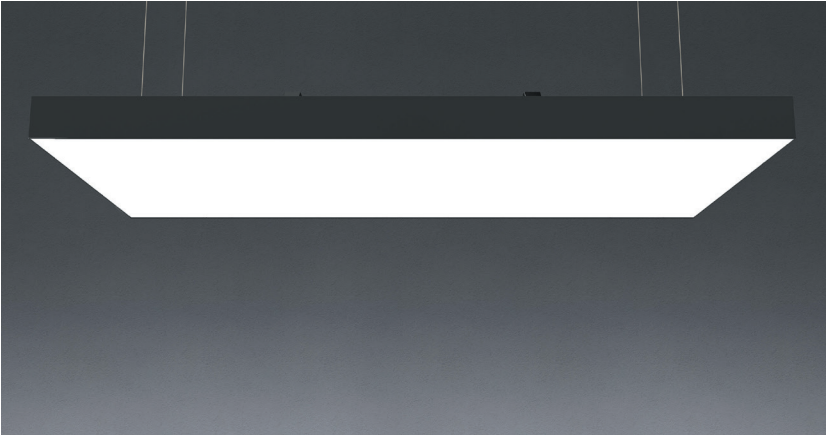


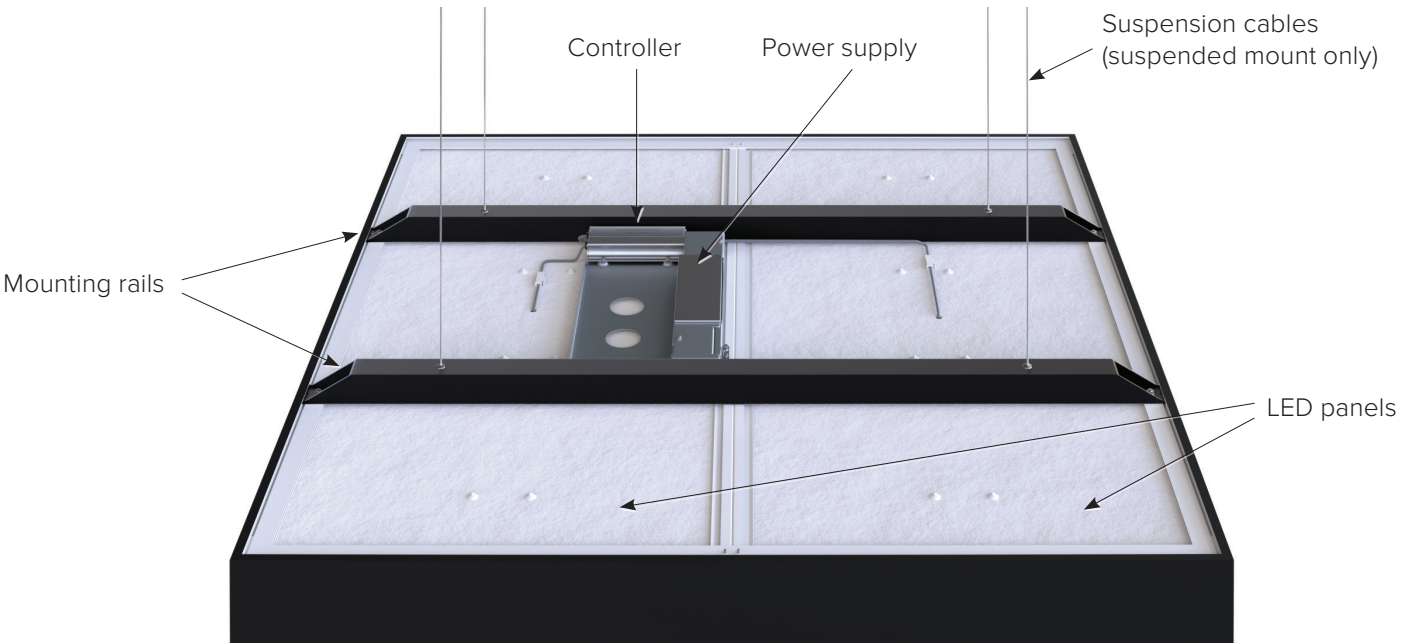


INSTALLATION GUIDE




Cooledge FABRILum delivers immersive illumination and meaningful acoustic performance in a single solution. These large-scale architectural luminaires bring the feeling of the outdoors inside by providing a canopy of light that is available in a variety of sizes with removable fabric diffusers, high sound absorption values, and the exceptional quality of illumination Cooledge is known for.

1. COMPONENTS


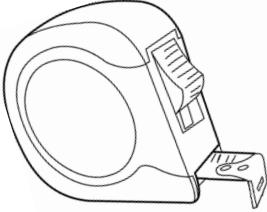
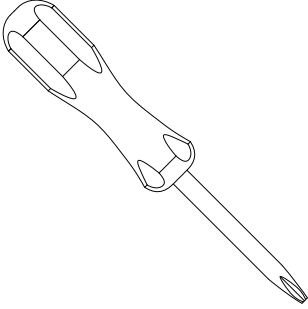
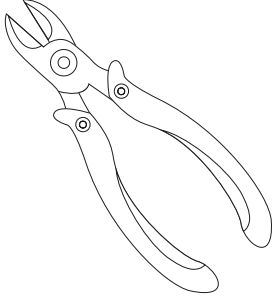
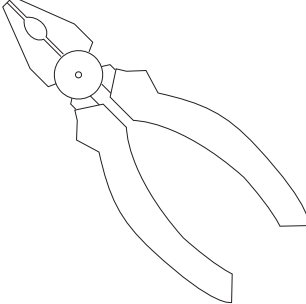
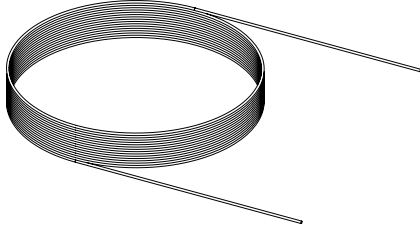
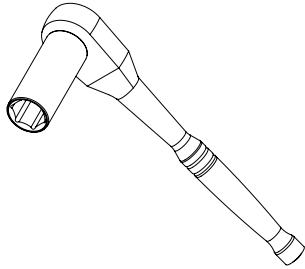
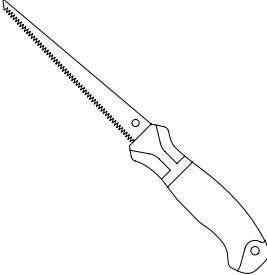



5 Year Limited Warranty: Parts and workmanship

 CAUTION: 2 people min. recommended for install

2. TOOLS

 WARNING: Wear clean cotton or latex gloves when handling FABRILum Luminaires.

Gloves 	Measuring Tape 	#2 Phillips Screwdriver 
Cable Cutters 	Pliers 	Solid hanger wire (not required for suspended mount) 
17mm socket and ratchet (suspended mount only) 	Drywall saw (recessed mount only) 	

 CAUTION: Observe precautions for handling electrostatic sensitive devices.

 CAUTION: Use appropriate Personal Protective Equipment (PPE) to ensure safety at work.

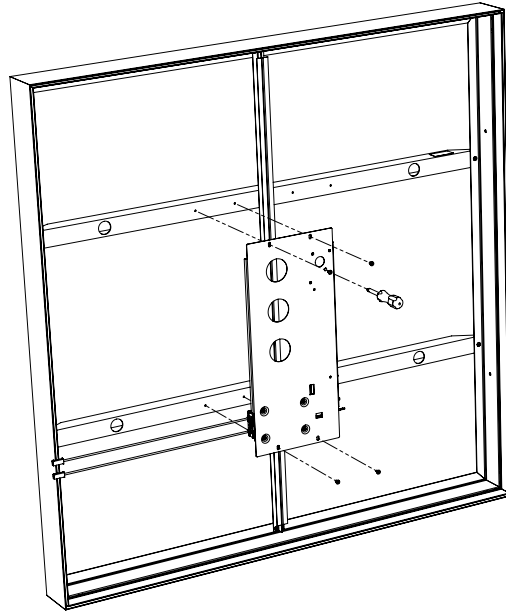
3. MOUNTING TYPES

- Direct ceiling (surface) mount – go to section 4
- Suspended mount – go to section 5
- Grid mount – go to section 6
- Recessed mount – go to section 7

4. DIRECT CEILING (SURFACE) MOUNT

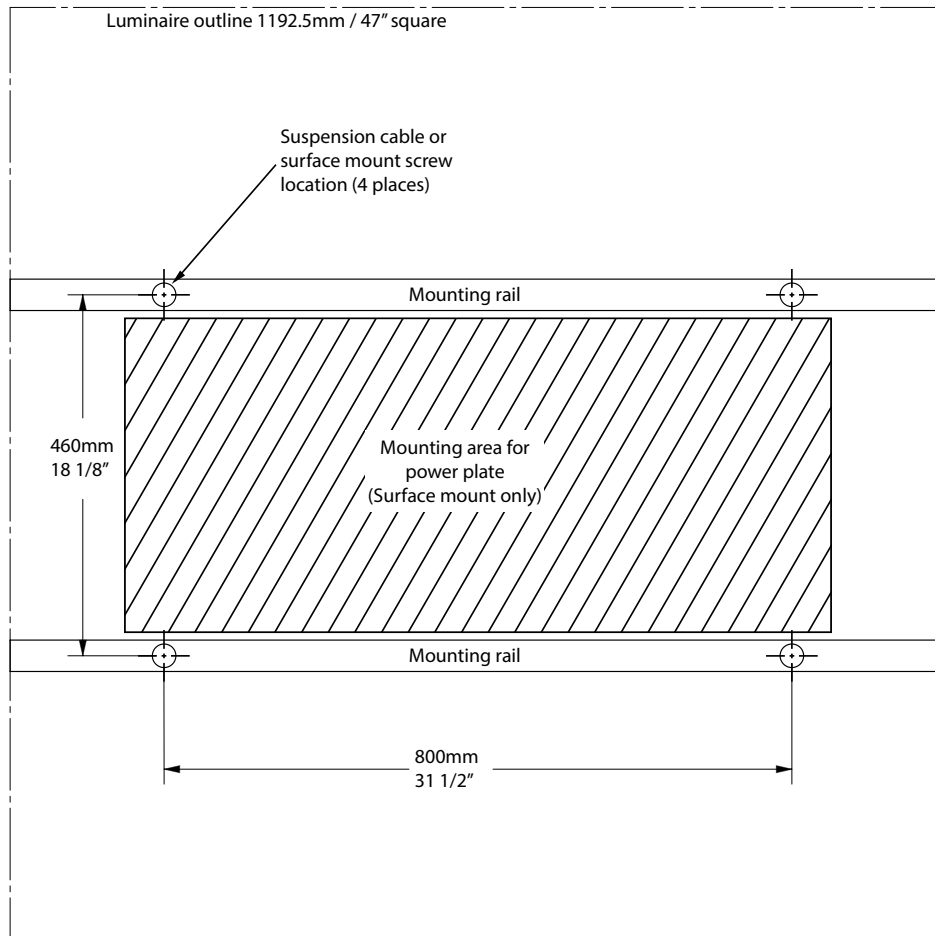
4.1 REMOVE POWER AND CONTROL ASSEMBLY FROM FRAME

Remove the four screws holding the power and control assembly to the frame.



4.2 MARK THE CEILING

Use the included mounting template to mark the position on the ceiling.



4.3 MOUNT THE FRAME TO THE CEILING

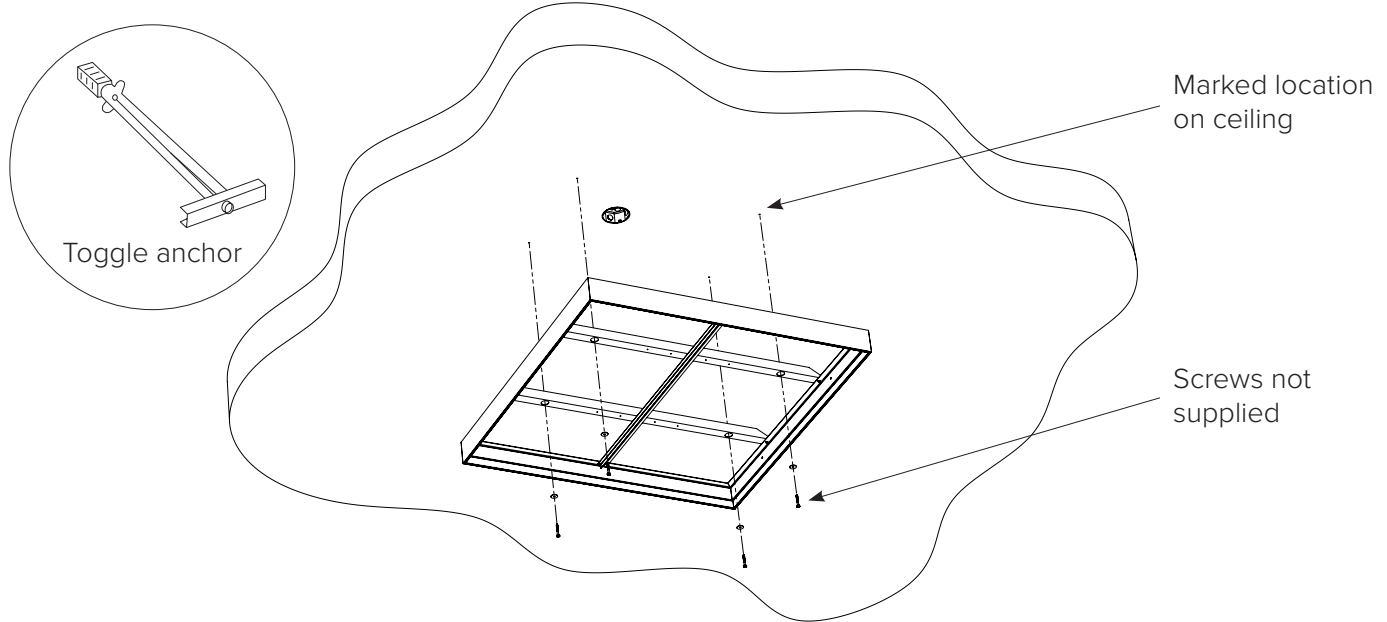


CAUTION: 2 people min. recommended for install



CAUTION: The luminaire weight is 14kg/31lbs. Ceiling fasteners are not provided by Cooledge. Ensure the mounting can withstand the load including any safety margin required by national or local building codes.

