

NEXTLamp™ 4ft. T12/T8 LED Linear Retrofit Kit: NL48-UNV2-43-8YY-P1 Performance Series Installation Guide

Congratulations on your purchase of the NEXTLamp 4ft. linear retrofit kit. We trust that you will find the experience of using our LED lighting products to offer a new paradigm in linear lighting.

This installation guide provides important information regarding the installation and operation of NEXT Lighting's NEXTLamp™ and NEXTDriver™ products, collectively the retrofit kit.



Product Summary

NEXTLamp 4ft. T12/T8 LED Linear Retrofit Kit Order Codes

Retrofit Kit Model Number	Description	Retrofit Kit Contents	Qty	Part Numbers
NL48-UNV2-43-835-00-001	3500K 4ft. T12/T8 retrofit kit lamp and driver series	NEXTLamp	2	NL48-21-835-00-001
		NEXTDriver	1	NDCC-UNV2-0564-0450-001
NL48-UNV2-43-840-00-001	4000K 4ft. T12/T8 retrofit kit lamp and driver series	NEXTLamp	2	NL48-21-840-00-001
		NEXTDriver	1	NDCC-UNV2-0564-0450-001
NL48-UNV2-43-850-00-001	5000K 4ft. T12/T8 retrofit kit lamp and driver series	NEXTLamp	2	NL48-21-850-00-001
		NEXTDriver	1	NDCC-UNV2-0564-0450-001

NEXTLamp 4ft. T12/T8 LED Linear Retrofit Kit Installation Configurations

# of Lamps per Luminaire	NEXTLamp**	Qty	NEXTDriver	Qty	Power (W)	Input Voltage (VAC)*
1	NL48-21-8YY-00-001	1	NDCC-UNV2-0564-0450-001	1	21.5/17	120-277
2	NL48-21-8YY-00-001	2	NDCC-UNV2-0564-0450-001	1	43/34	120-277
3	NL48-21-8YY-00-001	3	NDCC-UNV2-0564-0450-001	2	64.5/51	120-277
4	NL48-21-8YY-00-001	4	NDCC-UNV2-0564-0450-001	2	86/68	120-277

* 50-60 Hz mains input frequency. This retrofit kit is Class 2 rated. The output voltage from the LED driver (input voltage to the tombstones) is low voltage (~40V).

** YY indicates the specific color temperature (CCT) of the lamp (e.g. 35 = 3500K, 40 = 4000K, 50 = 5000K)

Each NEXTDriver has two independent output channels with each channel capable of providing power to a single NEXTLamp. For luminaire installations with an odd number of lamps (e.g. 1 and 3 lamp luminaires), it is acceptable to leave one output channel from the NEXTDriver unconnected with no impact to product performance.

The NEXTLamp retrofit kit is intended to replace either T12 or T8 fluorescent lamps in almost all luminaires. The lamp can be used with both unshunted and shunted tombstones to allow for worry free installation in all luminaires.

Luminaire Compatibility

NEXTLamp T12/T8 Retrofit Kits have been tested for compatibility within various traditional fluorescent luminaires including standard prismatic, parabolic, and volumetric luminaires. In addition, they have been tested in completely sealed waterproof luminaires and are compatible in fully recessed luminaires.

# of Lamps Per Luminaire	Min. Luminaire Dimension, Length x Width x Height mm. (in.)
1	1200 (48) x 114 (4.5) x 80 (3.2)
2	1200 (48) x 114 (4.5) x 80 (3.2)
3	1200 (48) x 600 (24) x 80 (3.2)
4	1200 (48) x 600 (24) x 80 (3.2)

Installation Materials Required

- NEXTLamp T12/T8 Lamp: NL48-21-8YY-00-001
- NEXTDriver: NDCC-UNV2-0564-450-001
- Luminaire Retrofit Kit Label
- Wire nuts (supplied by installer)

Retrofit Installation Instructions (One or Two Lamp Luminaire)

