INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

LE158 OPEN FRAME, LED LIGHT FIXTURE FOR ORDINARY LOCATIONS ONLY

WARNING!

1. TO PREVENT THE RISK OF ELECTRICAL SHOCK DEACTIVATE/DISCONNECT THE POWER SUPPLY BEFORE INSTALLING OR RELAMPING FIXTURE.
2. THE DRIVER IN THIS FIXTURE IS DESIGNED TO OPERATE ON GROUNDED NEUTRAL SYSTEMS ONLY.
3. THIS FIXTURE SHOULD BE INSTALLED BY QUALIFIED TECHNICIANS IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY LOCAL REQUIREMENTS.

ORDINARY LOCATION APPLICATIONS ONLY

The fixture should be mounted to structure utilizing the mounting bracket or flange of the fixture in an ordinary location environment ONLY.

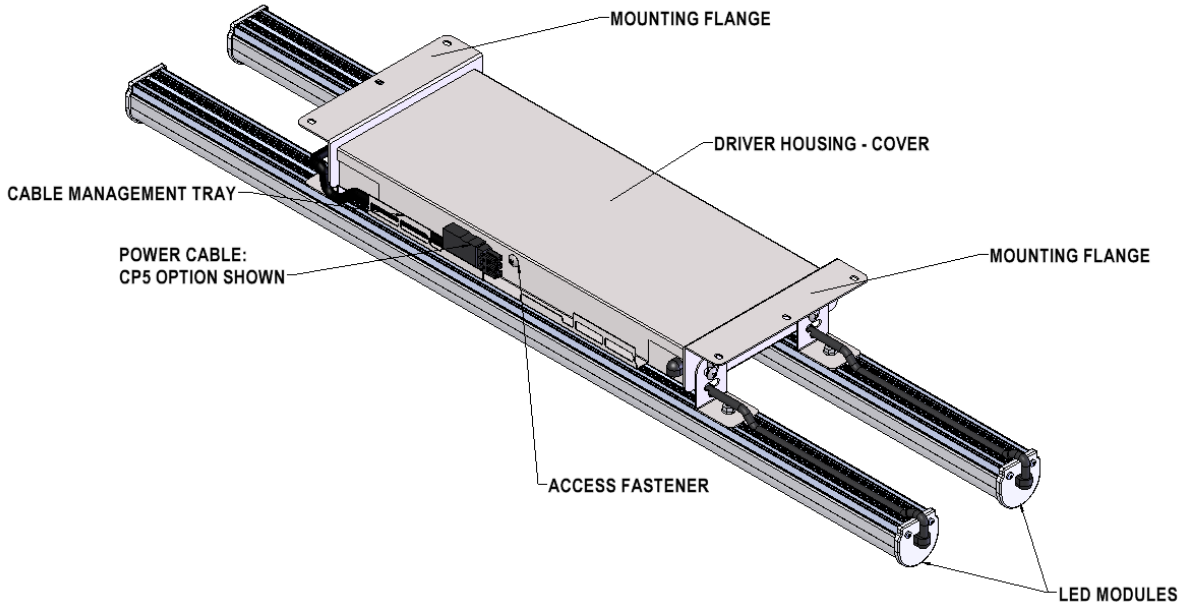
OPERATIONAL DATA

Operate this fixture at its rated voltage. See fixture data label for electrical information. Install in Ordinary Locations Only. Do not install in atmospheres that exceed maximum rated ambient temperature 40° C (104°F), see fixture data label.

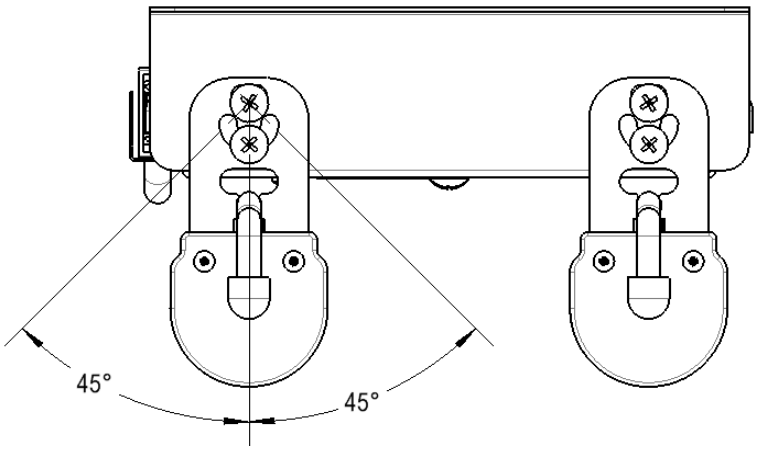
INSTALLATION

1. Mounting holes (Ø1/4") must be in place for LE158X
    - See table below for fixture specific mounting dimensions
2. Use 1/4-20 bolts (supplied by end user) to secure fixture to mounting structure
    - ONLY x4 bolts are required to secure fixture
3. If hanging fixture using chain or cable use outer most mounting holes
    - Hanging structure (cable or chain) must be secure prior to hanging fixture
    - See table below for fixture specific dimensions

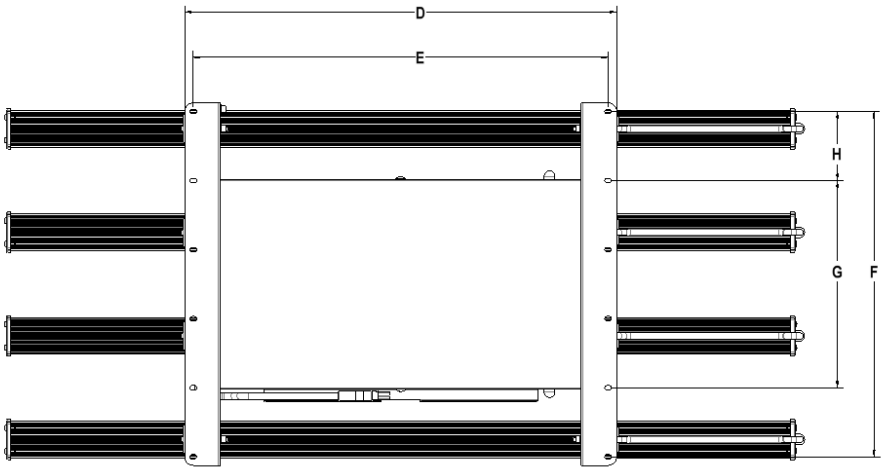
LE158 BASIC MECHANICAL BREAKDOWN (4FT 2 ROW SHOWN)