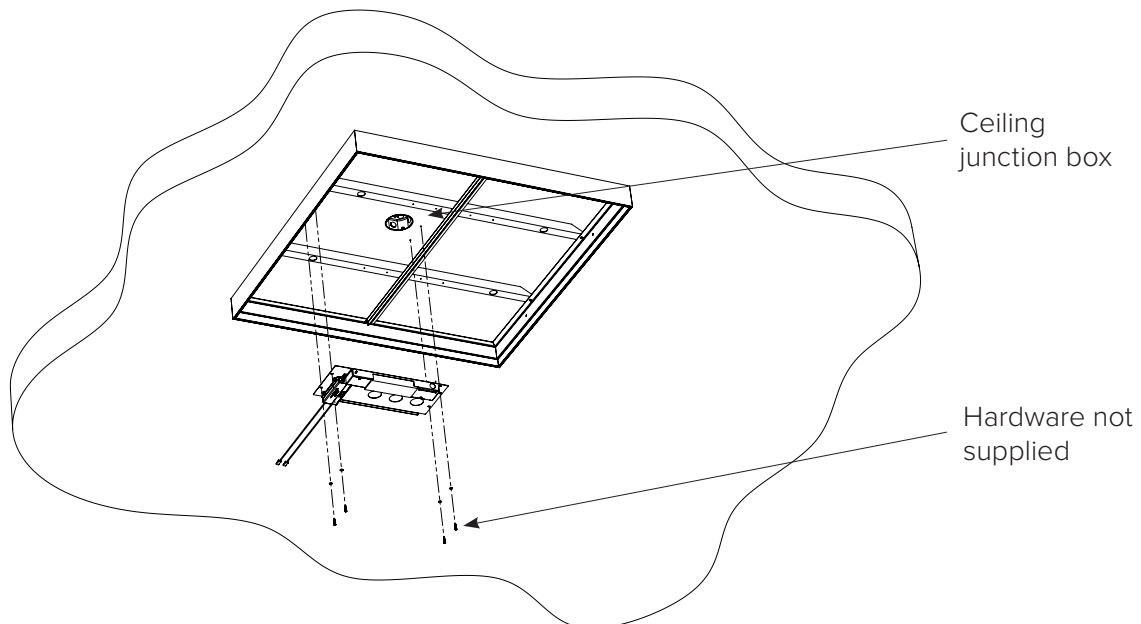
It is recommended to mount the luminaire directly to structure. If mounting to drywall use suitably rated toggle style anchors.



4.4 MOUNT THE POWER AND CONTROL ASSEMBLY

NOTE: the power and control assembly must be mounted between the frame mounting rails as indicated on the mounting template. Do not mount remotely.

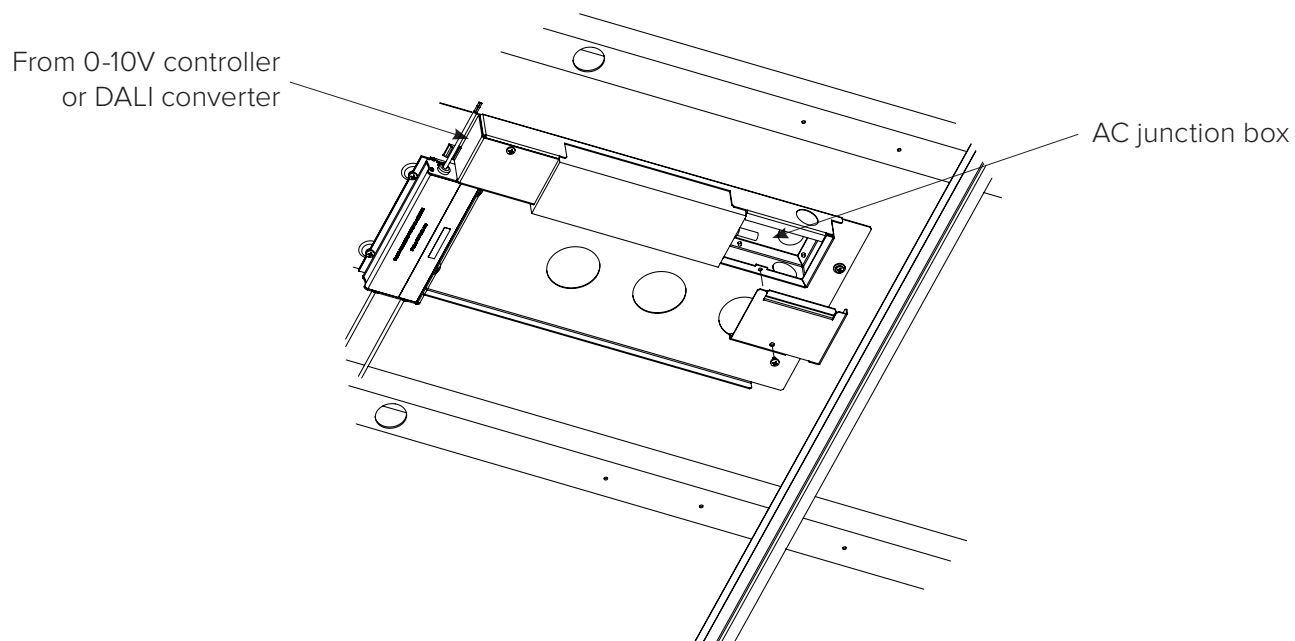
Mount the power and control assembly to the ceiling using four fasteners (not included) appropriate to the ceiling material. The weight of the power and control assembly is 2.2kg/4.9lbs. Ensure the fasteners can safely support this load. If the power and control assembly is to be mounted over a ceiling junction box, punch out the knockout in the plate before mounting. Align the hole to the AC cable in the ceiling junction box.




4.5 CONNECT AC POWER


The electrical power connections should be made by a qualified electrician in accordance with all national and local electrical and construction codes.

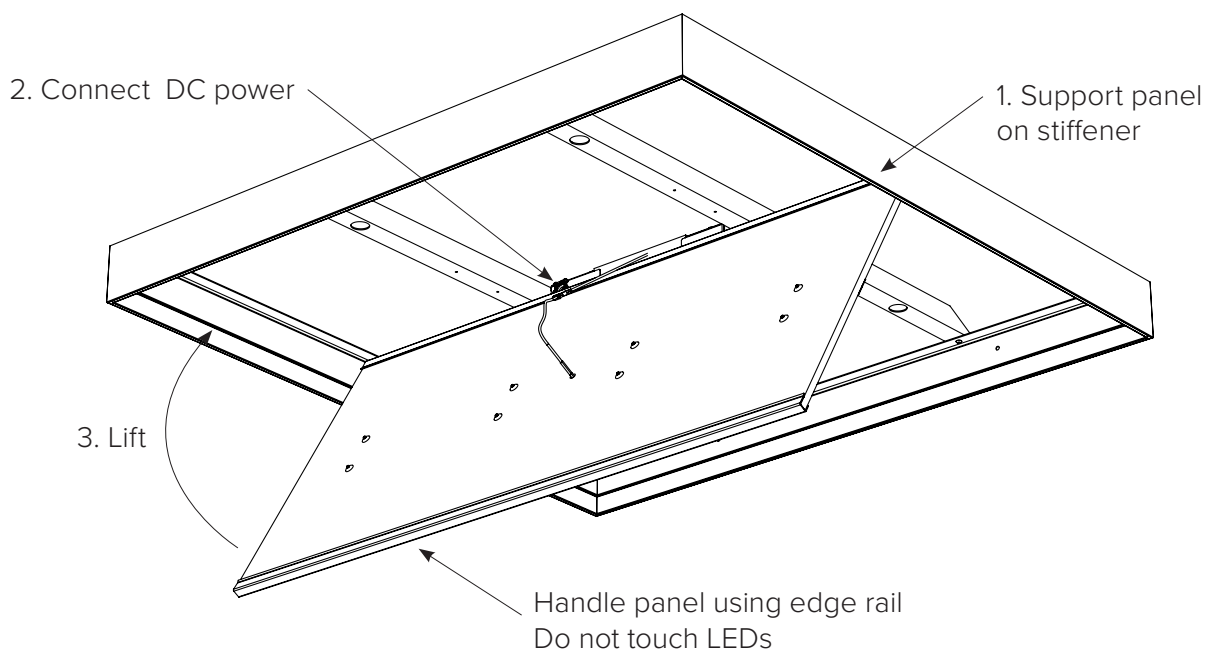
 **CAUTION:** Ensure electrical power is disconnected!

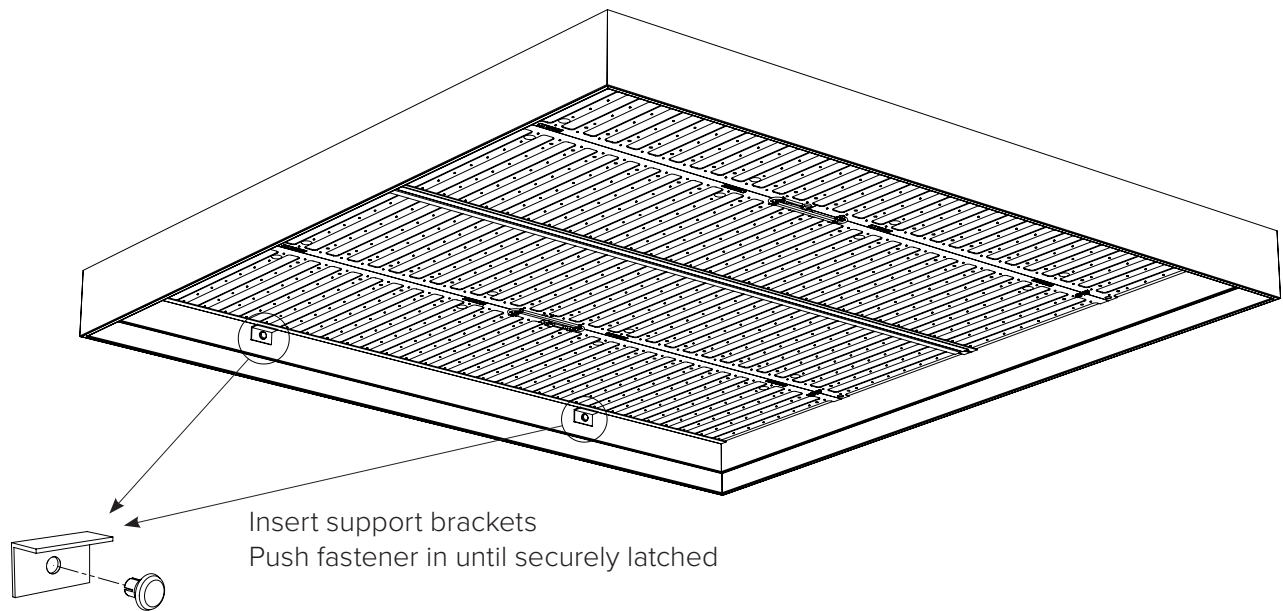


4.6 INSTALL THE LED PANELS

 **CAUTION:** Observe precautions for handling electrostatic sensitive devices.

 **CAUTION:** 2 people min. recommended for install



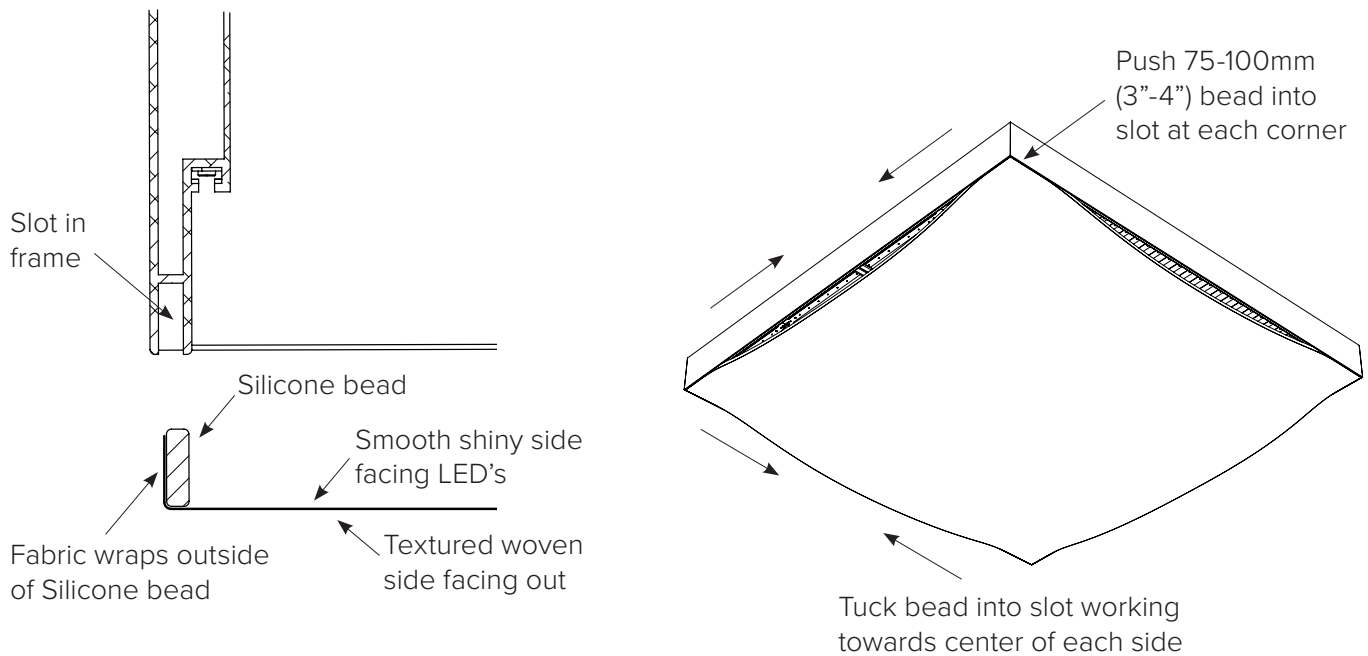


Repeat both steps for second panel

4.7 TEST LIGHTING

Turn on the luminaire and verify that all LEDs are lit. Test that the dimming is functioning correctly. (if connected). Refer to section 8 for additional controller details.

