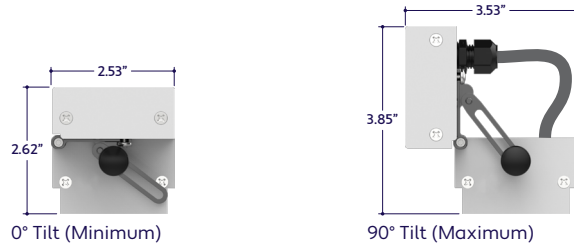


READ ENTIRE GUIDE BEFORE STARTING INSTALLATION

Important Notice: Verify correct luminaire was received with correct color temperature, voltage, and wattage before cutting or installing. ALUZ will not be responsible if incorrect luminaire is installed.

END VIEWS / DIMENSIONS



GENERAL FEATURES

Applications	Wall Washing Lighting
Lens	Tempered Clear Glass Lens
Optics & Asymmetric	10° - 60° or Asymmetric Optics
Length	Built to Order (2', 3', or 4' Increments)
Construction	Aluminum Extrusion
Weight	5.6 lbs (2'), 7.9 lbs (3'), 11.2 lbs (4')
Mounting	Mounting Clips (Sold Separately)
Listing	Dry or Wet (IP65 or IP67) Location UL1598, CSA C22.2#250.0 UL8750, CSA250 UL2108, CSA C22.2 #9
Driver	Integral
Temperature Ratings	Operating / Startup: -20° to 48°C (-4° to 120°F) Storage: -40° to 76°C (-40° to 170°F)
Installation Link	

ELECTRICAL

Dimming	0-10V, DMX, DALI
Maximum Run (Line Voltage Integral Driver)	100' (3W), 64' (5W), 53' (6W), 40' (8W), 35' (9W), 26' (12W), 21' (15W), 17' (18W)
Luminaire Voltage	120V - 277V (UNV)

PRODUCT INFORMATION

- Lighting for wall washing, cove, edge, undercabinet, accent, displays
- Line Voltage Integral Driver
- Choose from a variety of LED colors and whites
- Available in 3 Watts up to 18 Watts Per Foot
- Product is shipped in 1', 2', 3', and 4' luminaires
- Available for outdoor rated installations

ELECTRICAL REQUIREMENTS

- Line Voltage luminaires do not require a remote driver.
- Maximum load per line voltage fixture is 320 watts per circuit.

INSTALLATION TOOLS REQUIRED

- Electric Hammer Drill
- 14.4 to 28 Volt Cordless Drill
- Phillips Bits
- Utility Knife
- Electrical Cord
- Marker
- Wire Stripper
- Long Nose Pliers
- Drill Bits - Concrete or Wood
- Electrical Three Ways
- Safety Glasses
- Measuring Tape
- Laser Line or Chalk Line

WARNING

When using luminaires for any application, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury. Luminaires must be installed in accordance with the NEC or CEC as applicable. ALUZ will not be responsible for damage or malfunction caused by the following:

- Ensure power is off before installation begins, during replacements, additions, or repairs.
- Do not use luminaires if damaged, such as broken boards, loose connections, or frayed wire insulation. Inspect before installing.
- Do not install luminaires in hazardous locations.
- Do not cover luminaires with any material. Covering may cause LEDs to overheat, melt, or ignite.
- Do not paint on or over fixture lens or LEDs. Paint or any other substance on lens or LEDs will cause a shift in color temperature.
- Soffit must be evenly painted with a neutral white to avoid color shift.
- Do not modify luminaires in the field.
- Do not overlap luminaires in any way. (Fig. 1)
- Luminaires have line voltage risk of shock. Consult factory for any malfunctions. Do not attempt to repair.
- Only use luminaire with specified rated voltages. Do not exceed the specified voltage for any luminaire.
- Do not use extrusion as a raceway for additional wire. Non-factory feed through wires inside luminaire will void warranty.
- Ground Fault Circuit Interrupter (GFCI) protections should be provided on circuits or outlets when luminaire is used for outdoor applications.
- Surge protector must be set up for electrical power system to avoid damaging lighting system.
- Do not make wiring connections without referring to wiring diagrams.
- Do not cut wire while energized. (Fig. 2)
- Do not exceed maximum run lengths.
- Always follow sequence labeling for continuous runs. Continuous run segments are labeled in alphabetical order.
- Polarity of continuous run segments must be aligned.
- Do not assemble continuous runs prior to installing into mounting clips. Each segment must be installed one by one into mounting clips. The weight of the assembled segments will put strain on junctions, causing the board, pin, or terminals to break.
- Do not install continuous runs without a mounting clip at each junction between two segments.
- Do not secure luminaire with nails or like means that might damage the wiring inside. Only secure by using mounting clips.
- Do not mount luminaire inside tanks or enclosures of any kind.
- Do not install downward facing luminaires without set screws.
- Do not use improper screw head type on mounting clips. It will cause the mounting clip to open up and become dysfunctional.
- Do not modify mounting clips.
- Do not weld mounting clips to surface. Mounting clips must be mechanically attached with screws appropriate for mounting surface and weight of luminaire.
- Do not mount fixture with less than the minimum number of mounting clips required. See mounting clips section for details.
- Do not install mounting clips on uneven surfaces. Use shims to level out height of mounting clips if necessary.
- Do not install mounting clips after luminaires have been assembled. Install mounting clips first, then install luminaire into mounting clips.
- Do not force luminaire into a space that is too small.
- Do not force luminaire with cord grip into soffit. (Fig. 3)
- Do not install luminaire at an angle within a cove. Only install fixtures straight within a cove. (Fig. 4)
- Do not bend extrusion around radius.
- Do not submerge dry or wet location luminaire in any liquid.
- Do not install wet location in outdoor coves without proper drainage. (Fig. 5)
- Do not install luminaire in any area that is continuously exposed to flowing or pooling water, such as underneath drain pipes, sprinklers, fountains, misters, etc.
- Do not cut, puncture, or penetrate aluminum housing, end caps, or lens covers.
- Do not drop, bang, or rest weight upon luminaire.
- Do not apply excessive pressure to any part of luminaire.
- Do not remove end caps from luminaire.
- Do not bend power cord or continuous connector past permitted bend radius. Bending past permitted bend radius will break the seal of the cordgrip or damage the insulation. (Fig. 6)
- Wet Location: 3.5" minimum bend radius
- Dry Location: 1.5" minimum bend radius
- Do not install in places where the power cord is subject to continuous flexing.
- Do not twist continuous connector or power cord.
- Do not hold, carry, or suspend luminaire by the power cord.
- Do not install on ceilings without mounting clips and set screws. (Fig. 7)