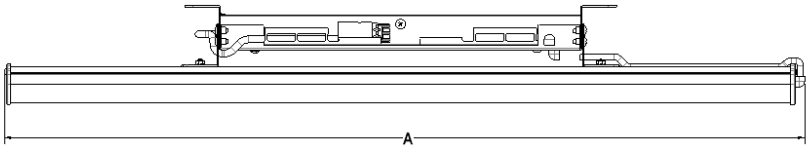


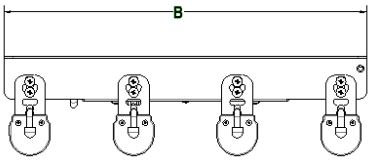
LED MODULE ANGULAR ADJUSTABILITY
- 0° TO 45° IN EITHER DIRECTION



LE158S Basic Dimensions



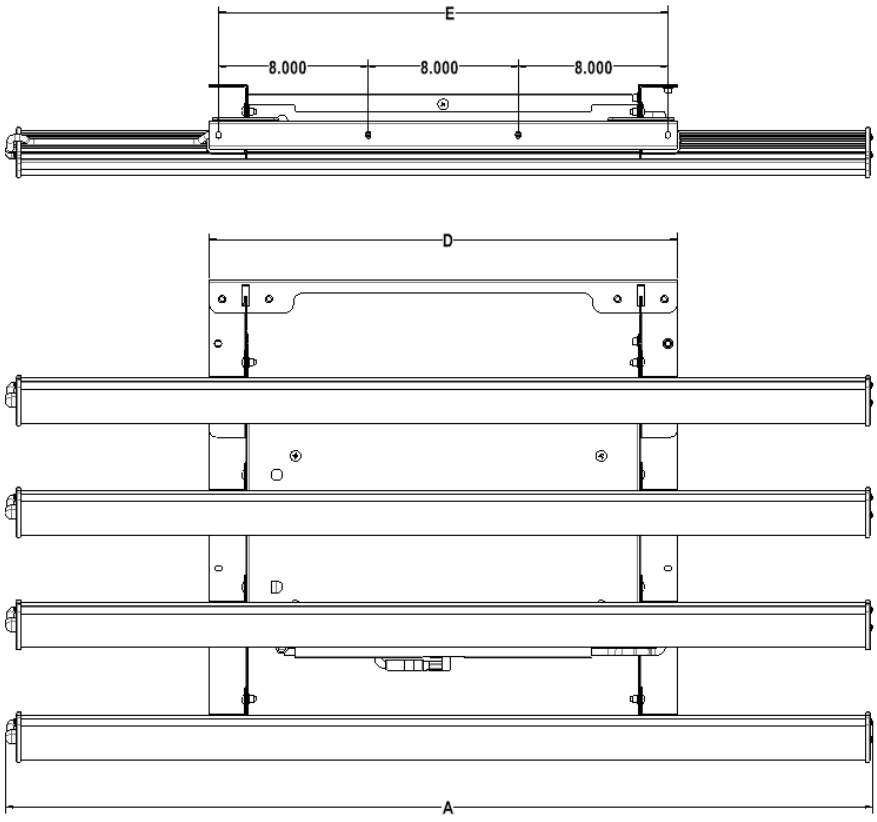


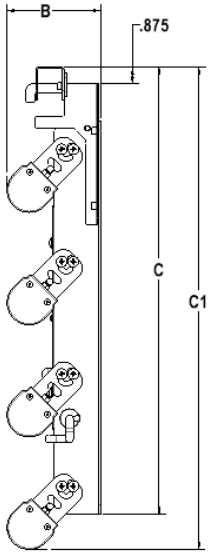


DIMENSIONS LE158S				
	ROWS	LENGTH (A)	WIDTH (B)	HEIGHT (C)
2FT	1 ROW	23.1875	3.625	5.750
	2 ROW		9.250	
	3 ROW		17.000	
	4 ROW		21.000	
4FT	1 ROW	46.375	3.625	
	2 ROW		9.250	
	3 ROW		17.000	
	4 ROW		21.000	
6FT	1 ROW	69.563	6.250	6.000
	2 ROW		12.750	
	3 ROW		17.750	
	4 ROW		21.750	
8FT	1 ROW	91.000	6.250	
	2 ROW		12.750	
	3 ROW		17.750	
	4 ROW		21.750	

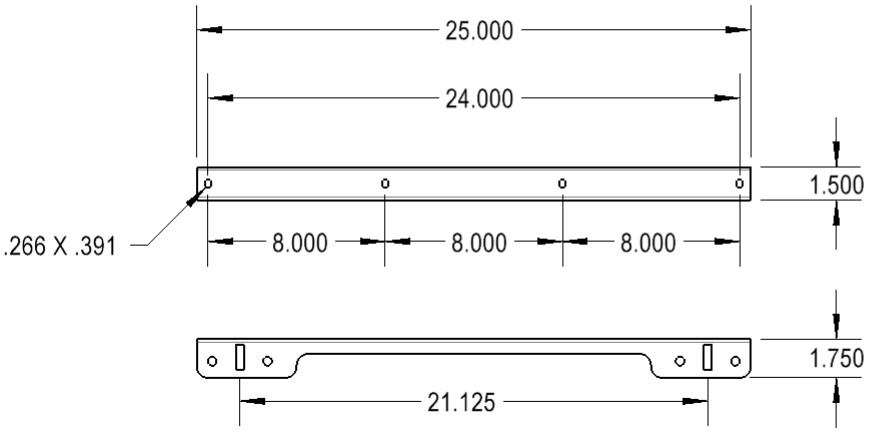
MOUNTING DIMENSIONS - LE158S FIXTURE					
	FLANGE LENGTH (D)	MOUNTING HOLE LENGTH (E)	MOUNTING WIDTH MAX- CHAIN (F)	PRIMARY SURFACE MOUNT WIDTH (G)	DIST BETWEEN MOUNTING HOLES(H)
1 ROW	25	24	2	2	1
2 ROW			8	8	4
3 ROW			16	8	
4 ROW			20	12	

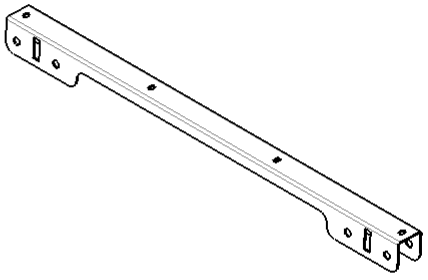
LE158H Basic Dimensions





LE158H MOUNTING BRIDGE DETAIL (18518)





