



## Commercial Double-Ended Ballast Bypass Series LED Tube

### LINEAR FLUORESCENT RETROFIT LAMP

For: T8 and T12 lamp replacement

The Energy Focus Commercial Double-Ended Ballast Bypass LED tube (DEBB) features a direct-wire installation mode and allows existing tombstones (shunted or unshunted) to be utilized, providing customers with significant savings by reducing the average retrofit installation time. The Commercial DEBB does not depend on any ballast to function normally, minimizing points of failure and requiring less maintenance. The Commercial DEBB reaffirms Energy Focus' commitment to producing products that are high quality, long-lasting and sustainable.

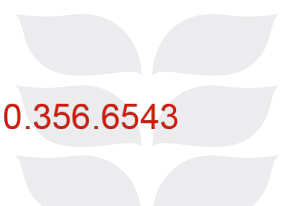
### FEATURES AND BENEFITS

- 150 lm/W efficacy
- Integrated driver, Type-B (Direct-Wire)
- Can utilize existing lampholders
- Double-ended input for simple rewiring and shorter install time
- Bypasses ballast for maximum energy savings
- Flicker-free LED lighting

### PRODUCT SPECIFICATIONS

Length	4' version - Meets ANSI Standard
Body	Oval extruded aluminum
Lens	Polycarbonate lens
Connection	Medium bi-pin (G13) end cap
Input Voltage	100-277vac, 50/60hz
Driver	Double-ended (end-to-end) input; integrated LED driver
Available colors	3500K 4000K 5000K
CRI	>80
Dimming	Non-dimmable
Lifetime	L70 ≥ 60,000 hours
Warranty	10-year warranty
Environmental Requirements	<b>Operating temp:</b> -20° to 50°C <b>Storage temp:</b> -30° to 60°C <b>Working humidity:</b> 30% to 85% <b>Storage humidity:</b> 10% to 90% <b>Non-corrosive environments</b>
Power Factor	>0.9
Beam Angle	120°

©2020 Energy Focus, Inc. All Rights Reserved. Energy Focus, Inc. reserves the right to change specifications for product improvement without prior notice.



## PRODUCT SPECIFICATION

PART NUMBER	SIZE NOMINAL	POWER	LUMINOUS FLUX	UL PART NUMBER	DLC FAMILY
LEDFLT8-8 <b>XX</b> -411-5DEF	(48") 4'	11W	1650lm	3BF10116	QQQTDR
LEDFLT8-8 <b>XX</b> -415-5DEF	(48") 4'	15W	2250lm	3BF10156	MMMPDG
LEDFLT8-8 <b>XX</b> -411-5DEBF*	(48") 4'	11W	1650lm	3BF10116	QQQTDR
LEDFLT8-8 <b>XX</b> -415-5DEBF*	(48") 4'	15W	2250lm	3BF10156	MMMPDG

**XX** refers to the option for 3500K, 4000K or 5000K color temperature. (Replace **XX** with 35, 40 or 50 when selecting).

\*B = Buy American version - Available soon

## LINE DIAGRAM

Double-Ended Input

