

# Models CLS-Slim & HCLS-Slim (Regular & High Efficiency Cathode Light Strip)

For indoor dry or protected indoor damp location installation only.  
Operating temperature range 55° F to 90°F.



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## PREPARING THE LUMINAIRE FOR WIRING

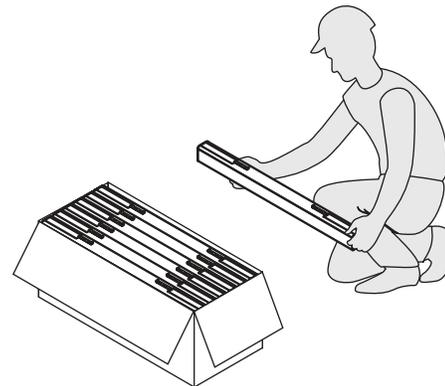
Please read these instructions carefully before installing this luminaire.

All luminaires are furnished with dimmable electronic ballasts. Ballasts are dimmable using a (reverse-phase) 2-wire electronic low-voltage dimmer (ex: Lutron NTELV-300)

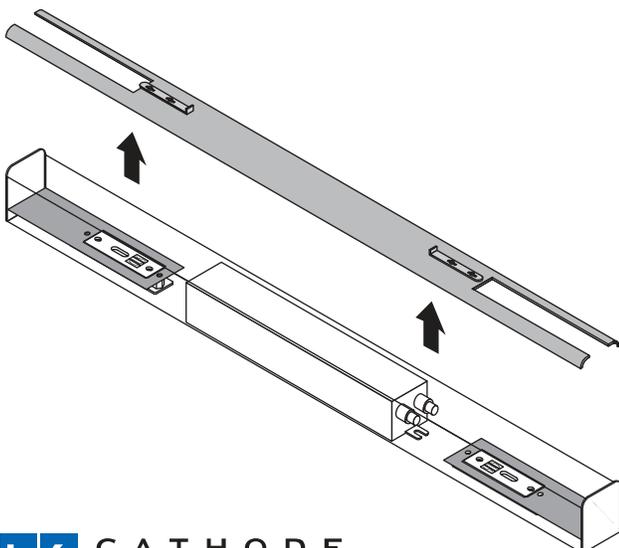
INSTALLATION OF THIS LUMINAIRE MUST BE PERFORMED BY A LICENSED ELECTRICIAN. ALL INSTALLATION AND WIRING METHODS MUST COMPLY WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL CODES.

### Step No.1:

Remove luminaire(s) from packaging container

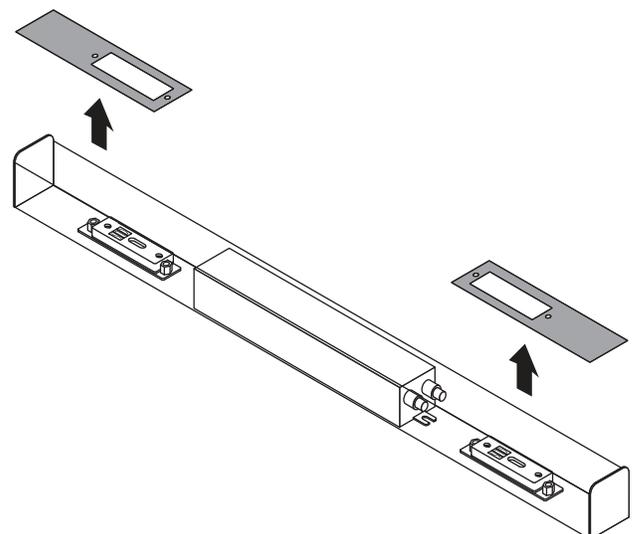


### Step No.2: Remove the snap-in cover



### Step No.3:

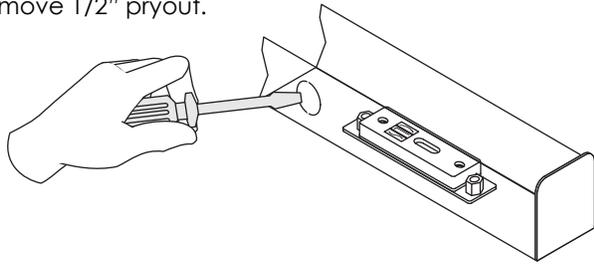
Remove the covers of the wiring compartments at the ends of the luminaire. Please save the screws for reinstallation after wiring is complete.



