

## Linear One Exterior



# CONTENTS

<b>INTRODUCTION .....</b>	<b>2</b>
Welcome	2
Safety, maintenance and cleaning	2
Supplied items	3
Optional accessories	3
<b>INSTALLATION .....</b>	<b>5</b>
Mount adjustment	5
Using an optional mounting track	6
Using optional extender bars	7
Removing and refitting the end panels	8
Fitting an optional glare shield	9
Fitting an optional louver	10
Power and control wiring	11
Interconnecting	12
The AJBOX1 junction box	13
Optional DMX operation (via UDM)	14
Optional wireless DMX operation (via UDM•W)	14
Optional wireless 0-10V operation (via UDM and Aria)	15
<b>FURTHER INFORMATION .....</b>	<b>16</b>
Troubleshooting	16
Specifications	17
Limited product warranty	18
Changing mounting brackets	23

# INTRODUCTION

## WELCOME

Welcome to the Linear One Exterior range from Acclaim Lighting. These aluminum bodied IP66, natatorium-ready fixtures are available in 1' and 4' lengths and are easily interconnected in series to greatly simplify installation.

The Linear One Exterior range fully embraces Acclaim Lighting's Modular Systems (AMS) design standard; AMS allows a wider choice of internal and external options to be configured in our Los Angeles headquarters and delivered in industry-leading time. In both 1' and 4' lengths, there are numerous emitter options, including four choices of white-light color temperatures or any of four saturated colors, together with an extensive range of lens options to suit every installation:



- 2100K to 4000K CCTs (all with Color Rendering Indexes of either 80 or 90 CRI),
- Alternatively, red, green, blue or amber saturated color options are also available,
- 10° x 10°, 30° x 30°, 30° x 60°, 60° x 60°, 100° x 100°, 10° x 25°, 10° x 40°, 10° x 70°, 40° x 70°,
- Asymmetric (60° x 60° + 20° tilt), Batwing (split 10° x 40° or 40° x 70°),
- A range of power input models, from 4W per foot to 12W per foot.

Additionally, optional glare shields and louvers allow the light output to be shaped further.

Control is achieved using the industry standard 0-10V sink format. Each Linear One Exterior fixture has a short in-line input cable at one end and a fixed output socket at the other (power and control signals are combined via proprietary IP67-rated connectors). These allow the fixtures to be seamlessly abutted in lengths up to 80 feet (24m) without the need for separate link cables.

With the addition of the optional Acclaim Lighting UDM and Aria units (see page 14), you can add remote wireless connectivity to the long list of abilities within the Linear One Exterior range.

The internal auto-sensing power supply within each unit can accept mains inputs between 100 to 277VAC at 50 or 60Hz.

## SAFETY

- When fixtures are mounted off-ground, ensure they are securely fitted to an appropriate mounting surface.
- Ensure that the power input is supplied from a correctly fused, earthed and environmentally protected location.

## MAINTENANCE

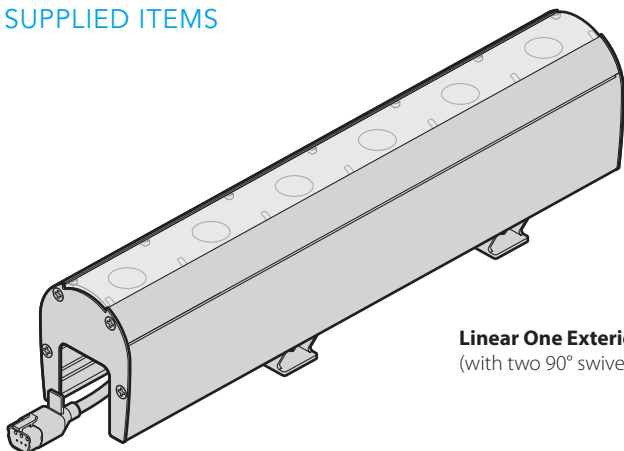
**CAUTION: Always isolate mains power before starting maintenance operations.**

- Ensure that all mounting (and device) screws/bolts are fully tight and free of corrosion.
- Ensure there is no deformation to the housing, lenses or fixing points.
- Check that all power supply cables are free from physical damage or material fatigue.
- Use only genuine spare parts supplied by Acclaim Lighting.

## CLEANING

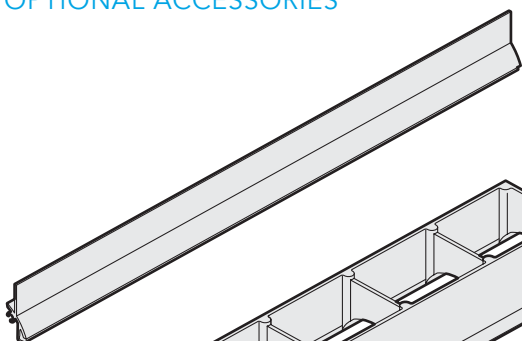
- Use a moist, lint-free cloth when cleaning each fixture.
- Never use alcohol or solvents.

