CATHODE LIGHTING SYSTEMS
INNOVATIVE LIGHTING TECHNOLOGY®

Cathode Lighting Systems Inc.
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INSTALLATION MANUAL
Model ECLS
Exterior Wet Location Single-Lamp Cathode Light Strip

Suitable for outdoor wet locations
Operating temperature range: 10º F to 100º F

c UL US LISTED Pat. 6,454,431
E168380

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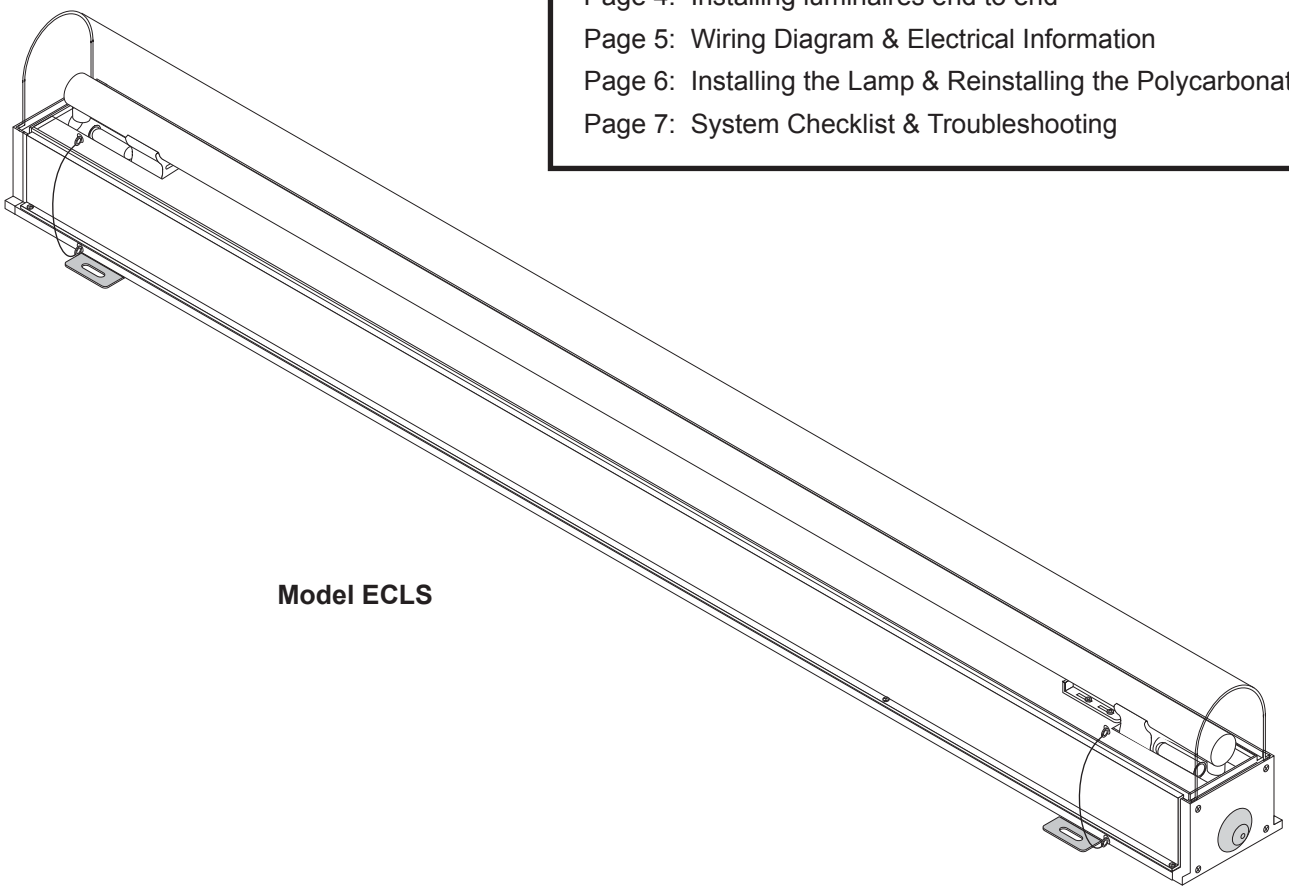
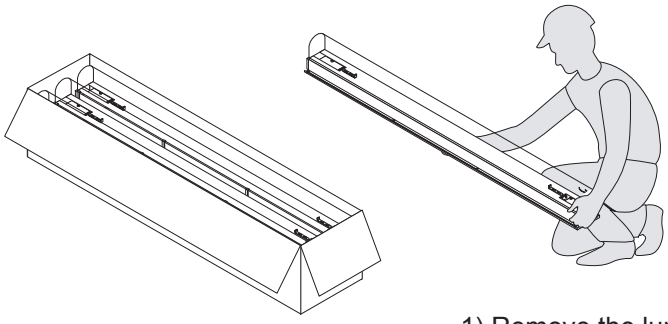