DIMENSIONS LE158H					
	ROWS	LENGTH (A)	DEPTH (B)	HEIGHT (C)	HEIGHT @ 45° (C1)
2FT	1 ROW	23.188	5.750	6.500	7.750
	2 ROW			12.250	13.750
	3 ROW			19.875	20.750
	4 ROW			23.875	24.750
4FT	1 ROW	46.375		6.500	7.750
	2 ROW			12.250	13.750
	3 ROW			19.875	20.750
	4 ROW			23.875	24.750
6FT	1 ROW	69.563	6.000	9.000	10.875
	2 ROW			15.500	16.875
	3 ROW			20.500	21.875
	4 ROW			24.500	25.875
8FT	1 ROW	91.000		9.000	10.875
	2 ROW			15.500	16.875
	3 ROW			20.500	21.875
	4 ROW			24.500	25.875

MOUNTING DIMENSIONS - LE158H FIXTURE			
	MOUNTING BRIDGE LENGTH (D)	MOUTING HOLE LENGTH (E)	HOLE SPACING
1 ROW	25	24	8
2 ROW			
3 ROW			
4 ROW			

MOUNTING

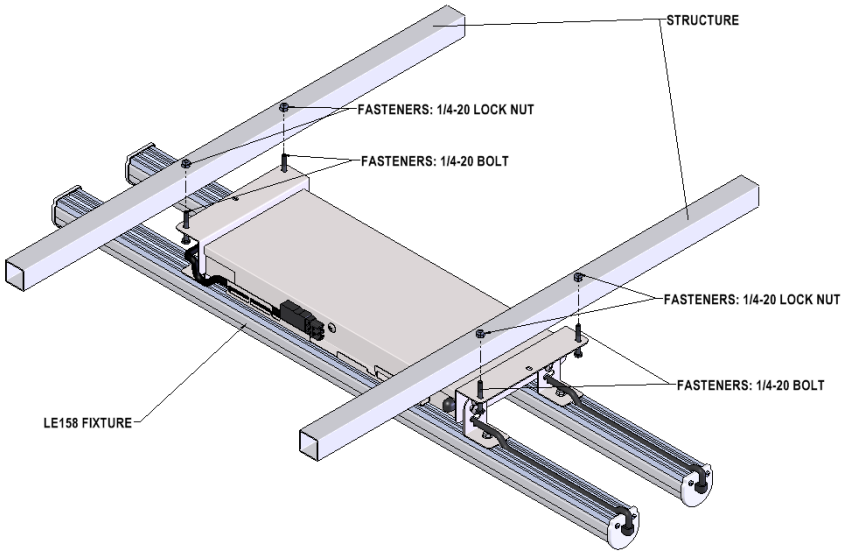
Must be mounted to structure in NON hazardous locations only.

Top of fixture cover not to come in contact with ceiling.

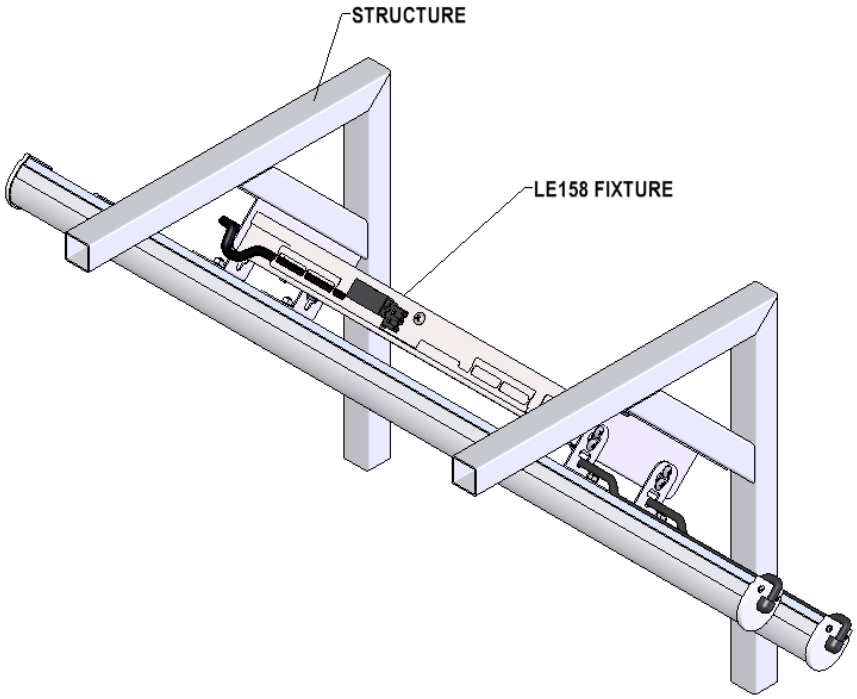
LE158S:

- Fixture is to be mounted or hung using mounting flange.

