

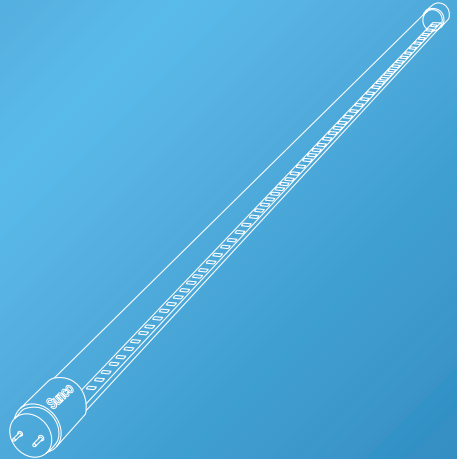
# Sunco

Lighting made better.

User Manual

## T8 Type B Ballast Bypass LED Tube

SKU: T8\_BY\_C  
T8\_BY\_F  
T8\_BY\_C2  
T8\_BY\_FR2



support@sunco.com  
(800) 334-9938



AMERICAN  
COMPANY

# Before You Start

## Safety Information

To reduce the risk of fire, electric shock, or physical injury:

- Turn off circuit breaker before installing this fixture.
- This product should be installed by a person familiar with the construction and operation of the product and the hazards involved. Safety eyeglasses and gloves are recommended.
- Abide by related regional and local laws or regulations.
- Proper grounding is required to ensure safety.
- Do not alter, relocate, or remove wiring during installation.
- Do not make or alter any open holes in wiring enclosure or electrical components during installation.
- Check for shipping damage before installing. If the product is damaged, do not use it.
- Keep fixture away from corrosive substances.
- Suitable for damp locations at temperature ranging from 4°F to 104°F. Not for use where directly exposed to water.
- Clean the fixture regularly to ensure proper operation. Do not clean with harsh solvents.
- Use safety precautions and abide by regional and local laws or regulations.
- This product is not compatible with 3rd party sensors.
- This product is not compatible with photo controls.
- This product is not compatible with occupancy sensors.
- This product is not compatible with timing devices.

**⚠ WARNING:**  
Cancer & Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

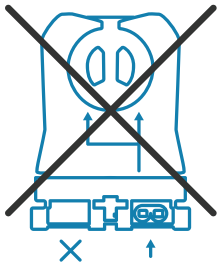
1.) This device may not cause harmful interference.

2.) This device must accept any interference that may cause undesired operation. Please review all instructions carefully prior to installation.

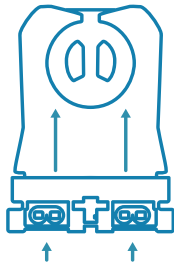
## Quickstart Guide

Single-Ended Installation (Non-Shunted Compatible Only)

SHUNTED

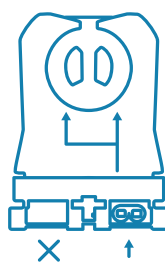


NON-SHUNTED

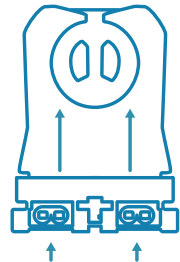


Double-Ended Installation (Non-Shunted & Shunted Compatible)

SHUNTED

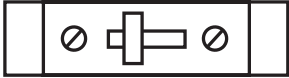


NON-SHUNTED



# Installation Guide (Single-Ended, Without Ballast)

**OFF** **ON**

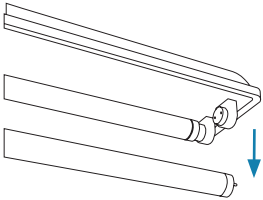


## STEP 1

a. Turn off the power: Locate the circuit breaker that controls the existing fluorescent fixture and switch it off.

b. Carefully remove the old T8 fluorescent tube by gently twisting it and sliding it out of the socket.

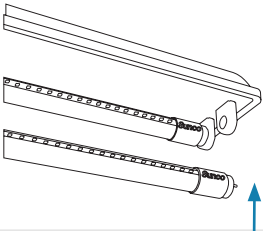
Note: If the socket lamp holders are shunted, replace them with new non-shunted ones.



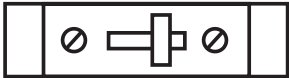
## STEP 2

a. For single lamp installation, properly install the lamp with L and N markings into wired lamp holder end (Figure 1).

b. For multiple lamp installation, ensure a link between a separate neutral wire from primary source lamp holder's "Neutral OUT" and connect it to the "Neutral IN" terminal on the adjacent tube (Figure 2).



