PHILIPS
bodine

Emergency Ballasts

Product Guide

Fluorescent

Compliance Solutions

Life safety
emergency lighting

Emergency lighting is vital to life safety programs and is required in all commercial, industrial and institutional facilities.

Emergency lighting is code required

“Codes such as the NFPA® Life Safety Code® and National Electrical Code®, require reliable and sufficient emergency illumination for commercial, industrial and institutional buildings in the United States. When normal power fails for any reason, emergency lighting provides critical illumination. It helps to guide building occupants along the path of egress to the nearest exit.”

Life Safety Code

AC power failures occur for a variety of reasons. Storms, tornadoes, hurricanes and other extreme weather conditions can affect AC power.

Vehicular accidents, fires or equipment failure can also result in power outages. When this happens, liability concerns are inevitable. Serious accidents or mishaps could occur when occupants are left in total darkness during a power failure. In such instances, the first area of inquiry is often, “Did this building meet code?”

Laws, Codes and Regulations

Although state and local building codes vary, most are based upon:

1. National Electrical Code®, NFPA 70®, Article 700;
2. Life Safety Code®, NFPA 101®, Section 7.9;
3. Occupational Safety and Health Act (OSHA) regulations.

These codes provide complete information about emergency lighting requirements. However, a basic starting point is provided in the LSC 7.9.2.1 (2012), which states:

Emergency illumination shall be provided for a minimum of 1½ hours in the event of failure of normal lighting. Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 1 ft-candle (10.8 lux) and, at any point, not less than 0.1 ft-candle (1.1 lux), measured along the path of egress at floor level. Illumination levels shall be permitted to decline to not less than an average of 0.6 ft-candle (6.5 lux) and, at any point, not less than 0.06 ft-candle (0.65 lux) at the end of 1½ hours. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.

It is important to remember that codes generally set minimum standards. Specifiers, building owners, facility management or municipalities may choose to go beyond minimums in their effort to keep people and property safe.

Maintenance

Codes mandate periodic monitoring of emergency lighting equipment once it is installed. Emergency operation must be tested at 30-day intervals for a minimum of 30 seconds, and, for battery-powered systems, a 90-minute discharge test must be conducted once a year. Additionally, the NFPA requires that records be kept as proof of maintenance.

Specifiers, building owners or facility management may choose to go beyond minimums in their effort to keep people and property safe.

“Did this building meet code?”

Serious accidents or mishaps could occur when occupants are left in total darkness during a power failure. In such instances, the first area of inquiry is often: “Did this building meet code?”

What is
emergency lighting?

Emergency lighting is a vital part of every facility's life safety program. Local, state and national building codes, such as the NFPA® Life Safety Code® and National Electrical Code®, require reliable and sufficient emergency illumination for commercial, industrial and institutional buildings in the United States. When normal power fails for any reason, emergency lighting provides critical illumination. It helps to guide building occupants along the path of egress to the nearest exit.

Philips Bodine Emergency Lighting Provides Instant Backup

Philips Bodine emergency lighting products provide instant backup lighting whenever normal power fails. Philips Bodine fluorescent emergency ballasts, emergency LED drivers and emergency lighting inverters deliver 90 minutes of battery-supplied power.

Complements Original Designs

Philips Bodine emergency lighting products complement original lighting designs. Because they can be installed inconspicuously inside, on top of, near or remote from the fixture – depending on factors such as fixture, emergency lighting product and product model – they do not detract from fixture or interior design. Philips Bodine emergency lighting is emergency lighting you'll never see until you need it.

Philips Bodine fluorescent emergency ballasts, emergency LED drivers and emergency lighting inverters deliver 90 minutes of battery-supplied power.

When normal power fails, Philips Bodine emergency lighting products sense the loss and immediately switch into emergency mode.

In field applications, a qualified electrician can typically install our products in less than 30 minutes.

Looks Like Normal Lighting

Philips Bodine emergency lighting products use the same light source for normal and emergency lighting. As a result, emergency lighting appears similar to lighting under normal conditions. No drastic change in lighting or unwanted glare occurs.

Reduces the Risk of Tampering

Philips Bodine emergency lighting products may be installed inside, on top of, near or remote from the fixture – depending on factors such as fixture, emergency lighting product and product model. This inconspicuous positioning reduces the risk of tampering and vandalism.

Saves Time and Reduces Labor Costs

Philips Bodine emergency lighting products are factory or field installed.* In field applications, a qualified electrician can typically install our products in less than 30 minutes.

* Some Philips Bodine emergency lighting products, including our emergency LED drivers, are suitable for factory installation only.

Application

Philips Emergency Lighting provides Philips Bodine emergency lighting products for a wide variety of applications, including fluorescent, LED, HID, and incandescent. Products are available for indoor, damp and hazardous locations, as well for longer runtimes and for special voltages and line frequencies.

Operation

When normal power fails, Philips Bodine emergency lighting products sense the loss and immediately switch into emergency mode. For many of our product lines, including Philips Bodine fluorescent emergency ballasts, emergency LED drivers and inverters, this means the emergency lighting unit immediately begins supplying supplemental power to support emergency lighting operation for a minimum of 90 minutes. When normal power is restored, the Philips Bodine emergency lighting unit returns to the charging mode.