TYPICAL STRUCTURE MOUNT

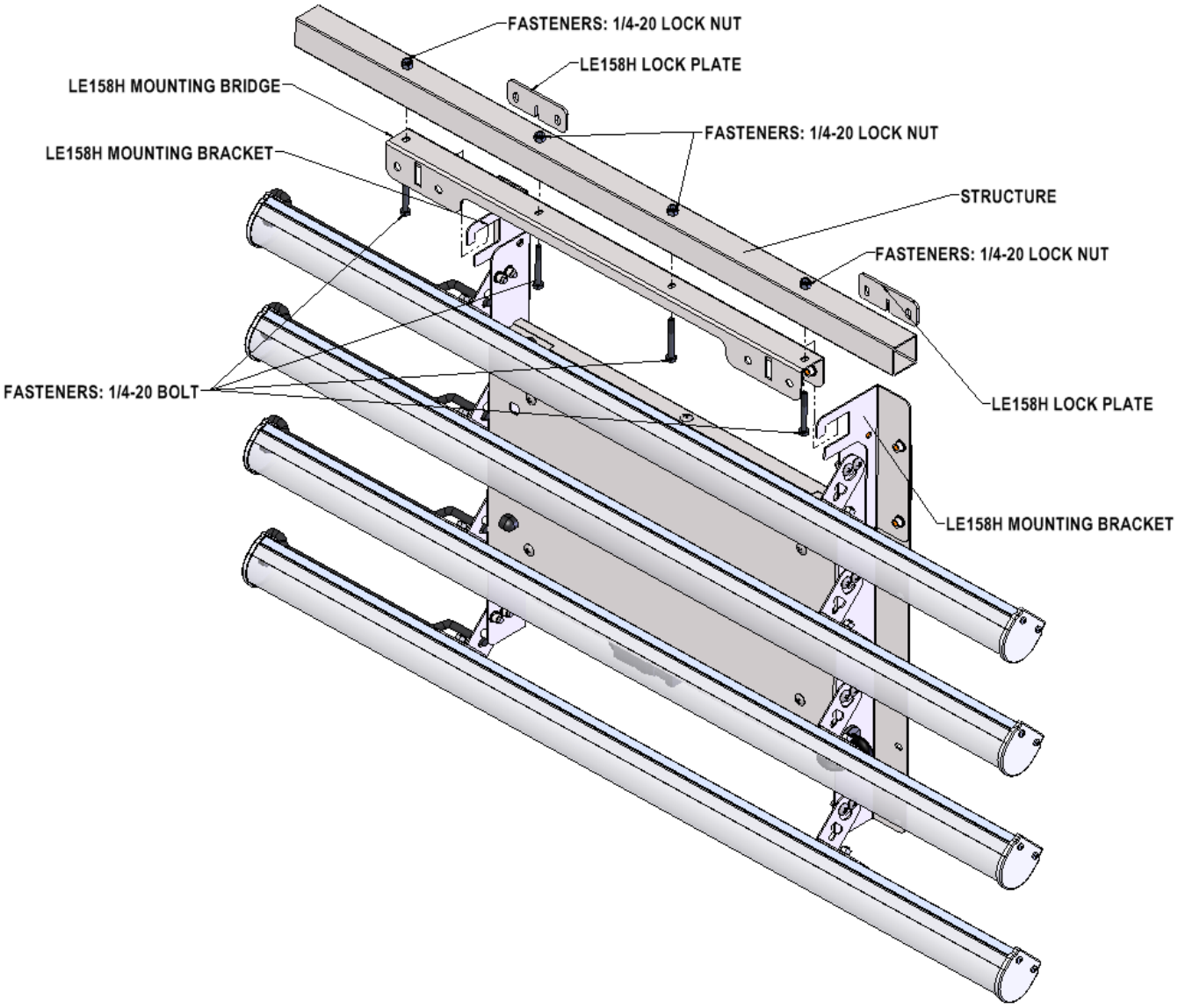


HIP STYLE MOUNT



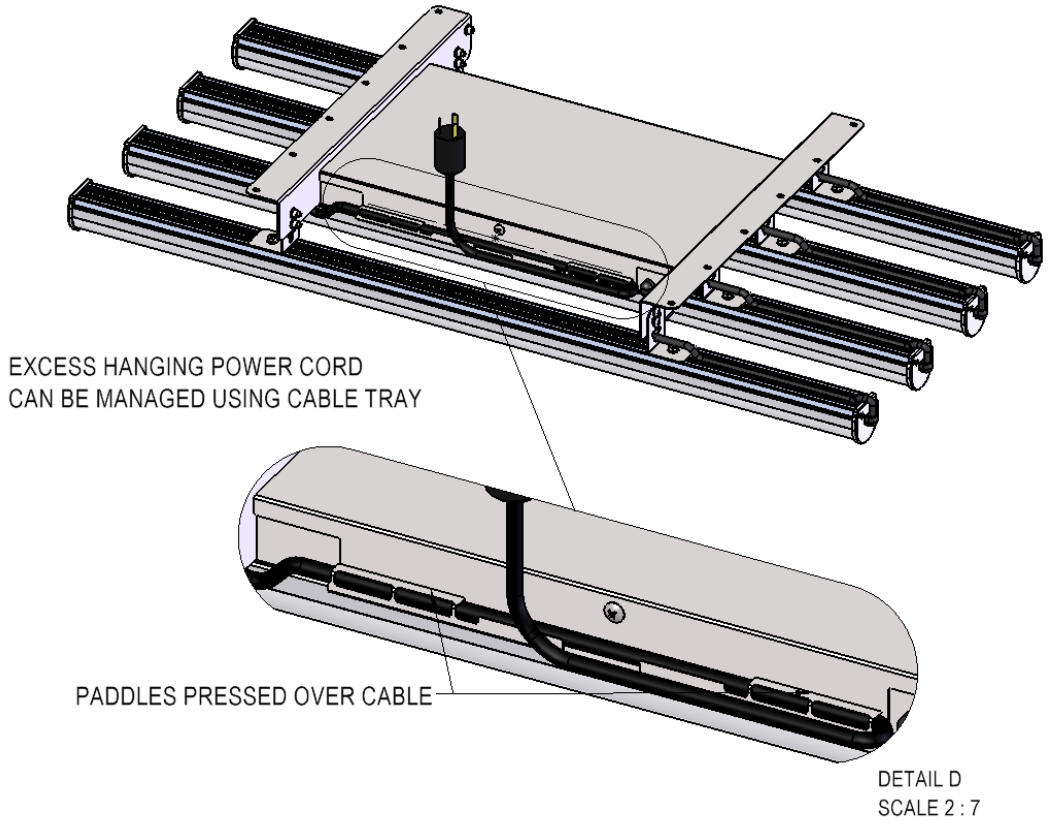
LE158H:

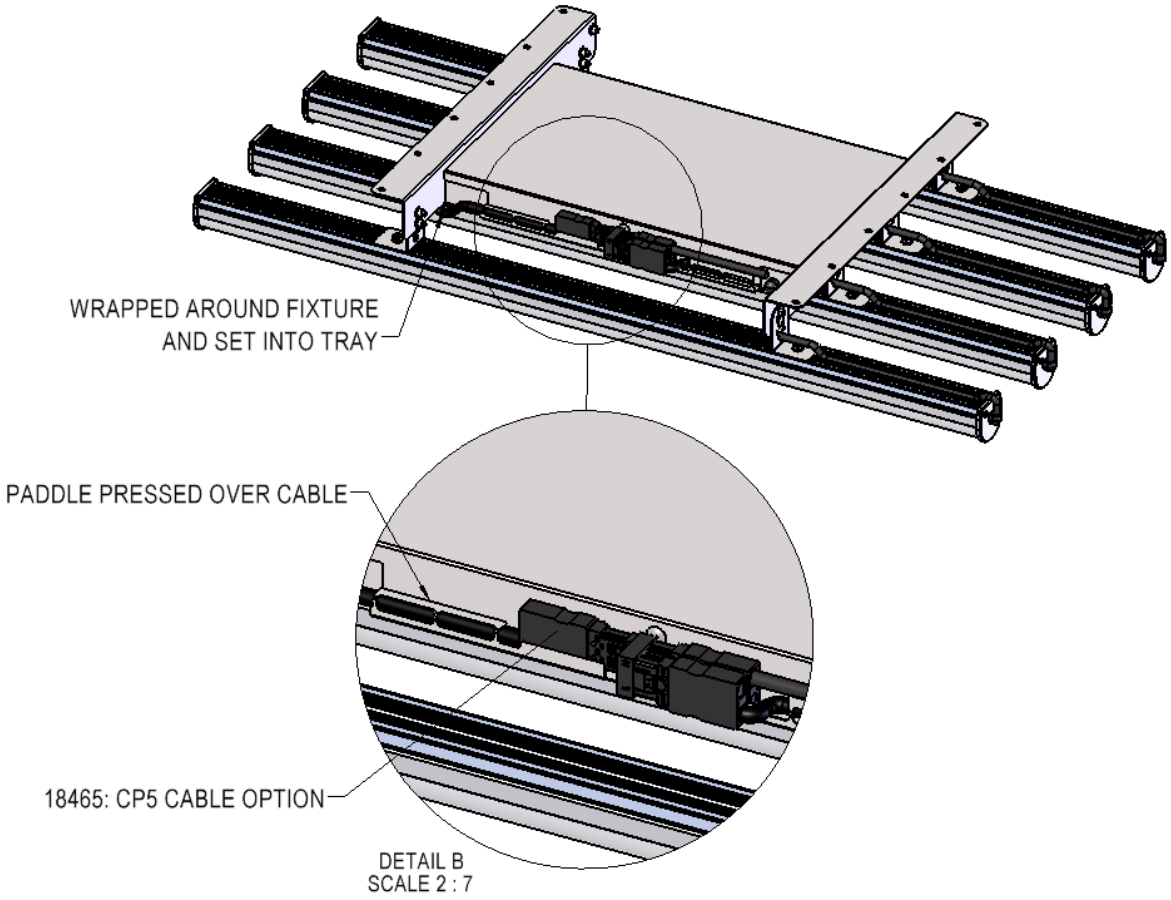
- Must be mounted behind glass for paintbooth operations
- LE158H Mounting Bridge to be installed and LE158H fixture is hung on mounting bridge.



Cable Management:

Paddles built into wire tray can be pressed over cable to keep it in place





MAINTENANCE DATA

1. Although no routine maintenance is required to keep this fixture functional, it should be checked periodically to ensure that it is working properly and to look for any external damage.

2. For optimum performance, keep light transmission parts of fixture clean.

3. In the event of an LED failure contact LDPI for replacement module.

CAUTION:
Overloading the switch circuits WILL cause failure.
LDPI, Inc. recommends having a certified electrician/engineer
review loads to ensure that overloading of switch does not occur.

TROUBLESHOOTING

- All troubleshooting tips assume fixture had been working correctly after it was installed, and something has gone wrong

- ANY MAINTENANCE MUST BE DONE WITH THE POWER OFF!

1. Single light bar is not working

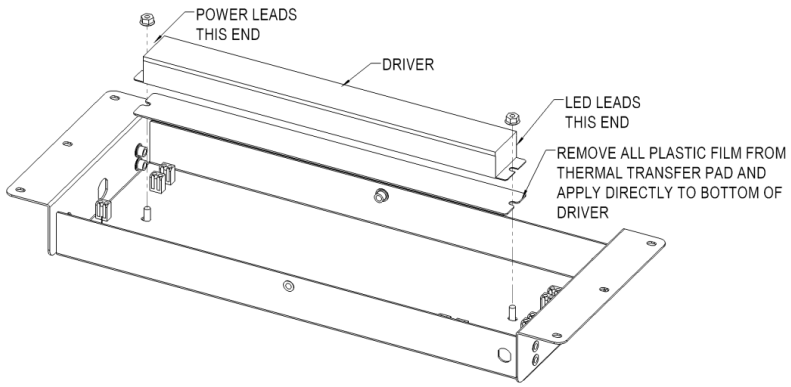
- Loose wire - check connection of wire in LED light bar & driver box – See directions below for accessing LED module in light bar. If intact contact LDPI for assistance.

- Driver issue - if connections are intact, disconnect supply circuit and open top of fixture. Remove qty 2 fasteners from sides of driver housing cover and remove cover. Follow wires from faulty light bar, mark driver, disconnect wires from any two drivers and swap wires to the light bars, connect fixture to power, check to see if the faulty light bar works. If light bar works driver needs to be replaced.

- LED module issue - Repeat steps for 'Loose wire' and 'Driver issue', If LED module does not work then LED module will need to be replaced. Contact LDPI.

3. Sections or strings of LEDs are not functioning - LED module issue - contact LDPI for replacement.

4. Driver replacement: Disconnect supply circuit. Remove qty 2 fasteners from sides of driver housing cover and remove cover. Follow the wires to determine which driver is faulty. Phillips screwdriver or bit and 7/16" wrench/ nut driver
required.



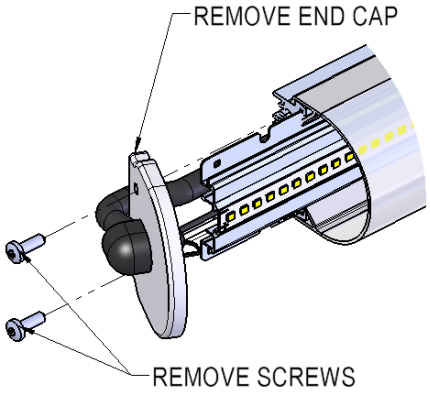
5. LED module replacement: LED module can be replaced on fixture while fixture is installed. Disconnect from supply circuit, follow instructions below. Take caution when doing any maintenance on the fixture.