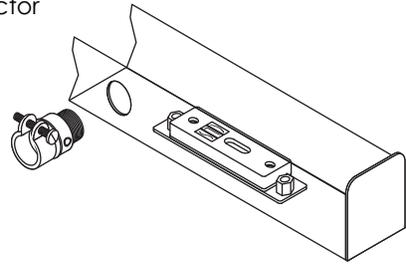
**ATTACHING CONDUIT AND WIRING THE LUMINAIRE**

IMPORTANT: Circuits must be de-energized when performing any wiring or installation operation.

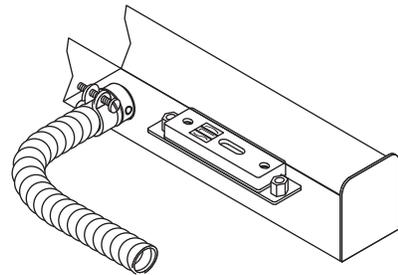
**Step No. 1:**  
Remove 1/2" pryout.



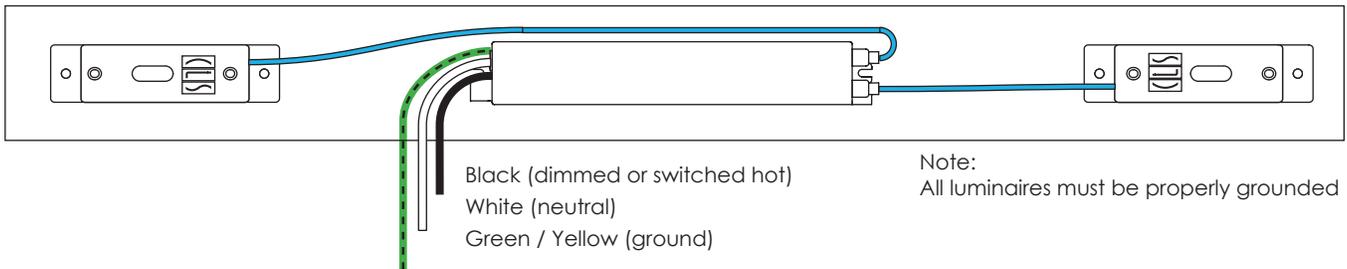
**Step No. 2:**  
Install MC connector



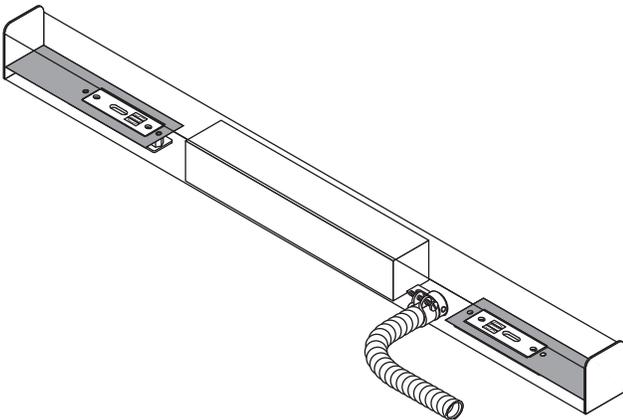
**Step No. 3:**  
Attach MC conduit to luminaire and proceed with primary wiring