## SUPPLIED ITEMS



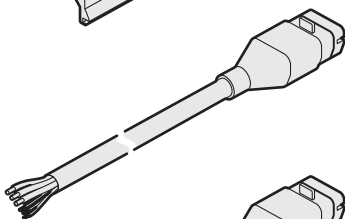
**Linear One Exterior 1' or 4'**  
(with two 90° swivel mount brackets)

## OPTIONAL ACCESSORIES



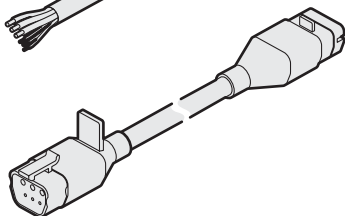
**Glare shield**  
1' (30cm) [LNEGS1]  
4' (121cm) [LNEGS4]

**Louver**  
12" (30cm) [LNELV1]



**Feed cables** (including end cap)

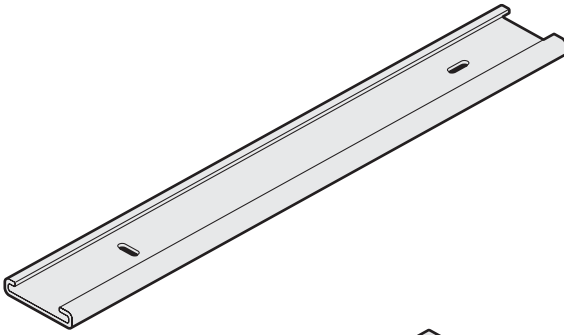
10' (3m) [LNFC10]  
50' (15m) [LNFC50]



**Link cables**

6" (15cm) [LNLC0]  
1' (30cm) [LNLC1]  
5' (1.5m) [LNLC5]  
10' (3m) [LNLC10]

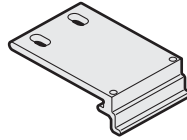
## OPTIONAL ACCESSORIES (CONTINUED)



### Mounting track\*

- 1' (30cm) [LNMT1]
- 4' (121cm) [LNMT4]

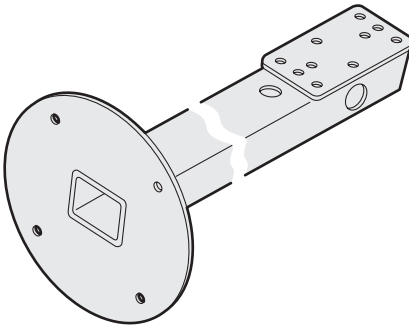
\* not required for all installations



### Flat mounting bracket\*

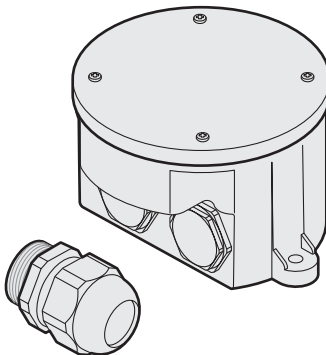
[LNFMB]

\* factory fitted option



### Extender bars

- 1' (30cm) [LNEB1]
- 2' (60cm) [LNEB2]
- 3' (91cm) [LNEB3]



### IP66 junction box plus outlet cable gland

See page 13  
[AJBOX1]

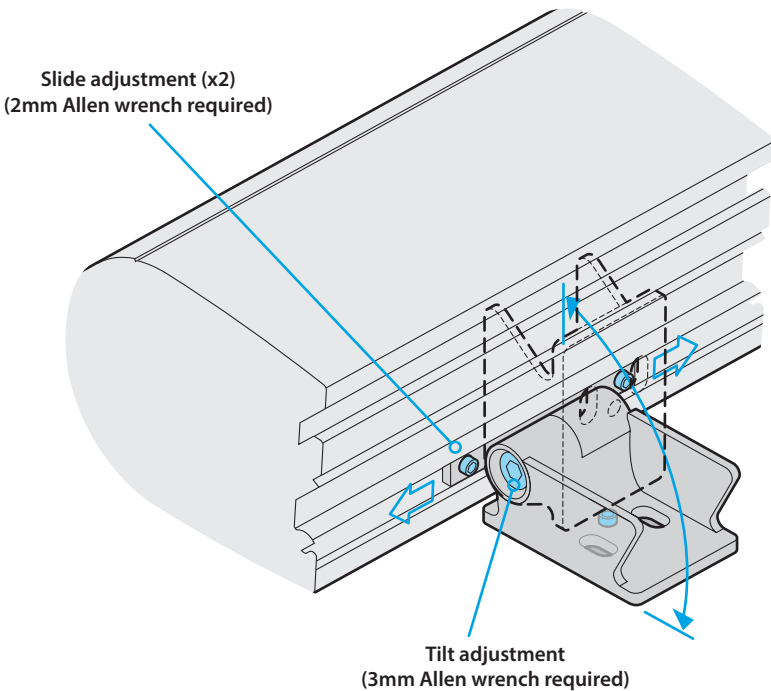
# INSTALLATION

When installing each Linear One fixture, ensure that the surface is level and that nothing is protruding to damage the mounting bracket(s). Suitable mounting surfaces include steel, aluminum, concrete or wood structures.

Each Linear One fixture is fitted with two swivel mounting brackets, each of which have two slots measuring 0.26" x 0.18" (6.5 x 4.5mm), with a base thickness of 0.12" (3mm). Select bolts or screws (not supplied) that fit the swivel mounting brackets correctly and are particularly suited to the mounting surface. Optional mounting tracks (see page 6) and flat mounting brackets (factory fitted option) are also available.

## MOUNT ADJUSTMENT

The swivel mounting brackets allow a tilt range of roughly 90 degrees to be achieved. Use a 0.12" (3mm) Allen wrench to adjust the tilt angle.



Ensure that each swivel mounting bracket is securely fixed to the mounting surface with appropriate screws/bolts. If necessary, use a 2mm Allen wrench to loosen the two grub screws on each swivel mounting bracket to allow them to slide along the length of the fixture to the required position before re-tightening.