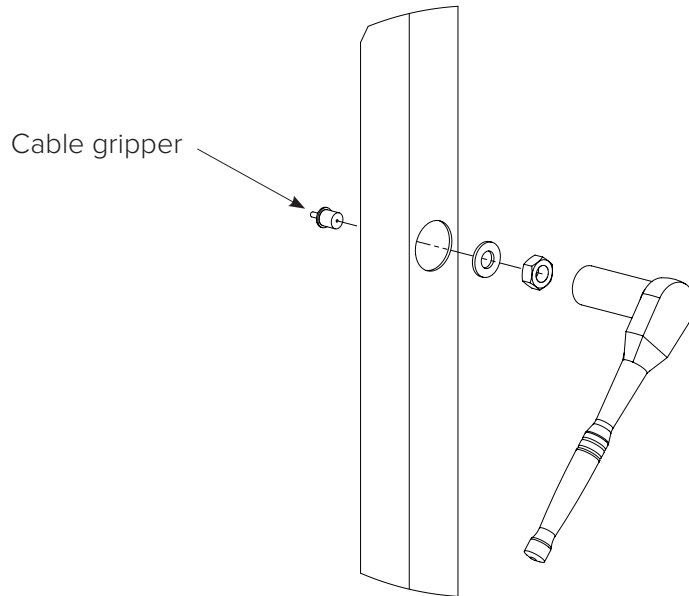
4.8 INSTALL FABRIC



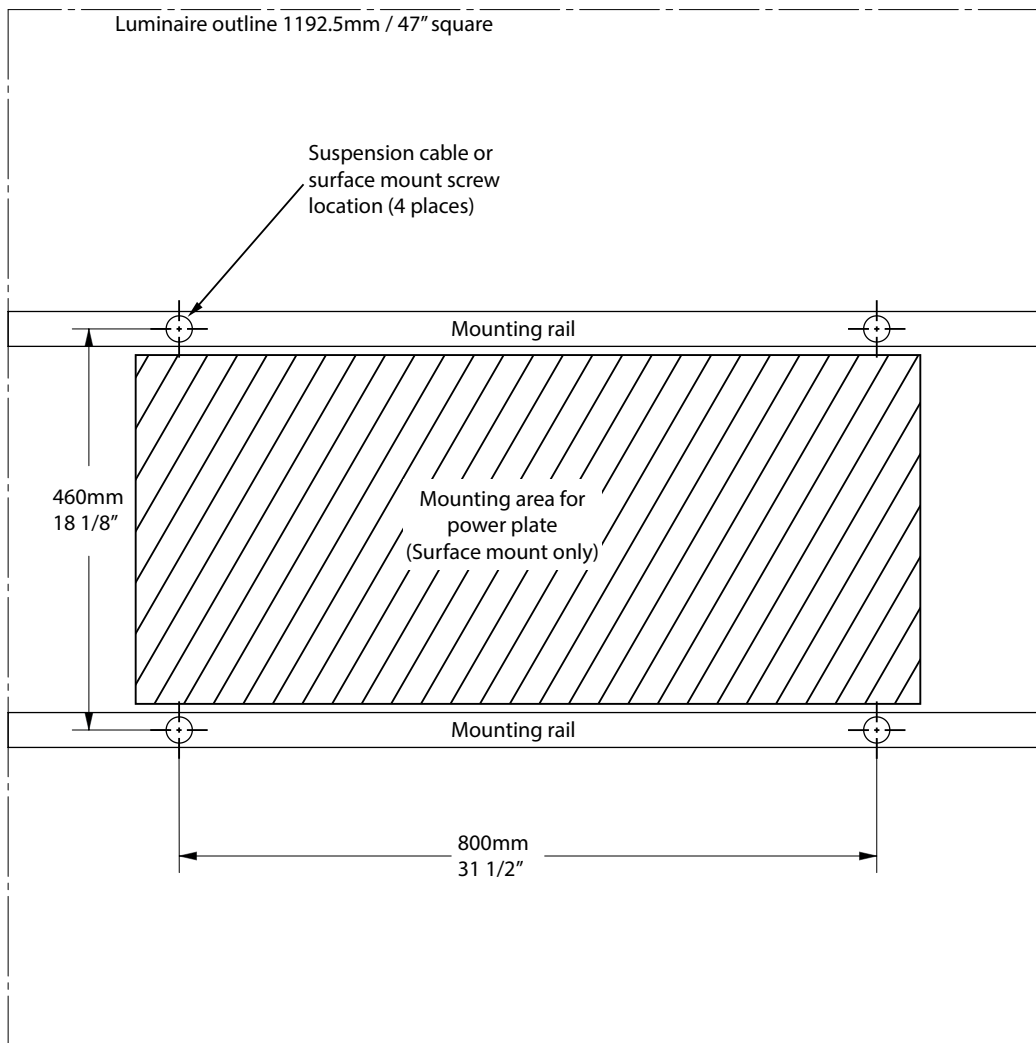
To create a luminous ceiling, luminaires should be mounted directly adjacent to each other (butted together). The mounting procedure 4.0-4.8 applies for each individual "core" luminaire.

5. SUSPENDED MOUNT


5.1 ATTACH 4X CABLE GRIPPERS TO MOUNTING RAILS

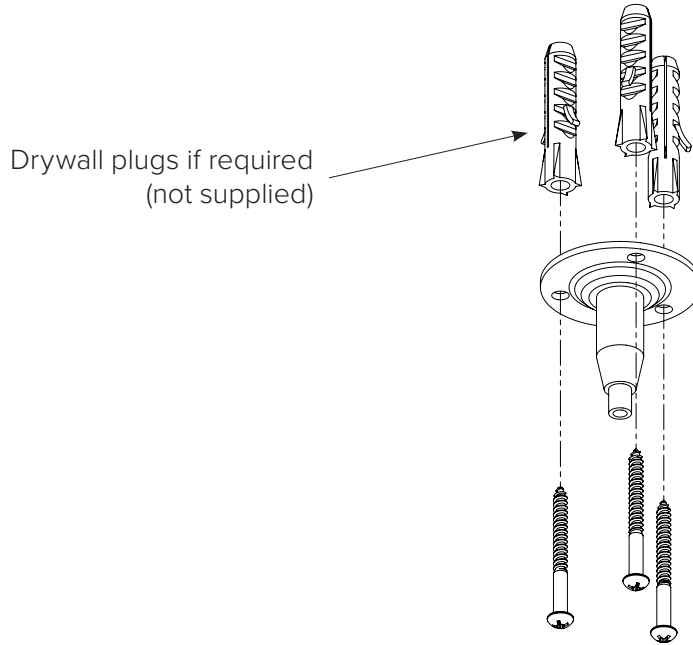


5.2 MARK THE CEILING USING MOUNTING TEMPLATE

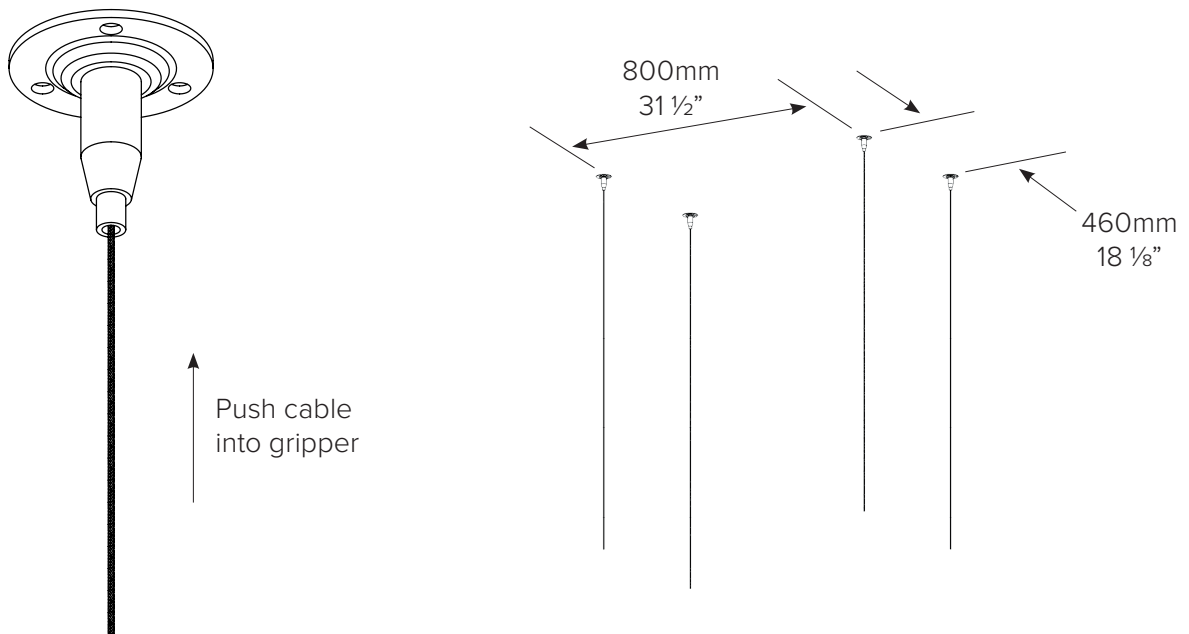


5.3 ATTACH 4X CEILING GRIPPERS TO CEILING


 **NOTE:** when possible mount to studs or solid surface. Use drywall plugs only when necessary. Each cable gripper must be able to support 15kg.