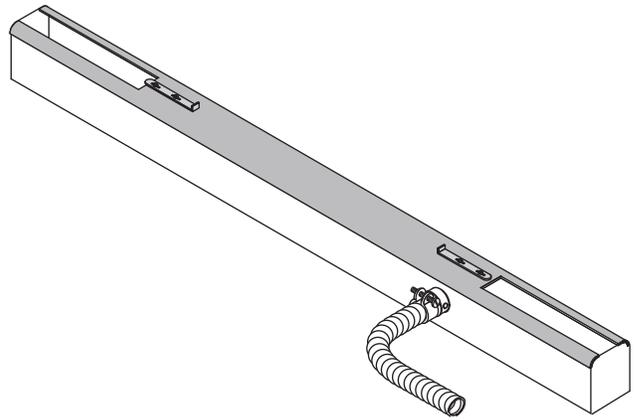
**Luminaire Primary Wiring Diagram**



**Step No. 4:**  
Replace wiring compartment covers.



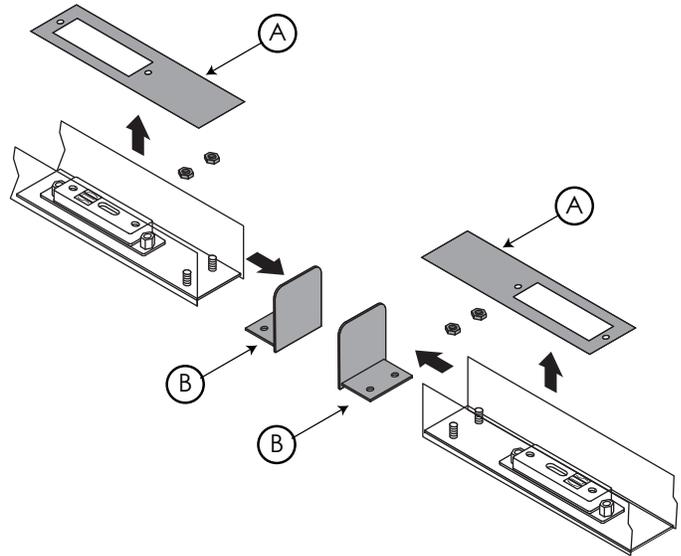
**Step No. 5:**  
Replace snap top.



**JOINING TWO OR MORE LUMINAIRES TOGETHER**

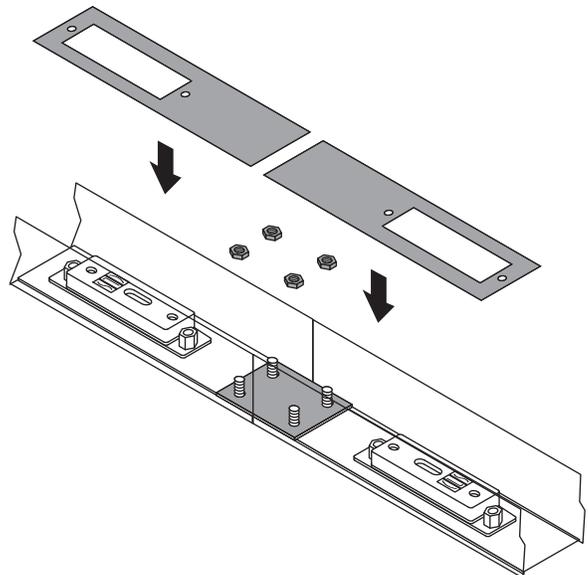
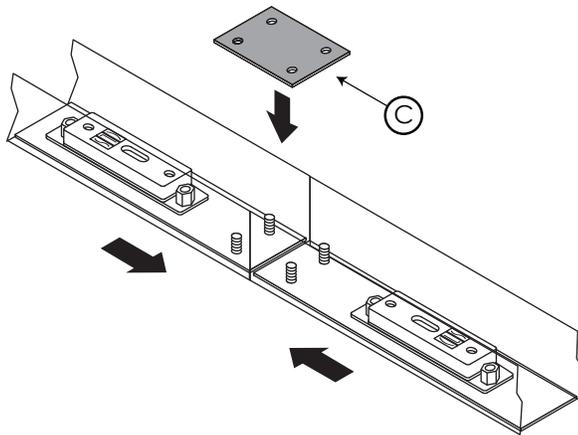
**Step No. 1**