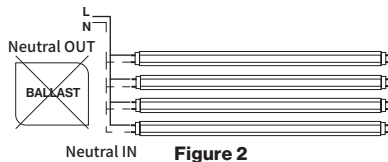
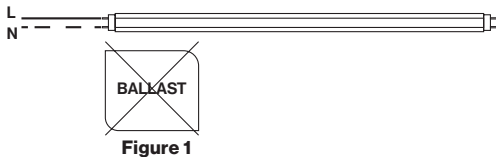
**OFF** **ON**



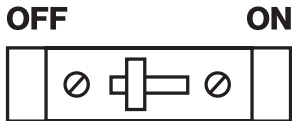
## STEP 3

a. Turn on the circuit breaker and test light.

## Single-Ended Wiring Diagram



## Installation Guide (Double-Ended, Without Ballast)

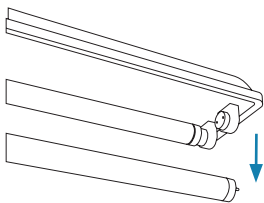


### STEP 1

a. Turn off the power: Locate the circuit breaker that controls the existing fluorescent fixture and switch it off.

b. Carefully remove the old T8 fluorescent tube by gently twisting it and sliding it out of the socket.

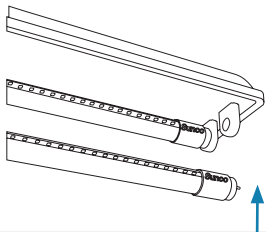
c. Open and remove the wiring compartment cover of the ballast. Verify the Live and Neutral wires from the breaker box to the ballast and use a voltmeter to confirm the power is off.



## STEP 2

a. Check if the fixture has non-shunted or shunted G13 bi-pin lamp holders:

- Refer to Wiring Diagram A in Step 3 if holders are NON-SHUNTED.
- Refer to Wiring Diagram B in Step 3 if holders are SHUNTED.



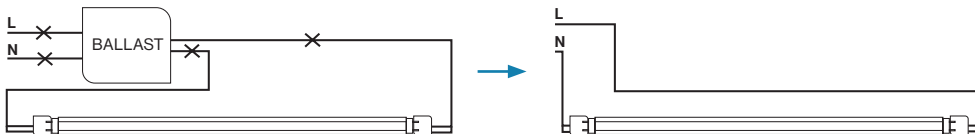
# Installation Guide (Double-Ended, NON-SHUNTED ONLY)

## STEP 3

### Wiring Diagram A (NON-SHUNTED ONLY)

- Disconnect any wires connected to the ballast as indicated by an "X" on the wiring diagram. Safely dispose of the ballast and fluorescent lamps, following local government regulations.
- Connect one wire to L (Live) and the other to N (Neutral). Repeat this step for the socket on opposite side.
- Connect wires of (L) to the BLACK wire of your power supply and connect wires of (N) to the WHITE wire of your power supply.

**WARNING: DO NOT CONTACT OPPOSITE SOCKET WIRES, THIS WILL CAUSE THE LAMP TO SHORT CIRCUIT.**



Wiring Diagram A: Non-Shunted Double-Ended Wiring

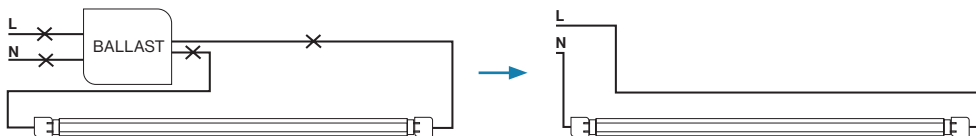
# Installation Guide (Double-Ended, SHUNTED ONLY)

## STEP 3

### Wiring Diagram B (SHUNTED ONLY)

- Disconnect any wires connected to the ballast as indicated by an "X" on the wiring diagram. Safely dispose of the ballast and fluorescent lamps, following local government regulations.
- Connect one wire to the shunted socket. Repeat this step for the socket on the opposite end.
- Connect the BLACK wire from your power supply to the first socket. This will be your L (Live) connection.
- Connect the WHITE wire from your supply to the opposite socket. This will be your N (Neutral) connection.

**WARNING: DO NOT CONTACT OPPOSITE SOCKET WIRES, THIS WILL CAUSE THE LAMP TO SHORT CIRCUIT.**



Wiring Diagram B: Shunted Double-Ended Wiring

OFF

ON



## STEP 4

- Turn on the circuit breaker and test light.