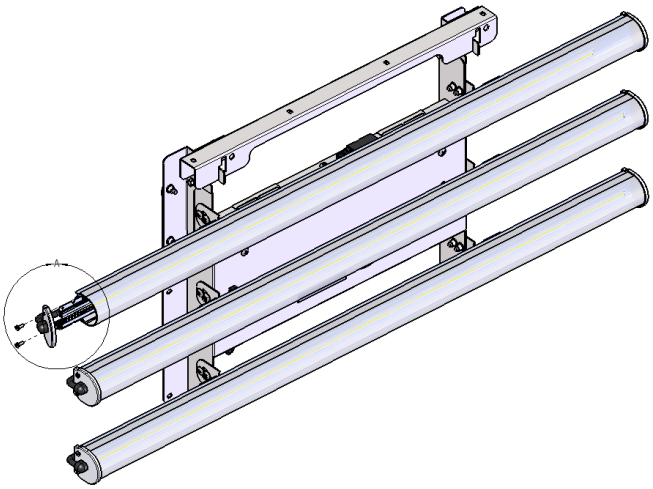
LED Module Replacement

Fixture MUST be disconnected from power prior to performing any maintenance!

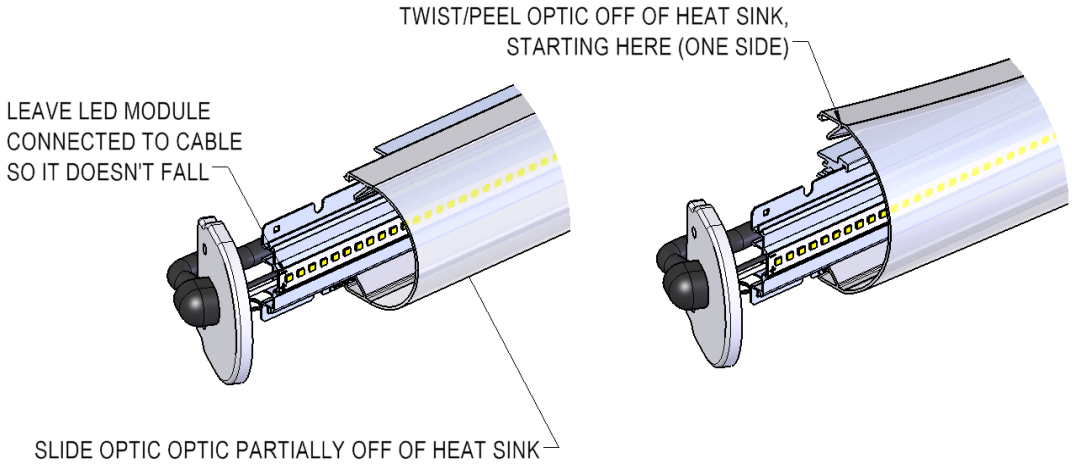
Example showing: LE158H fixture – process is the same for all LE158S & LE158H

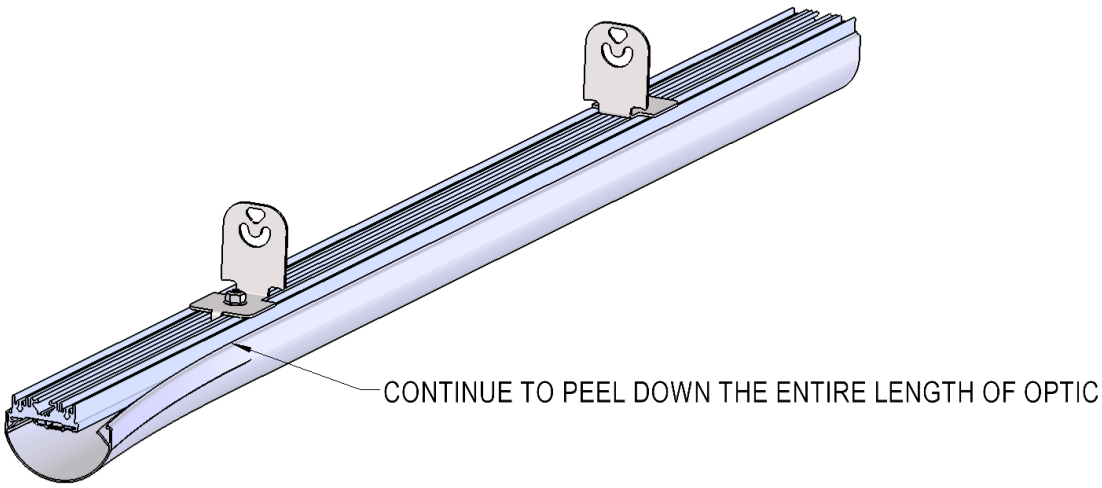
1. Remove end cap with cable:
    a. Remove screws from end cap, set aside
    b. Remove end cap from the light bar, leaving the cable in the end cap
        i. LED module will move with the end cap
        ii. Leave cable attached to LED module to keep from falling





2. Remove the optic:
    a. Slide optic partially off heat sink
    b. Grasp the white legs on one side of the optic, carefully pull and twist to disengage the clasp feature of the optic from the heat sink.
    c. Once the optic is loose, it will easily peel off the heat sink.
        i. Start on one end and continue down the length of light bar.

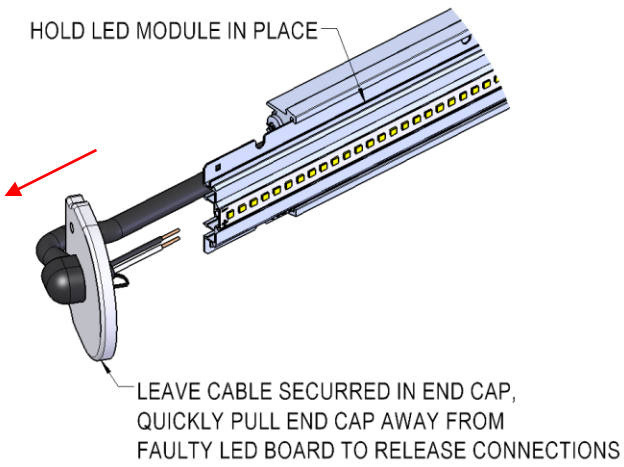


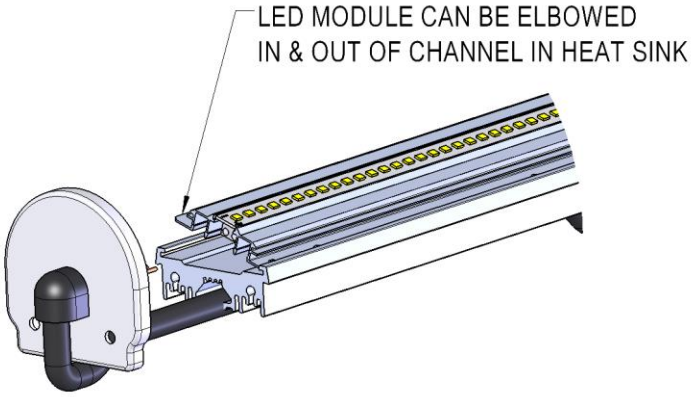


ii. WHEN OPTIC IS REMOVED LED MODULE WILL NO LONGER BE SECURE!