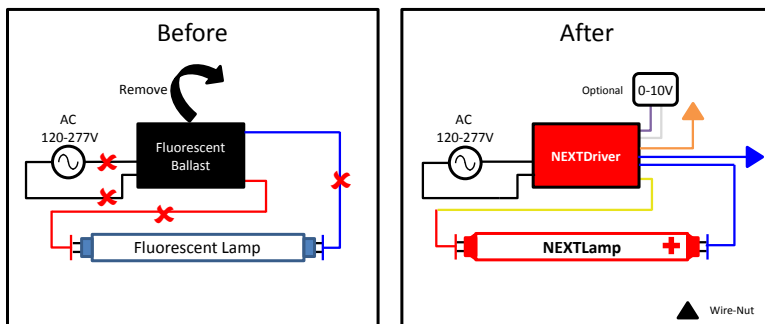
1. **Switch off the power to the luminaire or verify that it is disconnected before beginning the installation.**
2. Open luminaire diffuser, lens, etc. if applicable and remove the existing fluorescent lamp(s).
3. Open or remove the cover for the ballast and wiring channel.
4. Cut all wires connected to the ballast. Cut wire within 12 inches of the existing ballast. The input line voltage wires and wires providing power to the tombstones will be re-used during installation of the NEXTDriver.
5. Remove or bypass the starter (if present). **STARTER MUST BE REMOVED BEFORE NEXTLAMP INSTALLATION.**
6. Remove any fastening devices used to mount the ballast to the luminaire (save the fastening devices for installation of the NEXTDriver). Slide the ballast out from any mounting clips and remove the ballast.
7. Mount the NEXTDriver to the luminaire using the same holes and fasteners as were previously used to mount the fluorescent ballast.
8. On the output side of the NEXTDriver, connect the yellow common V- return wire to the yellow (or red) common line(s) of the luminaire.
9. Connect the blue V+ wire from the NEXTDriver output to the blue wire for the luminaire tombstones. If there are two lamps, connect both blue V+ wires to the blue wires of the luminaire, one to each tombstone. If there is only one lamp being connected, cap the second blue V+ output wire from the NEXTDriver with a wire nut.
10. On the input side of the NEXTDriver, connect the black wire to the live wire that supply's power from the AC Mains (108-305V compatible). Connect the white wire on the input side of the NEXTDriver to the mains neutral.

11. Affix the Luminaire Retrofit Kit Label (included in the lamp packaging) on the luminaire near the positive end (the end that the blue wires are connected to). The label will provide directional guidance when installing the NEXTLamps.
12. If EnergySaver mode is desired, connect the orange output wire to the grey common wire from the 0-10V dimming output with a wire nut. Cap the purple 0-10V wire with a wire nut.
13. Close the wiring and Driver/Ballast compartment cover on the luminaire.
14. Install either one or two NEXTLamps as appropriate for your luminaire using the same method used for conventional fluorescent tubes. The NEXTLamps have positive and negative polarity indicators on each end of the lamp. The end with the positive, plus sign, should be inserted into the tombstone that is connected to the blue positive output wires from the NEXTDriver. This end should be indicated by the Luminaire Retrofit Kit Label that was previously installed.
15. If applicable, close or replace the lens or louvers per luminaire manufacturer's instructions.
16. Switch on the power.

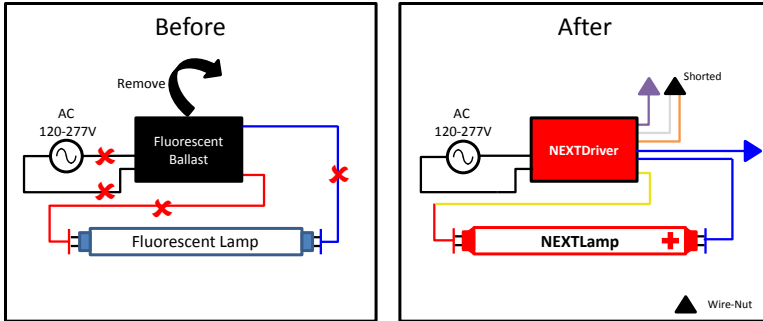
NOTE: Lamp installation requires correct polarity. NEXTLamp + polarity is indicated by the below sticker.



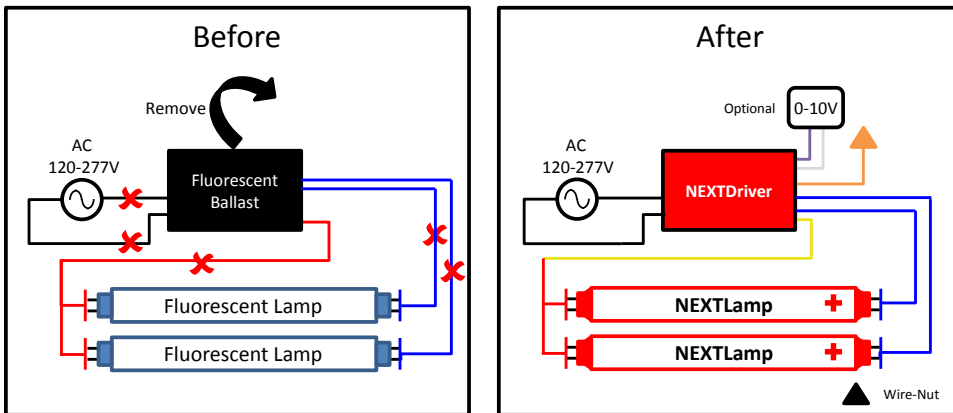
One Lamp Installation (Standard Mode)



