

# B30

## Fluorescent Emergency Ballast

**PHILIPS**  
**bodine**

A Division Of Philips Electronics North America Corporation

**Specification grade: Up to 3500 lumens;  
One- or two-lamp  
emergency illumination;  
End-of-lamp-life compatible**

### Product Summary

#### UL LISTED/CSA CERTIFIED

Factory or Field Installation  
(Indoor and Damp Locations)



#### U.S. Patent No.

6,339,296

#### Illumination Time

90 Minutes

#### Initial Light Output

1450 - 3500 Lumens

#### Full Warranty

5 Years (NOT pro-rata)

#### Dual Input Voltage

120/277 VAC, 60 Hz

#### AC Input Current

280 mA

#### AC Input Power Rating

7.0 Watts

#### Test Switch

ITS (Illuminated Test Switch)  
Single or Double Pole (Optional)

#### Battery

Field-Replaceable, High-Temperature,  
Maintenance-Free Nickel-Cadmium Battery  
7- to 10-Year Life Expectancy

#### Battery Charging Current

280 mA

#### Recharge Time

24 Hours

#### Charging Indicator Light

LED

#### Temperature Rating (Ambient)

0°C to 50°C  
(32°F to 122°F)

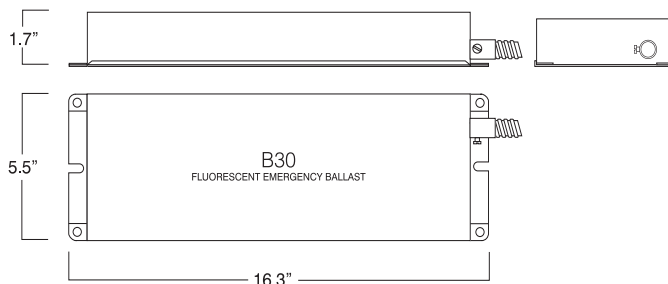
#### Dimensions

16.3" x 5.5" x 1.7"  
(414 mm x 138 mm x 44 mm)  
2' (610 mm) Flexible Conduit  
Mounting Center 15.7" (400 mm)

#### Weight

8.7 lbs. (3.95 kg)

*Emergency ballasts can be modified to accommodate  
special voltages, frequencies and longer run times.*



### APPLICATION

The B30 fluorescent emergency ballast works in conjunction with an AC ballast to convert new or existing fluorescent fixtures into emergency lighting. The emergency ballast consists of a field-replaceable nickel-cadmium battery, charger and electronic circuitry in one red case. The B30 can be used with most 17 - 215 W (2' - 8') T5, T8, T9, T10 or T12 fluorescent lamps without integral starters, including U-shaped, HO, VHO, circline and energy-saving, and (4-pin) twin and quad compacts. One- or two-lamp operation may be selected (see Table 1). It is also compatible with most one-, two-, three- and four-lamp electronic, standard, energy-saving and dimming AC ballasts. If used in an emergency-only fixture, no AC ballast is necessary. The B30 is suitable for indoor and damp locations. It is not suitable for air handling heated air outlets or wet or hazardous locations. For information about specific lamp and ballast compatibility, please call the factory. Recommended applications include: hospital surgical suites and areas along the path of egress with high ceiling heights, as well as health care, educational and commercial facilities needing higher levels of emergency illumination.

### OPERATION

When AC power fails, the B30 immediately switches to the emergency mode, operating either one or two lamps at a reduced lumen output for a minimum of 90 minutes. When AC power is restored, the emergency ballast automatically returns to the charging mode and, using a patented circuit, delays AC ballast operation for approximately 3 seconds to prevent false tripping of the AC ballast end-of-lamp-life shutdown circuits.

### INSTALLATION

The B30 does not affect normal fixture operation and may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot lead must be connected to the emergency ballast. The emergency ballast must be fed from the same branch circuit as the AC ballast. The B30 may be installed on top of or remote from the fixture. The emergency ballast may be remotely installed up to half the distance the AC ballast manufacturer recommends removing the AC ballast from the lamp or up to 50 feet, whichever is less. Installation is not recommended with fixtures where the ambient temperature may fall below 0°C. An illuminated test switch is provided. Upon request, a single- or double-pole test switch/monitor plate can be provided for remote installation of the test switch and charging indicator light.