1. BE CAREFUL OF LED MODULE FALLING!

3. Remove LED module
   a. Leave cable in end cap
   b. Hold LED module against heat sink with hand and quickly pull end cap away from LED module
      i. Cable will “pop” out of connectors on LED module
      ii. Let the end cap and cable hang
      iii. Set LED module aside

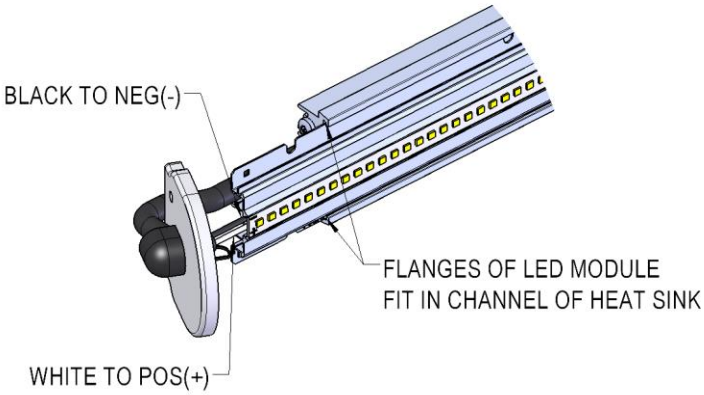


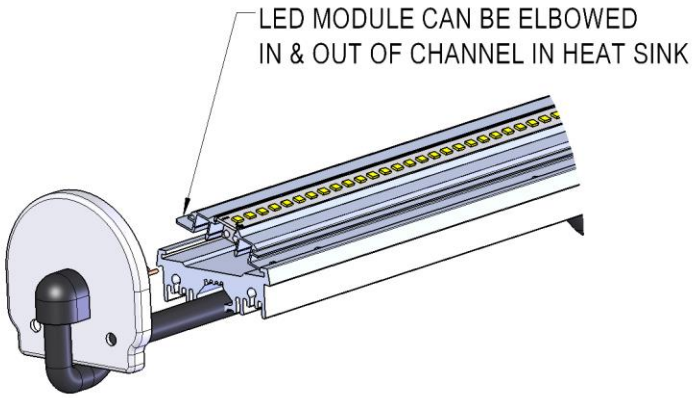


4. Install new LED module:
   a. Always handle new LED modules with clean gloves.
   a. Connect cable to LED module

i. Push each wire into the connector on the bottom of the LED module.
    1. White to pos (+)
    2. Black to neg (-)
ii. You will hear a sharp click when connector is engaged
iii. Test pull wires to make sure connection is secure

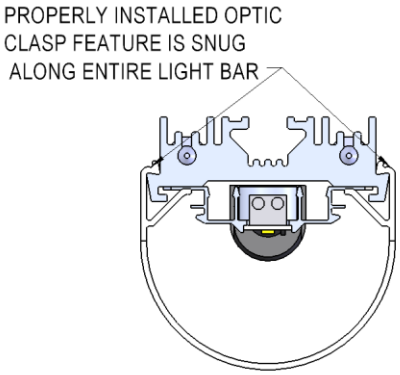
b. Place LED module on heatsink
    i. Flanges of led module fit in outside channel of heat sink
    ii. Slide LED module fully onto heat sink, leave end cap loose until optic is replaced

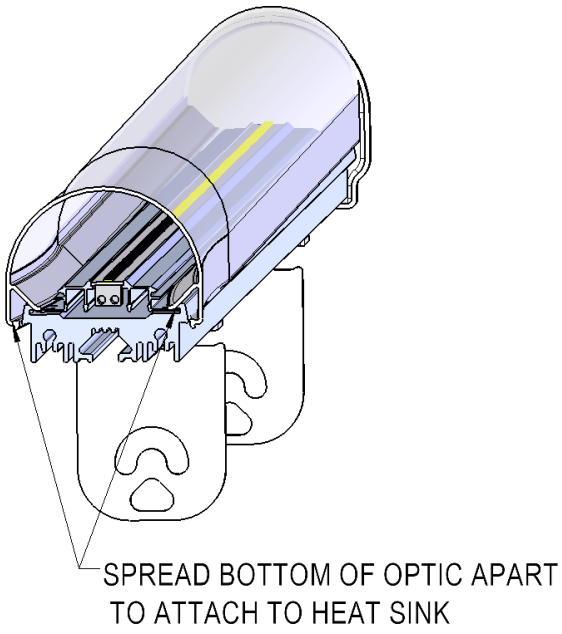




5. Install optic

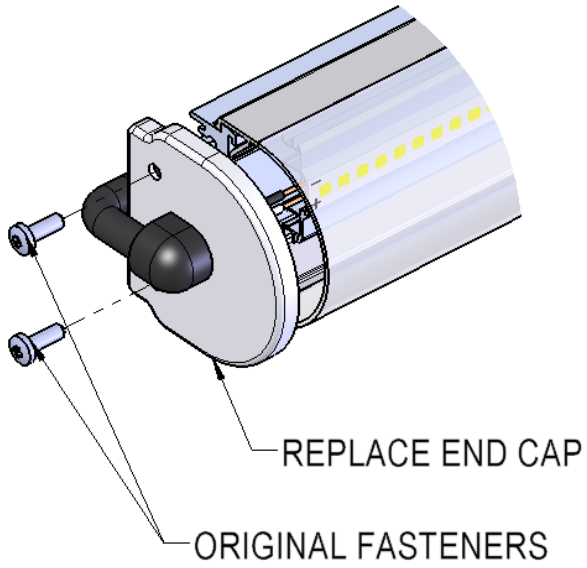
i. Spread bottom of optic wide enough to fit over end of heat sink
ii. Snap optic onto heat sink - working from one end to the other use hands to squeeze the optic onto the heat sink
iii. Optic will have a “snapping” sound when fully installed.
iv. Make sure the optic is secured along the entire length of the light bar.