Model ECLS

Please read all instructions carefully before installing this luminaire.
This wet-location cold cathode luminaire comes from the factory completely pre-assembled. Some disassembly is required in order to wire the luminaire(s) to line voltage, and to install the lamp(s). This luminaire must be installed by a licensed electrician. All wiring and installation methods must be in compliance with the National Electric Code and all applicable local codes.

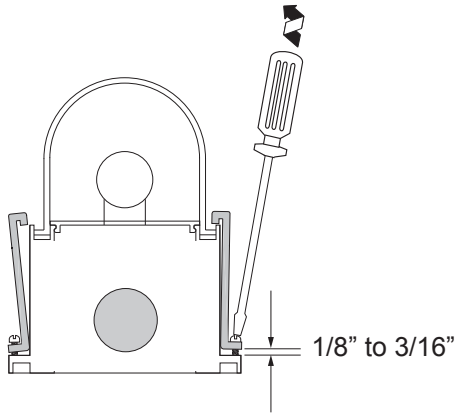
Please follow the instructions below. All shipments are F.O.B. Gaithersburg, MD.
If any damage has occured, you must immediately alert the shipper so that a claim may be filed.



1) Remove the luminaire from its packaging.

IMPORTANT: Please take all precautions to ensure that no water or moisture enters this luminaire during installation. These luminaires are IP65 rated, and are water and vapor tight. Any moisture that enters the luminaire while the lens is removed, will be trapped inside after reinstallation of the lens. It is strongly advised that this product be installed only when dry weather conditions prevail.

How to remove the polycarbonate lens



Loosen (but do not remove) the screws that attach the two full-length retaining clips on each side of the luminaire. The retaining clips can then be lifted up and tilted back from the luminaire allowing the tethered lens to be removed. Approximately 1/8” - 3/16” of the screw thread will be visible below the shoulder of the lens fastener. This will allow the lens fastener to be moved up and out of the way to remove the lens.