Remove lampholder cover plates (A) from the ends of the luminaires (the 6-32 screws which hold the cover plates in place are small, take care not to misplace them). Using a 5/16" nutdriver, remove the two 6-32 nuts which secure the luminaire end plates (B). Save these nuts, as they are used to fasten the joiner plate shown in step number two.



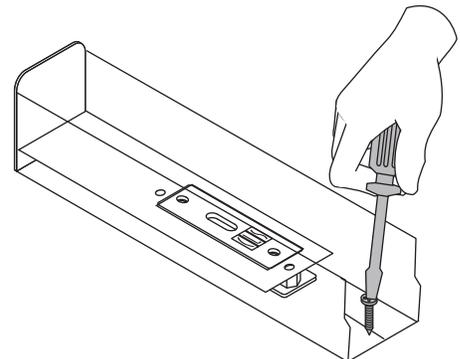
**Step No. 2**

Join the luminaires and install the joiner plate (C). Reinstall the four 6-32 nuts. Reinstall lampholder cover plates after all internal primary wiring has been completed.



**MOUNTING REQUIRMENTS**

Using the appropriate fasteners, fasten the luminaire to the mounting surface. Fasteners and fastening methods chosen must be selected so that each fastener is capable of supporting the entire weight of the luminaire. Self-drilling screws may be used, or a hole may be pre-drilled for use with the proper fastener.

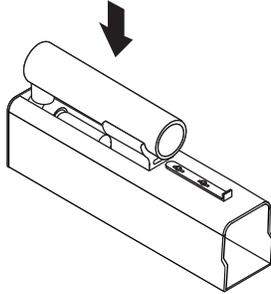


**INSTALLING LAMPS**

PLEASE NOTE: The lamps and ballasts used in this luminaire are unique and are not interchangeable with any other manufacturer's lamps or ballasts. Do not attempt to install any other lamp or ballast in this luminaire.

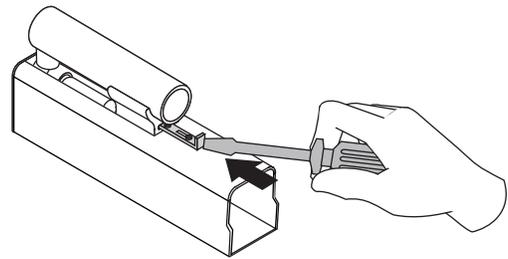
**Step No. 1:**

Carefully insert lamp into the lampholders. Make sure each lamp end is making secure electrical contact with the lampholders.



**Step No.2:**

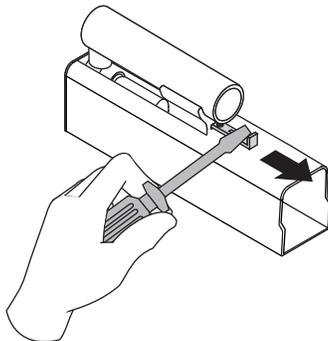
Using a flathead screwdriver, gently slide the "lamp-lock" clips into the lock position. If clip does not slide completely forward into the lamp base, the lamp may not be properly inserted into the lampholders.



**REMOVING LAMPS**

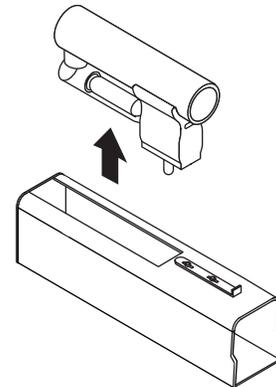
**Step No. 1:**

Using a flathead screwdriver, gently slide the "lamp-lock" clips into the unlocked position.