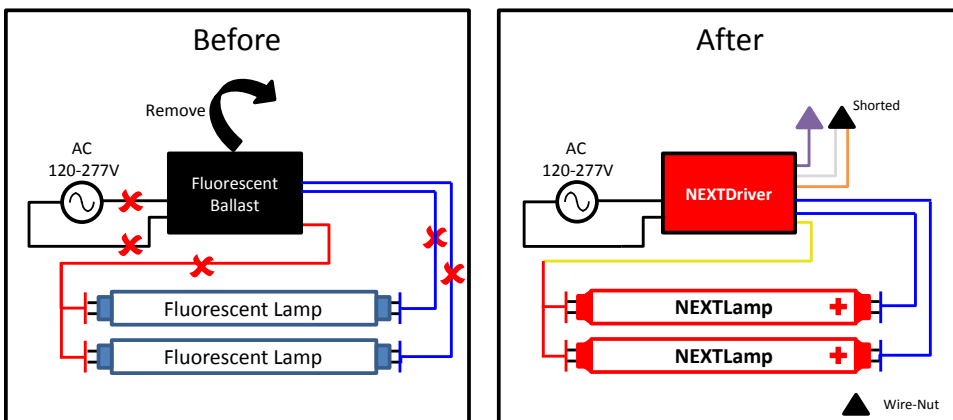
One Lamp Installation (EnergySaver Mode)



Two Lamp Installation (Standard Mode)



Two Lamp Installation (EnergySaver Mode)

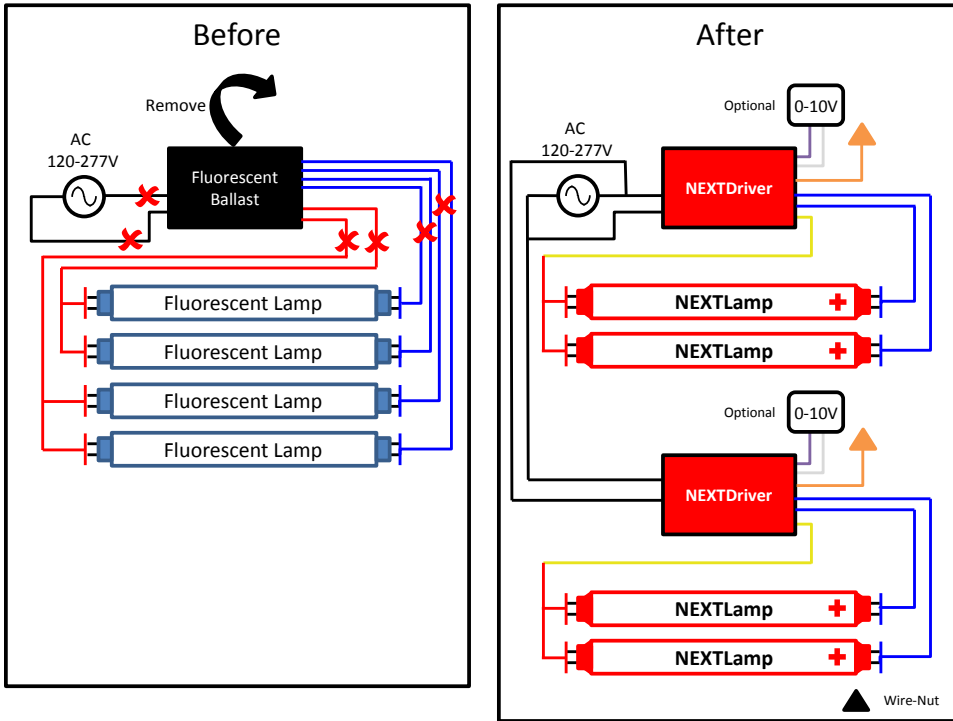


Retrofit Installation Instructions (Three or Four Lamp Luminaire)