### UL, CSA AND CODE COMPLIANCE

The B30 has been tested by Underwriters Laboratories in accordance with the standards set forth in UL 924, "Emergency Lighting and Power Equipment," and by the Canadian Standards Association (CSA) in accordance with the standards set forth in C22.2 No. 141, "Unit Equipment for Emergency Lighting." The B30 is UL Listed and CSA Certified for factory or field installation. Emergency illumination time exceeds the National Electrical Code (NEC), Life Safety Code (NFPA-LSC), National Building Code of Canada (NBC), National Fire Code of Canada (NFC) and UL 90-minute requirements. Life Safety Code - NFPA 101 (1997) Excerpt 5-9.3 Periodic Testing of Emergency Lighting Equipment.

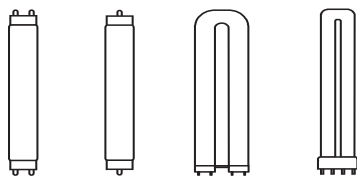
### Specifiers Reference

Project \_\_\_\_\_ Type \_\_\_\_\_ Model No. \_\_\_\_\_

Comments \_\_\_\_\_

L2000043

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### EMERGENCY ILLUMINATION

Depending on the number (one or two), wattage and type of lamps selected, the B30 produces 1450 to 3500 lumens initial emergency light output (see Table 2). If two-lamp operation is selected, light output is evenly divided between the lamps for better distribution of emergency illumination.

### SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with a Philips Bodine B30 emergency ballast. The B30 shall consist of a field-replaceable, high-temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one 16 5/16" x 5 7/16" x 1 3/4" red metal case with a 2' length of flexible conduit. An illuminated test switch to monitor the charger and battery and installation hardware shall be provided. The emergency ballast, using a patented circuit, shall delay AC ballast operation for approximately three (3) seconds to prevent false tripping of the AC ballast end-of-lamp-life shutdown circuits. The emergency ballast shall be capable of operating [one or two] \_\_\_\_\_ fluorescent lamp(s) (see Table 1) at \_\_\_\_\_ lumens (see Table 2) initial light output in the emergency mode for a minimum of 90 minutes. It shall be suitable for indoor and damp locations. The B30 shall have 7 Watts of input power and a 57.6 Watt-hour battery capacity and shall exceed emergency standards set forth by the current NEC. The emergency ballast shall be UL Listed for installation on top of or remote from the fixture and shall be warranted for a full five years from date of purchase.

### WARRANTY

Model B30 is warranted for five (5) full years from date of purchase. This warranty covers only properly installed Philips Bodine emergency ballasts used under normal conditions. For the warranty period, Philips Emergency Lighting will, at its option, repair or replace without charge a defective emergency ballast, provided it is returned to the factory transportation prepaid and our inspection determines it to be defective under terms of the warranty. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other charges; nor does it apply to any equipment of another manufacturer used in conjunction with the emergency ballast.

### End-of-lamp-life Compatible

This emergency ballast incorporates a patented circuit that delays the AC ballast operation for approximately three (3) seconds. This delay prevents the false tripping of the AC ballast's end-of-lamp-life shutdown circuits.

Table 1 - Lamp Compatibility

LAMP DIAMETER (T5, T8, T9, T10, T12)	BASE	WATTAGE (Length)	NO. of LAMPS (EMERGENCY)
1", 1¼", 1½"	Single or Bipin	17 - 40 W (2' - 4')	1
			2
		40 - 215 W (5' - 8')	1
Long Compact	4-PIN (2G11)	18 - 39 W	1
			2
		40 - 55 W	1
Twin/Quad/Triple Twin-Tube Compact	4-PIN (G24q, GX24q)	18 - 42 W	1
			2
2D	4-PIN (GR10q)	16 - 38 W	1
			2
		55 W	1
T5	HO Circline 4-PIN (2GX13)	22 - 55 W	1
	Linear Miniature Bipin	14 - 54 W	1

Table 2 - Lumen Output

LAMP	LUMENS	
	1 Lamp	2 Lamps
F025, FBO24 T8	2500	2600
F032, FBO31 T8	3000	3000
F040 T8	2400	
F096 T8	3000	
F40 T12, F40/U	3000	3000
F40 T12ES (34W)	2700	2700
F48 T12/HO	3000	
F96 T12	2800	
F96 T12/HO	2900	
F96 T12/VHO	3300	
PL-L 24W, F27/24BX, DULUX L 27W	1800	2300
PL-L 36W, F39/36BX, DULUX L 39W	2900	3500
PL-L 40W, F40/30BX, F50BX, DULUX L 55W	1800	
F282D/4P	2050	2800
F382D/4P	2800	2800
FP28T5/HO	1850	
FP39TF/HO	2100	
FP54T5/HO	2650	
FPC55T5/HO	2300	

*Partial listing of lamps operated.  
Lumen output will be lower for low mercury compacts.*

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