# Sales Guide - LED Tubes

## Understanding the Different LED Tube Types

**Current offers a variety of LED Tube options, so you can choose the best solution for each application.**

**LED Tubes**, sometimes referred to as "TLEDs," are meant to use linear fluorescent sockets and fixtures. LED Tubes have the same length and pins as the linear fluorescent lamps they are intended to replace. The details of how the fixture is wired and the auxiliary equipment used may vary, depending on the LED Tube solution.

The lighting industry refers to three basic Types of LED Tubes:

• **Type A LED Tubes** are intended to be used as direct replacements for linear fluorescent lamps, with no modification to the fixture. Type A LED Tubes operate from fluorescent ballasts.

• **Type B LED Tubes** operate from mains voltage. The ballast is bypassed and the fixture is re-wired according to the installation instructions that come with the lamp. Wiring may vary across Type B LED Tubes from different manufacturers. A retrofit fixture label indicating the LED Tube used and that the fixture has been re-wired is provided to be applied to the fixture.

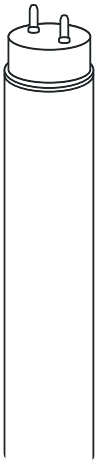
• **Type C LED Tubes** operate from dedicated remote (external) LED drivers. Instead of a ballast, a remote driver is used to provide the proper voltage and current for the Type C LED Tubes. A retrofit fixture label indicating the LED Tube and Driver used is provided to be applied to the fixture. Type C LED Tube and Driver solutions vary across the industry – they are not yet standardized like linear fluorescent lamps and ballasts.

There are also "hybrid" or "dual-mode" Type A+B lamps that can cover multiple Types of LED Tubes, depending on how they are implemented.

Current offers a wide range of GE LED Tubes to replace linear fluorescent lamps, including all of the Types above. Each Type of LED Tube offers different advantages, so the right solution may vary by application.

### Ballast Compatible (UL Type A)

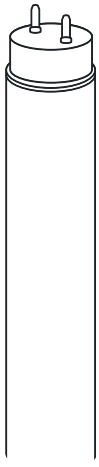
**Easy Plug & Play**



- **Uses fluorescent ballast**
- **No re-wiring required**
- **Low installation cost**
- **Direct replacement** (lamp)
- **Dimming limited by ballast**
- **Check compatibility**

### Ballast Bypass (UL Type B)

**Simple Long-Term Solution**



- **Uses no ballast / driver**
- **Re-wire to bypass ballast**
- **Low future maintenance**
- **Retrofit Kit** (lamp, label)
- **Dimming impractical**
- **Consider misapplication fuse**

### External LED Driver (UL Type C)

**Robust & Flexible System**



- **Uses external LED driver**
- **Replace ballast with driver**
- **Low voltage output**
- **Retrofit Kit** (lamp, label, driver)
- **Dimming driver (0-10V)**
- **Field-tunable driver settings**


© 2026 Current Lighting Solutions, LLC. All rights reserved. GE and the GE monogram are trademarks of the General Electric Company and are used under license. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.
(Rev 08/20/26), **GEL336_R01**

AVAILABLE THROUGH GRAINGER FOR THE ONES WHO GET IT DONE

# Sales Guide - LED Tubes

## How to Identify Opportunities to Upgrade from Traditional Linear Fluorescent Applications to LED.

**Current offers a variety of LED Tube options, so you can choose the best solution for each application.**

### Key Applications for LED Tubes

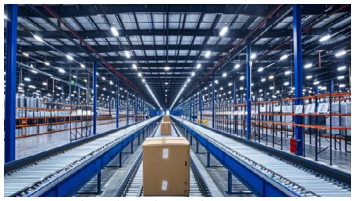

Commercial Office Buildings


Industrial & Warehouse


Government Buildings


Healthcare Facilities


Schools and Educational Buildings


Retail Distribution Centers and Stores


Technology & Data Centers


Refrigerated and Cold Storage

### Features & Benefits of LED Tubes

- 50% Energy Reduction
- Instant On/Off
- 2x Longer Rated Life
- Quick Payback
- No Lead or Mercury
- Wattage and Color Selectable Options
- covRguard® and NSF Rated Options Available
- Greatly Reduced Maintenance Costs

