



**Liberat5™**  
LED



**BALLAST BYPASS**

# LED Type B T5

LED compatible replacement for linear fixtures that operate independently of ballasts.

**Limitless Options**  
for the following applications:

- Offices
- Restaurants
- Retail Stores
- Lobbies
- Schools
- Hospitals



RECOGNIZED  
COMPONENT



CONFORMS TO NSF STD. 2

**5** YEAR  
WARRANTY

we know light.™



## LED LiberaT5™ Tubes

### Features and Benefits

|                                                             |
|-------------------------------------------------------------|
| >40% energy savings                                         |
| Long life: 50,000                                           |
| Bypass Application: 120-277 line voltage                    |
| Instant on/off                                              |
| Non-flickering                                              |
| Single End Construction                                     |
| Highly durable SHATTERPROOF plastic (4, 3 and 2 foot tubes) |
| UL rated for enclosed fixtures                              |
| No energy losses due to fluorescent ballast                 |

### Specifications

|                                                 |
|-------------------------------------------------|
| Base Types: G5                                  |
| Construction: Single ended                      |
| Wattage: 9w, 12w, 13w, 16w, 25w                 |
| Minimum starting temperature range: -22F / -30C |
| Safety: UL Classified                           |
| Environment: Damp/dry locations                 |
| Enclosed: Suitable for enclosed luminaires      |
| Rated life: L70 50,000+ hours                   |
| Beam Angle: 4, 3 & 2 foot 180°                  |
| Field Angle: 4, 3 & 2 foot 280°                 |
| Non-shunted lampholders                         |

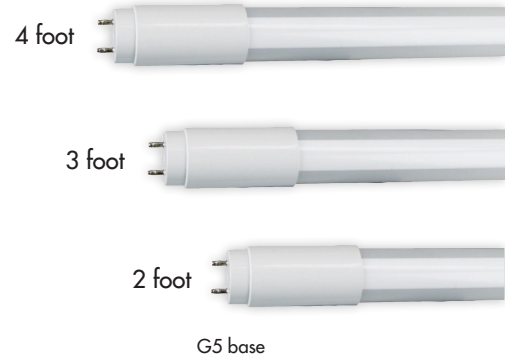
### Listing

|                             |
|-----------------------------|
| UL Classified and Component |
| Recognized Component ETL    |

### Warranty

|                                             |
|---------------------------------------------|
| Five years against defects in manufacturing |
|---------------------------------------------|

#### Shatterproof PET Coated Glass



CONFORMS TO NSF STD. 2

5 YEAR WARRANTY



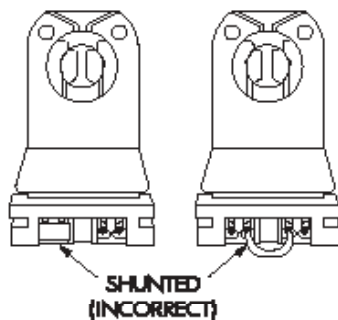
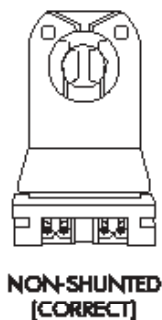
To view our DLC qualified products, please consult the DLC Qualified Products List at [www.designlights.org/qpl](http://www.designlights.org/qpl).



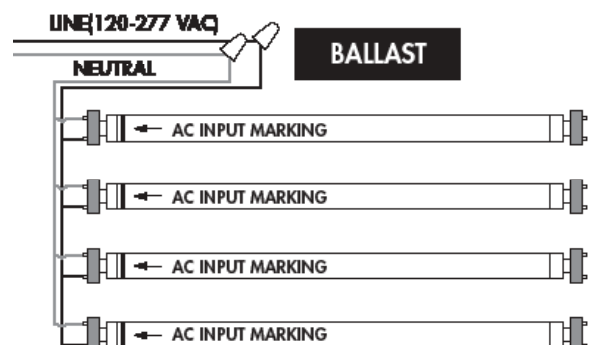
## LED Ballast Bypass T5 Tubes – 4', 3' and 2'