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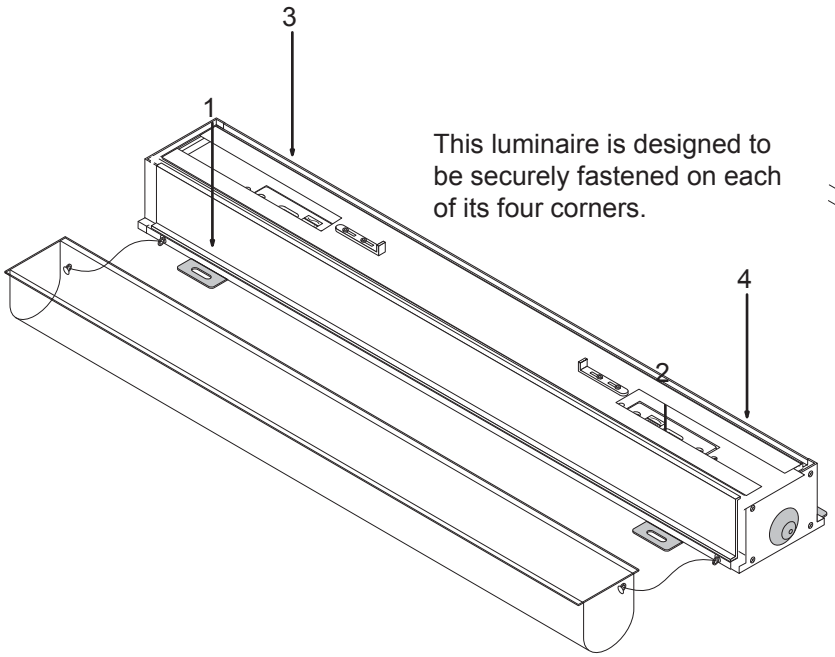
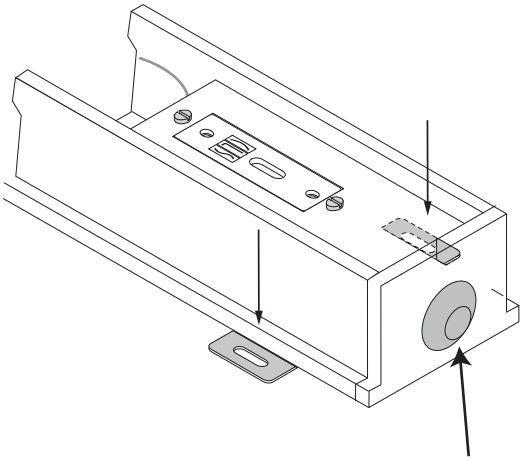
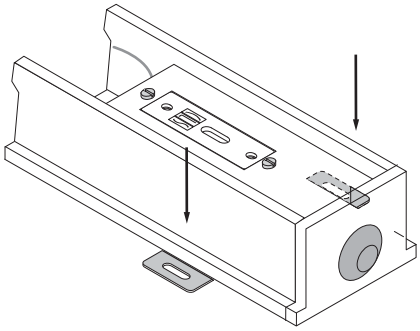


This luminaire is designed to be securely fastened on each of its four corners.



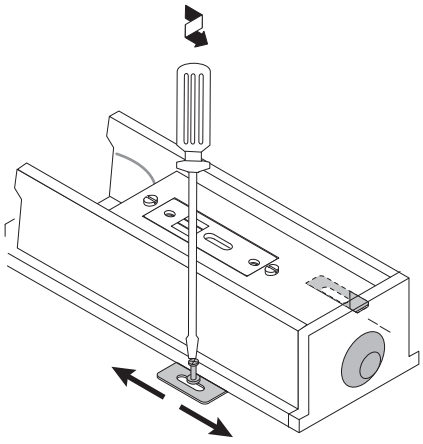
Rubber sealing plug - do not remove unless it is being replaced with a liquid tight fitting or being coupled to an adjacent luminaire.



Place the luminaire in the desired location and, using the 1/4" x 3/4” mounting slots and the appropriate fasteners, mount the luminaire. Stainless steel fasteners are required and should be rated so that each fastener can fully support the entire weight of the luminaire.

IMPORTANT: If mounting holes necessitate penetrating a waterproof roofing or exterior surface, the installation contractor will be responsible for maintaining the waterproof integrity of the roof or exterior surface.

Insert the fastener through the luminaire and into the hole and fasten tightly enough to secure the luminaire, but loosely enough to allow movement back and forth through the slotted mounting bracket. This movement will be necessary for the procedure described on page 4 “Mounting Luminaires End to End”. Repeat for the remaining three holes