FIGURES

Figure 1

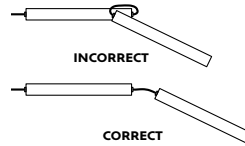


Figure 2

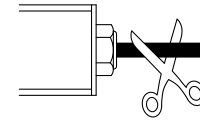


Figure 3

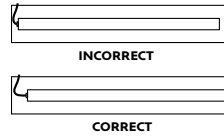


Figure 4

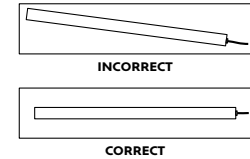


Figure 5

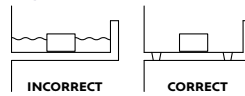


Figure 6

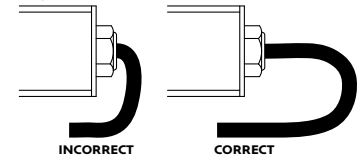
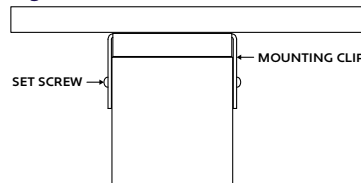


Figure 7



CLEANING MATERIALS

The use of solvents and/or cleaners which are not compatible with polycarbonate will result in the softening, crazing, and/or cracking of the plastic part. This is especially true of polycarbonate lamps and mounting bases which may be under stress in their normal applications.

COMPATIBLE WITH POLYCARBONATE

- Mild soap and water
- Mineral Spirits
- Isobutyl Alcohol
- VM and P Naphtha
- Varsol No.2
- Mexane
- Freone TF and TE-35
- Ethanol
- Dirtex
- 2% Sol. Reg. Joy
- 10% Sol Bon Ami
- White Kerosene
- Methyl Alcohol
- Heptane
- Petroleum Ether / 65°C
- Isopropyl Alcohol
- Lacryl PCL-2035
- Polycarbonate Cleaner

NOT COMPATIBLE WITH POLYCARBONATE

- Trichlor
- Gasoline
- Liquid Detergents
- Acetone
- Carbon Tetrachloride
- Pink Lux (Phosphate free)
- Triclene
- Chlorinated Hydrocarbons
- #1 & #3 Denatured Alcohol
- Methyl Ethyl Keytone (MEK)
- Texize-8006, 8129, 8758
- MIBK
- Liquid Cleaner - 8211
- Toluol
- Agitene
- Benzol
- Ajax
- Kleenol Plastics
- Lysol
- Stanisol Naphtha
- Oils
- Lemon Joy (phosphate free)
- Diversol
- Lestoil

0-10V DIMMING (10V)

Technical Requirements For Control Equipment

- The light output of the LEDs operated by the controllable LED driver is controlled by DC voltage applied to the control input leads (gray and violet). The actual response curve of LED driver current versus control voltage.
- The control device must be capable of accepting or sinking the DC current flow from the driver. The DC current from the driver that must be sunk by the control circuit is approximately 150uA (+/-50% for isolated dim interfaces, up to 1.5mA for non isolated dim interfaces).
- If the control bus is opened, or if the control device internally opens the control bus under some conditions, the voltage on the control bus will then be a function of the drivers, which is 10-15V. Maximum light output will be delivered under this condition.
- If the control bus is shorted either by a mechanical switch in the control or by the circuitry of the control device, or inadvertently in the wiring, the current on the control bus will be less than 1.5mA.
- As can be determined from the two items, simple two-level operation of the drivers can be achieved by proper usage and application of a simple open/closed switch on the control bus with maximum light being achieved when the switch is open and minimum light with the switch is closed.
- The driver is intended to be used with control voltages between 0-10VDC volts peak maximum on the driver control leads.
- Control equipment intended to control more than one driver must be capable of sinking the current supplied to the control bus by the maximum number of drivers specified for the control device. At any given level setting it must maintain control bus voltage constant within a range of +/-5% as the number of drivers connected to the control bus varies from a minimum of one driver up to the maximum number specified for the control device.
- Driver of various ratings may be mixed on the same control system.

