOM-eLED+0-10V<br>QOM-eLED+DALI-DT6<br>QOM-eLED+DALI-DT6-PS<br>QZ-DMX<br>QZ-PRO-PH/0-10V | Q-SET-QZ-DMX<br>Q-SET-QZ-PH/0-10V<br>Q-SET-eLED+0-10V<br>QOM-eLED+0-10V<br>QOM-eLED+DALI-DT6<br>QOM-eLED+DALI-DT6-PS<br>QZ-DMX<br>QZ-PRO-PH/0-10V |
| 1% | Q-DIM<br>QTM-eLED(E)<br>QZ-DALI-DT6 | Q-DIM<br>QTM-eLED(E)<br>QZ-DALI-DT6 | Q-SET+QZ-DALI-DT6<br>QZ-DALI-DT6 | Q-SET+QZ-DALI-DT6<br>QZ-DALI-DT6 |
| 10% | Non-Dim Power Supply with SW App Dongle | Non-Dim Power Supply with SW App Dongle | Q-HEX-mini-DC<br>Q-SET-mLED | |

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

# ESSENTIALS LALO-FLAT (01) STATIC WHITE

24VDC Linear Fixtures - Surface & Recessed

| DIMMING PROTOCOL | INDOOR | | OUTDOOR | |
|---|---|---|---|---|
| | SW24/1.5-4.0 | SW24/5.0, SW-HE, SW-HE+ | SW24/1.5-4.0 | SW24/5.0, SW-HE, SW-HE+ |
| **Non-Dim** | QT-CAB-eLED-ND<br>QTM-eLED-ND<br>QZ-ND | QT-CAB-eLED-ND<br>QTM-eLED-ND<br>QZ-ND | Q-SET-QZ-ND<br>Q-SET-eLED-ND<br>QOM-eLED-ND<br>QZ-ND | Q-SET-QZ-ND<br>Q-SET-eLED-ND<br>QOM-eLED-ND<br>QZ-ND |
| **Phase** | Q6M-DC+CAP<br>QT-CAB-QZ-PH/0-10V<br>QTM-DC+CAP<br>QTM-eLED(E)<br>QZ-BOWTIE+DIMMER<br>QZ-PRO-PH/0-10V<br>QZ-STICK-PH/0-10V<br>QZLP<br>iQ-PH+QD1 | Q6M-DC+CAP<br>QT-CAB-QZ-PH/0-10V<br>QTM-DC+CAP<br>QTM-eLED(E)<br>QZ-BOWTIE+DIMMER<br>QZ-PRO-PH/0-10V<br>QZ-STICK-PH/0-10V<br>QZLP<br>iQ-PH+QD1 | Q-HEX-mini-DC<br>Q-SET-QZ-PH/0-10V<br>Q-SET-mLED<br>QOM-DC+CAP<br>QOM-PH<br>QZ-PRO-PH/0-10V | Q-SET-QZ-PH/0-10V<br>QOM-DC+CAP<br>QOM-PH<br>QZ-PRO-PH/0-10V |
| **0-10V** | QT-CAB-QZ-PH/0-10V<br>QT-CAB-eLED+0-10V<br>QT-CAB-eLED+0-10V-AWN<br>QTM-eLED+0-10V<br>QTM-eLED+0-10V-AWN<br>QZ-PRO-PH/0-10V<br>QZ-STICK-PH/0-10V<br>QZLP | QT-CAB-QZ-PH/0-10V<br>QT-CAB-eLED+0-10V<br>QT-CAB-eLED+0-10V-AWN<br>QTM-eLED+0-10V<br>QTM-eLED+0-10V-AWN<br>QZ-PRO-PH/0-10V<br>QZ-STICK-PH/0-10V<br>QZLP | Q-SET-QZ-PH/0-10V<br>Q-SET-eLED+0-10V<br>QOM-eLED+0-10V<br>QZ-PRO-PH/0-10V | Q-SET-QZ-PH/0-10V<br>Q-SET-eLED+0-10V<br>QOM-eLED+0-10V<br>QZ-PRO-PH/0-10V |
| **Lutron Athena** | QT-CAB-eLED+0-10V-AWN<br>QT-CAB-eLED+DALI-DT6-AWN<br>QTM-eLED+0-10V-AWN<br>QTM-eLED+DALI-DT6-AWN | QT-CAB-eLED+0-10V-AWN<br>QT-CAB-eLED+DALI-DT6-AWN<br>QTM-eLED+0-10V-AWN<br>QTM-eLED+DALI-DT6-AWN | | |
| **ECO System** | QTM-eLED(E) | QTM-eLED(E) | | |
| **DMX** | QZ-DMX | QZ-DMX | Q-SET-QZ-DMX<br>QZ-DMX | Q-SET-QZ-DMX<br>QZ-DMX |
| **DALI-2: DT6** | QT-CAB-eLED+DALI-DT6<br>QT-CAB-eLED+DALI-DT6-AWN<br>QTM-eLED+DALI-DT6<br>QTM-eLED+DALI-DT6-AWN<br>QZ-DALI-DT6 | QT-CAB-eLED+DALI-DT6<br>QT-CAB-eLED+DALI-DT6-AWN<br>QTM-eLED+DALI-DT6<br>QTM-eLED+DALI-DT6-AWN<br>QZ-DALI-DT6 | Q-SET+QZ-DALI-DT6<br>QOM-eLED+DALI-DT6<br>QZ-DALI-DT6 | Q-SET+QZ-DALI-DT6<br>QOM-eLED+DALI-DT6<br>QZ-DALI-DT6 |
| **SCENE App Dimmed** | Non-Dim Power Supply with SW App Dongle | Non-Dim Power Supply with SW App Dongle | | |

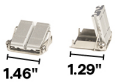
## COMPATIBLE MOUNTING ACCESSORIES

**HINGE - HMB-M**




Adjustable mounting bracket - Medium

**HINGE - HMB-L**




Adjustable mounting bracket - Large

**HINGE - HMB-XL**




Adjustable mounting bracket - XLarge

**Q-PIVOT**



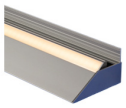

Small mounting accessory

**Q-ANGLE**




Adjustable mounting accessory

**QUOVA-STANDARD**



QUOVA Knife Edge

**NJ-MEDIUM**



J Mounting Bracket

**SD-L-MEDIUM**



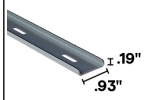
L Mounting Bracket

**MMA-01**




Magnet Mount Accessory of MG-01

**MMA-04**




Magnet Mount Accessory of MG-04

© 2026 QTL. All rights reserved | 155 Hill St. Milford, CT 06460 | 203-367-8777 | sales@QTL.lighting | www.QTL.lighting

Specification subject to change. Rev-10-05-26