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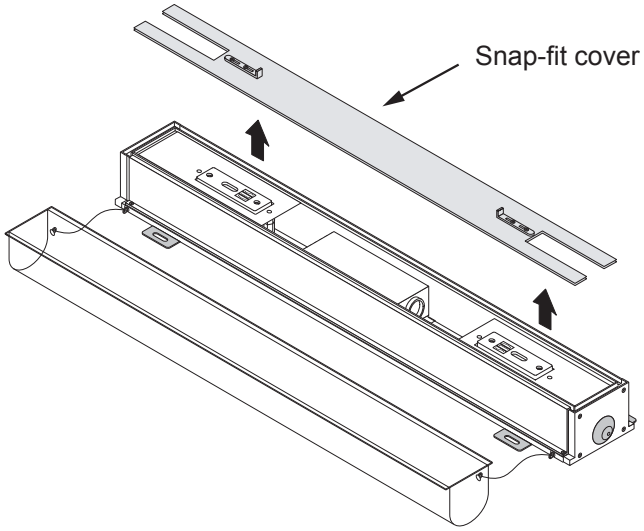
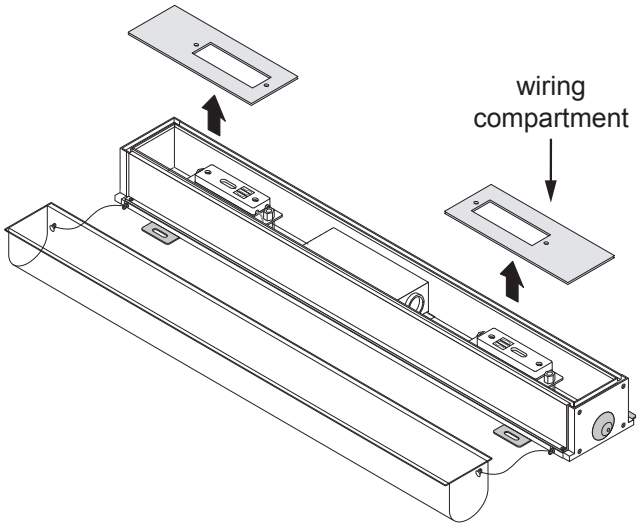
After the luminaire has been securely mounted in the desired location, the conduit that will contain the primary wiring must be attached. A UL-Listed waterproof conduit and the appropriate conduit fittings must be used.

IMPORTANT: The UL-Listed rubber plugs installed in the ends of every luminaire are only to be removed if they are to be replaced by the proper liquid tight conduit adaptor, or if another luminaire is to be coupled to an ajoining luminaire.

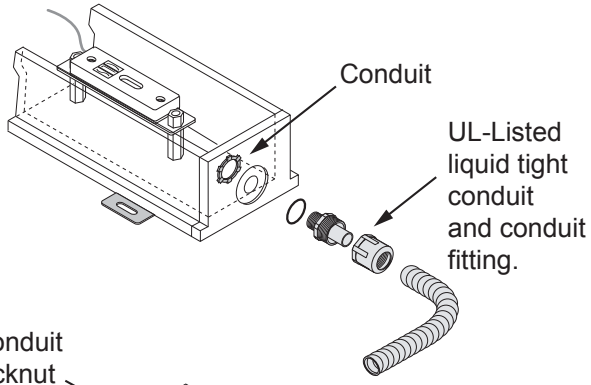
Remove the snap-fit cover and the two wiring compartment covers at each end of the luminaire.
Note: If only a single luminaire is being installed, only one wiring compartment cover need be removed.



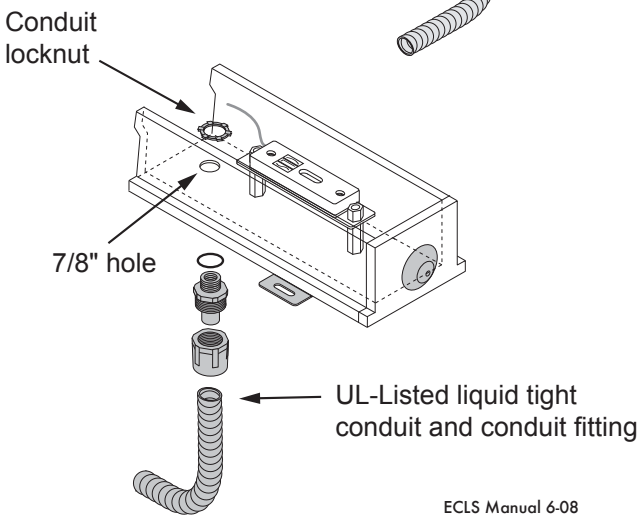


Attach Liquid Tight conduit to the luminaire in one of the following ways:

ATTACHING CONDUIT TO THE END OF THE LUMINAIRE:
Remove one rubber plug at the end of the luminaire, and install a standard Liquid Tight® fitting into the 7/8” hole at the end of the luminaire.