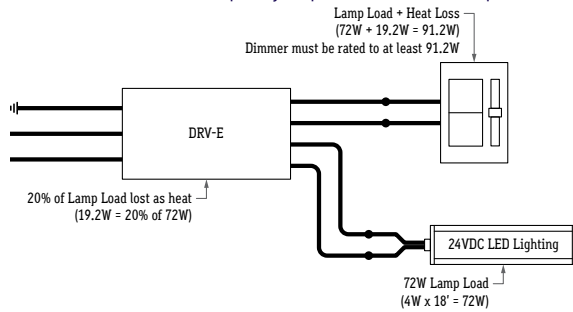
0-10V DIMMING (10V-.1%)

Technical Requirements For Control Equipment

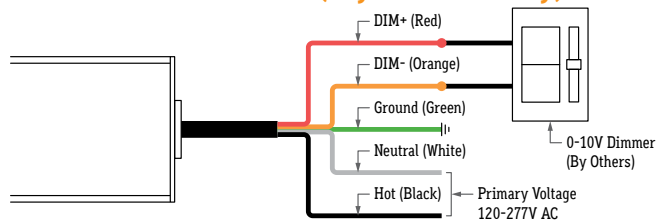
- The light output of the LEDs operated by the controllable LED driver is controlled by DC voltage applied to the control input leads (grey and violet). The actual response curve of LED driver current versus control voltage.
- The control device must be capable of accepting or sinking the DC current flow from the driver. The DC current from the driver that must be sunk by the control circuit is approximately 150uA (+/-50% for isolated dim interfaces, up to 1.5mA for non isolated dim interfaces).
- If the control bus is shorted either by a mechanical switch in the control or by the circuitry of the control device, or inadvertently in the wiring, the current on the control bus will be less than 1.5mA.
- As can be determined from the two items, simple two-level operation of the drivers can be achieved by proper usage and application of a simple open/closed switch on the control bus with maximum light being achieved when the switch is open and minimum light with the switch is closed.
- The driver is intended to be used with control voltages between 0-10VDC volts peak maximum on the driver control leads.

0-10V DIMMER RATINGS

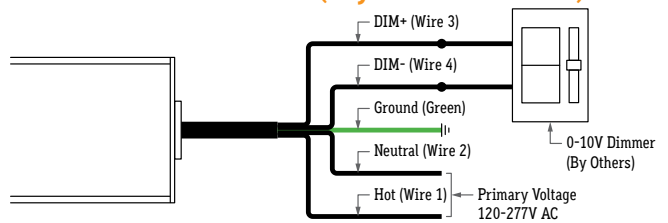
The stated VA (volt-ampere) rating is the rated capacity of the dimmer which includes the electronic driver heat losses and the lamp load. A driver dissipates less than 20% of the connected load as heat. The lamp load plus the driver loss determine the dimmer capacity required. See the example below.



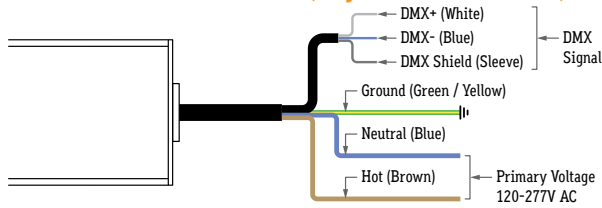
0-10V WIRING DIAGRAM (Dry Location Only)



0-10V WIRING DIAGRAM (Dry or Wet Location)



DMX WIRING DIAGRAM (Dry or Wet location)

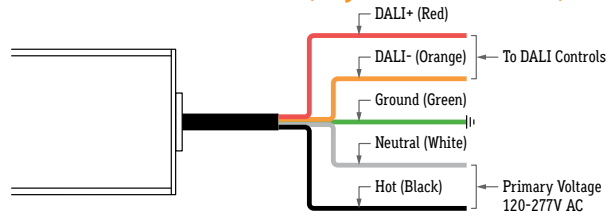


DMX NOTES

- Default DMX address of each luminaire is 001. Consult third party DMX commissioner to modify at time of installation.
- Connection from DMX controller to luminaire must be made using a proper daisy chain connection per DMX-512 / RDM standards.
- Do not make DMX wiring connections in parallel.

When connecting DMX Shield to a DMX controller terminal, ensure that it is not connected to or touching earth ground, chassis ground, and / or DC power (-) return.

DALI WIRING DIAGRAM (Dry or Wet location)

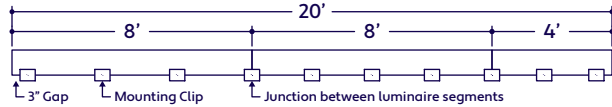


DALI NOTES

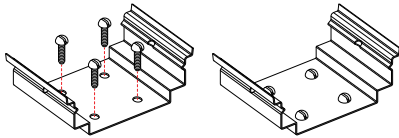
- DALI commissioning to be performed by a third party at time of installation.
- ALUZ does not provide DALI commissioning.

DRY LOCATION APPLICATIONS

- 1 Measure area where luminaire will be installed. Use a laser line to create a reference line along installation area, ensuring consistent alignment of mounting clips. Mark location where each mounting clip will be installed along reference line.
- 2 Use 1 mounting clip every 2', rounded up. Use a minimum of 2 mounting clips per luminaire segment. For vertical applications, create a stopper at the bottom of the run to prevent sliding.
- 3 Use a mounting clip at the junction between two luminaire segments.
Example: 20' Run.

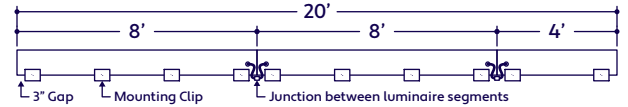


- 4 Lay mounting clips along reference line and pre-drill using an appropriate drill bit for surface material and screw size. Typical screw size is 8/32 x 1".
Note: Allow 1/4" clearance on each side of mounting clip to account for lateral expansion. Only install mounting clips on flat, even surfaces.
- 5 Screw mounting clips to surface, then snap luminaire into mounting clips. Install set screws to each mounting clip, if applicable. Set screws are required for downward facing, outward facing, and vertically mounted applications.