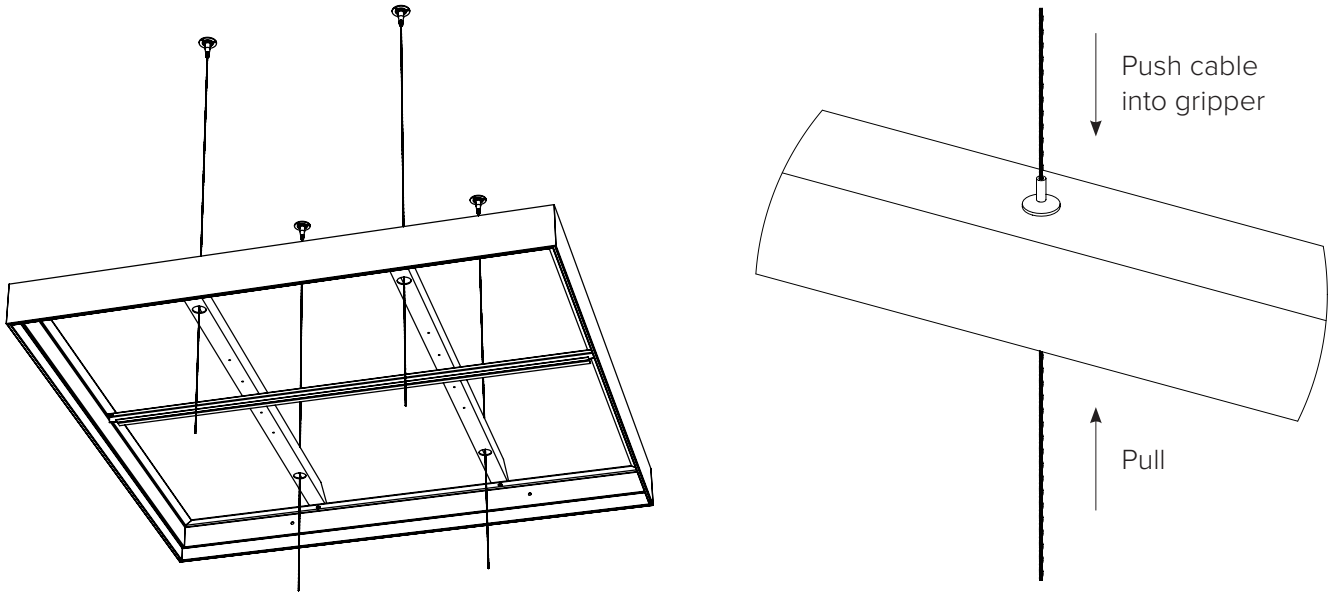


5.4 HANG CABLES FROM GRIPPERS

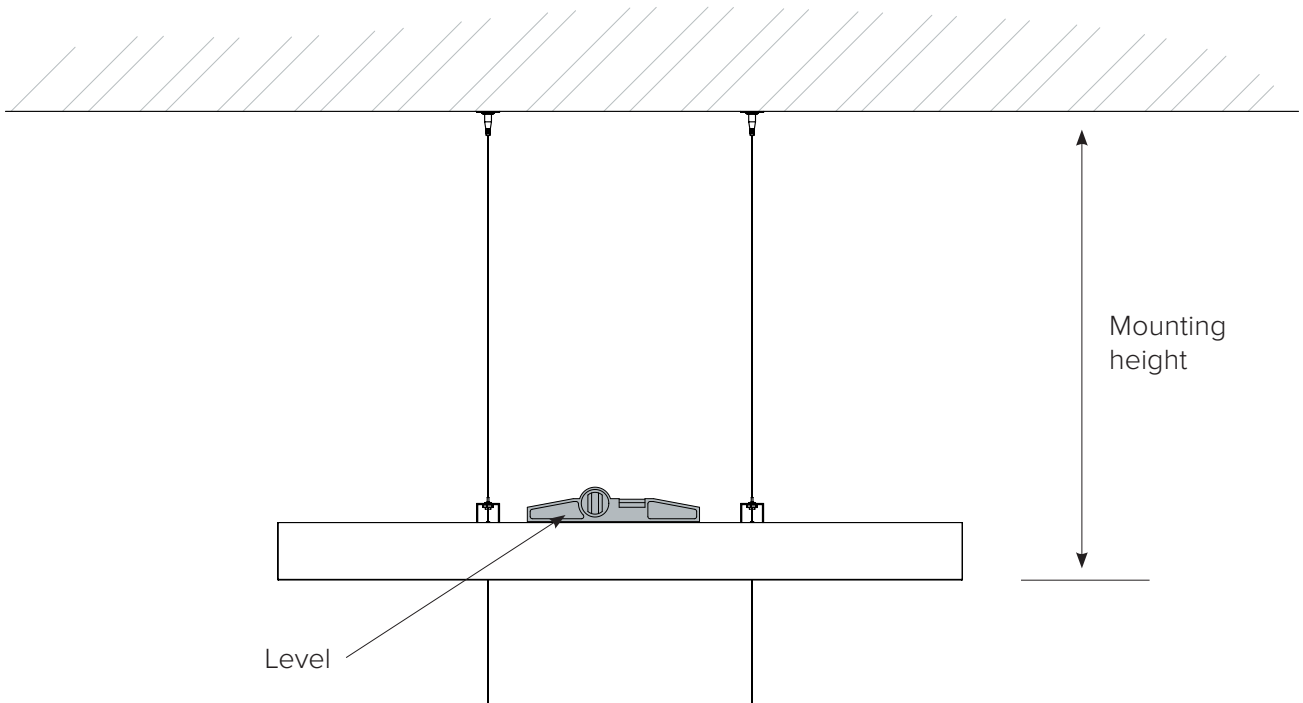


5.5 HANG LUMINAIRE FRAME


 CAUTION: 2 people min. recommended for install

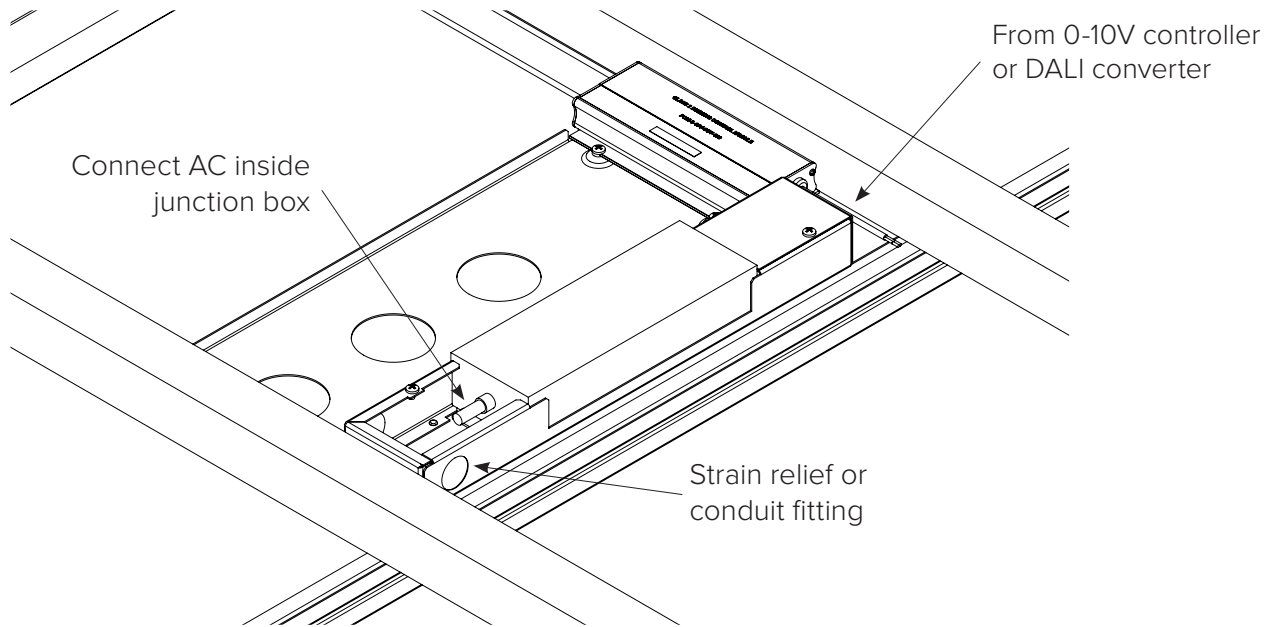


5.6 SET HEIGHT AND LEVEL





5.7 CONNECT AC POWER

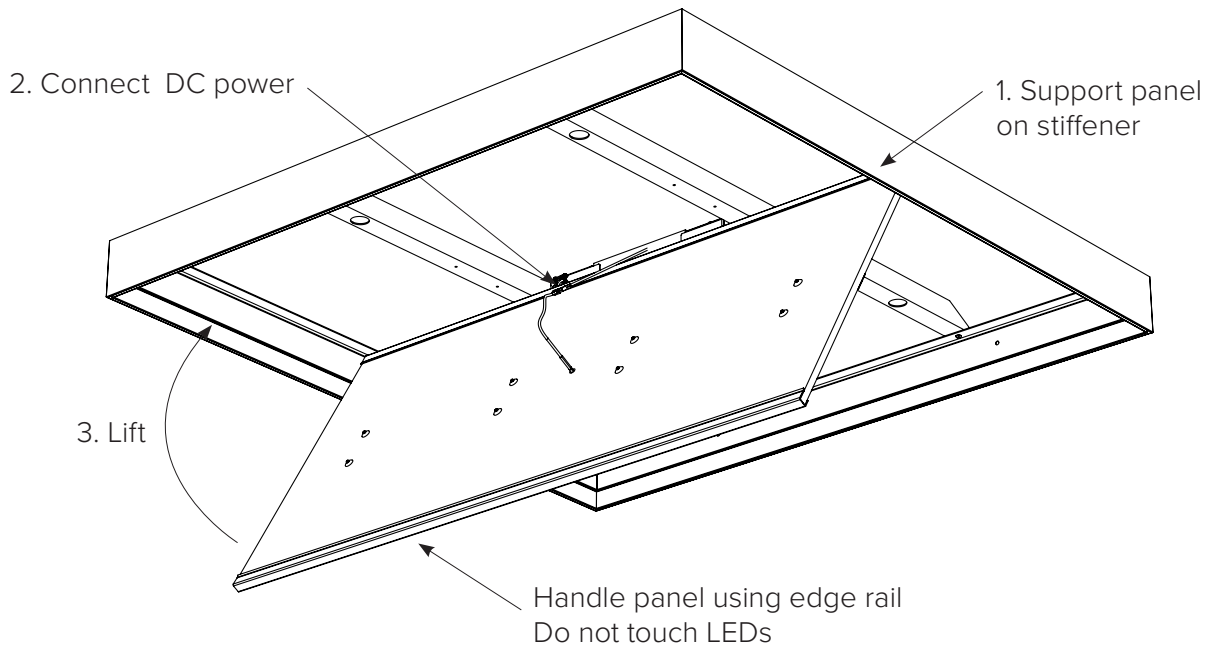
 **WARNING:** The electrical power connections must be made by a qualified electrician in accordance with all national and local electrical and construction codes

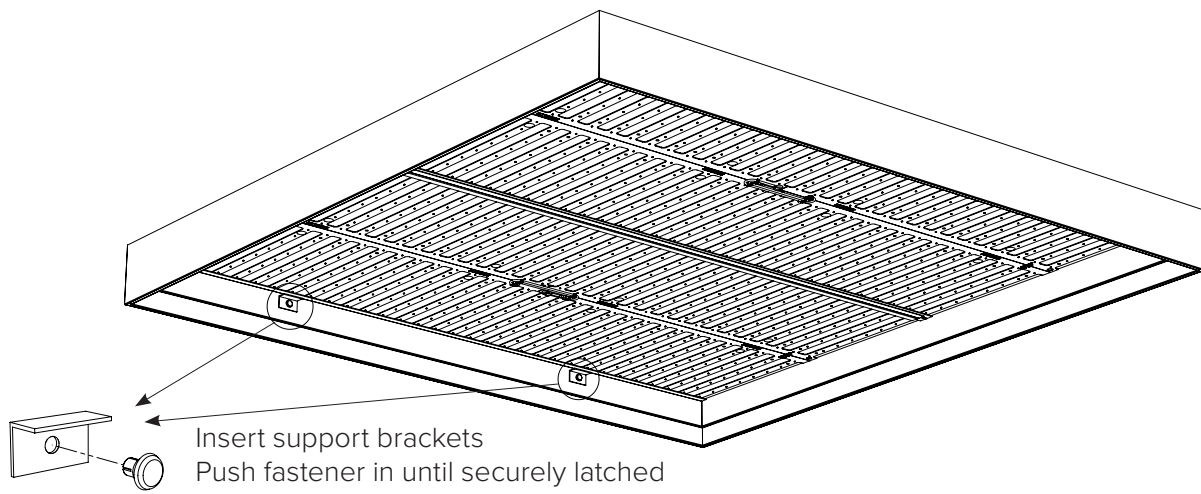


5.8 INSTALL LED PANELS

 **CAUTION:** Observe precautions for handling electrostatic sensitive devices.

 **CAUTION:** 2 people min. recommended for install





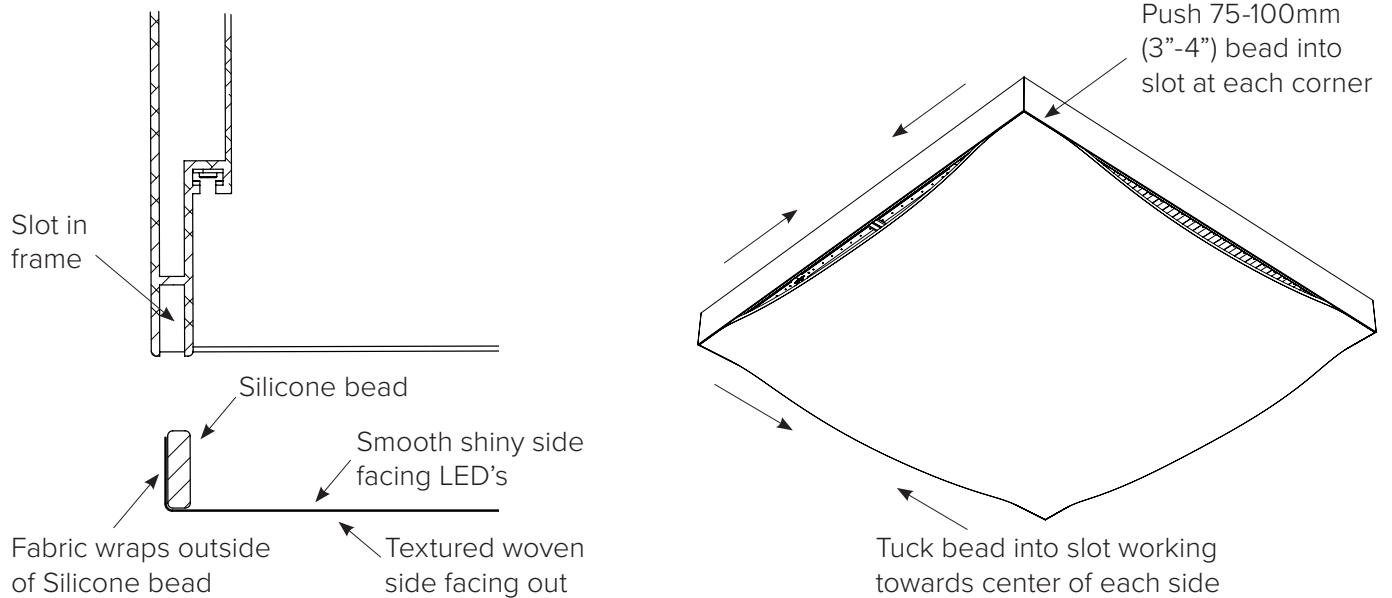
Repeat both steps for second panel

5.9 TEST LIGHTING

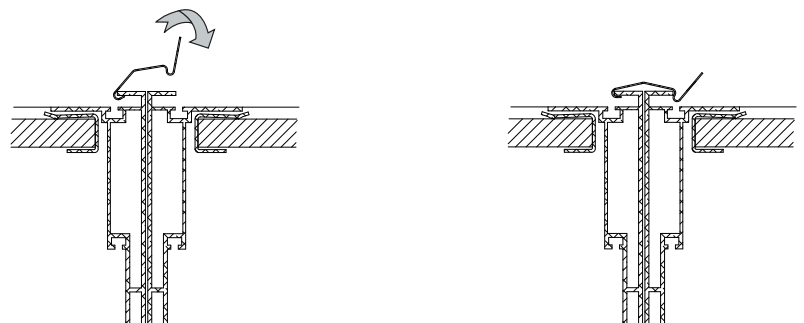
Turn on the luminaire and verify that all LEDs are lit. Test that the dimming is functioning correctly (if connected). Refer to section 8 for additional controller details.

5.10 INSTALL FABRIC

! WARNING: Wear clean cotton or Latex gloves when handling fabric.



To create luminous ceiling clouds, the FABRILum luminaires are to be connected together using the clips provided. Alignment of the mounting points prior to installation (5.2) will allow connections to be made more easily.



6. GRID MOUNT

NOTE: The LED panels and fabric must be installed **before** mounting in the ceiling. Follow the steps below.

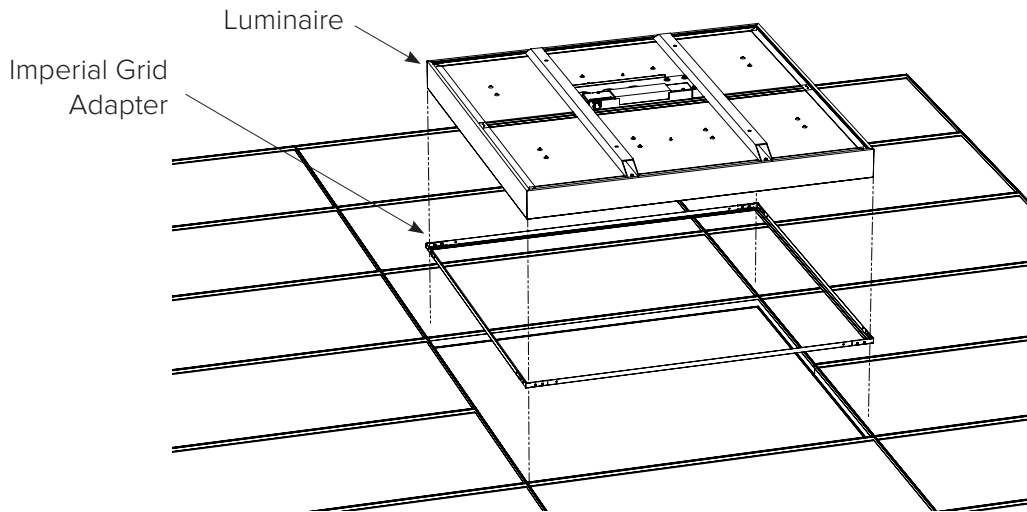


NOTE: No insulation material is to be placed on top of the luminaire.

6.1 PREPARE THE CEILING GRID

FABRILum luminaire fit into a 1200mmx1200mm T-bar ceiling without an adapter, for 48"x48" T-bar openings an Imperial Grid Adapter is required (LACC-G-K) - ordered and shipped separately.

The luminaire should be supported on two edges by main beams and the other two edges by cross tees.

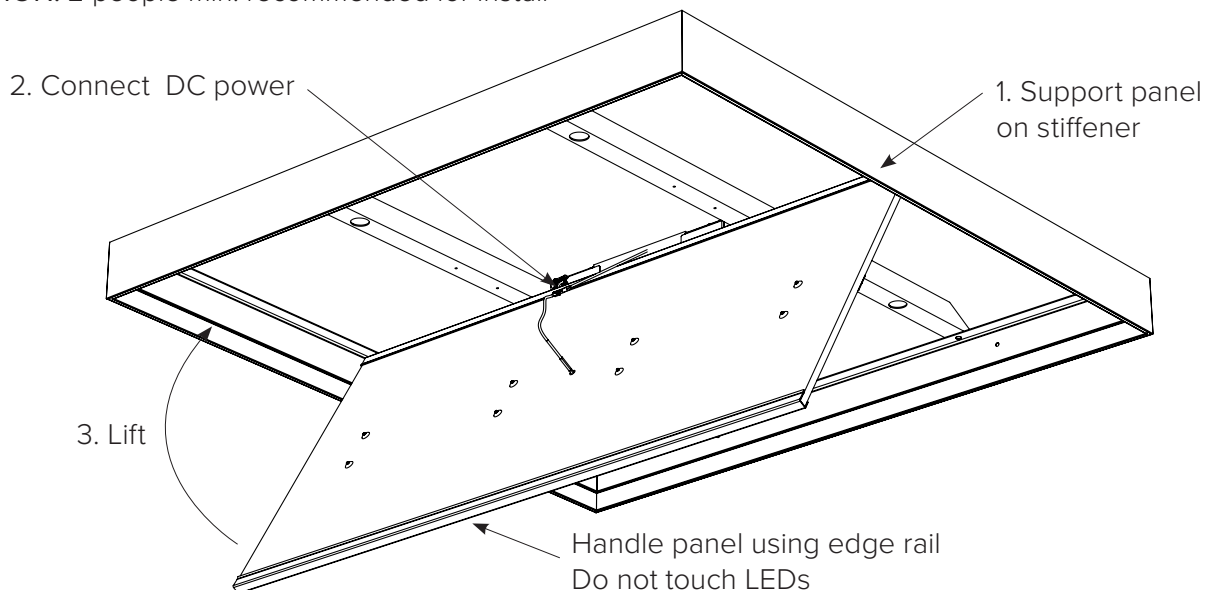


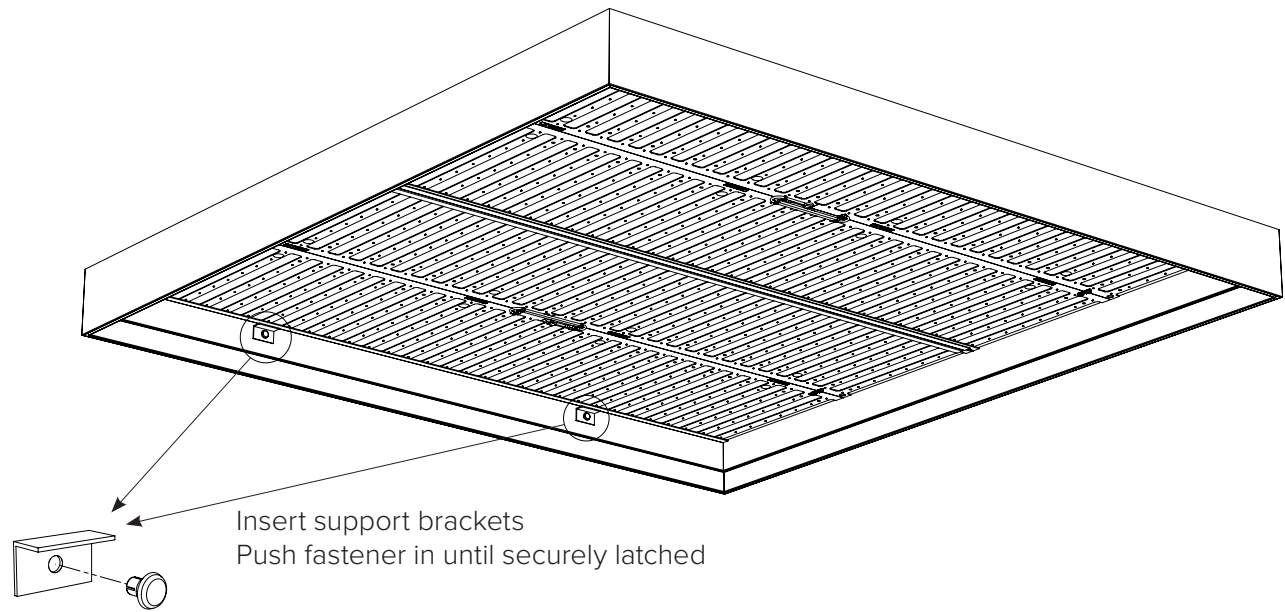
CAUTION: Weight of one FABRILum luminaire is 14kg/31 lbs. The Imperial Grid Adapter required for inch-sized (imperial) ceiling grid weighs an additional 0.8kg/1.75lbs.