Current

www.LED.com

© 2026 Current Lighting Solutions, LLC. All rights reserved. GE and the GE monogram are trademarks of the General Electric Company and are used under license. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.
(Rev 08/20/26), **GEL336_R01**

AVAILABLE THROUGH GRAINGER FOR THE ONES WHO GET IT DONE

# Sales Guide - LED Tubes

## Fluorescent Regulations and Mercury Export Bans

**How Government Regulations are Fueling LED Conversions**

### European Union (EU) Manufacturing & Export Ban

Under the Revised Mercury Regulation (EU) 2024/1849, starting December 31, 2026 the EU has banned the export on triband phosphor fluorescent lamps is part of a broader effort to eliminate mercury-containing products and move the market toward LED lighting. High output linear fluorescent lamps are primarily manufactured in Europe, so the EU export ban is particularly impactful on these products. Regulation on exportation from China is also forthcoming, so a worldwide shift to LED solutions for these applications is anticipated in the near future.

### Mercury Regulations

In an effort to regulate consumer products that contain mercury, state governments within the USA have passed legislation that will prohibit the sale and distribution of Linear & Compact Fluorescent lamps, and Mercury Vapor High Intensity Discharge Lamps. The effective date of each state regulation is shown in the table below. This table will continue to evolve as new legislation is passed.

### Regulation Effective Date by Product Category

| State | Product Category | | | | |
|---|---|---|---|---|---|
| | 4-Foot Linear Fluorescent | All Linear Fluorescent | Screw or Bayonet Based Compact Fluorescent | Pin Based Compact Fluorescent | Mercury Vapor High Intensity Discharge |
| Vermont | 1/1/2024 | | | | |
| California | | 1/1/2025 | 1/1/2024 | 1/1/2025 | |
| Colorado | | 1/1/2025 | 1/1/2024 | 1/1/2025 | |
| Oregon | | 1/1/2025 | 1/1/2024 | 1/1/2025 | |
| Rhode Island | | 1/1/2025 | 1/1/2024 | 1/1/2025 | |
| Hawaii | | 1/1/2026 | 1/1/2025 | 1/1/2026 | |
| Minnesota | | 1/1/2026 | 1/1/2025 | 1/1/2026 | 1/1/2025 |
| Maine | | 1/1/2026 | 1/1/2026 | 1/1/2026 | |
| Illinois | | 1/1/2027 | 1/1/2026 | 1/1/2027 | |
| Washington State | | 1/1/2029 | 1/1/2029 | 1/1/2029 | |

### Mercury in Fluorescent Lighting

Fluorescent technology was developed by General Electric in 1934. While the amount of mercury in each fluorescent lamp has significantly decreased over the past 90 years, a small amount is still required to produce light in all Discharge lamps. When electricity is applied to a fluorescent tube, mercury ions emit energy in the form of ultraviolet (UV) light. UV light is then converted into visible light by interacting with the phosphor coating on the inside of the glass tube. Mercury has electrical characteristics that cannot be matched by other materials and remains a key component of fluorescent lighting. Refer to the GEL220 Grainger Fluorescent and HID Mercury Phase Out Brochure for more details.


© 2026 Current Lighting Solutions, LLC. All rights reserved. GE and the GE monogram are trademarks of the General Electric Company and are used under license. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions. (Rev 08/20/26), **GEL336_R01**

AVAILABLE THROUGH GRAINGER FOR THE ONES WHO GET IT DONE

# Sales Guide - LED Tubes

## Identifying Opportunities and Recommending LED Tubes

**Questions to ask to ensure the best lamp recommendation for the application:**

- Does the customer have the product code or description of the existing Linear Fluorescent (LFL) lamp and ballast available that is in the fixture?

