

# B30ST REDiTEST

EMERGENCY LIGHTING EQUIPMENT

# PHILIPS bodine

A Division Of Philips Electronics North America Corporation

**Automatic code compliance testing;  
Specification grade: Up to 3500 lumens;  
One- or two-lamp emergency  
illumination**

## Product Summary

**UL LISTED/CSA CERTIFIED**  
Factory or Field Installation  
(Indoor and Damp)



**Illumination Time**  
90 Minutes

**Initial Light Output**  
1800 - 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**  
8.0 Watts

**Test Switch**  
Single Pole

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

**Battery Charging Current**  
280 mA

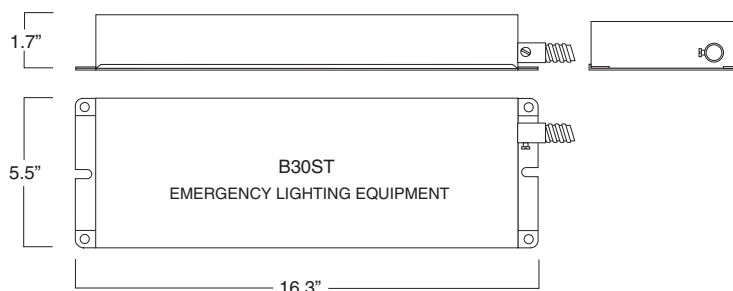
**Recharge Time**  
24 Hours

**Charging Indicator Light**  
LED

**Temperature Rating (Ambient)**  
+5°C to +50°C (41°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**  
9.2 lbs. (4.2 kg)



## APPLICATION

The REDiTEST B30ST 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 high-temperature nickel-cadmium battery, charger and electronic circuitry in one red case. The B30ST 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, quad and triple twin-tube 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 B30ST 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.

## OPERATION

During normal operation, the REDiTEST B30ST constantly monitors charging current and battery voltage. When AC power fails, the B30ST immediately switches to the emergency mode, operating either one or two lamps at high 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 three seconds to prevent false tripping of the AC ballast end-of-lamp-life shutdown circuits. During automated testing, the B30ST simulates an AC power failure, causing the emergency ballast to switch to emergency mode and conduct a discharge test to monitor battery voltage and discharge current. If the B30ST detects a problem, the status indicator light flashes. When testing is complete, the B30ST returns to the charging mode. The B30ST automatically tests emergency lighting for 30 seconds every 30 days and 90 minutes once a year.

## WARRANTY

Model REDiTEST B30ST is warranted for five (5) full years from date of purchase. This warranty covers only properly installed Philips Bodine emergency ballast 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.

## UL and CODE COMPLIANCE

The B30ST 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 B30ST 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.

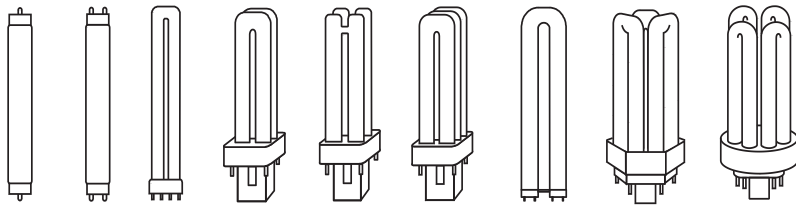
*Emergency ballast can be modified to accommodate special voltages, frequencies and longer run times.*

## Specifiers Reference

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

L2300213

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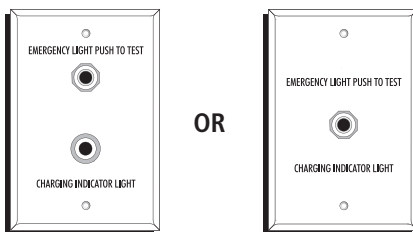
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illumination**

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	21 - 54 W	1
	Miniature Bipin		

## INSTALLATION

The REDiTEST B30ST 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 must be connected to the emergency ballast. The emergency ballast must be fed from the same branch circuit as the AC ballast. The B30ST 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 +5°C.



*Upon request a Test/Monitor Plate with separate test switch and charging indicator light is provided. A Test/Monitor Plate with a single illuminated test switch is also available.*

## EMERGENCY ILLUMINATION

Depending on the number (one or two), wattage and type of lamps selected, the REDiTEST B30ST produces 1800 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 REDiTEST B30ST self-testing/self-diagnostic emergency ballast. Electronic circuitry shall be self-testing in design and automatically test emergency lighting for a minimum of 30 seconds every 30 days and 90 minutes once a year. An embedded microcontroller will continuously monitor the battery charging current and voltage. The emergency lighting equipment, using a patented circuit, shall delay AC ballast operation for approximately three (3) seconds to prevent false tripping of AC ballast end-of-lamp-life shutdown circuits. The B30ST shall consist of a high-temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one 16.3" x 5.5" x 1.7" red metal case with a 2' length of flexible conduit. A solid-state status indicator light to monitor the charger and battery and to indicate test results and status conditions; a single-pole test switch; and installation hardware shall be provided. 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 B30ST shall have 8 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.

Table 2 - Lumen Output

LAMP	LUMENS	
	1 Lamp	2 Lamps
FO25, FBO24 T8	2500	2600
FO32, FBO31 T8	3000	3000
FO40 T8	2400	
FO96 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	1850	
FP39TF/HO	2100	
FP54T5/HO	2650	
FPC55T5/HO	2300	

*Partial listing of lamps operated.*

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