Consult your ceiling grid supplier or manufacturer for allowable loading. Do not install FABRILum luminaire in ASTM C-635 light duty grids or EN 13964:2014 Class 1 grids.

6.2 INSTALL THE LED PANELS

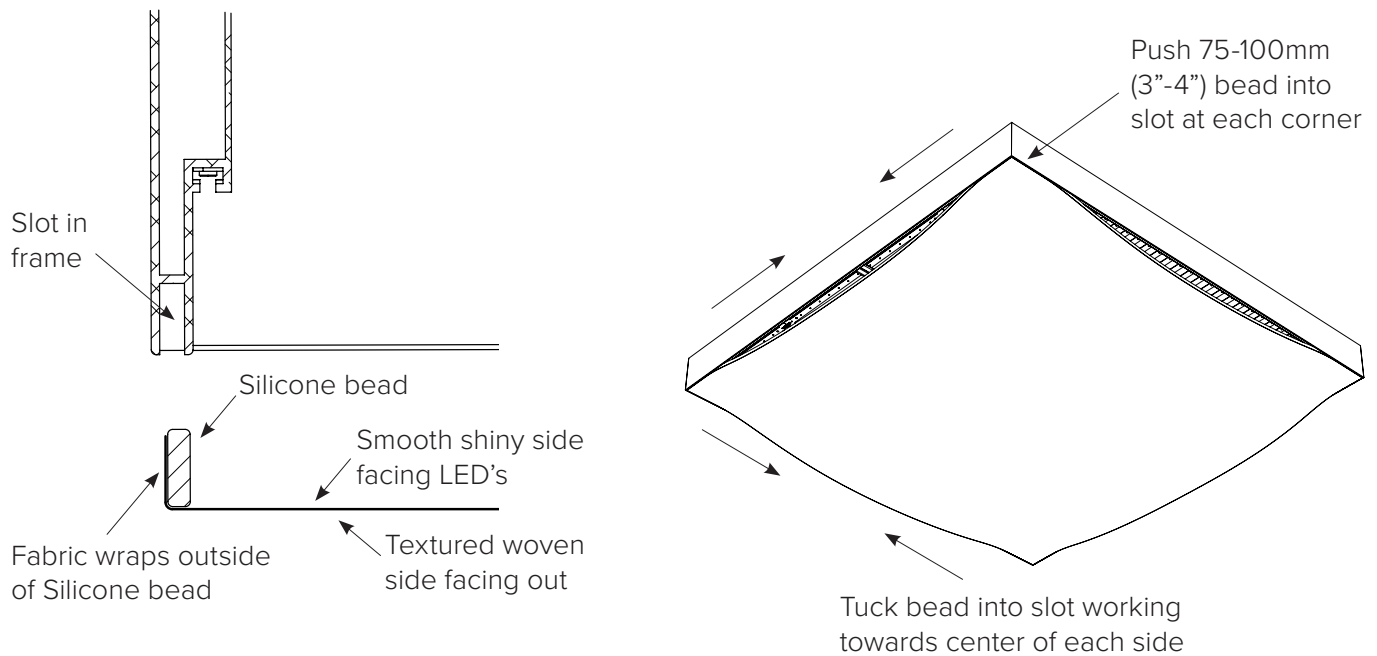
CAUTION: 2 people min. recommended for install



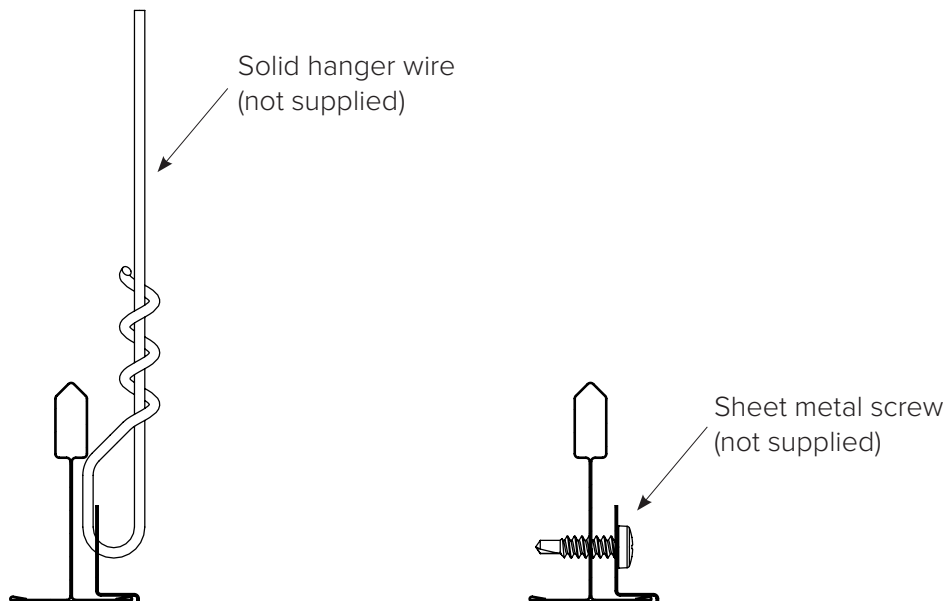
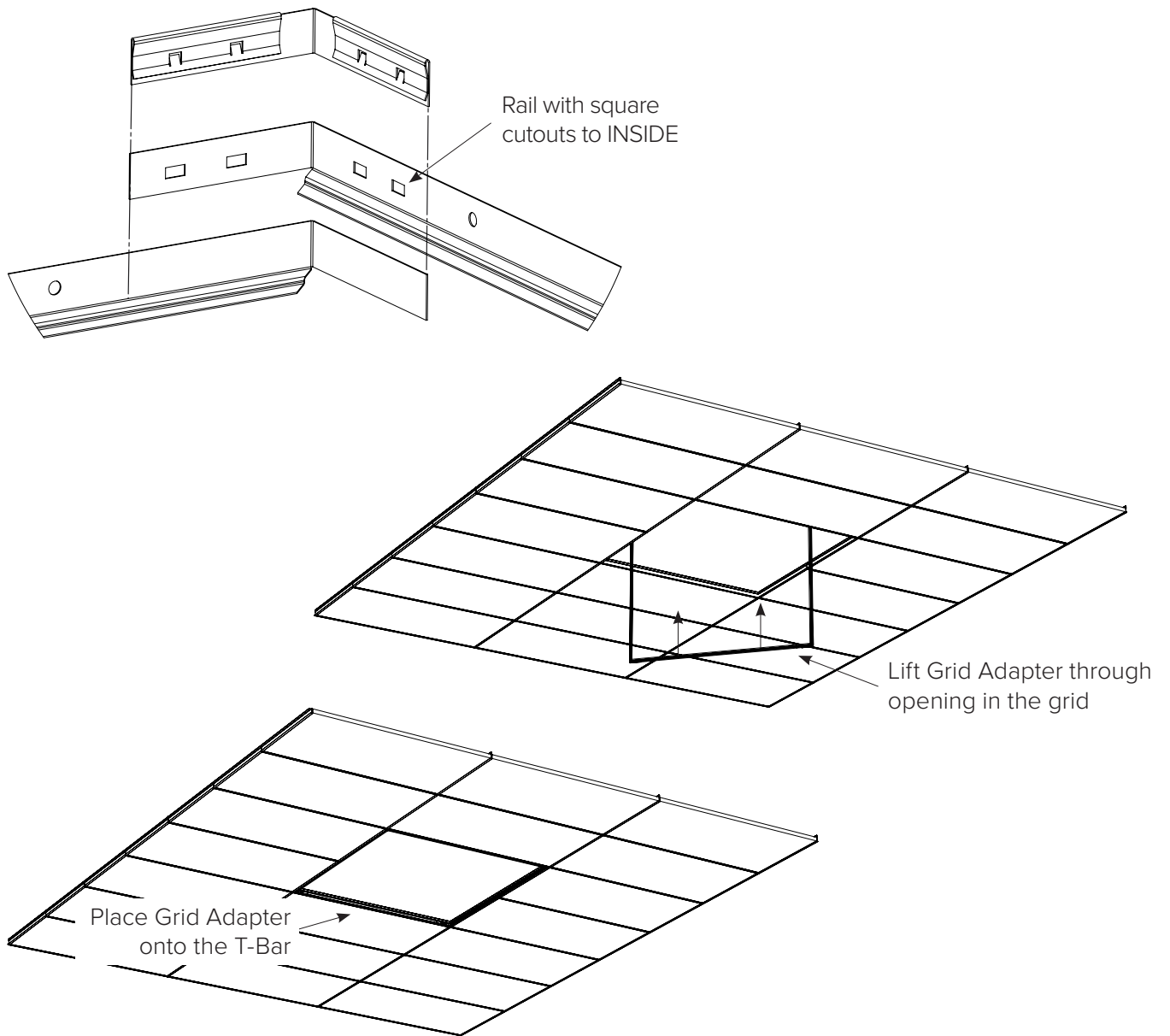


Repeat both steps for second panel

6.3 INSTALL FABRIC



6.4 INCH-SIZE GRIDS (IMPERIAL) ONLY - INSTALL ADAPTER

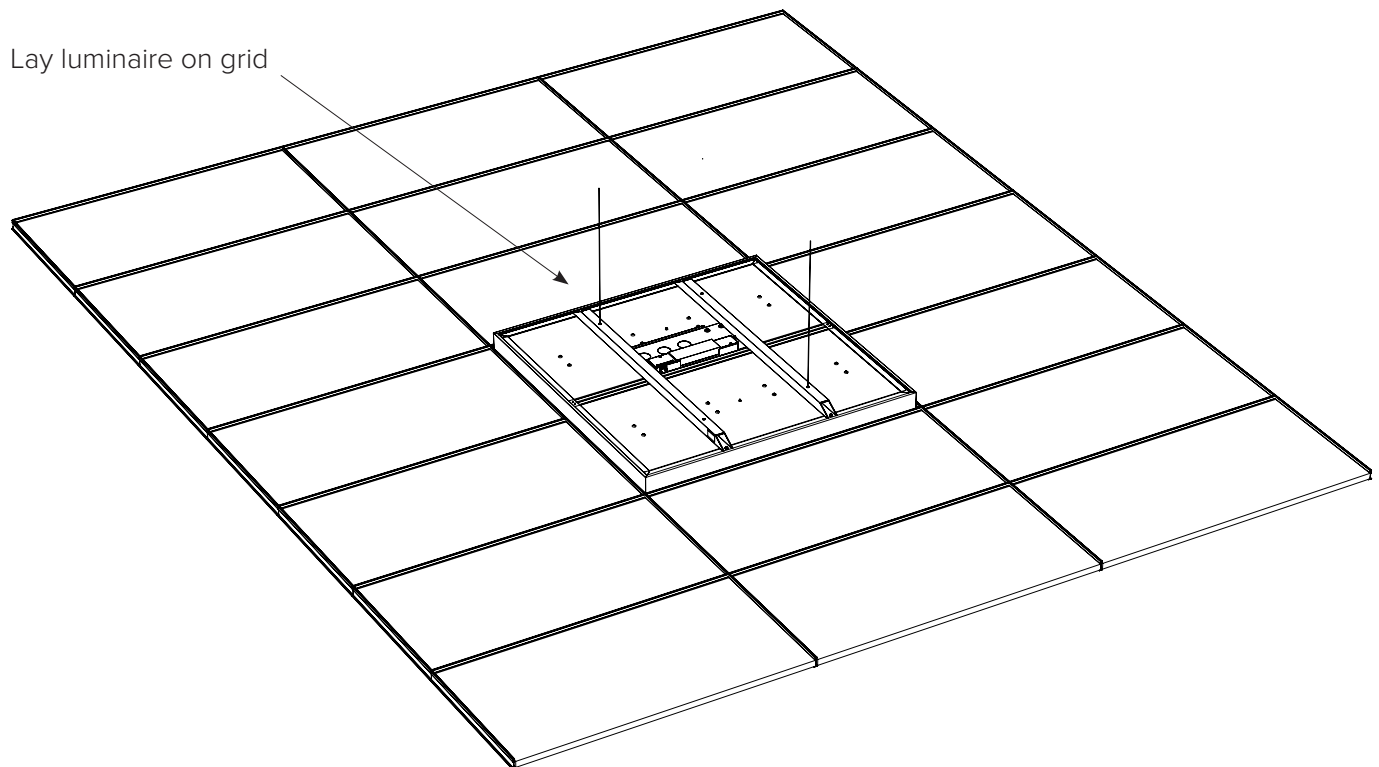
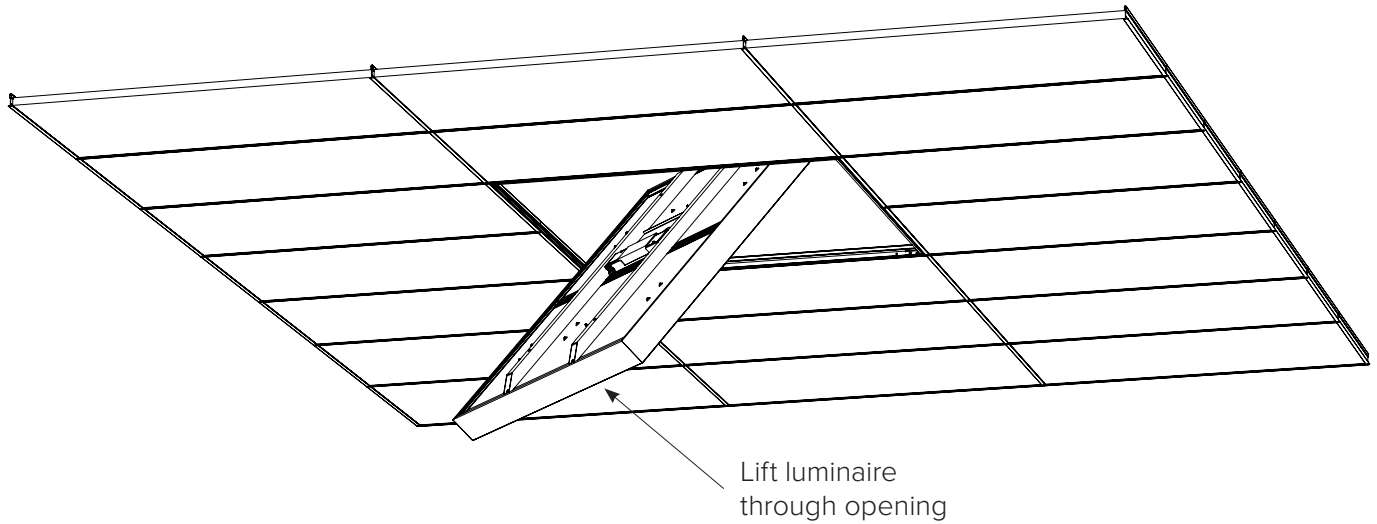


6.5 MOUNT THE FRAME IN THE GRID OPENING

 CAUTION: 2 people min. recommended for install

 CAUTION: Wear clean cotton or latex gloves; handle the unit only by the edges, do not press on the fabric!