- What are the goals of the replacement to LED?
  - If they want a fast and easy swap of LFL to LED tubes without rewiring, and don't have an onsite electrician:
    - Recommend Type A LED Tubes, which are a plug-and-play option where you remove the existing linear fluorescent lamp and replace it with the desired Type A LED tube. If the customer is happy with the current light levels, use the lamp and ballast information to cross over to the correct Type A LED Tube that is compatible with the existing ballast. Refer to LEDL122 for LED tubes ballast compatibility guide to check.
    - Check with the customer on the timing of the last relamp and reballast; the new LED tubes will be dependent on the ballast in the fixture; if the ballast is older than 5-7 years, it may be beneficial to hire an electrician to perform a Type B conversion to avoid multiple maintenance calls for ballasts that go out, or look at a Type A+B solution (Start off as a Type A Tube, then would be rewired by an electrician when the ballast fails to a Type B solution).
  - If the customer wants to eliminate the ballast in the fixture, and has an onsite electrician or access to hire an electrician for the project:
    - Recommend Type B LED Tubes. The fixture is re-wired to bypass the ballast, taking mains voltage directly to the lampholders. This eliminates the ballast as a potential failure point, eliminates the ballast energy consumption and reduces future maintenance.
    - Safety will be a point to highlight with the customer; since the ballast will be eliminated and the mains voltage will be going directly to the lampholders, GE Type B LED Tubes have multiple safety features designed into the lamp, and Current also offers an external misapplication fuse kit for added protection and peace of mind.
      - Internal Safety Switch - Provides protection for the installer
      - Internal Misapplication Circuit - Provides protection if lamp is placed into ballasted fixture
      - Optional In-line fuse kit to protect against future re-lamp misapplications (available for ordering separately)
    - If the customer needs a variety of light levels or color temperatures, refer to the Selectable Type B LED Tubes to find the best LED tube that they can adjust depending on the application.
  - If the customer needs to have dimming and controlability with their lighting:
    - Recommend Type C LED Tubes and Drivers. This solution will require existing lamps and ballasts to be removed, and replaced with a new external LED tube driver and Type C tubes to be installed by an electrician.

    *If the customer does not have the lamp information, ask if there is a lamp available in the storeroom that can be used as reference, or if old invoices for lamps/ballasts or site plans are available for review. If they do not have any of this information, go out to the application to do a visual inspection of the lamp in the application see if you can note any details that could help identify bulb type and wattage.

- Understand the application where the lamps are being used, and any special requirements. T8 lamps are most often used in office and commercial applications like troffers and strip fixtures; T5 lamps are found in low/high bay applications. High output (HO) lamps with an R17d base are used in low bay, strip fixtures or signage applications. Note applications where shatter protection or NSF are required.
  - If the application requires shatter protection, refer to our covRguard® and PET plastic coated lamp offerings. Note applications where NSF rated lamps are required: Typically environments where food is prepared, processed or stored to prevent contamination.
  - If the application requires emergency battery back-up, refer to page 6 of this guide.

- Be aware of mercury regulations that may impact certain states for sales and distribution. Refer to page 4 of this guide for an overview of the regulations, and a chart with timing for each state impacted.


© 2026 Current Lighting Solutions, LLC. All rights reserved. GE and the GE monogram are trademarks of the General Electric Company and are used under license. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.
(Rev 08/20/26), **GEL336_R01**

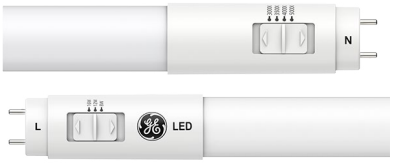
AVAILABLE THROUGH GRAINGER FOR THE ONES WHO GET IT DONE

# Sales Guide - LED Tubes

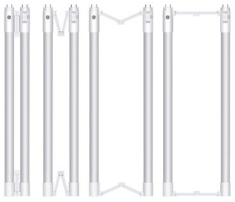
## Competitive Differentiation: Current's Industry Exclusive Lamps & Innovative Designs

### Current's Innovative Product Highlights:

- **Selectable LED Tubes:** Current has a wide assortment of selectable LED Tubes. LumenChoice® + SpectraChoice™ Selectable LED Tubes maximize the potential to reduce inventory and streamline product lists. These lamps allow installers to react to a wide variety of needs, providing the ability to adjust both the brightness and color temperature of the light.




- **Adjustable U1/U6 Selectable Tube:** Provides a single LED replacement lamp that can be used in U 1-5/8" or U 6" lamp applications. Unique hinged frame designs allows lamp to transform from 1-5/8" tube spacing to 6" tube spacing. These lamps provide unmatched flexibility with tube spacing adjustment and selectable color temperature.