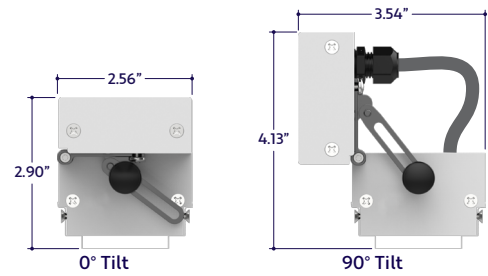


WET LOCATION APPLICATIONS

- 1 Measure area where luminaire will be installed. Use a laser line to create a reference line along installation area, ensuring consistent alignment of mounting clips. Mark location where each mounting clip will be installed along reference line.
- 2 Use 1 mounting clip every 2', rounded up. Use a minimum of 2 mounting clips per luminaire segment. For vertical applications, create a stopper at the bottom of the run to prevent sliding.
- 3 Space mounting clips evenly throughout the run.
Example: 20' Run.



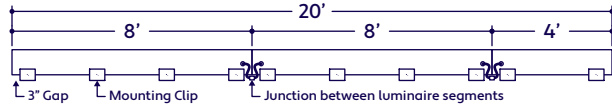
ASSEMBLED DIMENSIONS



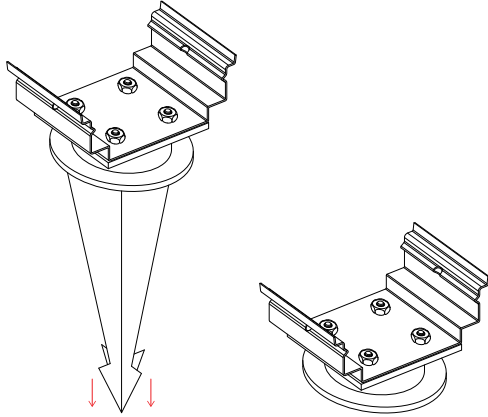
1 Measure area where luminaire will be installed. Use a laser line to create a reference line along installation area, ensuring consistent alignment of mounting clips. Mark location where each mounting clip will be installed along reference line.

2 Use 1 mounting clip every 2', rounded up. Use a minimum of 2 mounting clips per luminaire segment. For vertical applications, create a stopper at the bottom of the run to prevent sliding.

3 Space mounting clips evenly throughout the run.
Example: 20' Run.

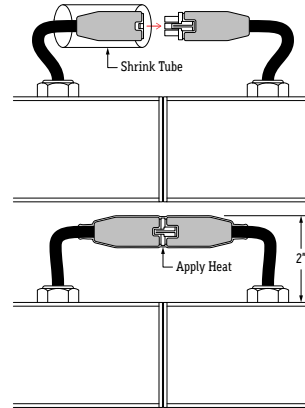


4 Insert stakes into ground until entire tapered portion is submerged.
Note: The ground must be able to support the weight of the luminaires.

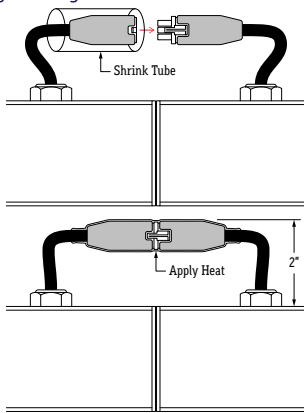


5 Ensure each stake is secured in place, then snap luminaires into mounting clips.

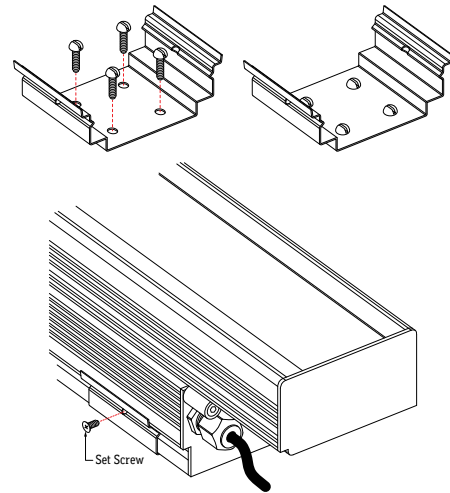
6 If applicable, connect disconnects between luminaires. Slide shrink tube over connectors and apply heat. The shrink tube will shrink down, sealing the connectors. Apply silicone around sealed connectors for a stronger seal.



- 1 Measure area where luminaire will be installed. Use a laser line to create a reference along installation area, ensuring accurate placement of mounting clips. Mark location where each mounting clip will be installed along reference line.
- 2 The number of required mounting clips differs for dry and wet location products. Verify number of mounting clips is appropriate for installation environment before beginning installation. Do not install luminaires with inadequate number of mounting clips. Refer to the Mounting Clips page for additional information.
- 3 Lay mounting clips along reference line and pre-drill surface using an appropriate drill bit for surface and screw size.
Recommendation: 8/32 x 1" Screw.
Note: Allow 1/4" clearance for lateral expansion of assembled mounting clips. Only install mounting clips on flat, even surfaces.
- 4 If applicable, connect disconnects between luminaire segments. Slide shrink tube over connectors and apply heat. The shrink tube will shrink down, sealing the connectors. Apply silicone around sealed connectors for a stronger seal.
Note: Only use a heat gun to apply heat to shrink tubes. Do not use an open flame such as a lighter or gas torch.

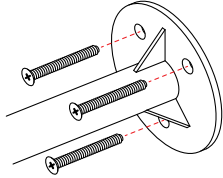


- 5 Screw MC-1 mounting clips to surface, then snap luminaire into mounting clips. Install set screws if required. Set screws are required for downward and outward facing applications.

