

# Installation Instruction

## LED T8 Hybrid (Nano, Linear, 5CCT)

Applicable models:  
HD-T8HYSP/N/5CCT/120-347V

**IMPORTANT: Read before installing fixture. Retain for future reference.**

### WARNING:

- **DANGER:** Risk of shock-disconnect power before installation.
- **WARNING: Risk of fire or electric shock.** LED Retrofit Kit installation requires knowledge of luminaire electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- **WARNING:** Product must be installed in accordance with the national electrical code or your local electrical code. If you are not familiar with these codes and requirements, contact a qualified electrician.
- **WARNING:** Install this kit only in luminaires that have the construction features and dimensions shown in the photographs and/or drawing and where the input rating of the retrofit kit does not exceed the input rating of the luminaire.
- **WARNING:** To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects. Do not make or alter any open holes in any enclosure of wiring or electrical components during kit installation.
- **WARNING:** The retrofit kits including installation instructions, LED lamp, luminaire marking labels. The T8 LED tubes are intended to retrofit listed surface mounted, type non-IC or type IC recessed mounted fluorescent luminaires with or without diffuser for maximum four lamps with lamp-to-lamp distance 11 cm minimum; or retrofit surface mounted listed fluorescent luminaires without diffuser for maximum six lamps with lamp-to-lamp distance 5.5 cm minimum.
- **WARNING:** The electrical rating of these products are 120-347VAC, the installer must determine whether they have 120-347V at the luminaire before installation. Installers should not disconnect existing wires from lampholder terminals to make new connections at lampholder terminals. Instead installers should cut existing lampholder leads away from the lampholder and make new electrical connections to lampholder lead wires by employing applicable connectors. This retrofit kit is accepted as a component of a luminaire where the suitability of the combination shall be determined by authorities having jurisdiction.
- This lamp is dimmable in Type A (Ballast Dependent) mode only. Dimmable ONLY with compatible dimmable ballasts.
- Suitable for dry and damp locations.
- This device is not intended for use with emergency exits.
- For “one end” wiring configuration only, warning: to avoid potential fire or shock hazard, do not use this retrofit kit in luminaires employing shunted bi-pin lampholders. NOTE: Shunted lamp holders are found only in fluorescent luminaires with instant-start ballasts. Instant-start ballasts can be identified by the words “Instant Start” or “I.S.” marked on the ballast. This designation may be in the form of a statement pertaining to the ballast itself, or may be combined with the marking for the lamps with which the ballast is intended to be used, for example F40T12/IS. For more information, contact the LED luminaire retrofit kit manufacturer. 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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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### INSTALLATION: Direct Replacement (UL Type-A)

**STEP 1:** Make sure the ballast is on the compatible list, if not you can choose to use ballast bypass mode. Refer to installation instructions for UL Type-B.

**STEP 2:** Turn OFF the power to the luminaire. Figure 1.

**STEP 3:** Remove diffuser (if applicable).

**STEP 4:** Remove the existing fluorescent lamps from the luminaire. Figure 2. Verify the fluorescent tube type with the table below.

Tube Length	ANSI Designation of Target Lamps
2 FT	17W/24T8
3 FT	25W/36T8
4 FT	32W/48T8, 30W/48T8, 28W/48T8, 25W/48T8

**STEP 5:** Dispose the existing fluorescent lamps in accordance with government regulations in your area.

**STEP 6:** Install LED T8 DirectFit lamps. Ensure that the pins are firmly seated in the lampholders. Figure 3.

**STEP 7:** Replace diffuser (if removed in Step 2).

**STEP 8:** Switch ON power to the luminaire. Figure 4.

### INSTALLATION: Ballast Bypass (UL Type-B)

**STEP 1:** Make sure the circuit breaker that supplies the power to the fixture is turned OFF.

**STEP 2:** Remove lens or diffuser cover (if applicable) and existing fluorescent lamps.

**STEP 3:** Open/Remove ballast wiring compartment cover.

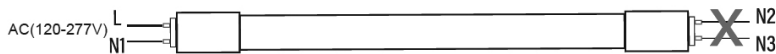
**STEP 4:** Identify the line and neutral wires running from the breaker box to the ballast and confirm the power is OFF using a voltmeter.

**STEP 5:** Cut all wires connected to ballast, and remove ballast (and starter if present). Dispose of removed ballast and fluorescent lamps in accordance with government regulations in your area.

**STEP 6:** LED T8 lamps are designed to work with shunted and non-shunted lampholders. They can be wired for single ended power or double ended power.

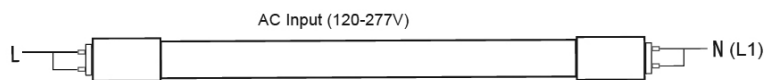
#### Single-Ended Wiring – Ballast Bypass (UL Type-B)

Make sure to use non-shunted lampholder. Connect Line and Neutral to pins L and N1. Do not connect N2 and N3.



#### Double-Ended Wiring – Ballast Bypass (UL Type-B)

Connect Line to L and N1. Connect Neutral to N2 and N3. This can also be reversed (Line to N2 and N3, Neutral to L and N1).



**STEP 7:** Mark re-wiring method on Relamping Label and attach it on a visible location inside the fixture.

**STEP 8:** Install ballast cover and diffuser (if applicable) back on luminaire. Install LED T8 tube.

Figure 1



Figure 2

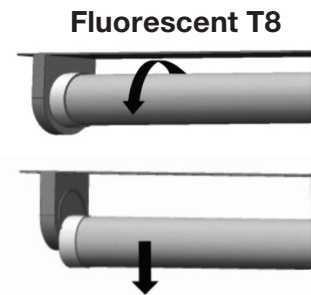


Figure 3

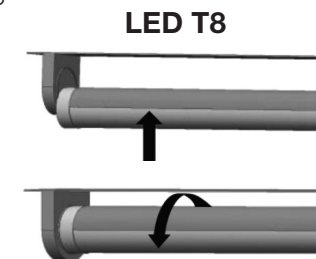
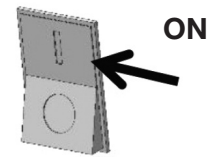
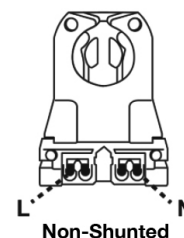


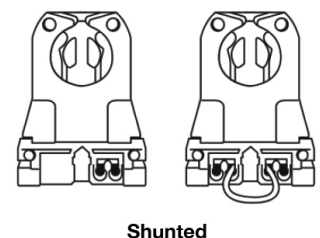
Figure 4



Rapid Start



Instant Start



**STEP 9:** Turn power ON at the breaker box and turn on lights.

**STEP 10:** Wiring for multiple lamps is the same as illustrated and detailed above.