## USING AN OPTIONAL MOUNTING TRACK

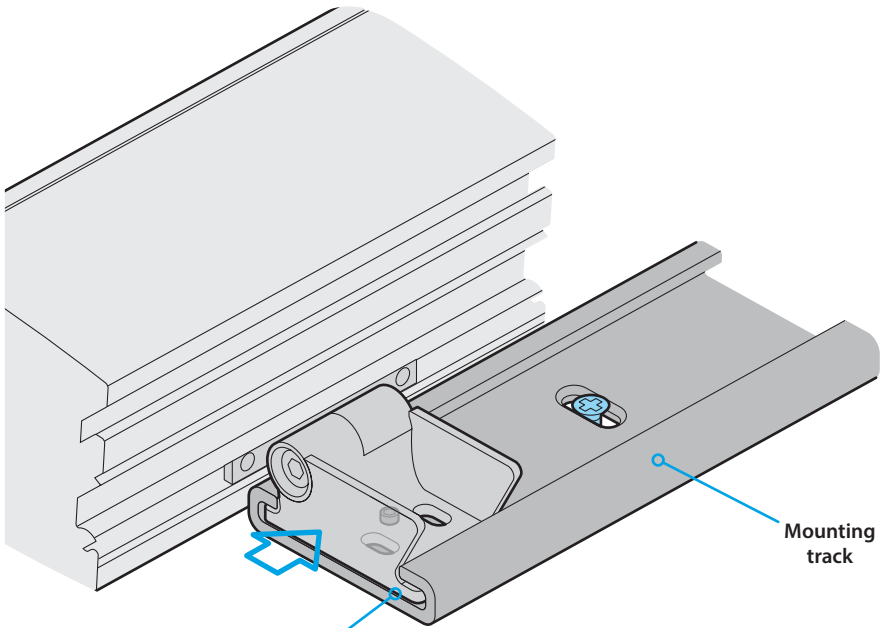
Mounting tracks are aluminum profiles that provide an additional way to secure Linear One fixtures to surfaces. Once attached to the surface, the mounting track allows the standard swivel mounting brackets to slide into and be fixed to the track.

*Note: The mounting tracks are not symmetrical, one lip is larger than the other in order to accommodate the shape of the swivel mounts.*

### TO USE A MOUNTING TRACK

- 1 Fix the mounting track to your surface using suitable countersunk screws, taking care to orientate the mounting track correctly, see the note above.

*Note: It is important that the countersunk screw heads lie almost flat with the inner surface of the mounting track, otherwise the swivel brackets of the fixture will not slide over them.*



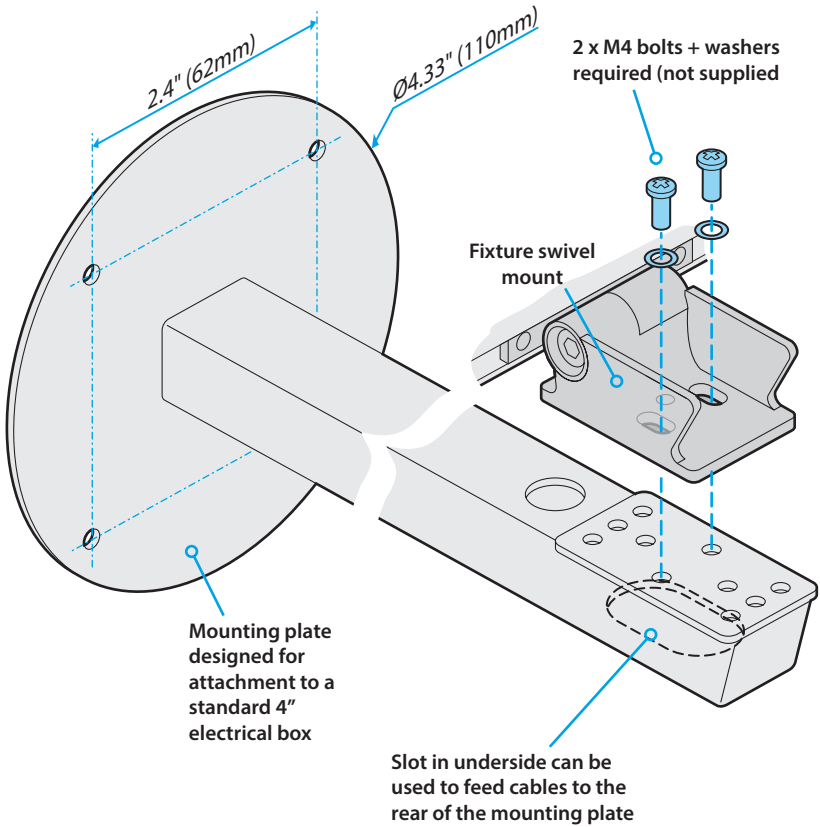
**Note: The 'toe' of each swivel mount will only fit into the larger lip of mounting track**

- 2 Slide the swivel brackets of the fixture into the mounting track and secure them at the required position using small grub screws.



## USING OPTIONAL EXTENDER BARS

A common fixing method is to use optional extender bars. These are available in 1', 2' and 3' (30, 60 and 91 cm) standoff lengths. Each Linear One fixture requires two extender bars.



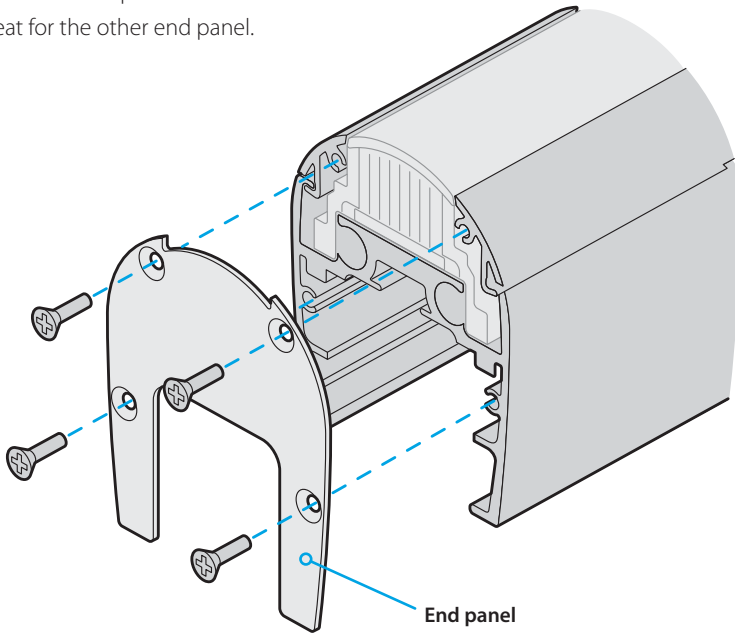
*Note: When feeding cables through the extender bar, check for any irregularities that may have occurred during the manufacturing process - take care not to snag cables.*

## REMOVING AND REFITTING THE END PANELS

Several alterations to the Linear One fixture begin with the removal of the end panels. There are just four screws holding each end panel in place and these require a medium sized Pozi-Drive (Philips) screwdriver.