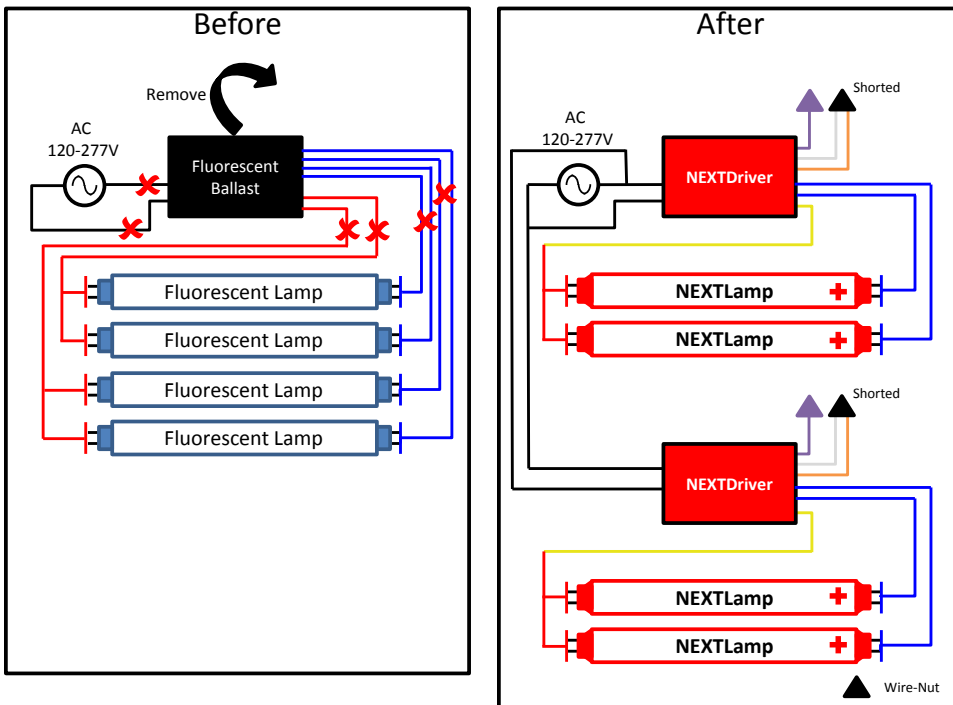
1. **Switch off the power to the luminaire or verify that it is disconnected before beginning the installation.**
2. Open luminaire diffuser, lens, etc. if applicable and remove the existing fluorescent lamps.

3. Open or remove the cover for the ballast and wiring channel.
4. Cut all wires connected to the ballast(s). Cut wire within 12 inches of the existing ballast(s). The input line voltage wires and wires providing power to the tombstones will be re-used during installation of the NEXTDrivers.
5. Remove or bypass the starter(s) (if present). STARTERS MUST BE REMOVED BEFORE NEXTLAMP INSTALLATION.
6. Remove any fastening devices used to mount the ballast to the luminaire (save the fastening devices for installation of the NEXTDriver). Slide the ballast out from any mounting clips and remove the ballast
7. Mount two NEXTDrivers to the luminaire using the same holes and fasteners as were previously used to mount the fluorescent ballast(s). If only one ballast (three or four channel ballast) was removed, install the second NEXTDriver in the secondary ballast mounting location provided in the ballast channel.
8. On the output side of each NEXTDrivers, connect the yellow common V- return wires to the yellow (or red) common lines of the luminaire. If there are three lamps, install the second driver following the one lamp instructions above for the third lamp.
9. Connect one blue V+ wire from the NEXTDriver outputs to each of the blue wires for the luminaire tombstones. If there are three lamps, install the second driver following the one lamp instructions above for the third lamp.
10. On the input side of each NEXTDrivers, connect the black wires to the live wire that supply's power from the AC Mains (108-305V compatible). Connect the white wires on the input side of the NEXTDrivers to the mains neutral.
11. Affix the Luminaire Retrofit Kit Label (included in the lamp packaging) on the luminaire near the positive end (the end that the blue wires are connected to). The label will provide directional guidance when installing the NEXTLamps.
12. If EnergySaver mode is desired, connect with a wirenut the orange output wire to the grey common wire from the 0-10V dimming output. Cap the purple 0-10V wire with a wirenut.
13. Close the wiring and Ballast/Driver compartment cover.
14. Install either three or four NEXTLamps as appropriate for your luminaire using the same method used for conventional fluorescent tubes. The NEXTLamps have positive and negative polarity indicators on each end of the lamp. The end with the positive, plus sign, should be inserted into the tombstone that is connected to the blue positive output wires from the NEXTDrivers. This end should be indicated by the Luminaire Retrofit Kit Label that was previously installed.
15. If applicable, close or replace the lens or louvers per luminaire manufacturer's instructions.
16. Switch on the power.