 CAUTION: Remove an adjacent ceiling for access when lifting through grid.

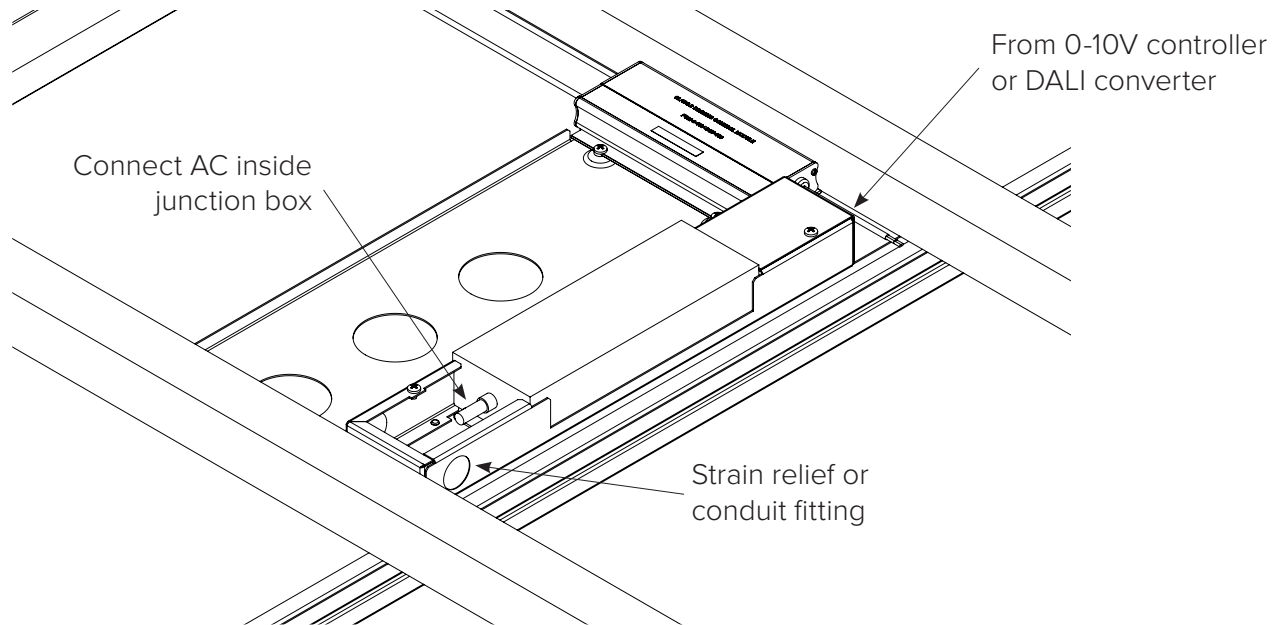


6.6 CONNECT AC POWER

 **CAUTION:** Ensure electrical power is disconnected!

The electrical power connections should be made by a qualified electrician in accordance with all national and local electrical and construction codes.

Remove an adjacent ceiling tile provide access to the top of the luminaire



6.7 TEST LIGHTING

Turn on the luminaire and verify that all LEDs are lit. Test that the dimming is functioning correctly (if connected). Refer to section 8 for additional controller details.

7. RECESSED MOUNT

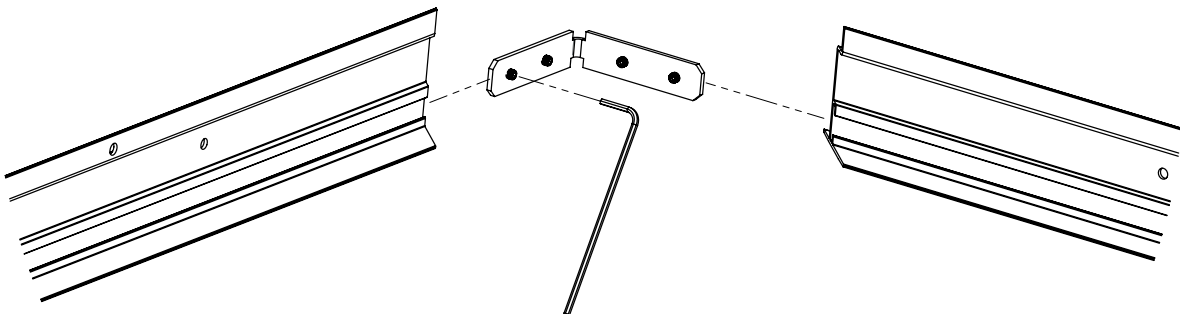
NOTE: The LED panels and fabric must be installed **before** mounting in the ceiling. Follow the steps below.



NOTE: No insulation material is to be placed on top of the luminaire.

7.1 ASSEMBLE THE RECESSED MOUNT ADAPTER LACC-R-K W

A Recessed Mounting Adapter (LACC-R-K) is required. This adapter is ordered and shipped separately.

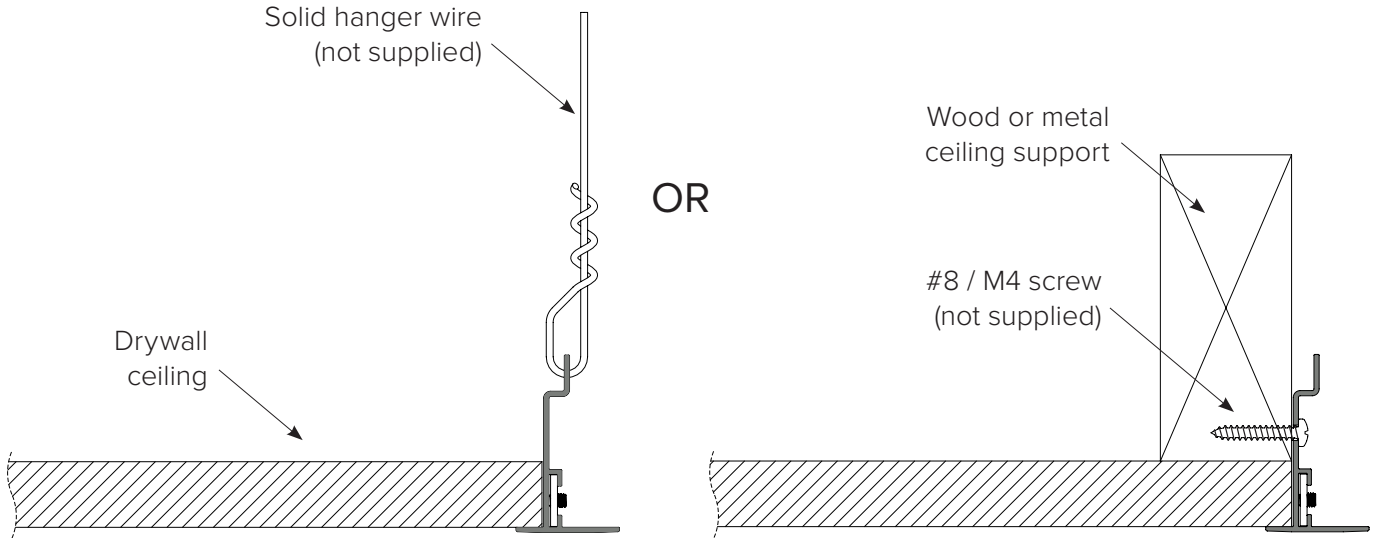


7.2 PREPARE THE CEILING OPENING

Cut the ceiling opening to 1220x1220mm / 48"x48".

Install the recessed mount adapter kit LACC-R-K (sold separately).

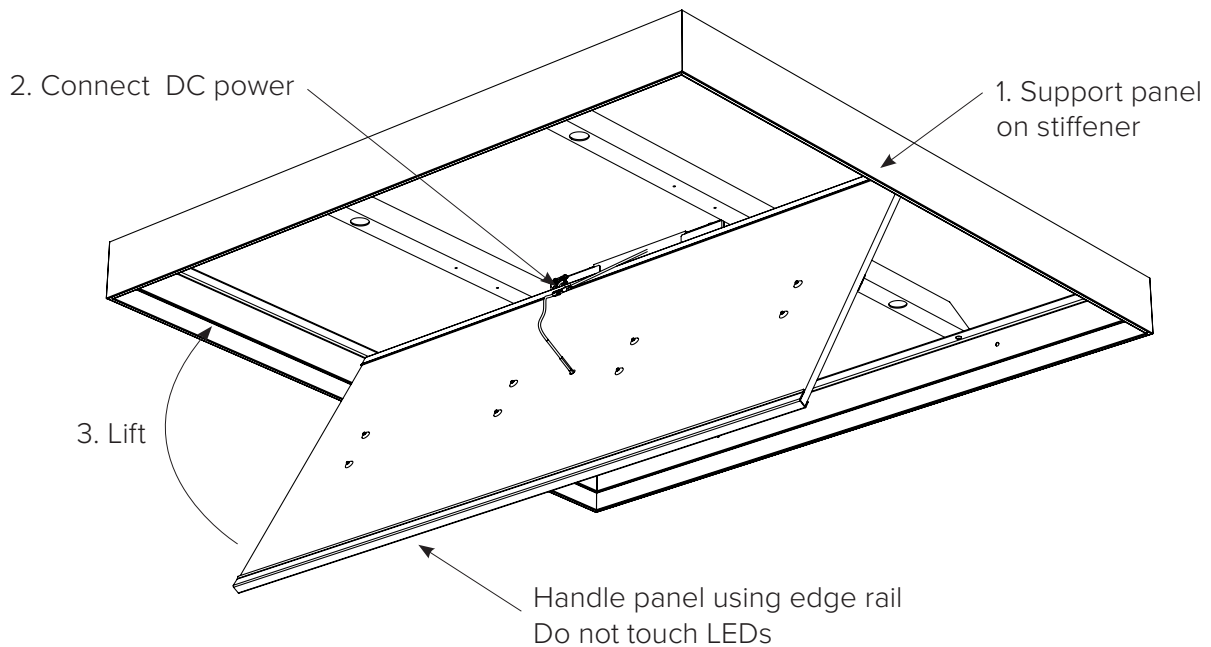
Install support wires or screws (not supplied) as required by national and local building codes.