### TO REMOVE THE END PANELS

- 1 Using a medium sized Pozi-Drive (Philips) screwdriver, remove the four screws and store safely for refitting.
- 2 Remove the end panel.
- 3 Repeat for the other end panel.



### TO REFIT THE END PANELS

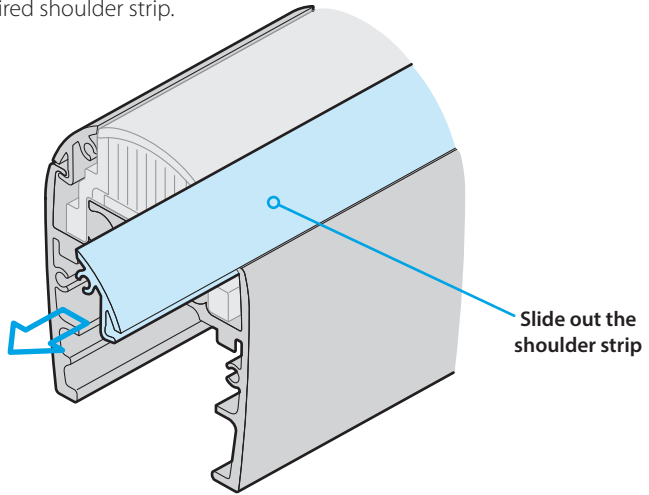
- 1 Position an end panel onto the fixture, ensuring that the countersinks of the four holes are facing outwards.
- 2 Insert the four screws\* and tighten them using a medium sized Pozi-Drive (Philips) screwdriver.  
\* When the optional louver has been fitted, it is not possible to refit the two screws closest to the lens.
- 3 Repeat for the other end panel.

## FITTING AN OPTIONAL GLARE SHIELD

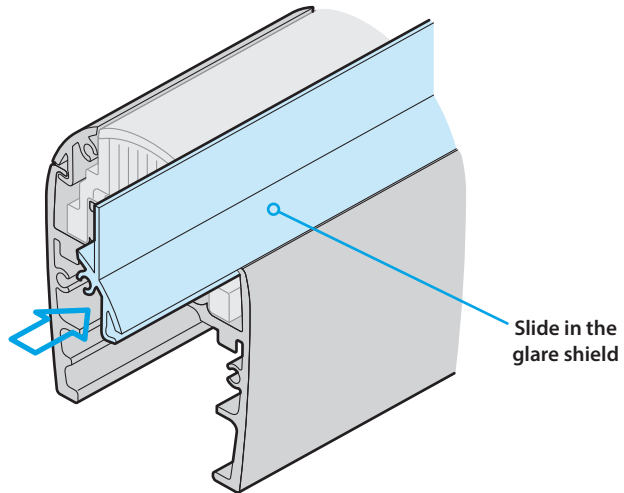
Optional glare shields are available which can be fitted on either side of the emitter housing to help conceal the emitters from side view.

### TO INSERT A GLARE SHIELD

- 1 Remove both of the end panels (see page 8).
- 2 Slide out the required shoulder strip.



- 3 Slide in the glare shield to replace the removed shoulder strip.



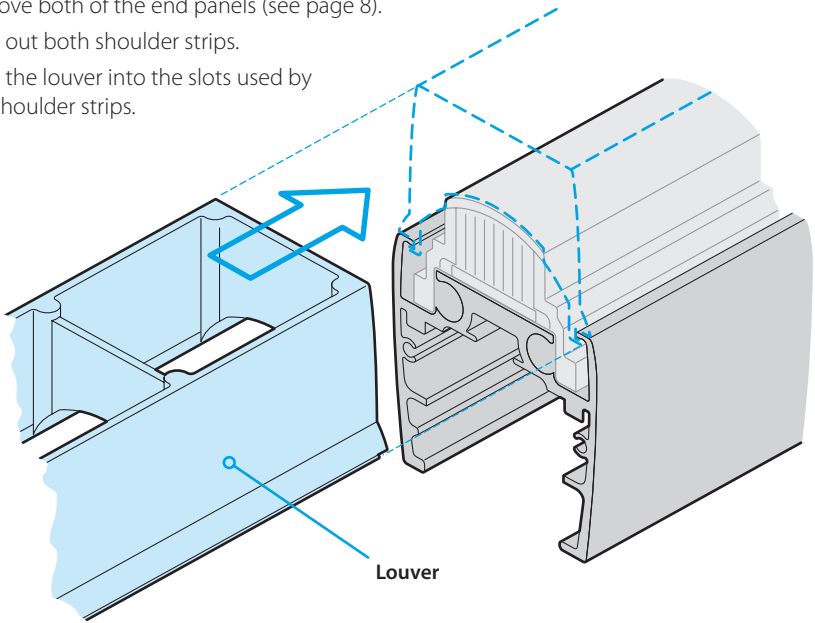
- 4 Refit the end panels (see page 8).

## FITTING AN OPTIONAL LOUVER

Optional 1' louvers are available, which can be fitted to eliminate side spill in all directions. For 4' Linear One fixtures, use four louvers together.