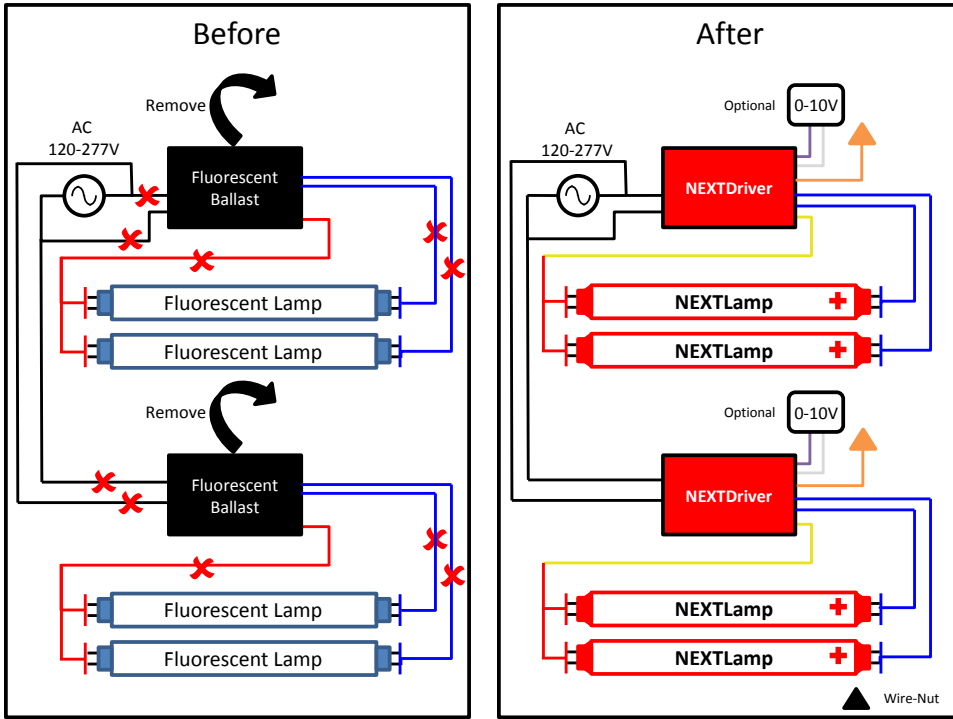
Three/Four Lamp Installation with One Ballast (Standard Mode)



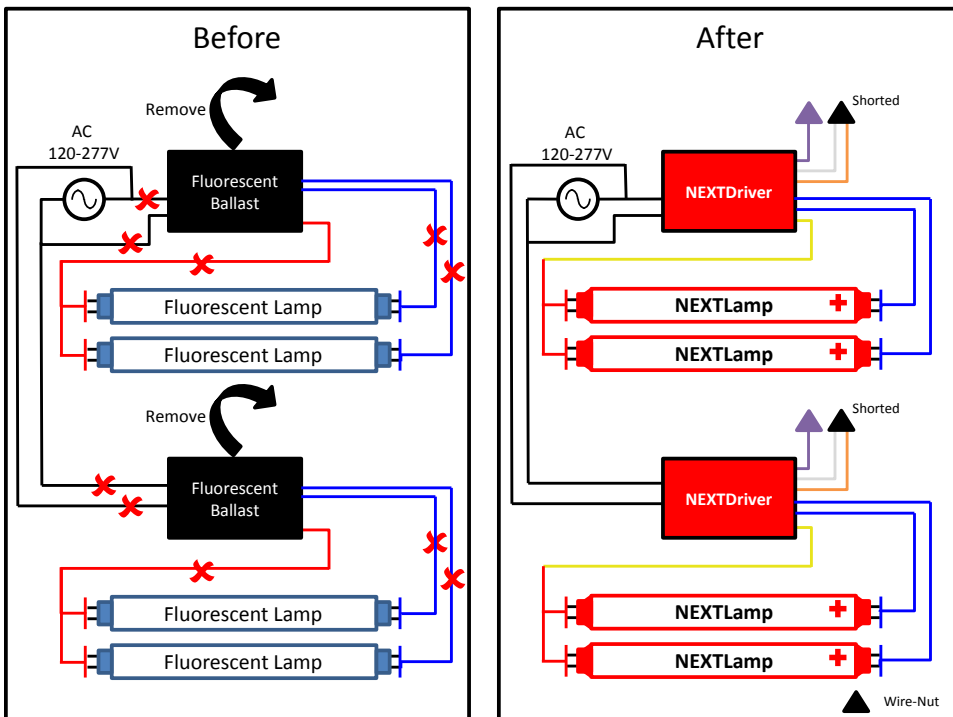
Three/Four Lamp Installation with One Ballast (EnergySaver Mode)