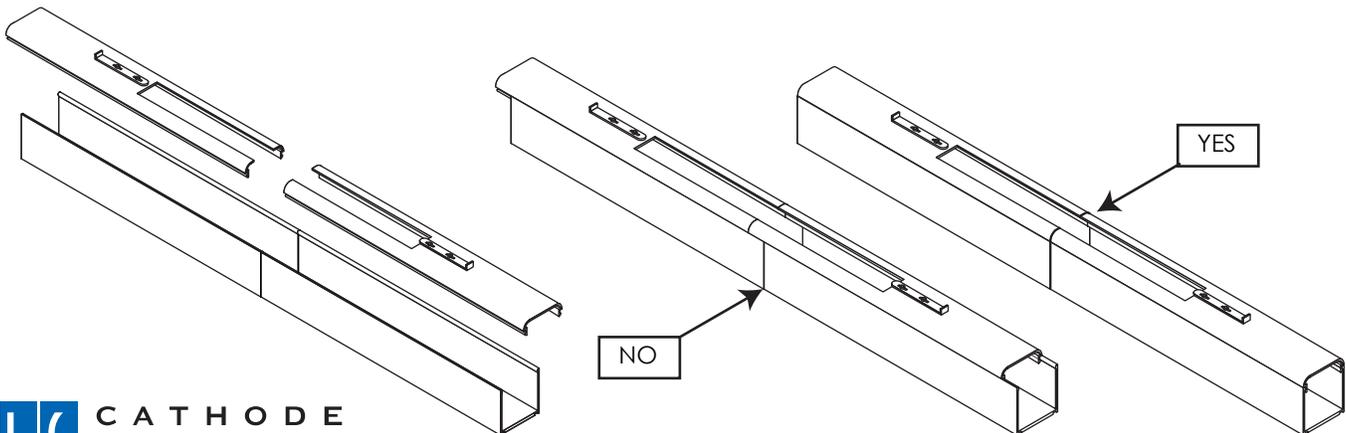
**Step No. 2:**

Carefully remove the lamp.



**SNAP COVER ALIGNMENT IN CONTINUOUS STRAIGHT RUNS**

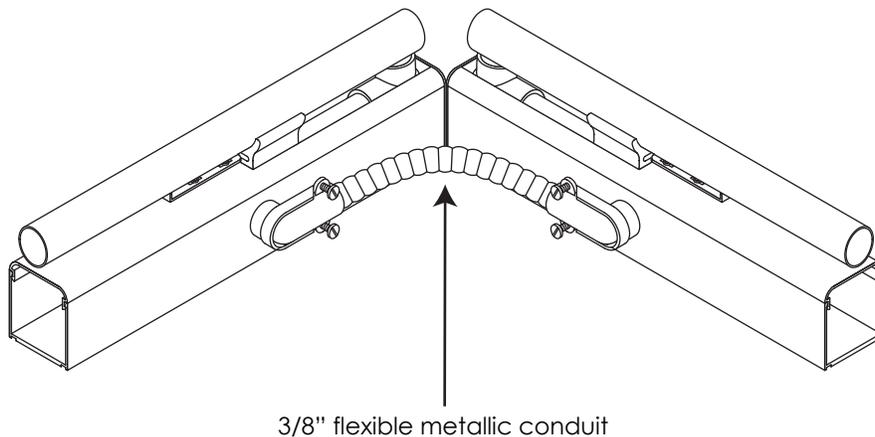
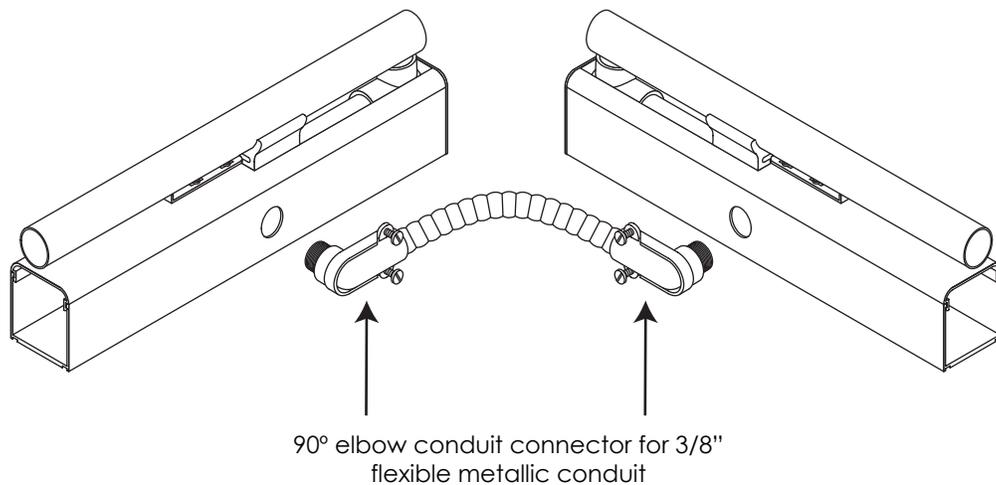
When installing continuous runs of these luminaires, the end plates are removed and replaced with a joiner plate. Please make sure that when reinstalling the covers, the ends of the snap covers are in alignment with the end of each luminaire. Misalignment will make lamp installation difficult or impossible.