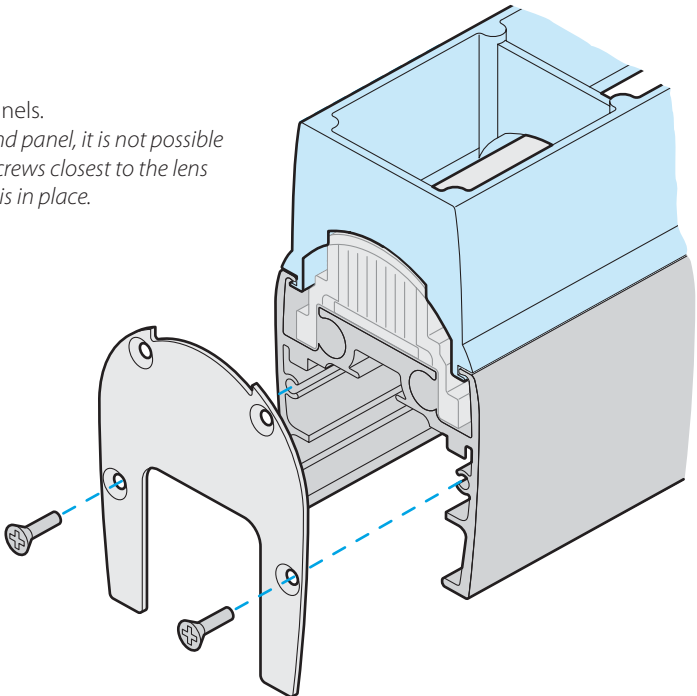
### TO FIT A LOUVER

- 1 Remove both of the end panels (see page 8).
- 2 Slide out both shoulder strips.
- 3 Slide the louver into the slots used by the shoulder strips.



- 4 Refit the end panels.

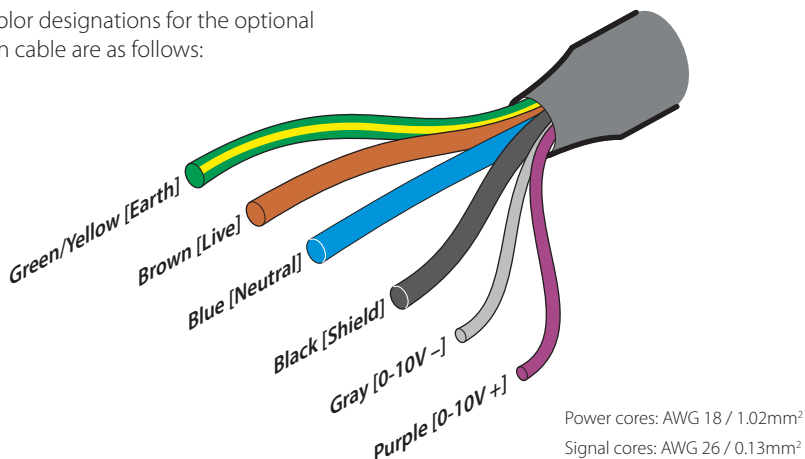
*Note: On each end panel, it is not possible to refit the two screws closest to the lens when the louver is in place.*



## POWER AND CONTROL WIRING

Power and control are combined within the IP66-rated feed and inter-connect cables. Input and output connectors are proprietary six pin designs; with a male input connector located at one end and female output connector at the other. Connector placements are such that abutted units can be directly connected without need for extra cables.

The color designations for the optional feed in cable are as follows:



### POWER

The power requirements are as follows:

- Voltage: 100-277VAC 50/60Hz
- Power: **EO:** 4W per 1' section (16W for 4' models)  
**SO:** 8W per 1' section (32W for 4' models)  
**HO:** 12W per 1' section (48W for 4' models)

*Note: Ensure that the mains power is supplied from a suitably protected source and initial connections are made within IP rated enclosures.*

**IMPORTANT: These connectors are not rated for live connection or disconnection. Check that power is isolated before making or breaking any links. Ensure the connectors have locked and are seated correctly before applying power.**

### IN-RUSH CURRENTS

Linear One fixtures are specially designed to ramp up their current intake [relatively] slowly in order to prevent in-rush current issues. When first powered on, a Linear One fixture should not exceed its standard rating of 4W/8W/12W per linear foot (depending on model).

### MAXIMUM NUMBER OF LINEAR ONE FIXTURES

A maximum of 80 feet (24m) of Linear One fixtures can be connected in a single series run. In damp or wet location installations, ensure that the output connector of the final fixture has an end cap fitted to prevent moisture ingress.

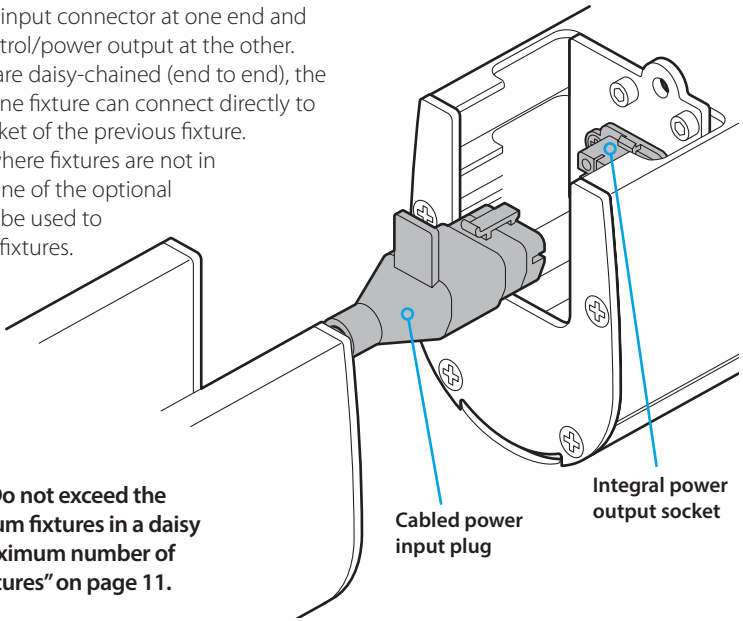
### CONTROL

The control links use two cores for the 0-10V connections (plus a shield/ground connection). Each feed cable kit includes an end cap to allow the final output connector to be sealed against damage by moisture ingress.