Three/Four Lamp Installation with Two Ballasts (Standard Mode)



Three/Four Lamp Installation with Two Ballasts (EnergySaver Mode)



Dimming

NEXTLamp T12/T8 Retrofit kit designed to be compatible with 0-10V dimming systems for enhanced control over your working/living environment. This capability also enables greater energy savings compared with conventional fluorescent lamps. To implement dimming control of the NEXTLamps, connect the grey and purple wires on the output side of the NEXTDriver to the 0-10V output of any control system as shown in the replacement diagrams above.

Replacement Lamps and Drivers

Replacement lamps and drivers can be ordered directly from NEXT Lighting or an approved distributor. An approved distributor list is available on our website at www.nextlighting.com. Direct replacement orders can be placed through our headquarters at:

NEXT Lighting
One Market Street
Spear Tower, Suite 3600
San Francisco, CA. 94105
(415) 821-6000

Installation Notes

SUITABLE FOR DRY AND DAMP LOCATIONS

**THIS DEVICE IS NOT INTENDED FOR USE WITH EMERGENCY EXITS
OPERATING TEMPERATURE OF THE LAMPS AND DRIVERS IS TO BE MAINTAINED BETWEEN -20°C - 45°C
(-4°F – 113°F) TO COMPLY WITH ALL SAFETY AND WARRANTY REGULATIONS**

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

WARNING – RISK OF FIRE OR ELECTRIC SHOCK. LED RETROFIT KIT REQUIRES KNOWLEDGE OF LUMINAIRE ELECTRICAL SYSTEMS. IF NOT QUALIFIED, DO NOT ATTEMPT INSTALLATION. CONTACT A QUALIFIED ELECTRICIAN.

WARNING - RISK OF FIRE OR ELECTRIC SHOCK. THE ELECTRICAL RATING OF THESE PRODUCTS ARE 100-277VAC, THE INSTALLER MUST DETERMINE WHETHER THEY HAVE 100-277 V AT THE LUMINAIRE BEFORE INSTALLATION.

WARNING – RISK OF FIRE OR ELECTRIC SHOCK. INSTALL THIS KIT ONLY IN THE LUMINAIRE THAT HAVE THE CONSTRUCTION FEATURES AND DIMENSIONS SHOWN IN THE PHOTOGRAPHS AND/OR DRAWINGS.

WARNING – TO PREVENT WIRING DAMAGE OR ABRASION, DO NOT EXPOSE WIRING TO EDGES OF SHEET METAL OR OTHER SHARP OBJECTS.

WARNING – RISK OF FIRE OR ELECTRIC SHOCK. LUMINAIRES WIRING, POWER SUPPLY, OR OTHER ELECTRICAL PARTS MAY BE DAMAGED WHEN DRILLING FOR INSTALLATION OF RETROFIT ASSEMBLY HARDWARE. INSPECT WIRING AND COMPONENTS FOR DAMAGE.

WARNING – RISK OF FIRE OR ELECTRICAL SHOCK. DO NOT ALTER, RELOCATE, OR REMOVE WIRING, LAMPHOLDERS, POWER SUPPLY, OR ANY OTHER ELECTRICAL COMPONENT. ONLY THOSE OPEN HOLES INDICATED IN THE PHOTOGRAPHS AND/OR DRAWINGS MAY BE MADE OR ALTERED AS A RESULT OF KIT INSTALLATION. DO NOT LEAVE ANY OTHER OPEN HOLES IN AN ENCLOSURE OF WIRING OR ELECTRICAL COMPONENTS.

THE RETROFIT KIT IS ACCEPTED AS A COMPONENT OF A LUMINAIRE WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY CSA OR AUTHORITIES HAVING JURISDICTION.