## INSTALLATION OF LUMINAIRES AT CORNERS OR ANGLES

Not all applications using the CLS-Slim luminaires will be strictly linear. Corners of coves (90°, acute or obtuse angles) will require a different wiring method. CLS-Slim luminaires intended for concealed cove installation are equipped with 1/2" trade-size electrical pryouts on the outer sides of the aluminum body.

These are used to electrically connect one luminaire with the next using standard flexible electrical conduit and conduit fittings. 3/8" metallic greenfield conduit and 90° conduit fittings are recommended to make this connection, along with #12 AWG conductors and the proper wire connectors.



**ELECTRICAL LOADING AND DIMMING INFORMATION**

Fixture type	Primary voltage	Primary amps / VA	Watts per foot*	Dimming protocol	Maximum luminaires per 20-amp circuit*	Maximum lamp footage per 20-amp circuit*
CLS-Slim	120 volts 50/60 Hz	.46 amps / 55 VA	7.3	2-wire	34 @ 120 volts	255 feet
CLS-Slim	277 volts 50/60 Hz	.2 amps / 55 VA	7.3	2-wire	80 @ 277 volts	600 feet
HCLS-Slim	120 volts 50/60 Hz	.34 amps / 41 VA	5.5	2-wire	47 @ 120 volts	352 feet
HCLS-Slim	277 volts 50/60 Hz	.15 amps / 42 VA	5.6	2-wire	106 @ 277 volts	795 feet

\*Values are based on all fixture lengths at 7'6". Actual values may vary dependent upon the selection of luminaire lengths.  
Branch circuit requirements: CLS-Slim luminaires must be powered by a dedicated circuit only. Maximum breaker size is 20 amps.

**DIMMER SELECTION**

Electronic low-voltage dimmers using reverse-phase dimming are strongly preferred (e.g. Lutron NTELV Lutron Viertri VTELV). This type of dimmer will produce the best low-end dimming effects (dimnable to 1%) and will make the ballast silent during dimming.

Forward-phase low-voltage magnetic dimmers may also be used (e.g. Lutron NTLV), however low-end dimming performance will be compromised (luminaires will only dim to 20%) and ballast noise may be audible during dimming.

**TROUBLESHOOTING****Luminaire will not light.**

The ballast in this luminaire is equipped with integral open-circuit and ground-fault protection. If 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.

**Lamp exhibits a rolling or spiraling effect**

Turn the luminaire off for five seconds, and then turn on 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.

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