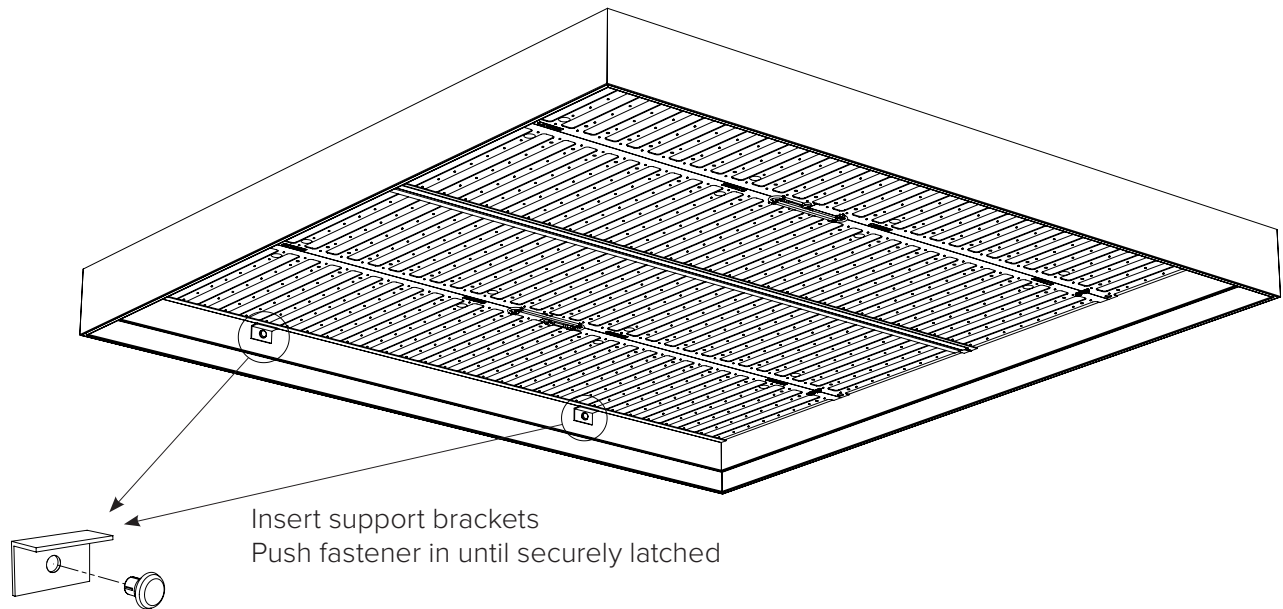


7.3 INSTALL THE LED PANELS

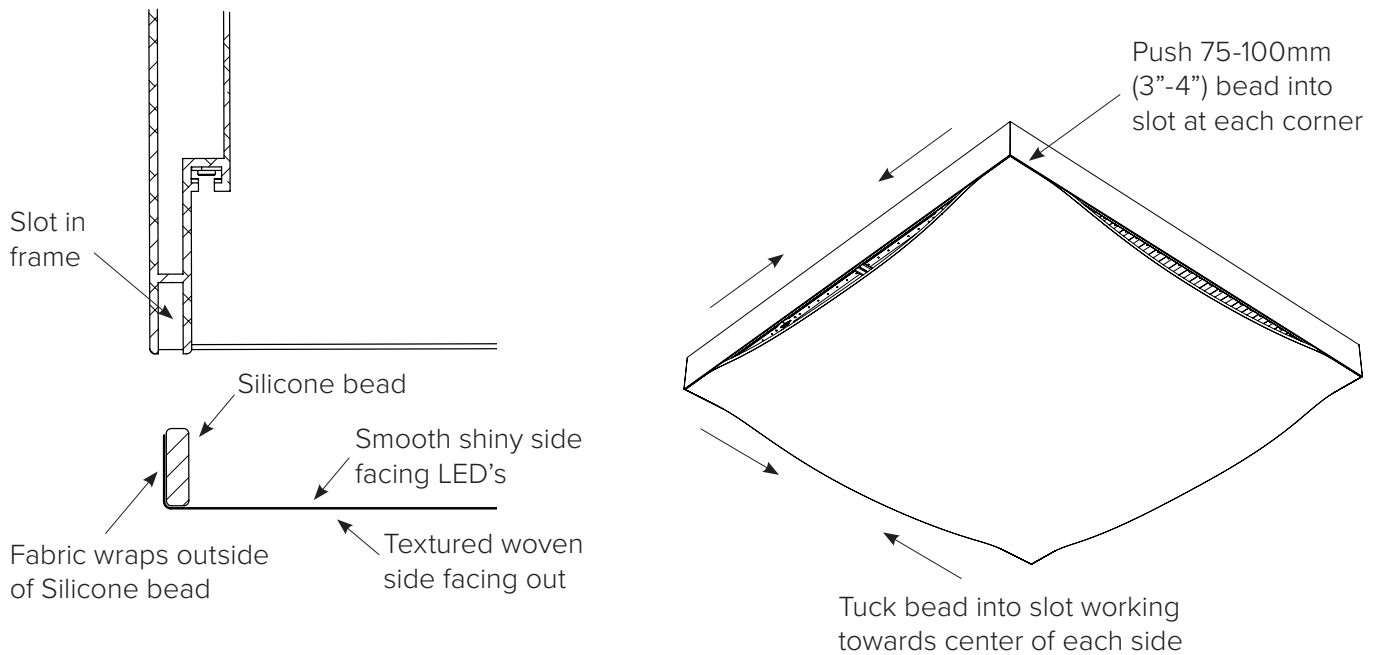


CAUTION: 2 people min. recommended for install





7.4 INSTALL FABRIC



7.5 CONNECT AC POWER

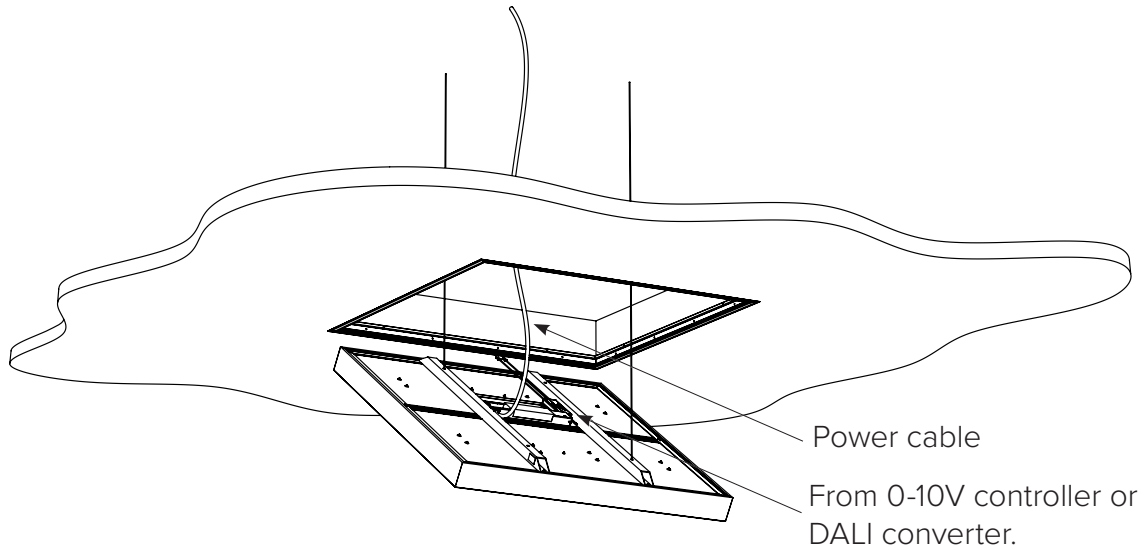
⚠ CAUTION: Wear clean cotton or latex gloves; handle the unit only by the edges, do not press on the fabric!

⚠ CAUTION: Ensure electrical power is disconnected!

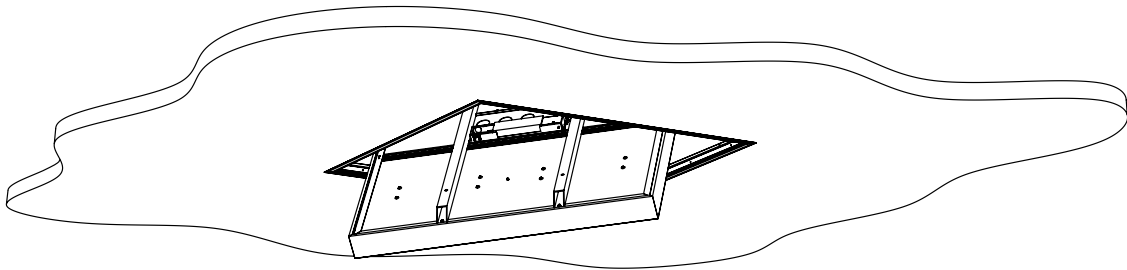
The electrical power connections should be made by a qualified electrician in accordance with all national and local electrical and construction codes.


 **CAUTION:** 2 people min. recommended for install

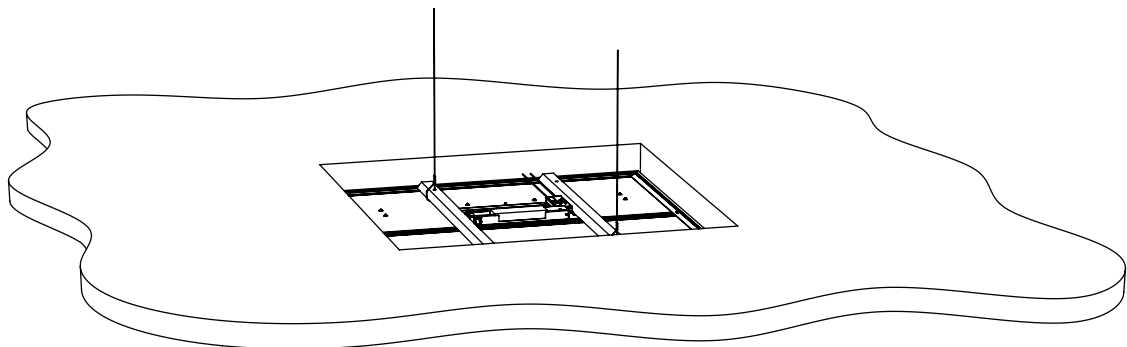
Lift the luminaire close to the ceiling and support on a scaffold/lift or hang temporarily from 18Ga min solid steel hanger wires (not supplied). Connect the AC power to the junction box. Where required by national or local electrical codes the AC cable may need to be in flexible conduit or of minimum rated jacket type.



7.6 MOUNT THE LUMINAIRE IN THE CEILING OPENING



 **CAUTION:** Install support wires must be installed in accordance with national and local building codes







7.7 TEST LIGHTING

Turn on the luminaire and verify that all LEDs are lit. Test that the dimming is functioning correctly (if connected). Refer to section 8 for additional controller details.

8. POWER AND CONTROL

8.0 POWER AND CONTROL

-  Control Module is suitable for use in dry locations only (IP20).
-  Luminaire must be installed by a qualified electrician.
-  All devices should always be disconnected from mains power supply and verify its absence prior to installation/maintenance.
-  Damage to Control Module and/or lighting elements may occur if wired incorrectly.

FCC STATEMENT:

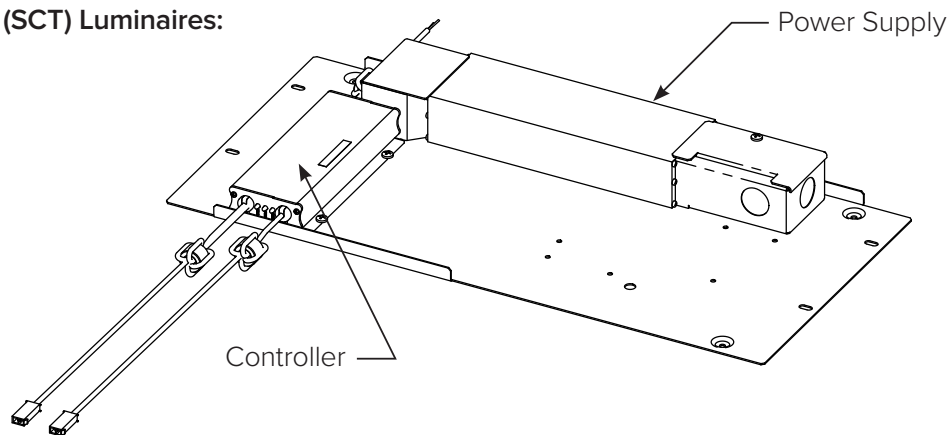
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

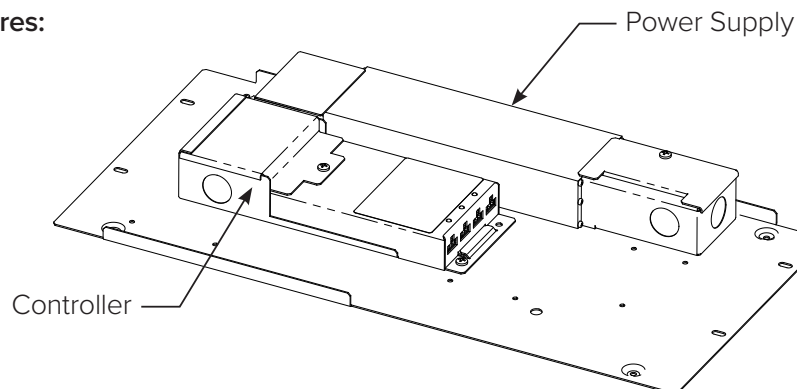
8.1 CONTROL OPTIONS

Each Cooledge luminaire is supplied with one or more control modules mounted adjacent to the power supply. The model of control module varies with luminaire type as shown below:

Static Color Temperature (SCT) Luminaires:



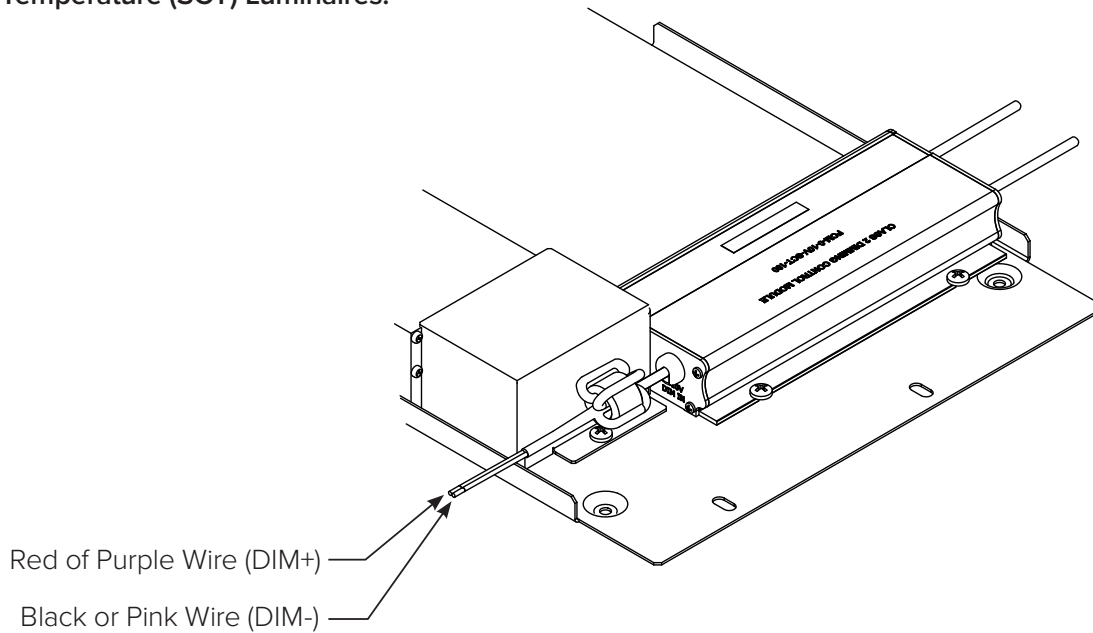
Tunable White (TNW) Luminaires:



8.2 CONTROL WIRING INPUTS

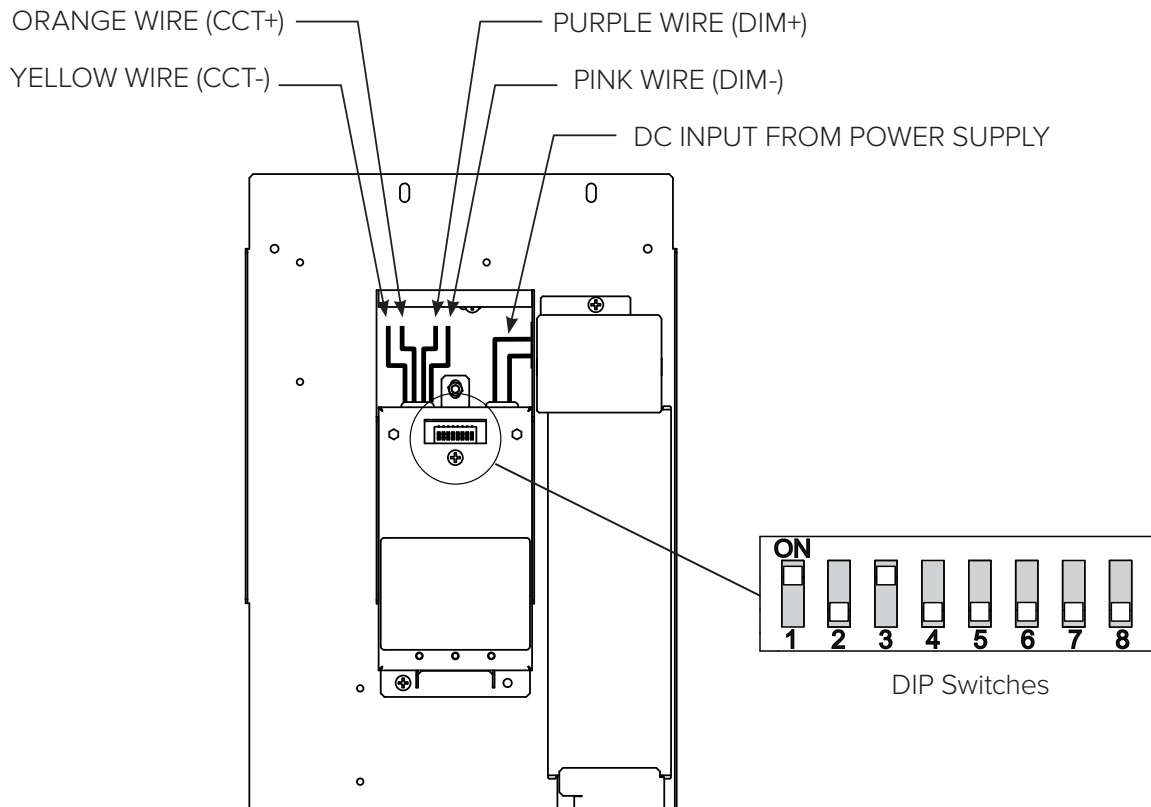
Both types of control module accept 0-10V control inputs. Other control inputs can be used with the addition of an optional control protocol adapter kit. Refer to the manual supplied with the adapter kit for correct installation of control adapters.

