

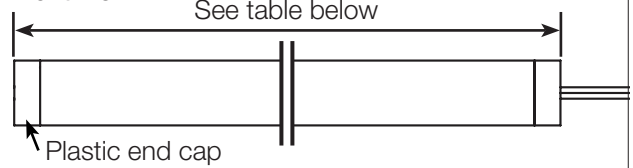
Important Notes

- Install and wire in accordance with national and local electrical codes, by a qualified professional familiar with the construction and operation of luminaire electrical systems and the hazards involved.
- **Do not wire fixture to line voltage.** 24 V $\overline{=}$ input only to fixture.
- For indoor use only.
- Permanently install the fixture with the lens attached.
- 24 V $\overline{=}$ LED light source is polarity sensitive. The +24 V wire on the fixture must be connected to the +V output of the Lutron® LED driver.
 - Plain wire: +24 V $\overline{=}$ (+V) wire (**Figure 1**).
 - Black stripe wire: Common (–V) wire (**Figure 2**).
- For 277 V \sim applications, a suitable barrier should be installed between the input and Class 2 wiring per local and national electrical wiring codes.
- The Lutron® Hi-lume® Premier 0.1% Voltage LED driver (96 W) has a maximum of 19 ft (5.8 m) of LED fixtures on one driver (96 W) and a 10 ft (3 m) maximum for one continuous fixture run.
- The Hi-lume® 1% LED driver (40 W) has a 12 in (305 mm) fixture or 5 W minimum load requirement. There can be a maximum of 8 ft (2.4 m) of LED fixtures on one Hi-lume® 0.1% LED driver.
- Fixture must be permanently installed. Recommended hardware included with the fixture.
- Standard wires included with the fixture [6 ft (1.8 m) 18 AWG (0.75 mm²) 80 °C rated] cannot be routed into or behind a wall for connection to driver output. Wires for in-wall mounting have a minimum UL® rating requirement of CL2 or higher. CL2P rated wire is required for plenum applications.
- Fixtures can be daisy-chained and/or wired in parallel with the LED driver. See **Fixture Wiring Diagram** on page 3.
- Fixture connectors require 24 AWG to 18 AWG (0.2 mm² to 0.75 mm²) solid or tin-coated. Wire included with fixture is 18 AWG (0.75 mm²) tin-coated.
- The LED light source is permanently installed in the fixture. To prevent damage to the fixture, do not remove or touch the LEDs.
- For fixtures 24 in (610 mm) or greater, center-mount brackets are recommended for mounting.
- End caps are recommended but not required for normal operation.
- For a list of compatible controls and electrical ratings, refer to the specific Hi-lume® LED driver installation instructions or visit www.lutron.com/lumaris
- All test data and warranty information is guaranteed with Lutron® Hi-lume® LED drivers.
- Meets residential and commercial FCC requirements. Refer to individual driver listings.
- Clean fixture with soft damp cloth only. Do not use any chemical cleaners.
- Fixtures rated at 5 W/ft.
- For exterior locations, installed in accordance with product specifications, use silicon caulk to seal each of the end caps to prevent debris (e.g., dirt, insects) from accumulating in the lens.

Dimensions:

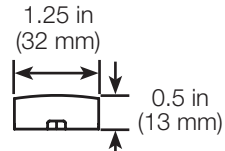
Front View

See table below

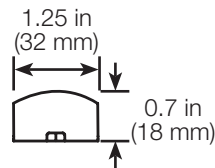


End View:

Frosted / Clear



Diffused



Length Option	Dimension – in (mm)	
	Without End Caps	With End Caps
06	6 (152)	7 (192)
12	12 (305)	13 (344)
18	18 (457)	19 (497)
24	24 (610)	25 (649)
36	36 (914)	37 (954)
48	48 (1219)	49 (1259)

Parts Included per Fixture:

Part	Qty.	Image
Fixture with 6 ft (1.8 m) of wire	1	
End Cap (Shipped attached to fixture)	2	
End Mount Bracket	2	
Center Mount Bracket	2	
Screw	6	
Wire Nut	2	

Figure 1: Plain Wire

No stripe:
+24 V $\overline{=}$ (+V)
6 ft (1.8 m)
18 AWG (0.75 mm²)

Figure 2: Black Stripe Wire

With black stripe:
Common (–V) wire
6 ft (1.8 m)
18 AWG (0.75 mm²)

Lumaris® LED Linear Lighting

Installation Instructions

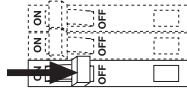
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Installation Tips

- To ensure adequate light distribution, wire a fixture to a driver and temporarily fit it to the desired location for review prior to permanent mounting.
- See the **Lumaris® LED Linear Lighting Design, Installation, and Applications Guide** (P/N 367-2610) at www.lutron.com/lumarisdesignguide for detailed installation and application tips.
- Recommended maximum distance between fixtures for continuous light distribution: 2 in (51 mm).
- A 3/16 in (5 mm) hole is adequate to route standard wires.
- Hi-lume® LED drivers should be mounted remotely and out of site. Possible mounting locations include floor joists, cove areas, cabinet interiors, area above cabinets, etc.
- Route wires in the most concealed method possible based on fixture location and viewing angles.