ATTACHING CONDUIT TO THE UNDERSIDE OF THE LUMINAIRE:
If it is required that the conduit penetration location be concealed, a standard 7/8" hole may be drilled in the back of the luminaire (making sure the hole is drilled at least 6 inches away from the ballast or any internal parts or wiring) and a standard liquid tight conduit connector may be installed.



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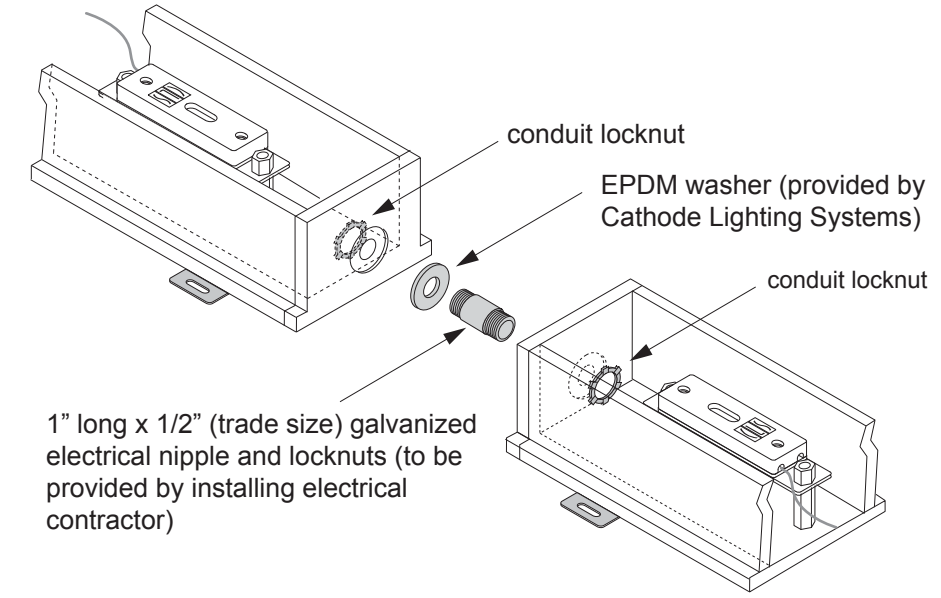
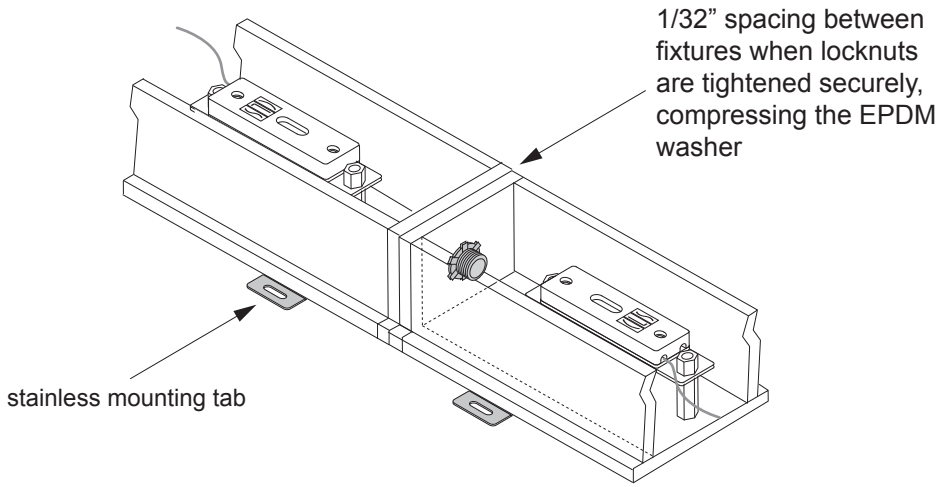
IMPORTANT: These luminaires maintain a watertight seal between each other via an EPDM rubber washer (each luminaire is provided with one washer). It is imperative that this joint be tightened prior to final tightening of the fasteners. If the fasteners are tightened first, it will be impossible to draw the two luminaires together properly and create a waterproof seal. The slotted stainless-steel mounting tabs allow the fasteners to be partially installed while still allowing the movement required to properly tighten the waterproof joint between. When this joint has been properly drawn together, the fasteners may be tightened.