**IMPORTANT: Ensure that the 0-10V feed cable to the fixture is no longer than 300 feet (91m) from the 0-10V control device.**

## INTERCONNECTING

Each Linear One fixture has a short cabled control/power input connector at one end and an integral control/power output at the other. When fixtures are daisy-chained (end to end), the input plug of one fixture can connect directly to the output socket of the previous fixture. Alternatively, where fixtures are not in a daisy chain, one of the optional link cables can be used to space any two fixtures.

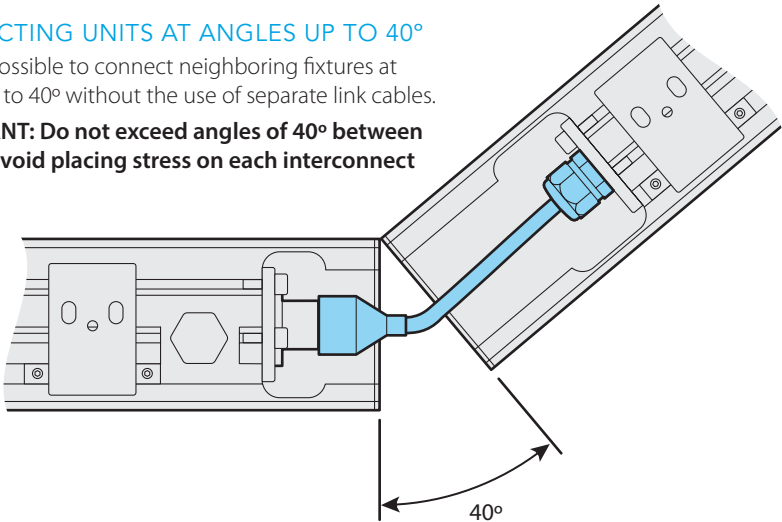


**IMPORTANT: Do not exceed the stated maximum fixtures in a daisy chain. See "Maximum number of Linear One fixtures" on page 11.**

## CONNECTING UNITS AT ANGLES UP TO 40°

It is also possible to connect neighboring fixtures at angles up to 40° without the use of separate link cables.

**IMPORTANT: Do not exceed angles of 40° between units to avoid placing stress on each interconnect cable.**

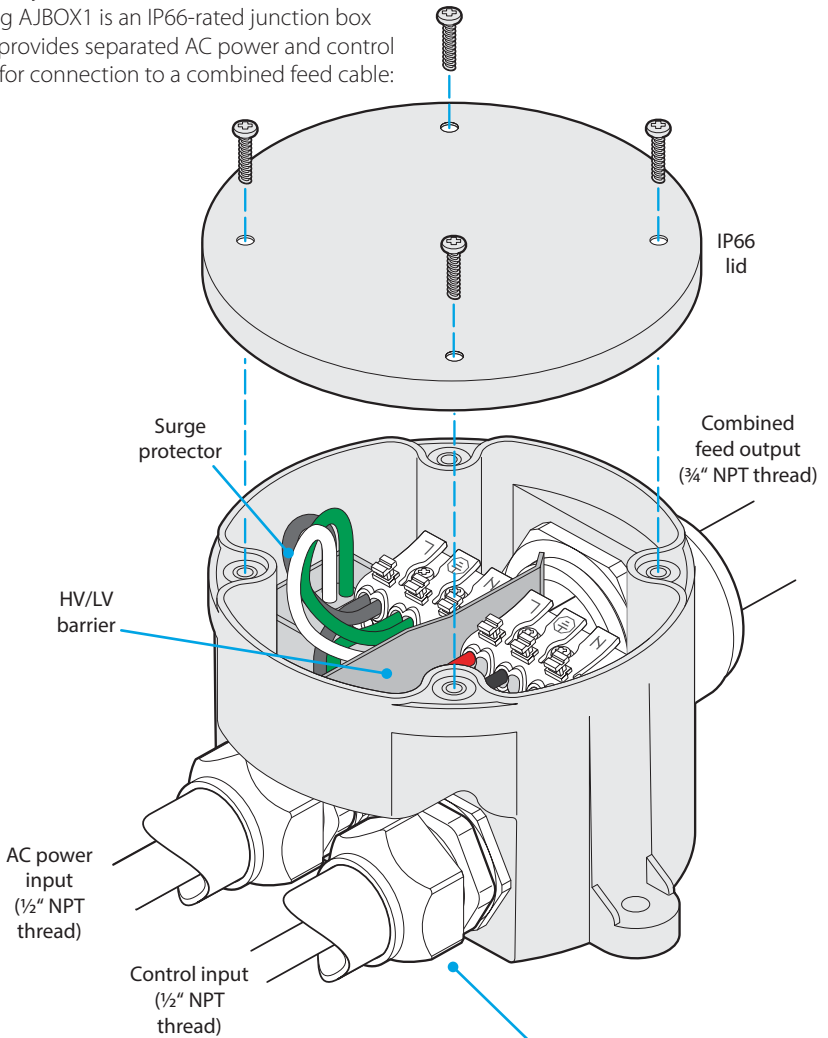


## CONNECTING UNITS AT ANGLES BETWEEN 40 AND 90°

When mounting Linear One fixtures at greater angles to each other, such as in a 90° corner-to-corner arrangement, do not attempt to interconnect them using only the cabled control/power input plug as it is not long enough to reach. Always use a 6" (15cm) link cable [Part#: LNLCO] - or longer, if the spacing is greater.