- **UXL LED Tubes:** UXL LED Tubes provide industry-leading LPW at key 1800 and 2600 lumen levels. These lamps maximize energy savings when retrofitting early generation LED tubes or converting linear fluorescent to LED. Lamps are offered in two wattage/ lumen levels (9.3W/1800 lm and 13.5W/2600 lm) in 3 CCTs (3500K, 4000K and 5000K). The tubes are PET-coated with an NSF splash zone rating to provide retrofit opportunities for more applications.




- **covRguard® & PET Plastic Coated Tubes:** Current offers a variety of LED Tubes with covRguard® (CVG) or PET Plastic Coating over our glass tubes. These lamps are designed for applications that require shatter protection or shatter resistance for NSF locations.




- **R17d High Ouput Selectable Signage Tubes:** With sizes ranging from 18 inches to 8 feet, Signage ("SGN") GE LED Tubes are constructed similarly to standard tubes, but with two key differences designed to improve performance in signage applications. First, Signage GE LED Tubes incorporate a reflective strip inside the tube opposite the LED board. This bounces light back behind the LED board and reduces the intensity directly across from the LED board, resulting in more uniform light distribution, which is preferred for double-sided signage cabinets. The second key feature of Signage LED Tubes is rotatable end caps. These allow the tube to be oriented properly regardless of the socket orientation inside the cabinet.




© 2026 Current Lighting Solutions, LLC. All rights reserved. GE and the GE monogram are trademarks of the General Electric Company and are used under license. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions. (Rev 08/20/26), **GEL336_R01**

AVAILABLE THROUGH GRAINGER FOR THE ONES WHO GET IT DONE

# Sales Guide - LED Tubes

## Emergency Battery Back-Up Solutions

Current provides emergency battery back-up solutions (EMBB) for each UL Type of lamp that pair with our Current Dual-Lite® and Compass® products. The products listed below provide an overview with interactive links to spec sheets and product information.

### Ballast Compatible (Type A) LED Tubes and Dual-Lite UFO-6W Emergency Battery Packs

All UFO-6W emergency battery packs work in conjunction with a fluorescent fixture's normal AC ballast to convert new or existing fluorescent fixtures with LED Tubes for emergency lighting operation, eliminating the need to install additional emergency lighting units.



LED Tubes Family Page
Type A LED Tubes Specification Sheet
Type A LED Tubes Installation Instructions



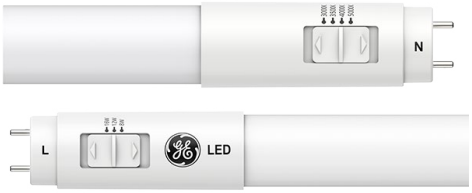
93063960, UFO-6W

Dual-Lite UFO-6W Product Page
LAMPAK® UFO-6W Specification Sheet
LAMPAK® UFO-6W Installation Instructions

---

### Ballast Bypass (Type B) LED Tubes and Compass CPL25 Emergency Battery Pack Inverter

The Compass CPL25 is a 25 Watt LED battery pack that maintains 90 minutes of full lumen output.




LED Tubes Family Page
Type B LED Tubes Specification Sheet
Type B LED Tubes Installation Instructions



93104398, CPL25

Compass CPL25 Product Page
Compass CPL25 Specification Sheet
Compass CPL25 Installation Instructions

---

### External LED Driver (Type C) LED Tubes and Dual-Lite PowerLED Plus (PLD10+ / PLD10M+) Emergency Battery Packs

Intelligent 2-wire (120/277V) emergency LED battery packs operate an AC LED driver to allow an LED lighting load to be used in both normal and emergency operation.



LED Tubes Family Page
Type C LED Tubes Specification Sheet
Type C LED Tubes Installation Instructions




93314264, PLD10+
93315117, PLD10+I

93314267, PLD10M+
93315118, PLD10M+I

Dual-Lite PLD10+ Product Page
Dual-Lite PLD10+ Specification Sheet
Dual-Lite PLD10+ Installation Instructions

Dual-Lite PLD10M+ Product Page
Dual-Lite PLD10M+ Specification Sheet
Dual-Lite PLD10M+ Installation Instructions

Current

www.LED.com

© 2026 Current Lighting Solutions, LLC. All rights reserved. GE and the GE monogram are trademarks of the General Electric Company and are used under license. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.
(Rev 08/20/26), **GEL336_R01**

AVAILABLE THROUGH GRAINGER
FOR THE ONES WHO GET IT DONE