| Item#                                                          | Description                 | DLC QPL | LED Wattage | Voltage  | Fluorescent Equivalency | Lumens | LPW   | Base | CCT   | CRI | Master Pack |
|----------------------------------------------------------------|-----------------------------|---------|-------------|----------|-------------------------|--------|-------|------|-------|-----|-------------|
| <b>LED 12 WATT T5 TUBE – 2 FOOT</b>                            |                             |         |             |          |                         |        |       |      |       |     |             |
| LT5HO12B130K                                                   | LED 12W 2' T5 BYPASS 30K SC |         | 12          | 120-277V | 24W                     | 1450   | 120.8 | G5   | 3000K | 80  | 25          |
| LT5HO12B135K                                                   | LED 12W 2' T5 BYPASS 35K SC |         | 12          | 120-277V | 24W                     | 1450   | 120.8 | G5   | 3500K | 80  | 25          |
| LT5HO12B141K                                                   | LED 12W 2' T5 BYPASS 41K SC |         | 12          | 120-277V | 24W                     | 1450   | 120.8 | G5   | 4100K | 80  | 25          |
| LT5HO12B150K                                                   | LED 12W 2' T5 BYPASS 50K SC |         | 12          | 120-277V | 24W                     | 1450   | 120.8 | G5   | 5000K | 80  | 25          |
| <b>LED 16 WATT T5 TUBE – 3 FOOT</b>                            |                             |         |             |          |                         |        |       |      |       |     |             |
| LT5HO16B130K                                                   | LED 16W 3' T5 BYPASS 30K SC |         | 16          | 120-277V | 39W                     | 1850   | 115.6 | G5   | 3000K | 80  | 25          |
| LT5HO16B135K                                                   | LED 16W 3' T5 BYPASS 35K SC |         | 16          | 120-277V | 39W                     | 1850   | 115.6 | G5   | 3500K | 80  | 25          |
| LT5HO16B141K                                                   | LED 16W 3' T5 BYPASS 41K SC |         | 16          | 120-277V | 39W                     | 1850   | 115.6 | G5   | 4100K | 80  | 25          |
| LT5HO16B150K                                                   | LED 16W 3' T5 BYPASS 50K SC |         | 16          | 120-277V | 39W                     | 1850   | 115.6 | G5   | 5000K | 80  | 25          |
| <b>LED 25 WATT T5 TUBE – 4 FOOT (DLC LOOK-UP LT5H025B1XXK)</b> |                             |         |             |          |                         |        |       |      |       |     |             |
| LT5H025B130K                                                   | LED 25W 4' T5 BYPASS 30K SC | *       | 25          | 120-277V | 54W                     | 3200   | 128.0 | G5   | 3000K | 80  | 25          |
| LT5H025B135K                                                   | LED 25W 4' T5 BYPASS 35K SC | *       | 25          | 120-277V | 54W                     | 3200   | 128.0 | G5   | 3500K | 80  | 25          |
| LT5H025B141K                                                   | LED 25W 4' T5 BYPASS 41K SC | *       | 25          | 120-277V | 54W                     | 3200   | 128.0 | G5   | 4100K | 80  | 25          |
| LT5H025B150K                                                   | LED 25W 4' T5 BYPASS 50K SC | *       | 25          | 120-277V | 54W                     | 3200   | 128.0 | G5   | 5000K | 80  | 25          |
| <b>LED 9 WATT T5 TUBE – 2 FOOT</b>                             |                             |         |             |          |                         |        |       |      |       |     |             |
| LT5HE09B130K                                                   | LED 9W 2' T5 BYPASS 30K SC  |         | 9           | 120-277V | 14W                     | 1150   | 127.7 | G5   | 3000K | 80  | 25          |
| LT5HE09B135K                                                   | LED 9W 2' T5 BYPASS 35K SC  |         | 9           | 120-277V | 14W                     | 1150   | 127.7 | G5   | 3500K | 80  | 25          |
| LT5HE09B141K                                                   | LED 9W 2' T5 BYPASS 41K SC  |         | 9           | 120-277V | 14W                     | 1150   | 127.7 | G5   | 4100K | 80  | 25          |
| LT5HE09B150K                                                   | LED 9W 2' T5 BYPASS 50K SC  |         | 9           | 120-277V | 14W                     | 1150   | 127.7 | G5   | 5000K | 80  | 25          |
| <b>LED 12 WATT T5 TUBE – 3 FOOT</b>                            |                             |         |             |          |                         |        |       |      |       |     |             |
| LT5HE12B130K                                                   | LED 12W 3' T5 BYPASS 30K SC |         | 12          | 120-277V | 21W                     | 1350   | 112.5 | G5   | 3000K | 80  | 25          |
| LT5HE12B135K                                                   | LED 12W 3' T5 BYPASS 35K SC |         | 12          | 120-277V | 21W                     | 1350   | 112.5 | G5   | 3500K | 80  | 25          |
| LT5HE12B141K                                                   | LED 12W 3' T5 BYPASS 41K SC |         | 12          | 120-277V | 21W                     | 1350   | 112.5 | G5   | 4100K | 80  | 25          |
| LT5HE12B150K                                                   | LED 12W 3' T5 BYPASS 50K SC |         | 12          | 120-277V | 21W                     | 1350   | 112.5 | G5   | 5000K | 80  | 25          |
| <b>LED 13 WATT T5 TUBE – 4 FOOT (DLC LOOK-UP LT5HE13B1XXK)</b> |                             |         |             |          |                         |        |       |      |       |     |             |
| LT5HE13B130K                                                   | LED 13W 4' T5 BYPASS 30K SC | *       | 13          | 120-277V | 28W                     | 1650   | 126.9 | G5   | 3000K | 80  | 25          |
| LT5HE13B135K                                                   | LED 13W 4' T5 BYPASS 35K SC | *       | 13          | 120-277V | 28W                     | 1650   | 126.9 | G5   | 3500K | 80  | 25          |
| LT5HE13B141K                                                   | LED 13W 4' T5 BYPASS 41K SC | *       | 13          | 120-277V | 28W                     | 1650   | 126.9 | G5   | 4100K | 80  | 25          |
| LT5HE13B150K                                                   | LED 13W 4' T5 BYPASS 50K SC | *       | 13          | 120-277V | 28W                     | 1650   | 130.7 | G5   | 5000K | 80  | 25          |