## THE AJBOX1 JUNCTION BOX

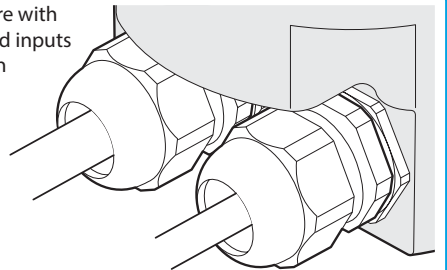
Ensure that appropriate care is taken to protect the junction where the mains and control inputs are joined to the feed cable. The Acclaim Lighting AJBOX1 is an IP66-rated junction box which provides separated AC power and control inputs for connection to a combined feed cable:



### INPUT FIXTURES/GLANDS

You will need to source 3rd-party conduit fixtures/cable glands for the inputs, as suits your installation. The large cable gland for the output is provided with the AJBOX1.

Shown here with cable gland inputs rather than conduit fixtures



## INPUT WIRING PROTECTION

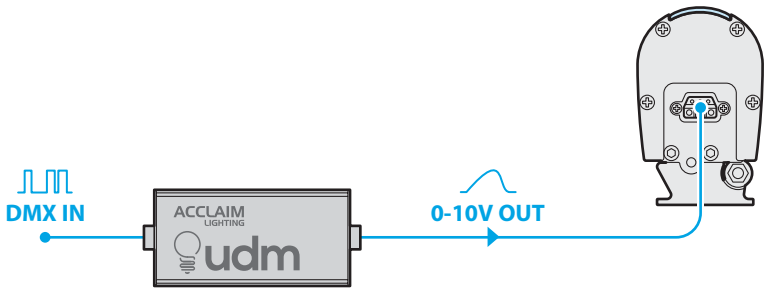
Ensure that appropriate care is taken to protect the junction where the mains and control inputs are joined to the feed cable.

Ensure that:

- the mains input is derived from a suitable overload-protected supply.
- local codes are followed during planning and installation. Some municipalities have specific requirements when wiring low and high voltage cables in close proximity. In such cases we recommend using the AJBOX1, see page 13.
- connections are made, inspected and certified by a qualified electrician.

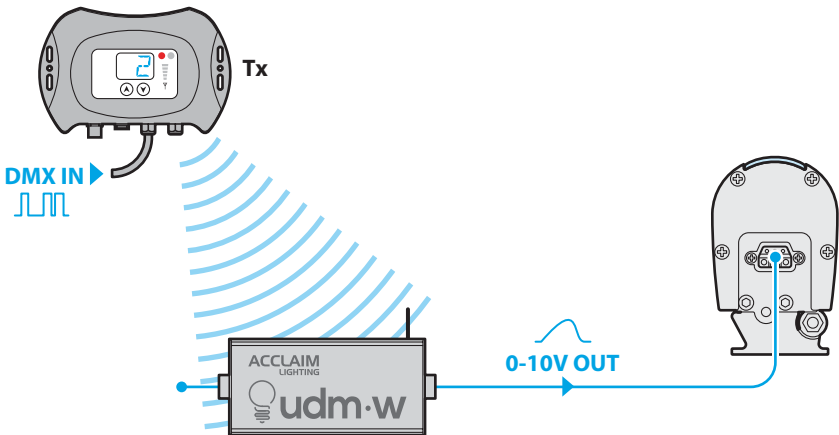
## OPTIONAL DMX OPERATION (VIA UDM)

Linear One fixtures operate using a 0-10V (source or sink) control signal input. Where DMX control is required, the optional Acclaim Lighting UDM device is available to perform the necessary signal conversion:



## OPTIONAL WIRELESS DMX OPERATION (VIA UDM•W)

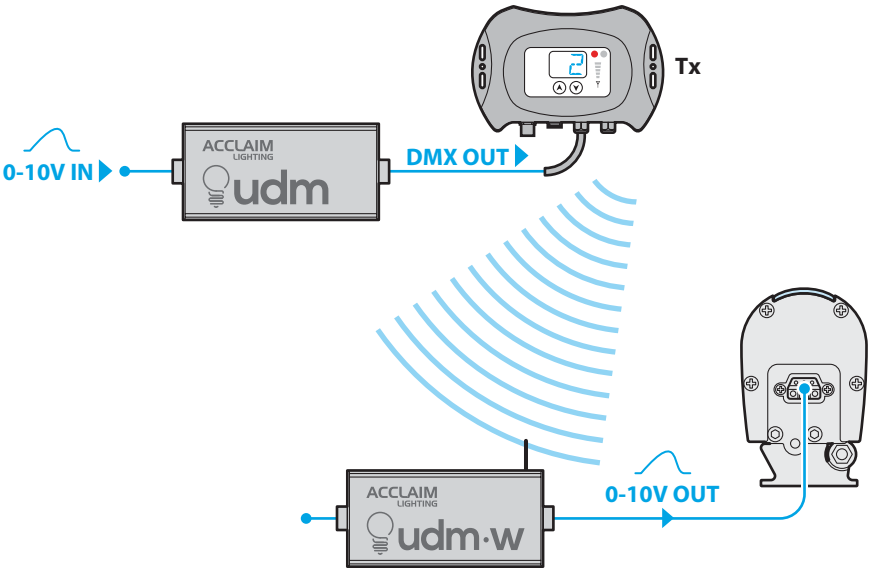
In addition to performing DMX to 0-10V signal conversions, the optional UDM•W also adds Aria™ wireless linking over distances up to 2600 feet (792m) line of sight (when coupled with an Aria transmitter [TX]):





## OPTIONAL WIRELESS 0-10V OPERATION (VIA UDM AND ARIA)

Using a combination of Acclaim Lighting UDM, Aria and UDM-W units it is possible to transmit a 0-10V input wirelessly over distances up to 2600 feet (792m) line of sight to the Linear One installation:






# FURTHER INFORMATION

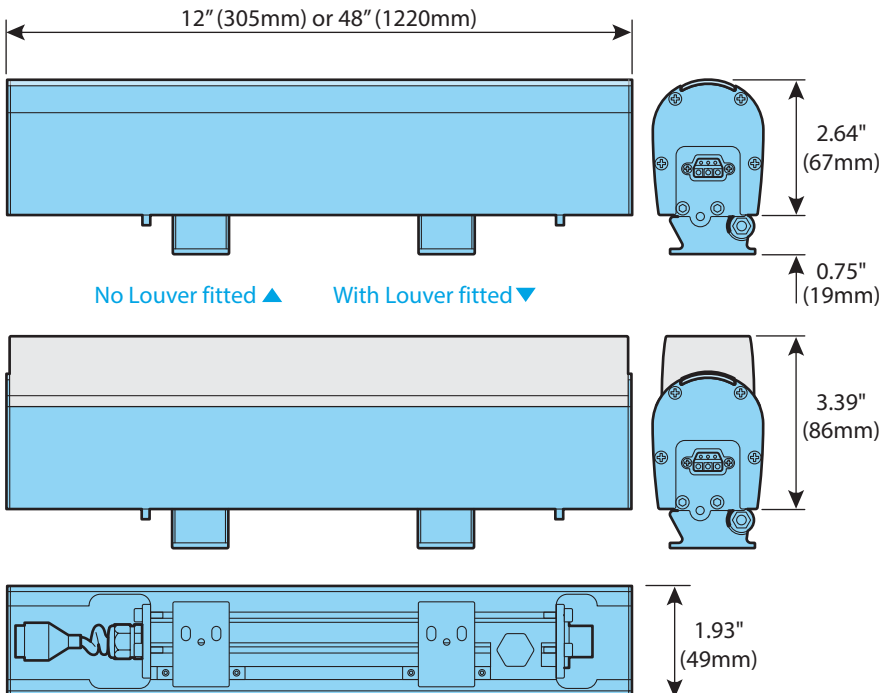
## TROUBLESHOOTING

### LUMINAIRE DOESN'T TURN ON

- Check that power is correctly applied to the fixture and that there is no damage to the power input cord.
- Check that the 0-10V + (hot) and – (cold) lines on the incoming control link have not been crossed.

## SPECIFICATIONS

Color models	Whites: 2100K, 2400K, 2700K, 3000K, 3500K or 4000K (80 or 90 CRI) Saturates: Red, green, blue or amber
Beam angle options	10° x 10°, 30° x 30°, 30° x 60°, 60° x 60°, 100° x 100°, 10° x 25°, 10° x 40°, 10° x 70°, 40° x 70° Asymmetric (60° x 60° + 20° tilt), Batwing (split 10° x 40° or 40° x 70°)
Lumen maintenance (L <sub>70</sub> )	150,000 hours (25°C)
Control	0-10V sink. 0-10V source or DMX via optional UDM unit
Maximum lengths in series	80' (24m)
Power input	100 - 277VAC, 50/60Hz
Power consumption	EO: 4W (1' model), 16W (4' model) SO: 8W (1' model), 32W (4' model) HO: 12W (1' model), 48W (4' model)
Housing	Silver / finished aluminum body, polycarbonate lens
Mounting	90° swivel mounts. Optional flat mounts available
IP rating	IP66, wet location - marine environment housing standard
IK rating	IK10, protection against 5 joule impact (40cm distance)
Operating temperature	-40°F to 131°F (-40°C to 55°C)
Weight	2.4 lbs/1.1kg (1' model), 9.7 lbs/4.4kg (4' model)
Certifications	  



## LIMITED PRODUCT WARRANTY

A. Acclaim Lighting™ hereby warrants, to the original purchaser, Acclaim Lighting finished products to be free of manufacturing defects in material and workmanship for a standard period of:

- Fixtures: 5 Years (1,825 days) from the date of purchase.
- Drivers, power supplies and accessories: 5 Years (1,825 days) from the date of purchase.
- Flex Products: 3 Years (1,095 days) from the date of purchase.
- Controllers: 2 Years (730 days) from the date of purchase.

It is the owner's responsibility to establish the date and place of purchase and warranty terms by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Acclaim factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Acclaim Lighting will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, Acclaim Lighting shall have no liability whatsoever for loss of or damage to any such accessories, nor for the safe return thereof. Acclaim reserves the right to replace the item with same or similar product at its discretion.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which Acclaim concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Acclaim Lighting factory unless prior written authorization was issued to purchaser by Acclaim Lighting; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up nor do we guarantee as part of this warranty any lumen performance during period. Parts not covered by this warranty include: fuses, external power supplies, third party items not manufactures by Acclaim lighting. During the period specified above, Acclaim Lighting will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Acclaim Lighting under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Acclaim Lighting. At no time will installation or re-installation or products labor or liability costs will be assumed by Acclaim Lighting. All products covered by this warranty were manufactured after January 1, 2012, and bear identifying serial number marks to that effect.

E. Acclaim Lighting reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products describe above. Except to the extent prohibited by applicable law, all implied warranties made by Acclaim Lighting in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired.

F. Marine or extreme weather location applications using Acclaim lighting products are subject to a 2 year limited warranty and Acclaim must be notified prior to delivery of units for such applications so that preventative treatment can be made to the products to ensure proper performance and product life with a special marine code coating / sealing process at an additional cost.

G. The consumer's and or dealer's sole remedy shall be such repair or replacement as is expressly provide above; and under no circumstances shall Acclaim Lighting be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product. This warranty is the only written warranty applicable to Acclaim Lighting products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.



[www.acclaimlighting.com](http://www.acclaimlighting.com)