Place the ends of the luminaire together and tighten the locknuts untill the two luminaires are drawn together very securely. When the EPDM washer is properly compressed, the gap between to two luminaire ends should be approximately 1/32".

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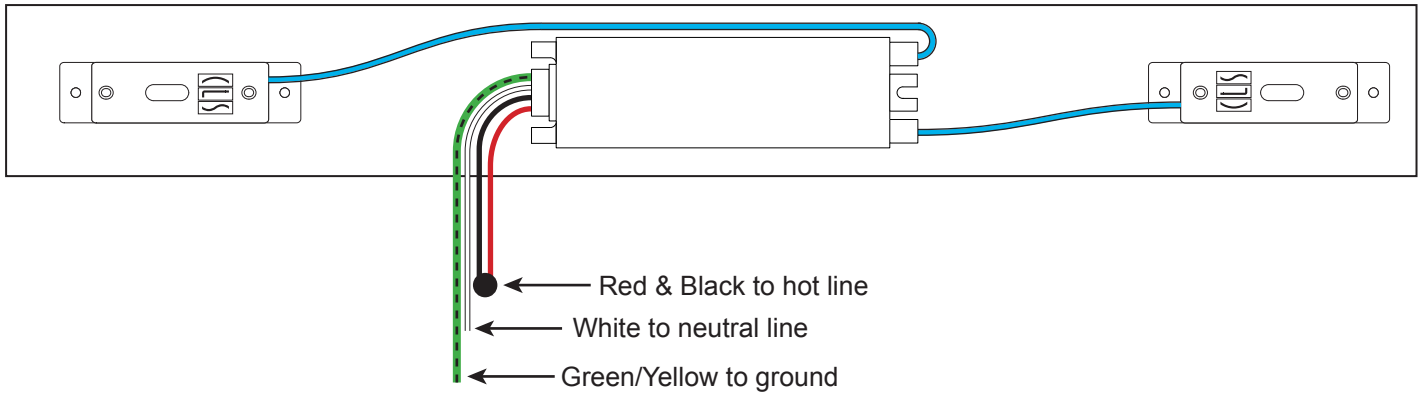
LUMINAIRE WIRING & ELECTRICAL INFORMATION

IMPORTANT: CIRCUITS MUST BE DE-ENERGIZED WHEN PERFORMING ANY WIRING / INSTALLATION



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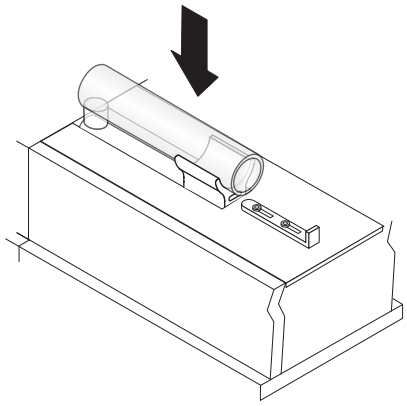
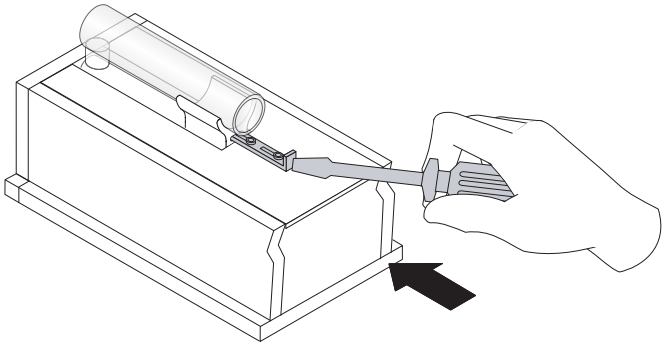
I. Installing the lamp

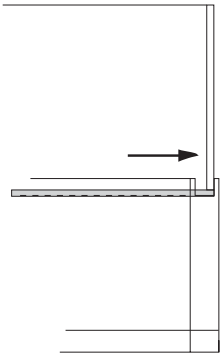
Snap the lamp in the lampholders, making sure good electrical contact is occurring at each end.
Using a flathead screwdriver, slide the lamp-lock clips into the locked position.