Installation

1. Turn off power.



WARNING: Shock Hazard. Serious injury or death may occur. Turn off power before servicing or installing. Wire according to local and national codes. This product should be installed by a qualified electrician.

2. Determine mounting locations for the LED fixtures, Hi-lume® LED drivers, and controls. See **Cabinet Layout** and **Beam Spread** above for reference.
3. See **Figure 3** for maximum wire length from driver to fixture.
4. Install Hi-lume® LED driver in a suitable location according to the driver installation instructions. Run the Class 2 output wiring from the driver to the fixture locations.
5. Installation of the LED fixture.
 - a. Remove end caps (**Figure 4**).
 - b. Install the end-mount bracket (**Figure 5**).
 - With the arrow pointing toward the fixture, insert the end-mount bracket until the stop feature is engaged. Repeat step on opposite side of fixture.
 - Use the wood screw provided to secure mounting brackets to mounting surface (if applicable).
 - c. Install optional center-mount bracket for fixtures 24 in (610 mm) or longer. Rotate center-mount bracket counter-clockwise or slide onto fixture. Use at least 2 screw positions for mounting. Break mounting bracket tab for edge-mount installations (**Figure 6**).
 - d. For corner-mount installations, bend wire at 90° angle and use standard mounting brackets for each fixture.
 - e. For optional angle mount brackets (sold separately), mount the angle mount bracket to a suitable mounting surface. Place the long edge of the bracket into luminaire body mounting channel and snap into the mounting channel on the opposite side of the luminaire. (**Figure 7**, on next page).
 - f. If no daisy-chain wiring is needed, install end caps and proceed to step 7.

Beam Spread:

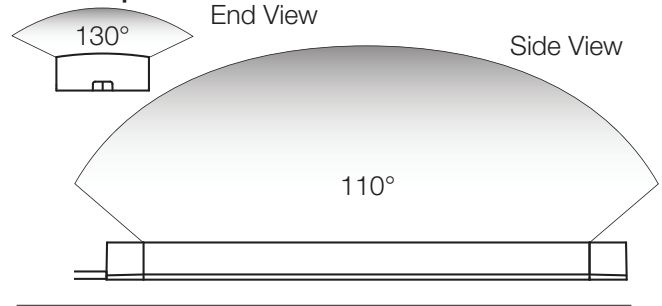


Figure 3: Maximum Wire Length (from driver to fixture)

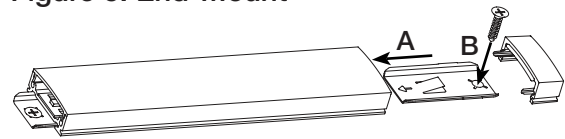
	Hi-lume® 1% LED Driver (40 W)	Hi-lume® Premier 0.1% Voltage LED Driver (96 W)
Wire Gauge	Maximum Wire Length (24 V=)	Maximum Wire Length (24 V=)
20 AWG (0.5 mm²)	25 ft (7.6 m)	15 ft (4.6 m)
18 AWG (0.75 mm²)	45 ft (13.7 m)	25 ft (7.6 m)
16 AWG (1.0 mm²)	75 ft (22.9 m)	40 ft (12.2 m)
14 AWG (1.5 mm²)	120 ft (36.6 m)	60 ft (18.3 m)
12 AWG (2.5 mm²)	180 ft (54.9 m)	100 ft (30.5 m)

Note: The **Maximum Wire Lengths** above for the Hi-lume® 1% LED Driver (40 W), which differs from the driver spec, have been tested and are approved by Lutron when this fixture is used with that driver. Lutron recommends 18 AWG (0.75 mm²) solid wire for typical applications. Use copper conductors only. The maximum wire length includes the wires between fixtures (if daisy-chained), and is the same for each of the V+ and V– runs.