Static Color Temperature (SCT) Luminaires:



Tunable White (TNW) Luminaires:

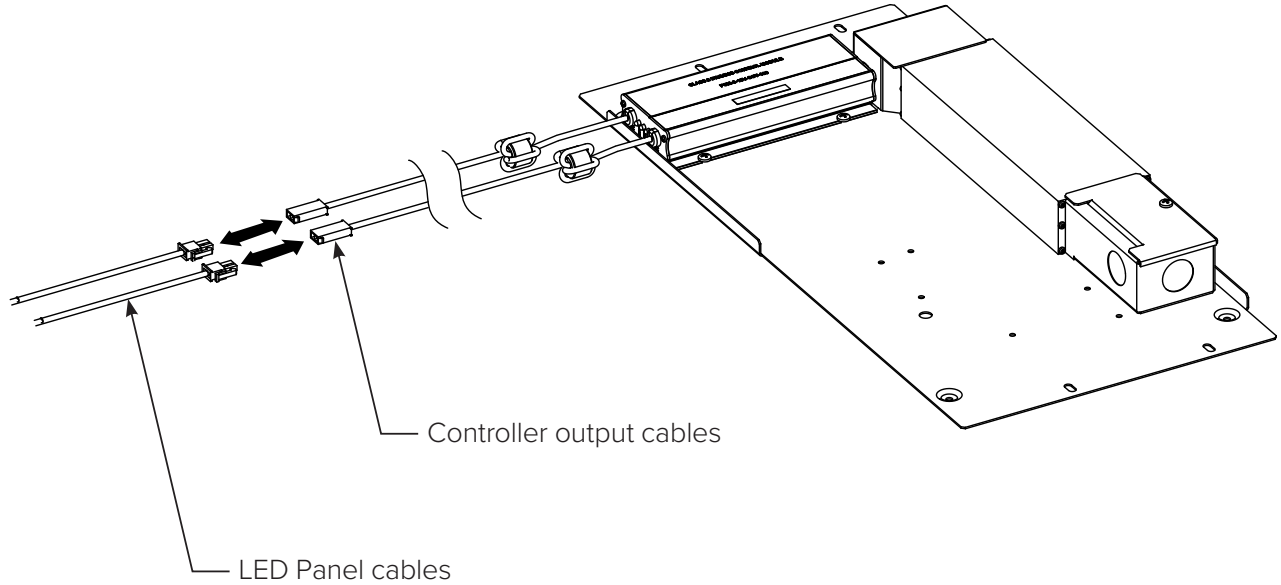
Remove the controller junction box cover to access control module inputs and DIP switches. DIP switches are used to determine user configurable settings.



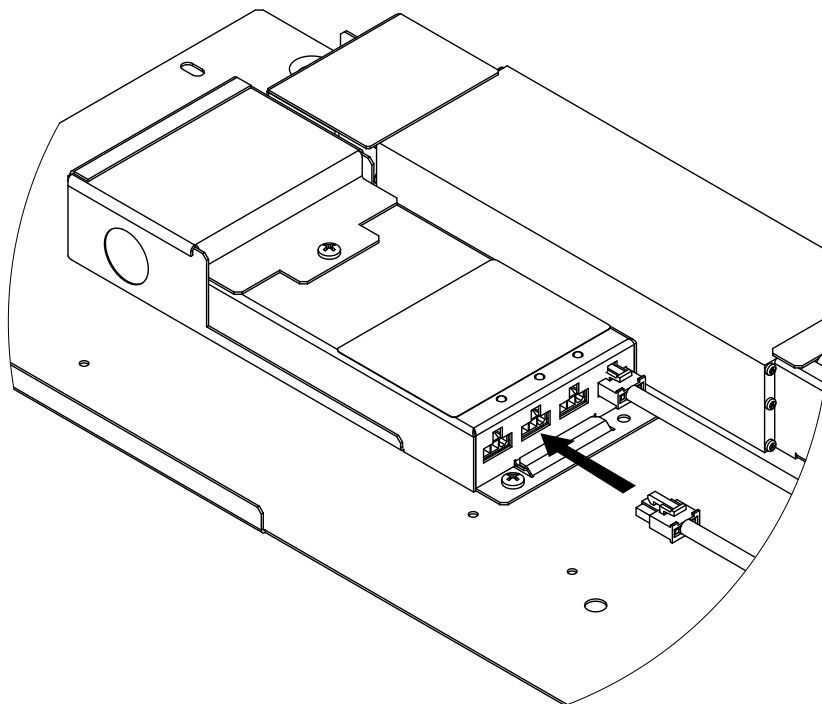
8.3 OUTPUT CONNECTIONS

The LED panels can be connected to the controller outputs as shown below:

Static Color Temperature (SCT) Luminaires: LED Panel cables plug into controller output cables.



Tunable White (TNW) Luminaires: LED Panel cables plug directly into controller. Use controller outputs 1 and 3 for TNW luminaires.



8.4 STANDALONE MODES

Standalone modes gives a pre-defined user-selectable fixed dimming and/or color output. No external control input is required. When one of the operational modes (Standalone or Dynamic Test) is selected through the DIP Switch setting, the module will ignore 0-10V commands and operate according to the settings in either LOG or LINEAR MODE.

8.5 STANDALONE TNW MODE

Standalone TNW mode allows the user to select a fixed setting for dimming and color output.

Switches 1-4 (Mode)	Switches 5-8 (Intensity)
0-0-1-1	X-X-X-X

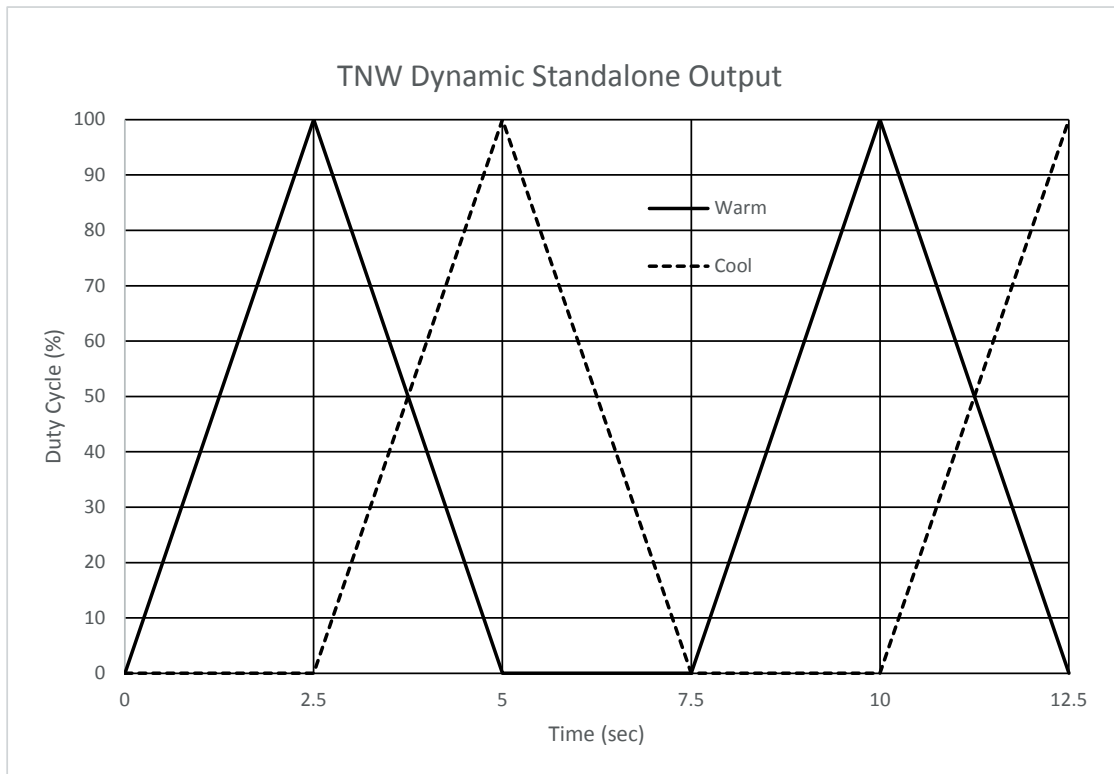
DIP Switches 5-8	Output Level (%)	Output Color Temp (K)
0-0-0-0	25%	2700K
1-0-0-0	100%	2700K
0-1-0-0	5%	3000K
1-1-0-0	25%	3000K
0-0-1-0	50%	3000K
1-0-1-0	100%	3000K
0-1-1-0	5%	3500K
1-1-1-0	25%	3500K
0-1-1-1	50%	3500K
1-0-0-1	100%	3500K
0-1-0-1	5%	4000K
1-1-0-1	25%	4000K
0-0-1-1	50%	4000K
1-0-1-1	100%	4000K
0-1-1-1	25%	5700K
1-1-1-1	100%	5700K

8.6 STANDALONE TNW DYNAMIC MODE

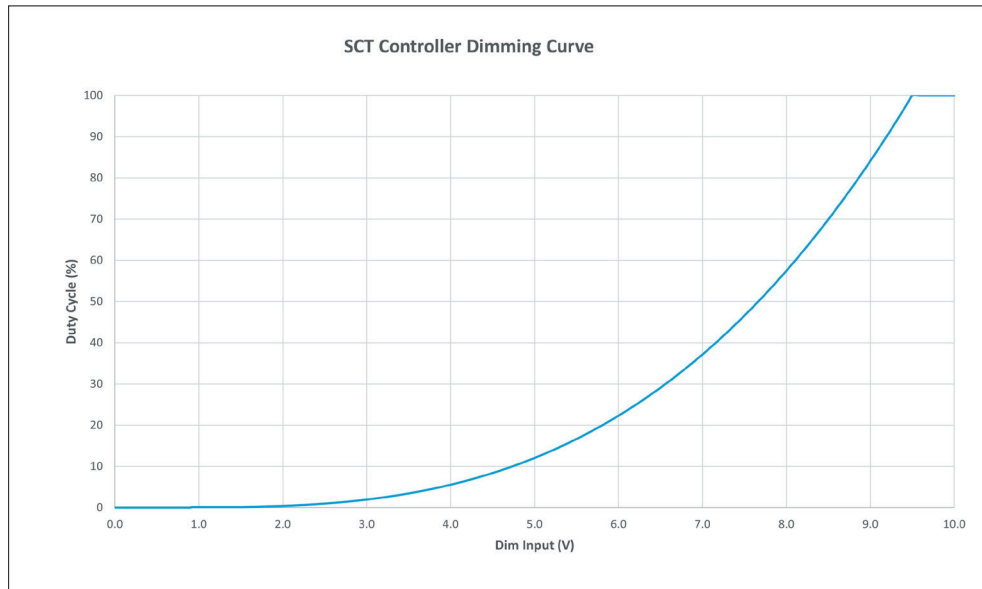
Dynamic test mode is used to check the system functionality. This mode will ignore control inputs and cycle through the output range. This mode is only applicable to TNW luminaires.

Standalone TNW	Mode Switches 1-8
Dynamic Colour Tune Test (TNW)	1-1-1-1-1-1-1

Output duty cycle starts with the WARM LEDs (TNW=2700K) raising their intensity from 0% to 100% then decreasing to 0%. Next the COOL LEDs (TNW=5700K) raise intensity from 0% to 100% then decrease to 0%. This cycle repeats indefinitely with a period of 7.5 seconds.



APPENDIX A: SCT CONTROLLER DIMMING RESPONSE

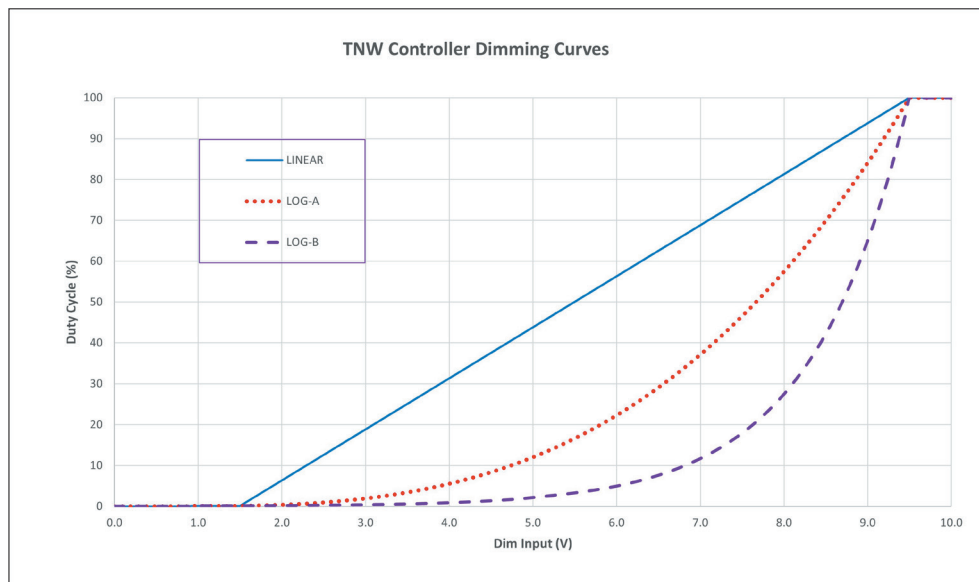


APPENDIX B: TNW CONTROLLER DIMMING RESPONSE

There are three 0-10V operating modes which can be used to select the desired dimming curve: Linear, LOG-A and LOG-B. The corresponding DIP switch settings are:

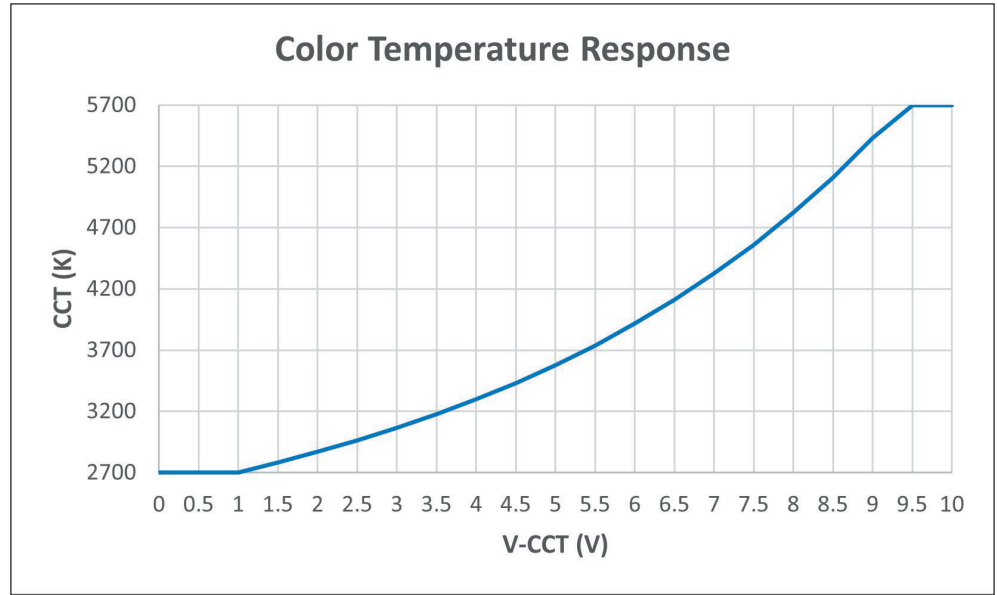
DIP Switch Setting	Operation
1000xxxx	TNW, 2 Channel Output, Linear
1010xxxx	TNW, 2 Channel Output, LOG-A
1001xxxx	TNW, 2 Channel Output, LOG-B

These settings produce a dimming output as shown below:



APPENDIX C: TNW CONTROLLER CCT RESPONSE

V-CCT	CCT
0	2700
1	2700
1.5	2783
2.0	2870
2.5	2963
3.0	3065
3.5	3176
4.0	3298
4.5	3431
5.0	3578
5.5	3738
6.0	3915
6.5	4110
7.0	4325
7.5	4561
8.0	4822
8.5	5110
9.0	5429
9.5	5700
10	5700



RoHS

ENERGY
THIS PRODUCT CONTAINS
A LIGHT SOURCE OF ENERGY
EFFICIENCY CLASS E



5 Year Limited Warranty:
Parts and workmanship