LUMATEQ

INSTRUCTIONS

Tube Lamp (LT848-20-110-00)

Safety Instructions:

This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved.

Risk of fire or electrical shock with the following:

- The Electrical rating of these products is 100V-277V AC. Determine if there is 100V-277V at the luminaries before installation.
- Reflector kit installation requires knowledge of electrical systems for fluorescent lighting luminaries. If not qualified, do not attempt installation. Contact a qualified electrician.
- Install this kit only in the luminaries that has the construction features and dimensions shown in the photographs and / or drawings.
- To prevent wiring damage or abrasion, do not expose wiring to edges of sheet or other sharp objects.

Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

The retrofit assembly is accepted as a component of a fluorescent recessed luminaire. The suitability of the combination will be determined by CSA or authorities having jurisdiction.

- For use only with ETL, UL and C-UL Listed Surface or type IC or NON - IC Recessed Mount Fluorescent Luminaries with or without diffuser.
- Since the original light fixture has been modified with retrofit luminary, it can no longer operate as the original intended lamp.
- Suitable for dry and damp locations.
- Has been evaluated for use with ceiling fixtures and suitable for use in totally enclosed recessed fixture.

Do not use with dimmers.

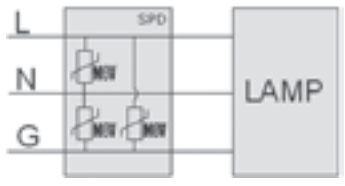
This device is not intended for use with emergency exits.

Addendum:

LUMATEQ equipment that is directly connected to AC mains (e.g. 120/220/277VAC) can be damaged by short circuit and overload conditions. In addition, lightning surges or load switching transients (originating outside the bulb) can create voltage spikes or ring waves that can stress and ultimately damage components and render the fixture inoperable. Given that the value proposition for LED bulbs is not only lower energy usage, but longer lifetimes, it will be crucial that transient voltage protection is taken into account to eliminate field failures driven by the electrical environment.

Ensure the following steps are taken to decrease the chance of damage from short circuits and overload conditions:

1. Do not use mechanical timers or contactors to switch on the lamp. These contacts are known to produce voltage spikes which are detrimental to the circuitry of the lamp. It is recommended to use a solid state relay to provide power to the fixture.
2. Replace old circuit breakers, as corroded contacts on both the bus bar and internal contacts of the breaker can cause destructive electrical spikes.
3. Use a surge protection device (SPD) spanning both Line, Neutral and Ground. These devices contain MOV's (a metal oxide varistor) which can help protect the LED bulb from overvoltage surges and ring-wave effects by clamping short-duration voltage impulses as shown in drawing.



DESIGNLIGHTS CONSORTIUM

LUMATEQ

INSTRUCTIONS

Tube Lamp (LT848-20-110-00)

Caution:

- This product is to be installed in a dry location only by a qualified electrician according to the National Electrical Code and all applicable local codes and regulations.
- Do not install in dimming circuits or emergency fixtures.
- Do not open this lamp. No user serviceable parts inside.
- These retrofit lamps are only powered from the one end marked **"Connect this end to live (powered) end".**

Installation Instructions:

You will need a few feet of 600V 18 Gauge Solid TFF, TFN or AWM wire for this installation. Only this type of solid wire will work with the push-in wire traps in the lamp holder. This retrofit conversion lamp will not work with shunted sockets, typically used with "INSTANT START" ballasts. Determine if the fixture has shunted or non-shunted lamp holders. If the fixture uses a shunted lamp holder, replace it with the non-shunted lamp holder furnished with this lamp. However, not all shunted sockets have one set of push-in wire traps blanked off. If not sure, check for continuity between the two sets of holes. If there is continuity, the socket is shunted and needs to be replaced by the included non-shunted socket. There are many different non-shunted sockets. Some are tall, some are short. Some slide in and some snap in. Some slide and snap in. Others are screw-down surface mount sockets. It depends on the age and type of fixture. While the included non-shunted lamp holder will fit most fixtures, it may not fit yours. If it doesn't, consult your local electrical distributor.

1) Turn off the power to the light fixture at the circuit breaker panel or fuse before installation.
2) Disconnect the black and white ballast INPUT leads from the 100-277V AC supply wires. Disconnect the ballast from all lamp sockets by cutting the wires. If a starter is present and protruding from the fixture, cut the wires to the starter base, but leave the starter in place, so as not to create a potentially unsafe opening in the fixture.
3) Remove the ballast.
4) Cut two lengths of 600V 18 Gauge Solid TFF, TFN or AWM wire long enough to reach from the lamp holder to the 100-277V AC supply wires.
5) Strip 3/8" of insulation from both ends of both leads.
6) Insert one stripped end of each solid wire into each side of the lamp holder.
7) Connect these two wires to the 100-277V AC supply wires using UL listed twist-on wire connectors (wire nuts).
8) All remaining severed wires that are no longer used need to be removed completely or organized and capped off using UL listed wire nuts so they don't interfere with the reassembly of the fixture.
9) Insert the end of the retrofit lamp that is marked **"Connect this end to live (powered) end"** into the non-shunted lamp holder connected to the supply wires.
10) Check the new connections for structural integrity. This means the wires should not come apart when pulled casually.
11) Affix included adhesive **CAUTION** label to the fixture where it will be seen when this retrofit lamp is removed for replacement. This label warns to not replace this retrofit lamp with a standard fluorescent lamp or any different type of retrofit lamp other than the TOPAZ lamps listed under the title of this document.
12) Restore power at the circuit breaker or fuse.
13) Turn on fixture.

DESIGNLIGHTS CONSORTIUM