Figure 4: End Cap Removal

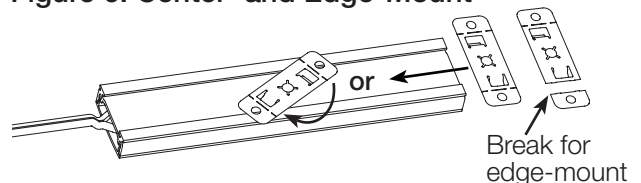


Figure 5: End-Mount



(Wires not shown for screw installation)

Figure 6: Center- and Edge-Mount



continued on next page

Lumaris® LED Linear Lighting

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Installation (continued)

6. For daisy-chain wiring and seamless integration of fixtures, perform the following:
 - a. Carefully remove the lens from each fixture.
 - b. Cut the wires of the daisy-chained fixture to 1.5 in (38 mm) from end of the fixture. Separate the 2 wires for installation and strip the wire to 3/8 in (10 mm) (Figure 8).
 - c. Install the end-mount bracket onto the daisy-chained fixture. Slide the end-mount bracket onto the bracket of the first fixture (Figure 8).
 - d. Install the end-mount screws to secure the fixture to the mounting surface.
 - e. Connect the wires (+V to +V, -V to -V) to the connectors on the first fixture (Figure 9).
- Note:** PCB is marked V+ and V-. To remove wires from the wire connectors, carefully press the top of the wire connectors.
- f. Route the wires away from any LED light sources.
- g. Replace the lens on all fixtures.
- h. Reinstall end caps.

7. Ensure proper installation of the drivers and controls according to the individual installation instructions.

8. Restore power.

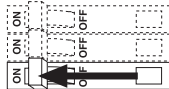


Figure 7:

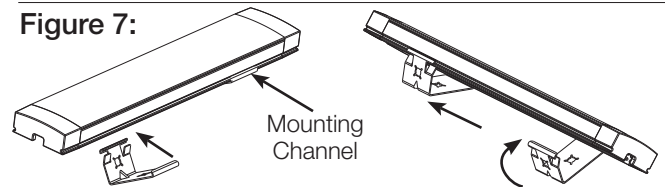
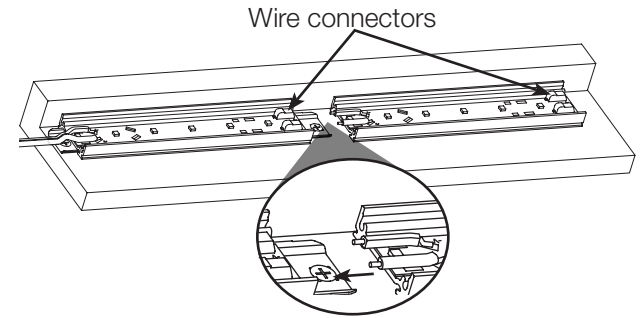
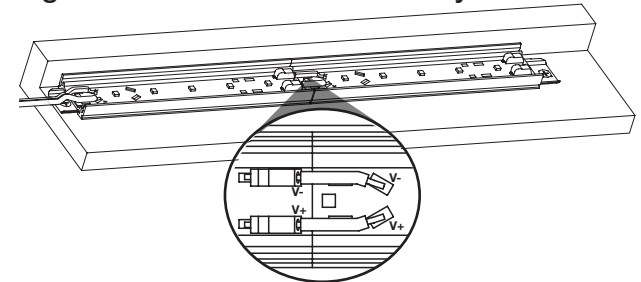


Figure 8: Mount Fixtures for Daisy-Chain



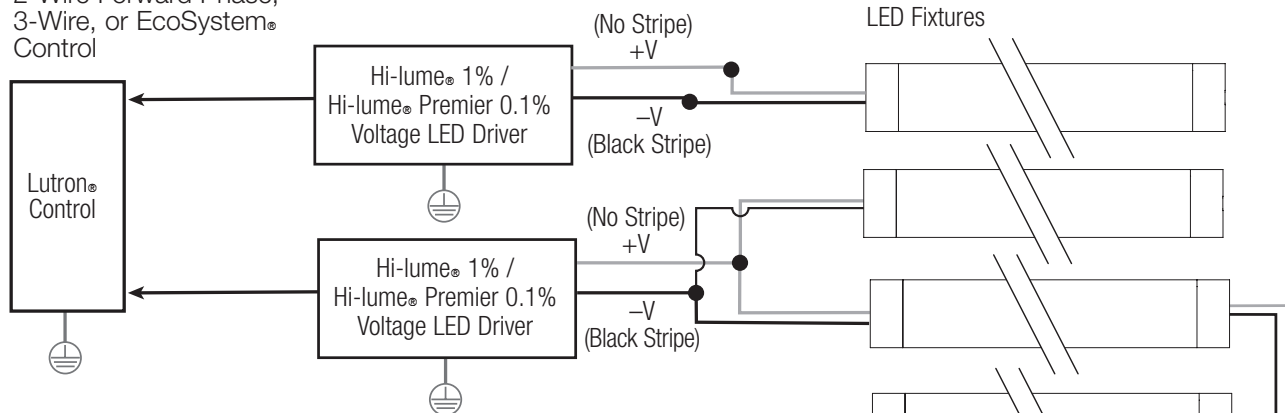
Note: Standard 6 ft (1.8 m) wires permanently soldered to one end of the fixture. Opposite end has wire connectors for daisy-chain wiring and removable wire connections.