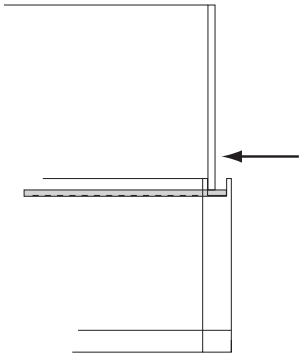


J. Reinstalling the polycarbonate lens

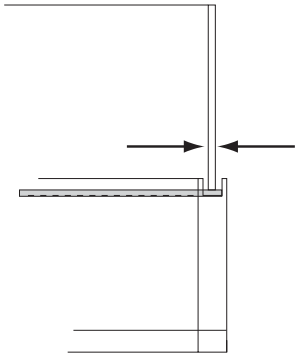
Carefully replace the polycarbonate lens, making sure that the edges of the ends of the lens rest evenly at each end within the gasketed channel.



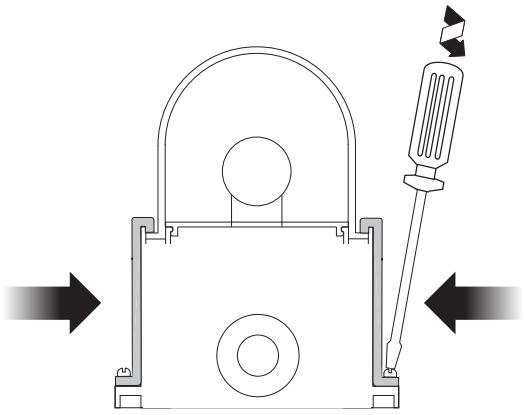
Incorrect
End of lens is too close to the outside wall of the gasket channel.



Incorrect
End of lens is too close to the inside wall of the gasket channel.



Correct
End of lens sits evenly spaced within the gasket



Once the lens has been properly positioned, return the two lens retaining clips back to the vertical position and tighten sequentially around the perimeter of the fixture. Tighten all screws halfway, and then sequentially tighten all screws until the bottom of the clip is drawn against the fixture (pic)

The exterior cathode light strip may now be energized.

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SYSTEM CHECKLIST (PRIOR TO ENERGIZING)

The circuit may be energized after the following items have been completed:

A. Luminaires are properly fastened and lamps are properly installed and seated within the lampholders

B. Lens is installed and is properly compressing the silicone gasket

C. All primary connections have been made with the proper electrical connectors

TROUBLESHOOTING

Lamp will not light
The ballast in this luminaire is equipped with integral open-circuit and ground-fault protection. It the luminaire is energized without a lamp in place, the ballast will turn itself off automatically. To reset the ballast, the primary power must be turned off, and then on again. If the luminaire still does not light, the lamp could be inoperable. Contact the factory for further assistance.

Lamps are dim or do not turn on in cold weather
These lamps and fixtures are intended to operate in continuous temperatures of 10 F and above. It is recommended that in cold climates (10 F to 32 F), the fixures be left on continuously (day and night), as lamp starting can be problematic after temperature dips into the single-digits (and below). Leaving lamps burning continuously during cold weather will alleviate potential starting issues caused by cycling lamps on in the eveining and off in the daytime.
Lamps will also not exhibit full intensity at temperatures below 32 F, and may appear very dim at temperatures below 10 F.

Lamp exhibits a rolling or spiraling effect
Turn the luminaire off for five seconds, and then turn off for two seconds. Repeat this procedure 5-10 times. The rolling or spiraling should stop. If the lamp continues to roll or spiral, remove the lamp from the luminaire, wipe it with a clean rag, and reinsert the lamp 180 degrees from its previous orientation. If the lamp continues to appear unstable, contact the factory for further assistance.

Condensation appears inside luminaire
Polycarbonate lens is not seated correctly, and/or lens retaining clips are not seated fully into channel which contains the lens lip and the silicone gasket, or EPDM Rubber washer between luminaires is not compressed properly.

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