UL Testing

Philips Bodine emergency lighting products are tested by Underwriters' Laboratories (UL) in accordance with standards set forth in UL 924, "Emergency Lighting and Power Equipment." Products are UL Listed for factory or field installation or Component Recognized for factory installation only.

Philips Emergency Lighting also offers Philips Bodine emergency lighting products that are CSA Certified for Canada and NOM Certified for Mexico.

One luminaire
two sources of power

Fluorescent emergency ballasts allow you to use the same light source for normal and emergency lighting. Because the same light source is used, emergency lighting looks similar to normal lighting – no drastic lighting changes or unwanted glare results.

FEB vs. AC Ballast

Fluorescent lamps require AC ballasts for start-up and for current regulation during normal operation. When AC power fails and normal lamp operation ceases, Philips Bodine battery-powered FEBs are critical. FEBs supply power to the lamp(s) and allow the lamp(s) to provide full or reduced illumination for a minimum of 90 minutes in compliance with national safety codes for emergency lighting (e.g., NFPA® Life Safety Code®, National Electrical Code®).

FEB Operation

When AC power fails, Philips Bodine FEBs immediately switch to emergency mode, operating one, two or three lamps for a minimum of 90 minutes. When AC power is restored, the emergency ballasts return to charging mode. FEBs are fully recharged in 24 hours.

FEB Installation

Philips Bodine FEBs 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. Philips Bodine FEBs may be installed inside, on top of or remote from the fixture, depending on factors such as FEB model and fixture type.

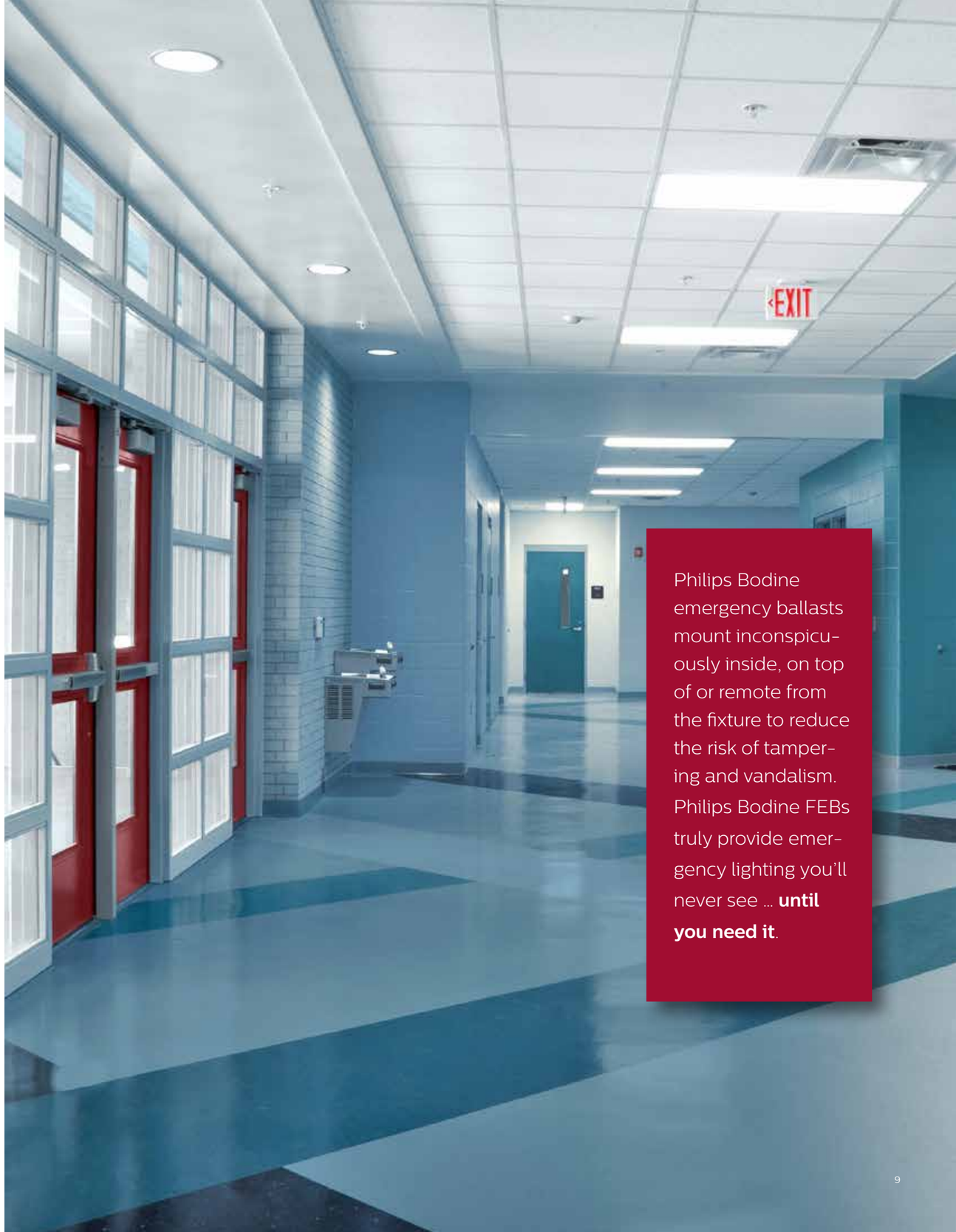
Code Compliance

Philips Bodine FEBs are tested by Underwriters Laboratories (UL) in compliance with standards set forth in UL 924, Emergency Lighting and Power Equipment.* Products are UL Listed for factory and field installation or UL Component Recognized for factory installation only. Emergency illumination time exceeds the National Electrical Code, Life Safety Code and UL 90-minute requirements.