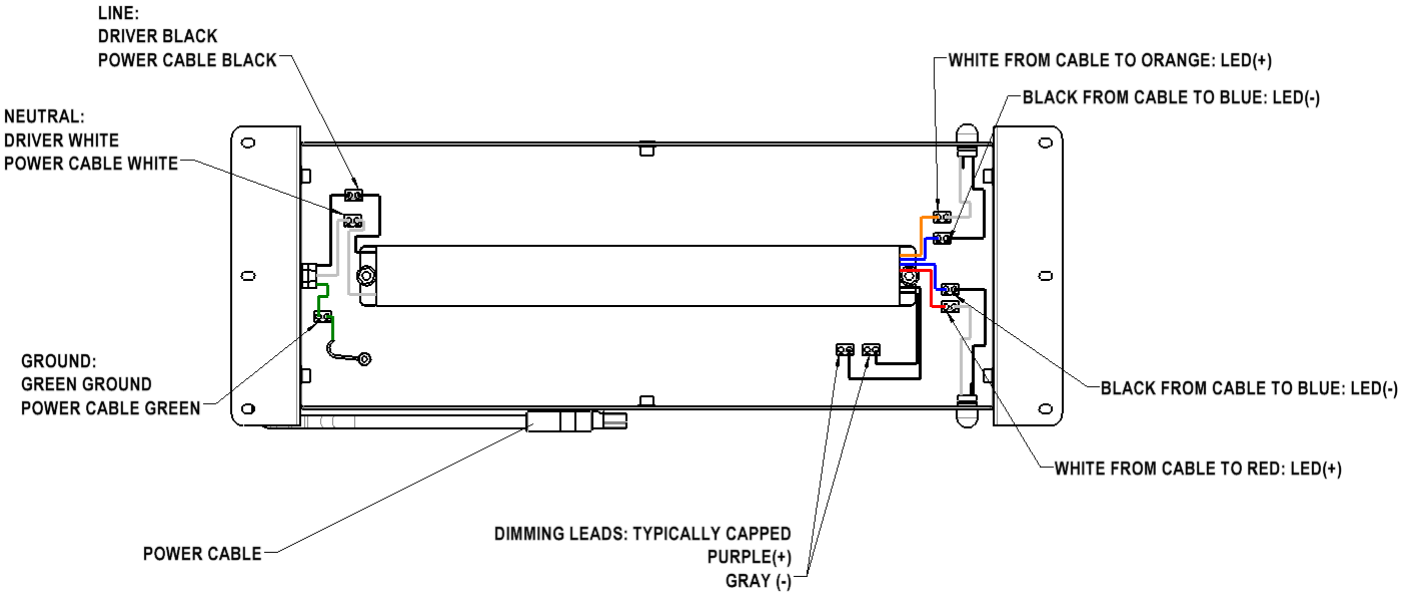
b. Replace end cap

i. Use original fasteners.



WIRING SCHEMATIC - TYPICAL:

Note - Basic Schematic: dimming connection, surge protection device and EM option not shown here.



EM FIXTURE INFORMATION:

TEST SWITCH INDICATOR STATUS:

IndicatorsType	LEDIndicatorsStatus	EMDriverStatus/Mode
Bi-ColorIndicator	● Solid Green	System OK/AC OK(Self-diagnostic Enabledor Disabled).
Single ColorIndicator	● Solid RED ON	
Bi-ColorIndicator	● Flashing Green,0.1son/3soff	System OK / EM Mode
Single ColorIndicator	● Flashing Red,0.1son/3soff	
Bi-ColorIndicator	● Slow Flashing Red,4s on/1s off	Battery not detected,check battery switch or connection.
Single ColorIndicator	● Slow Flashing Red,4s on/1s off	
Bi-ColorIndicator	● Flashing Red,1s on/1s off	Replace battery.
Single ColorIndicator	● Flashing Red,1s on/1s off	
Bi-ColorIndicator	● Flashing Green, 2s on/2s off	Self-Diagnostic test under way.
Single ColorIndicator	● Flashing Red, 2s on/2s off	
Bi-ColorIndicator	● Fast Flashing Red,0.1s on/0.1s off	Abnormal driver performance,replace driver.
Single ColorIndicator	● Fast Flashing Red,0.1s on/0.1s off	
Bi-ColorIndicator	● Very Slow Flashing Red,1s on/7s off	Over temperature.
Single ColorIndicator	● Very Slow Flashing Red,1s on/7s off	
Bi-ColorIndicator	● Very Slow Flashing Red,4s on/4s off	LED output load is Short/Over Current/Over Voltage/Open Circuit in EM Mode.
Single ColorIndicator	● Very Slow Flashing Red,4s on/4s off	
Bi-ColorIndicator	● Very Slow Flashing Red,0.1s on/3s off	Self-diagnose process current fault/The battery voltage is abnormal.
SingleColorIndicator	● Very Slow Flashing Red,0.1s on/3s off	

TEST SWITCH OPERATIONS:

1. EM Test: Press and hold test button (>1s) to enter EM mode for testing in normal AC powered.

2. Manual Self-Diagnostic: After charging twelve (12) hours or battery fully charged, quickly press the test button three times within two seconds to force the controller to enter a Self-Diagnostic cycle. To quit the self-diagnostic cycle after engaged press and hold the test button for ten seconds.

3. Enable/Disable Auto Self-Diagnostic: Press and hold the test button for one second, then release and quickly press the test button two times, then release and press and hold the test button for two seconds. When properly executed the indicator on the test button will display the appropriate color for the Enable/Disable status. A flashing of

2.5s ON/0.5s OFF means "Enabled", while a flashing of 0.5s ON/2.5s off means "Disabled". Once Enable/Disable is set the status color on the test button will remain the same throughout normal operation (refer to Indicator Status Table).

4. Enable/Disable Self-Diagnostic Status: Fast click 2 times within 2s to query the Self-Diagnostic Enabled/Disabled status. The indicator would blink for current status for 3 cycles. 2.5s ON/0.5s OFF stands for Enabled. 0.5s ON/2.5s OFF stands for Disabled.

5. Exit Output Short Circuit/No Load/Over Voltage Protection: When the test button flashes red for 4s on/4s off, press and hold the test switch for 10 seconds.

6. Emergency Battery Disengage: Press and hold the test switch for 10 seconds during EM output condition to turn off EM output.

This is useful for production environment to turn off the EM output once a luminaire has completed functionality testing. This applies to products with Serial Number starting with Date code: S12017 or higher.