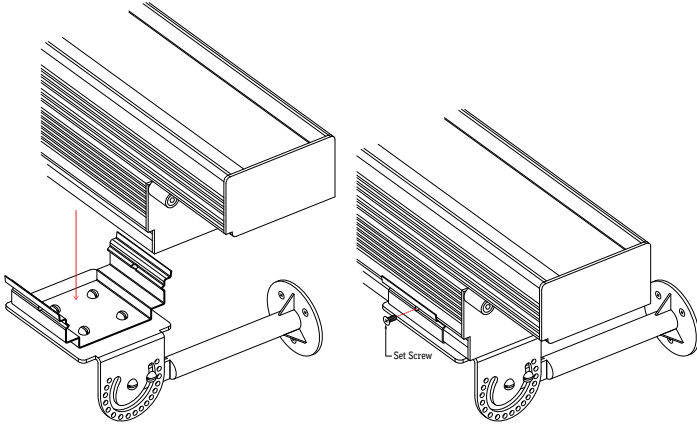


- 6 Perform a continuity test before connecting luminaire to power source. Refer to Troubleshooting & Continuity Test page for additional information.
- 7 Verify wiring diagram, then connect luminaire to power source.

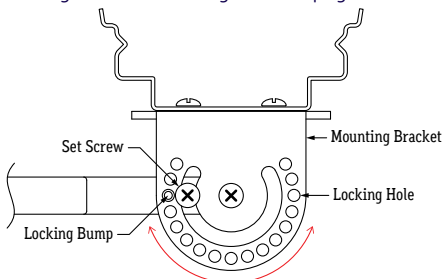
- 1 Measure area where luminaire will be installed. Use a laser line to create a reference line along installation area, ensuring consistent alignment of mounting arms. Mark location where each mounting arm will be installed along reference line.
- 2 Determine number of mounting arms needed. Use a minimum of 2 mounting arms per luminaire. Mount arms 6" from center of mounting plate to the end of luminaire.
Note: Refer to Spacing Diagrams on next page.
- 3 Mark location where mounting arms will be installed. Screw arm base to surface using countersink screws of appropriate type and length for surface.



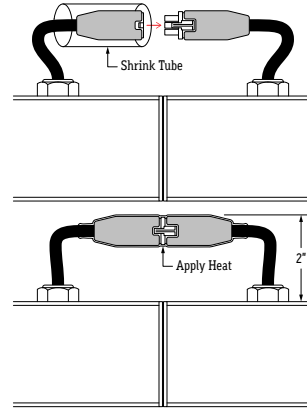
- 4 Secure luminaire to mounting arms by snapping luminaire into mounting clips, then install set screws to secure luminaire to clips. Ensure luminaire is secured in place and spacing is accurate according to the Spacing Diagrams.



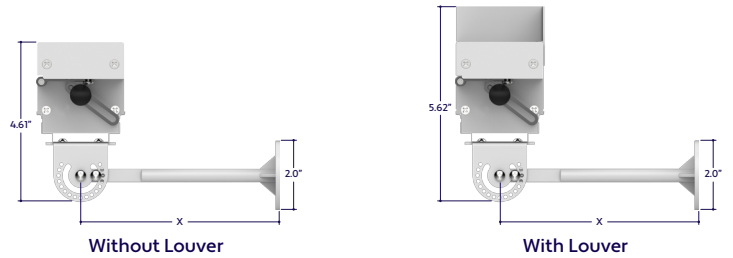
- 5 Loosen set screw until the mounting plate can move freely. Turn the mounting plate until desired angle is achieved, then mate the locking bump with locking hole. Tighten set screw until mounting plate is secured in place.
Note: Refer to Angle Increments diagram next page.



- 6 If applicable, connect disconnects between luminaires. Slide shrink tube over connectors and apply heat. The shrink tube will shrink down, sealing the connectors. Apply silicone around sealed connectors for a stronger seal.