Figure 9: Connect Wires for Daisy-Chain



Fixture Wiring Diagram

2-Wire Forward Phase,
3-Wire, or EcoSystem®
Control



	Hi-lume® 1% LED Driver (40 W)	Hi-lume® Premier 0.1% Voltage LED driver (96 W)
Model Numbers	LTEA4U1UKL-CV240 L3DA4U1UKL-CV240	L3D0-96W24V-U
Minimum Load	1 ft (0.3 m) 5 W	5 ft (1.5 m) 25 W
Maximum continuous fixture length	8 ft (2.4 m)	10 ft (3 m)
Combined Maximum fixture length	8 ft (2.4 m)	19 ft (5.8 m)

Lumaris® LED Linear Lighting

Installation Instructions

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Troubleshooting

Symptoms	Solution(s)
The light is flickering, flashing, dropping out, or does not turn on.	<ul style="list-style-type: none"> • Verify that controls, drivers, and fixtures are connected properly. • Ensure that 120–277 V~ power is present and properly connected to the driver. • Verify that ambient temperature is within the specified range. • Ensure that maximum wire length has not been exceeded. See Figure 3. • Check the total power and number of fixtures connected to the driver. Maximum of 8 ft (2.4 m) or 40 W of LED load allowed per Hi-lume 1% LED driver. Maximum of 19 ft (5.8 m) or 96 W of LED load allowed per Hi-lume Premier 0.1% Voltage LED driver (96 W) with maximum of 10 ft (3 m) of continuous fixture run for a single wire run from the driver. • If installing fixtures from connector to connector, ensure that V+ is connected to V+ and that V– is connected to V–. • Adjust low-end trim for the control if applicable (see the installation guide for your particular device at www.lutron.com). • Ensure all fixtures are wired in parallel or daisy chained. • The Hi-lume Premier 0.1% Voltage LED driver (96 W) has a Field Adjustment Knob to adjust the minimum light level of the fixture. See the Hi-lume Premier 0.1% Voltage LED driver (96 W) spec for details. • Verify that a compatible control is being used to control the driver at www.lutron.com/lumaris • For additional driver information, refer to the driver troubleshooting guide.
Fixture light levels do not match.	<ul style="list-style-type: none"> • Verify that total wire length is shorter than the maximum wire length as described in Figure 3. • Connect the fixture directly to the driver and do not daisy-chain from another fixture. • For multiple wire runs from the driver, all wire lengths, gauge of wire and load power should be matched as closely as possible. 10 ft (3 m) maximum fixture load per single wire run for the Hi-lume Premier 0.1% Voltage LED driver (96 W).
LED exhibits a flash or steppey dimming on first use.	<ul style="list-style-type: none"> • Drivers will “learn” the LED load on first startup. This is a one-time event for a particular driver/LED combination. Running the load at full output for 5 seconds should complete “learning.” • Verify that each run from the driver has matching lead lengths and equal power/load per run. • For the Hi-lume Premier 0.1% Voltage LED driver (96 W), verify that the Field Adjustment Knob has been set to the desired minimum light level.
LED does not dim.	<ul style="list-style-type: none"> • Verify that control/driver wiring is wired properly.
LED is flashing slowly (6 to 8 second interval).	<ul style="list-style-type: none"> • Verify that your LED load does not exceed the maximum specified power rating of the Hi-lume LED driver. • Verify that length of wire between driver and LED does not exceed Lutron specification.

- See specific driver information for input wiring.
 - Hi-lume 1% LED driver (40 W):
www.lutron.com/en-US/Products/Pages/LEDDrivers/Hi-LumeLED/Overview.aspx
 - Hi-lume Premier 0.1% Voltage LED driver (96 W):
www.lutron.com/en-US/Products/Pages/LEDDrivers/HiLume01VoltageDriver/Overview.aspx
- Contact Ivalo® Customer Service at fixtures@lutron.com for custom mounting options or for compliance with non-Lutron® drivers.
- For a list of compatible controls and control ratings, visit www.lutron.com/lumaris or contact the LED Control Center of Excellence at 1.877.DIM.LED8



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For limited 10-year warranty details, see
www.lutron.com/TechnicalDocumentLibrary/3683454.pdf