Inspect lamp holders, ballast, and wiring to ensure these lamp holders are NON SHUNTED LAMP HOLDERS. TCP LiberaT5 Series lamps do not require a ballast to operate. They have an internal LED driver that operates on 120-277V. These tubes require power to only one end of the fixture, called the “power” side. The TCP LiberaT5 lamp is clearly marked at one end to signify power end. This must be installed in “power” end. The lamp holders (or tombstones) must be non-shunted as the power flows through the LED T5 tube. (Shunt means “an electrical conductor joining two points of a circuit, through which more or less of a current may be diverted”). Both “power” end and opposite end must both have unshunted tombstones. The “opposite” end acts as simply a mechanical holder with TCP LED LiberaT5 lamps.



## WIRING DIAGRAM



# TECHNOLOGY CAST IN A BEAUTIFUL LIGHT

For over 20 years, TCP has been designing, developing and delivering energy-efficient lighting into the market. Thanks to our cutting-edge technology and manufacturing expertise, we have shipped billions of high quality lighting products. With TCP, you can count on a lighting product that is designed to meet the needs of the market — that transforms your surroundings and envelopes you in warmth — lighting that generates beauty with every flip of the switch.



For more information on the quality and care TCP can deliver, call us at 800.324.1496 or visit [tcpi.com](http://tcpi.com)

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