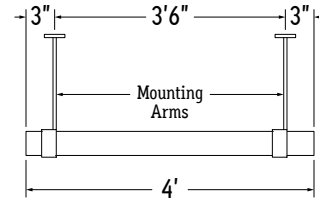


ASSEMBLED DIMENSIONS

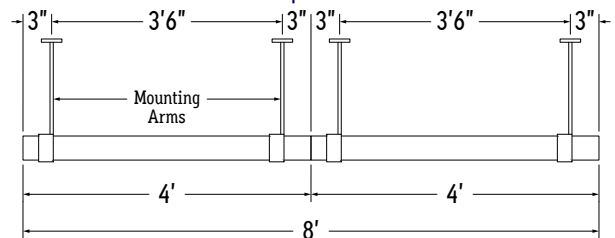


SPACING DIAGRAMS

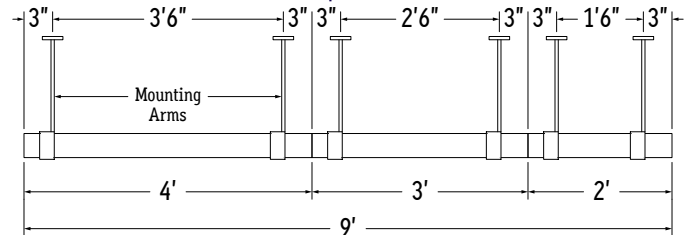
Example: 4' Run



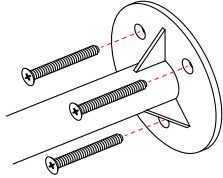
Example: 8' Run



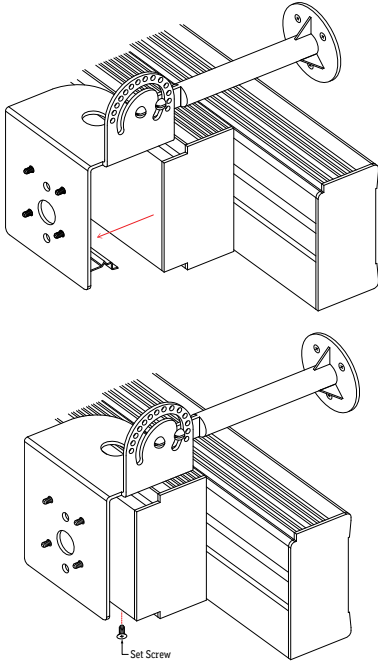
Example: 9' Run



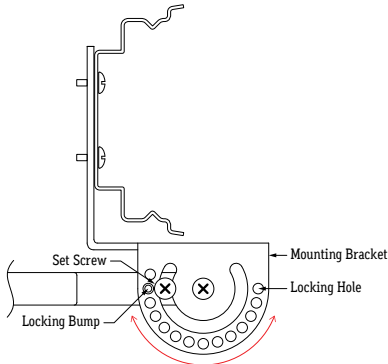
- 1 Measure area where luminaire will be installed. Use a laser line to create a reference line along installation area, ensuring consistent alignment of mounting arms. Mark location where each mounting arm will be installed along reference line.
- 2 Determine number of mounting arms needed. Use a minimum of 2 mounting arms per luminaire. Mount arms 6" from center of mounting plate to the end of luminaire.
Note: Refer to Spacing Diagrams on next page.
- 3 Mark location where mounting arms will be installed. Screw arm base to surface using countersink screws of appropriate type and length for surface.



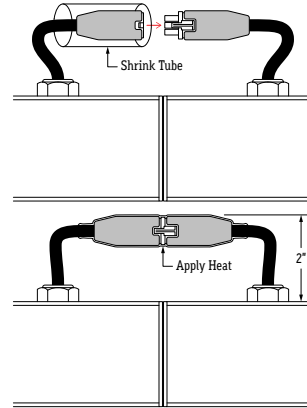
- 4 Secure luminaire to mounting arms by snapping luminaire into mounting clips, then install set screws to secure luminaire to clips. Ensure luminaire is secured in place and spacing is accurate according to the Spacing Diagrams.



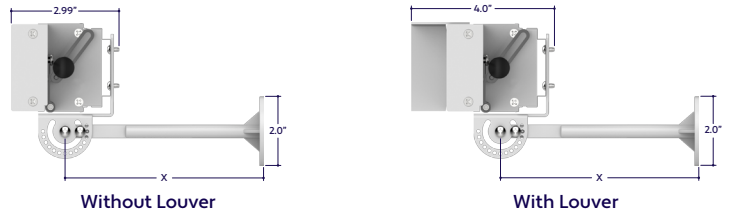
- 5 Loosen set screw until the mounting plate can move freely. Turn the mounting plate until desired angle is achieved, then mate the locking bump with locking hole. Tighten set screw until mounting plate is secured in place.
Note: Refer to Angle Increments diagram next page.



- 6 If applicable, connect disconnects between luminaires. Slide shrink tube over connectors and apply heat. The shrink tube will shrink down, sealing the connectors. Apply silicone around sealed connectors for a stronger seal.

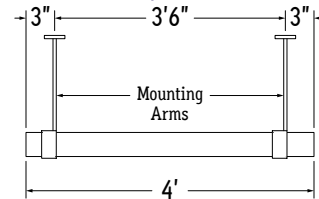


ASSEMBLED DIMENSIONS

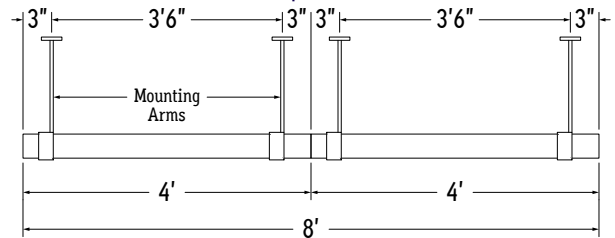


SPACING DIAGRAMS

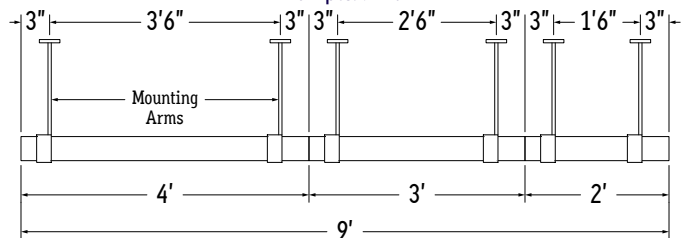
Example: 4' Run



Example: 8' Run

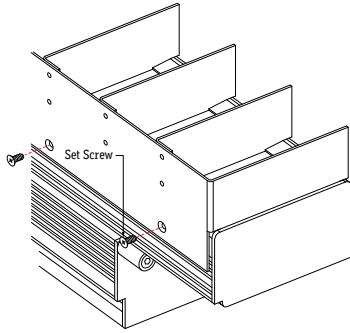


Example: 9' Run

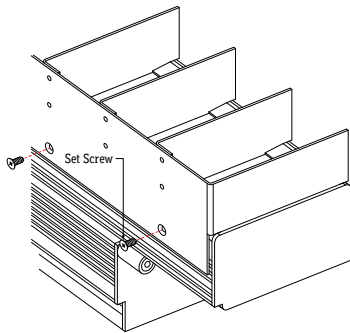


1 Determine number of louvers needed. Louvers are available in 1' increments. Specify total length of reflectors needed.

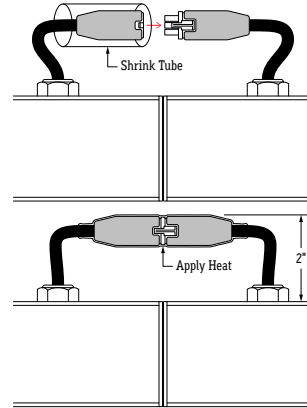
2 Position louvers on luminaires.