# Specifications

## T8\_BY\_C2, T8\_BY\_FR2 Specifications

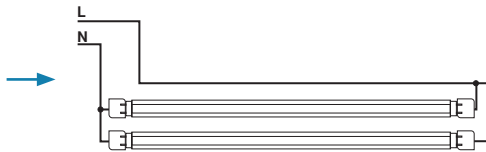
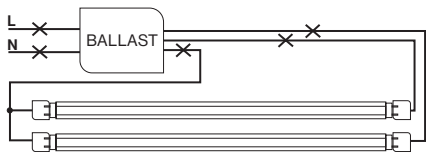
<b>Voltage</b>	100-277V	<b>Average Lifetime</b>	50000 hrs
<b>Wattage</b>	10W	<b>Lumens</b>	1200LM
<b>Wattage Equivalency</b>	22W	<b>Moisture Rating</b>	Damp
<b>Beam Angle</b>	120°	<b>CRI</b>	80+
<b>Weight</b>	0.2 lbs	<b>Usage</b>	Indoor
<b>Housing Material</b>	Glass	<b>Frequency</b>	50 /60HZ
<b>Dimmable</b>	No	<b>Warranty</b>	5 Years

## T8\_BY\_C, T8\_BY\_F Specifications

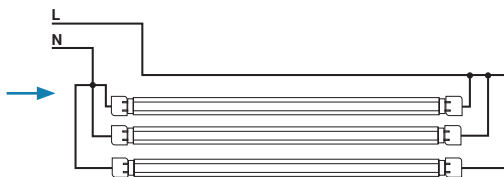
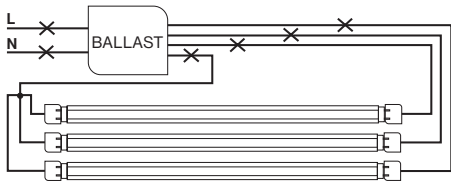
<b>Voltage</b>	100-277V	<b>Average Lifetime</b>	50000 hrs
<b>Wattage</b>	15W/18W/24W	<b>Lumens</b>	1800LM/2200LM/3000LM
<b>Wattage Equivalency</b>	32W/40W/52W	<b>Moisture Rating</b>	Damp
<b>Beam Angle</b>	120°	<b>CRI</b>	80+
<b>Weight</b>	0.4 lbs	<b>Usage</b>	Indoor
<b>Housing Material</b>	Glass	<b>Frequency</b>	50/60HZ
<b>Dimmable</b>	No	<b>Warranty</b>	5 Years

# Shunted Double-Ended Wiring Diagram

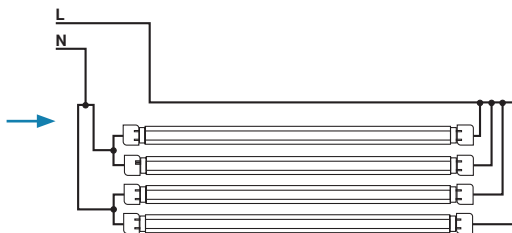
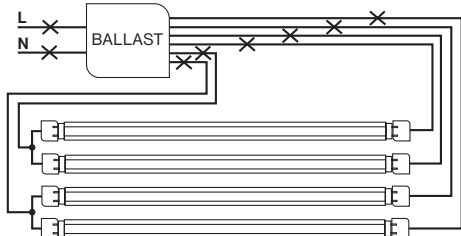
## Retrofit Luminaire With Two Lamps



## Retrofit Luminaire With Three Lamps



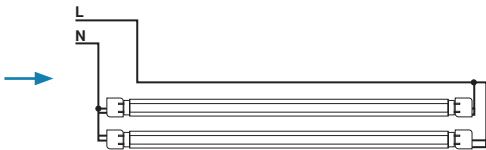
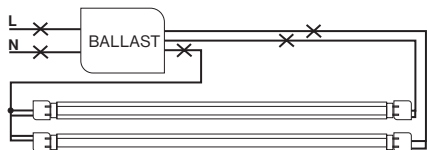
## Retrofit Luminaire With Four Lamps



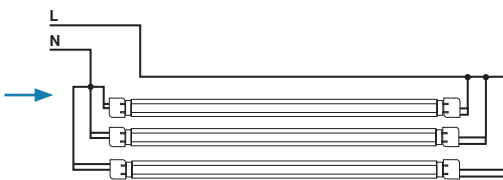
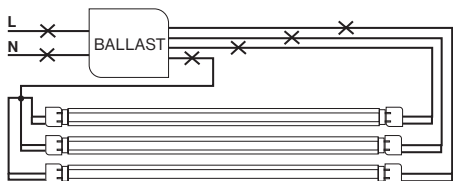