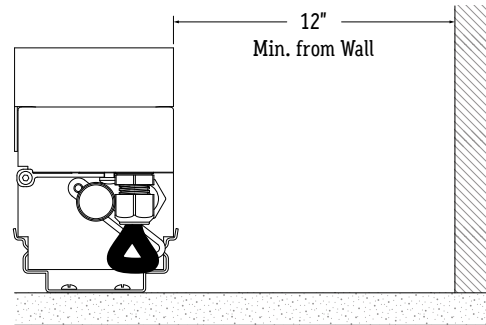
3 Install 3 set screws on each louver to secure in place. Do not over-tighten set screws



4 If applicable, connect disconnects between luminaires. Slide shrink tube over connectors and apply heat. The shrink tube will shrink down, sealing the connectors. Apply silicone around sealed connectors for a stronger seal.

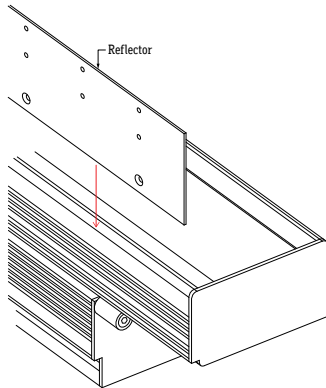


5 Mount luminaires at least 12" away from the wall.

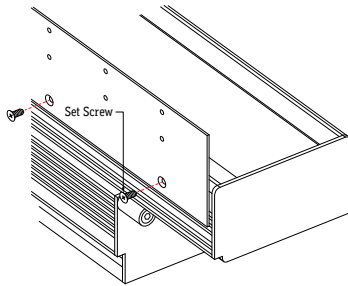


1 Determine number of reflectors needed. Reflectors are available in 1', 2', 3', or 4' increments. Specify total length of reflectors needed.

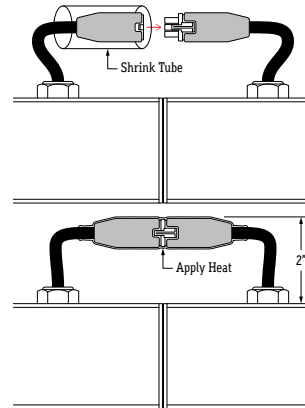
2 Position reflectors on luminaires.



3 Install 3 set screws on each reflector to secure in place. Do not over-tighten set screws



4 If applicable, connect disconnects between luminaires. Slide shrink tube over connectors and apply heat. The shrink tube will shrink down, sealing the connectors. Apply silicone around sealed connectors for a stronger seal.



5 Mount luminaires at least 12" away from the wall.

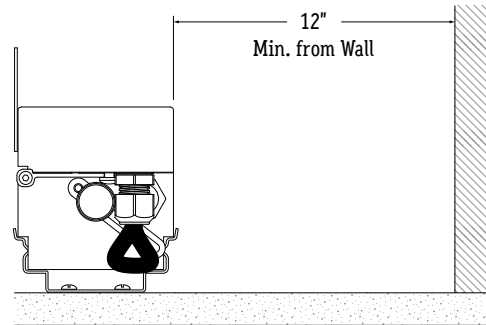
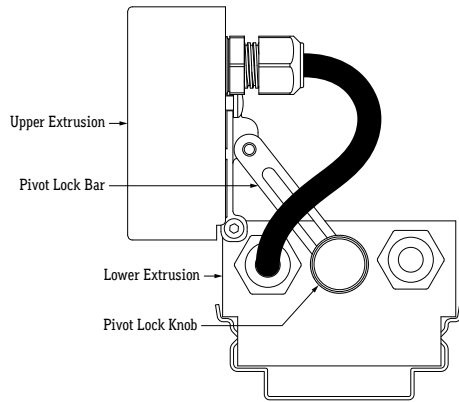
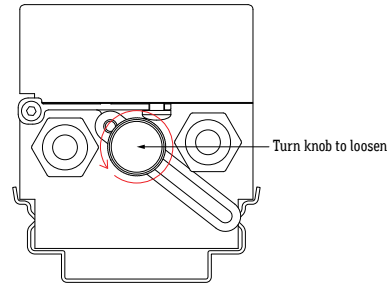


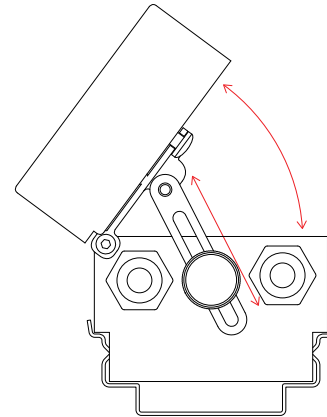
DIAGRAM OF ASSEMBLY



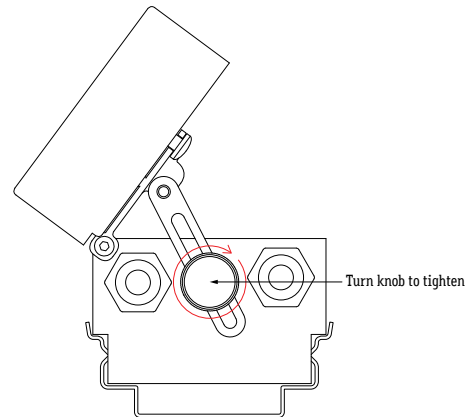
- 1 Slightly unscrew Pivot Lock Knobs on both ends of luminaire until Pivot Lock Bar and Upper Extrusion are able to move freely. Do not remove Pivot Lock Knob.



- 2 Adjust angle as desired.
Tip: Use an angle finder or sliding bevel to ensure accuracy of angles.



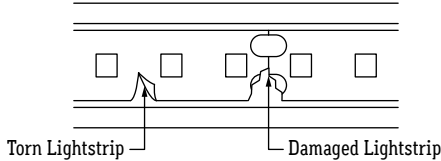
- 3 Turn the Pivot Lock Knob until tight against Pivot Lock Bar. Repeat on other end of luminaire. Do not overtighten Pivot Lock Knob.



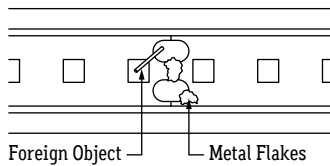
TROUBLESHOOTING TIPS

- Do not reset the breaker multiple times.
- If the unit is overloaded, the breaker will trip, shutting off the driver and lights.
- If the breaker reset button has been held down by hand or any type of pressure, such as duct tape, or if the breaker has been reset multiple times without troubleshooting, the unit will:
 - Burn the driver bobbin.
 - Burn the thermal or magnetic breaker.
 - Burn the driver lead wires due to high amperage caused by overload.
 - Short circuit in line which will not allow the breaker to reset.
 - Damage the lighting.

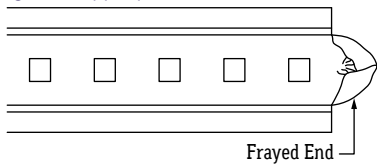
- 1 Turn off power before beginning. Check for any twisting or damage to the circuit in the LED lightstrip. If there is excessive damage and the circuit is broken, the lightstrip must be replaced.



- 2 Check for metal particles or other foreign objects causing the short.



- 3 Check to make sure cuts in the lightstrip are clean and not frayed, causing positive and negative copper pads to touch.

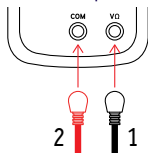


CONTINUITY TEST

A continuity test is performed to determine if electricity can pass through two points on an electrical circuit. This helps identify shorts or malfunctions in the luminaire. Use a multimeter or continuity tester to perform the steps below.

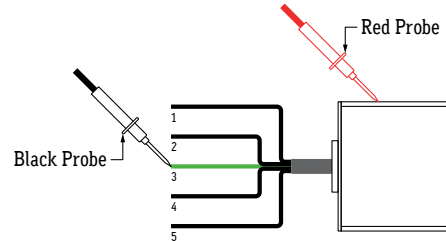
- Always perform a continuity test before connecting to power source.
- Malfunctions are not always as obvious as the lights not turning on.
- A short or malfunction in the line or luminaire will cause damage over time, irreparably damaging the lighting and voiding warranty.

- 1 Turn off power before beginning. Verify power is off by using a non-contact circuit tester (by others). Touch the probe of the tester to the positive wire of the power source. The tester will light up if an electrical current is detected.
- 2 Setup your multimeter tester (by others). First, insert the black probe lead into the COM jack, then insert the red probe lead into the VΩ jack.



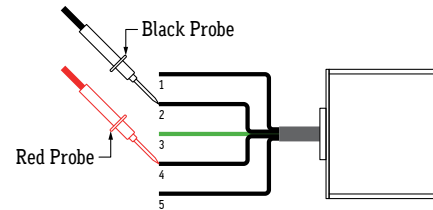
- 3 Measure area where luminaire will be installed. Use a laser line to create a reference line along installation area, ensuring consistent alignment of mounting channels. Mark location where mounting channels will be installed along reference line.

- 4 Touch the red probe to the luminaire extrusion and the black probe to the ground wire (green). If the luminaire is properly grounded, the multimeter will beep, flash, or read 0Ω (ohms). If there is no conductive path, the multimeter will not show any feedback. Troubleshoot to identify the malfunction in the ground wire.

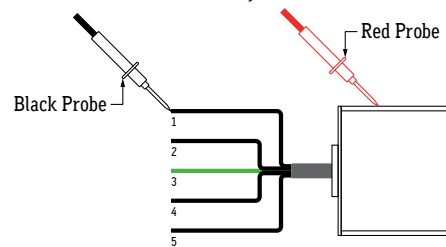


- 5 Touch the red probe to any wire and the black probe to each other wire. Repeat process for each wire. If a conductive path is formed between any of the wires, the multimeter will beep, flash, or read 0Ω (ohms). Troubleshoot to identify the malfunction in the line. If there is no conductive path, the multimeter will not show any feedback.

Example: Check for continuity between Wire 2 and Wire 4



- 6 Touch the red probe to the luminaire housing and the black probe to each wire except ground. If a conductive path is formed between the housing and any of the wires, the multimeter will beep, flash, or read 0Ω (ohms). Troubleshoot to identify the malfunction in the line. If there is no conductive path, the multimeter will not show any feedback.



- 7 Set multimeter to AC voltage and test power source. Confirm the correct voltage before connecting luminaire to power source. If the voltage reading is more than 1 volt greater than the marked output voltage, there is a problem with the power source or driver.

- 8 Connect luminaire to power source. If LEDs do not turn on, troubleshoot to find the problem in the line.