# Non-Shunted Double-Ended Wiring Diagram

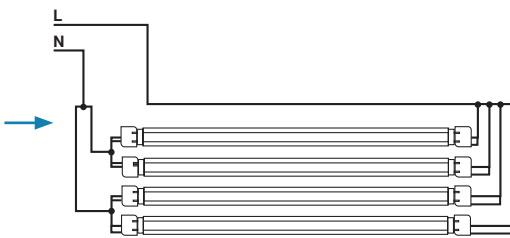
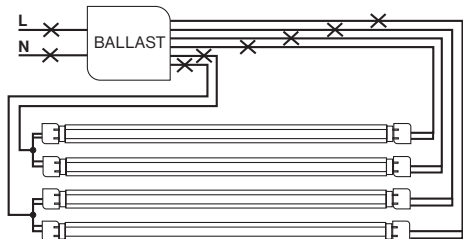
## Retrofit Luminaire With Two Lamps



## Retrofit Luminaire With Three Lamps



## Retrofit Luminaire With Four Lamps



# Common Troubleshooting

Feeling in the dark about an issue with your product? No worries! Our troubleshooting section is here to shed some light and provide you with easy-to-follow solutions for any problem.

If you still need some assistance, please feel free to contact us with any questions. Our team of lighting experts are happy to help brighten your day.

## Installation

Light isn't turning on.

Double check if fixture is properly connected and the circuit breaker hasn't been tripped.

Light unexpectedly fails.

For further assistance, reach out to customer support.

## Dimming

Light not dimming to lowest setting.

Light not dimmer compatible.

Light not dimming smoothly.

Light not dimmer compatible.

Light not compatible with dimmer switch.

Light not dimmer compatible.

## Flickering

Light is flickering when turning on.

Check that fixture wiring connections are secure.

Light flickering with other lights on the same circuit.

Check that the lights on the same circuit are not overloading the circuit.

Light flickering when turned on.

Verify fixture compatibility and that it is grounded.

Light flickering when dimmed.

Light not dimmer compatible.

## Buzzing

Fixture buzzing with power outages.

Verify if the breaker has tripped, and carefully inspect the tube for any signs of damage.

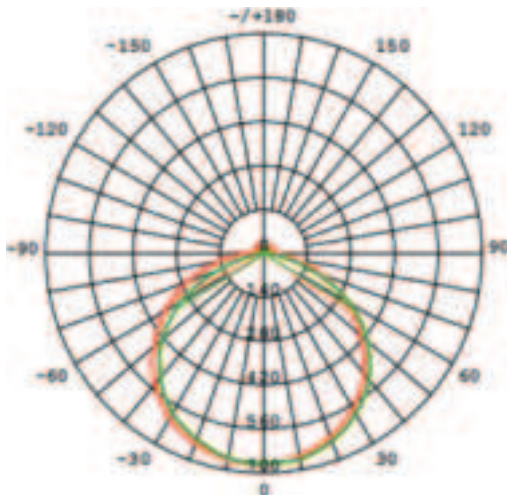
Fixture buzzing with appliances or electronic devices.

Look for nearby interferences that can cause buzzing. Such as televisions, radios, computers, etc.

Fixture buzzing when dimmed.

Light not dimmer compatible.

# Light Distribution Angle



*Not a lighting nerd?  
No worries, you can skip this page*

AVERAGE BEAM ANGLE (50%): 118.2 DEG

—	CO/180	119.7°
—	C90/270	116.6°

UNIT:cd Luminous Intensity Distribution 1

Lighting distribution angle refers to the spread of light emitted from a light source. It is an important factor to consider when selecting a fixture or bulb, as it affects the way it will illuminate an area. There are two main types of lighting distribution angles:

A symmetric lighting distribution emits light evenly in all directions, creating a cone-shaped pattern that provides a pool of light. This type of lighting is ideal for general lighting and illuminating large areas. Common applications for symmetric lighting include general area illumination, security lighting, and perimeter lighting. Symmetric lighting is also used to a certain degree in up-lighting.

An asymmetric lighting distribution angle, also known as beam angle, creates a pattern that focuses light in a specific direction. This type of lighting is ideal for task lighting as it reduces glare and light spill in other areas. Common applications include task lighting in spaces such as landscape settings, retail stores, museums, and much more.

It is important to note that the lighting distribution angle can also be affected by other factors such as the reflector design of the light source, the type of lens used, and the distance between the light source and the surface being illuminated.

## Warranty Policy

This product is covered by our industry leading 5 year warranty.

It gets even better - scan the QR code for 2 extra years of protection!



*Scan me for two extra years!*

## 30 Day Return Policy

At Sunco, we value our customers and stand by the quality and performance of our products.

If you are not completely satisfied with your purchase, we accept returns within 30 days of your purchase date.

## Customer Service

Our Los Angeles team of lighting experts is here to assist you with all your needs! Contact us at:

Email: [support@sunco.com](mailto:support@sunco.com)

Call or Text: (844) 334-9938

# Sunco

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REV1.0



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