**Products tested to meet standards for the Canadian Standards Association (CSA) and Normas Oficiales Mexicanas (NOM) are also available. Please check with the factory at 800-223-5728 for more information.*

FEB Benefits

Fluorescent emergency ballasts allow you to use the same light source for normal and emergency lighting. Because the same light source is used, emergency lighting looks similar to normal lighting – no drastic lighting changes or unwanted glare results. In addition, the FEBs' unobtrusive installation does not detract from interior design or encourage vandal activity. Philips Bodine FEBs truly provide emergency lighting you'll never see . . . until you need it.



Philips Bodine emergency ballasts mount inconspicuously inside, on top of or remote from the fixture to reduce the risk of tampering and vandalism. Philips Bodine FEBs truly provide emergency lighting you'll never see … **until you need it**.

Cold-Pak linear and compact FEBs are suitable for temperatures ranging from -4° F to +131° F (-20° C to +55° C) and for damp locations. They are ideal for applications such as parking garages, canopied stairways, sconces and bollards.

Environment
and application

Various environmental and application conditions must be considered when installing or specifying emergency lighting. A number of factors, including the intended use of a building or structure, the occupants, the layout and the environment (e.g., temperature, dry/damp), will help determine the proper emergency lighting equipment needed to meet code requirements.

Hospitals and assisted-living facilities, for example, may require higher levels of emergency illumination or longer runtimes than a single-story office building. Structures such as concert forums, designed for a large number of occupants that are likely unfamiliar with the layout, may also benefit from increased light levels and extended runtimes. Interior characteristics such as ceiling height, corridors, wall placement and color will determine the amount of illumination needed and the placement of emergency lighting in each facility.

Outdoor egress is an important area of emergency lighting and presents a number of challenges to emergency lighting equipment. Covered walkways and parking garages, for example, are often subject to extreme temperatures, as well as damp location conditions. Facilities such as refineries and cold storage require emergency lighting equipment suitable to their specialized demands.

Philips Bodine emergency ballasts are designed with these factors in mind to meet or exceed standards set by the NFPA Life Safety Code® and the National Electrical Code®.

Self-Testing

Fluorescent Emergency Ballasts

Automatic Code-Compliance Testing

Philips Bodine self-testing/self-diagnostic fluorescent emergency ballasts automatically test emergency lighting opertion for 30 seconds every 30 days and for 90 minutes annually, in accordance with life safety codes. In addition, they continuously self-monitor their charging current and battery voltage. A flashing LED indicator light alerts maintenance personnel to fault conditions. The self-test emergency ballasts reduce the labor, time and cost involved in code-compliant testing. They also help ensure testing is done as required. Self-testing units are ideal for hard-to-reach fixtures and fixtures in high-traffic locations, and they simplify the task of testing large numbers of fixtures. Self-testing fluorescent emergency ballasts are the automatic solution for meeting code requirements.

Extreme Cold and Damp Environments

Cold-Pak Extended Temperature Fluorescent Emergency Ballasts provide emergency lighting under harsh conditions. Areas subject to cold and/or damp conditions are often included in a building's path of egress and, therefore, are required by code to be covered by an emergency lighting system. Codes, code enforcement officials and those involved in building design are increasingly attentive to it. Cold-Pak emergency ballasts take the worry out of meeting code and allow users to provide emergency lighting wherever it's needed. These applications may include cold storage facilities, parking garages, outdoor canopies, and exposed or partially exposed walkways leading to a public way. Cold-Pak models are a perfect choice for bollard, down light and sconce fixtures common in outdoor egress lighting and are available for linear and compact applications. Other damp location models without the Cold-pak extreme temperature technology are available as well.

Hazardous Locations

Facilities such as oil refineries, paint booths and textile mills are considered hazardous locations. Flammable and explosive gases, dust, liquids and other materials are common to the manufacturing processes in these types of facilities. Therefore, special consideration must be given to the emergency lighting systems installed. Philips Bodine fluorescent emergency ballasts for hazardous (classified) location fixtures are UL Component Recognized for factory installation only and are suitable for use in Class I, Division 2 fixtures.

Philips Bodine Fluorescent Emergency Ballasts are designed with specific application and environmental conditions in mind

The self-test units are ideal for schools, institutional facilities, public buildings, healthcare environments, industrial plants and any other location with difficult-to-test fixtures. Difficulty may be due to locations, traffic patterns or the number of fixtures to be tested.

Linear

Fluorescent Emergency Ballasts

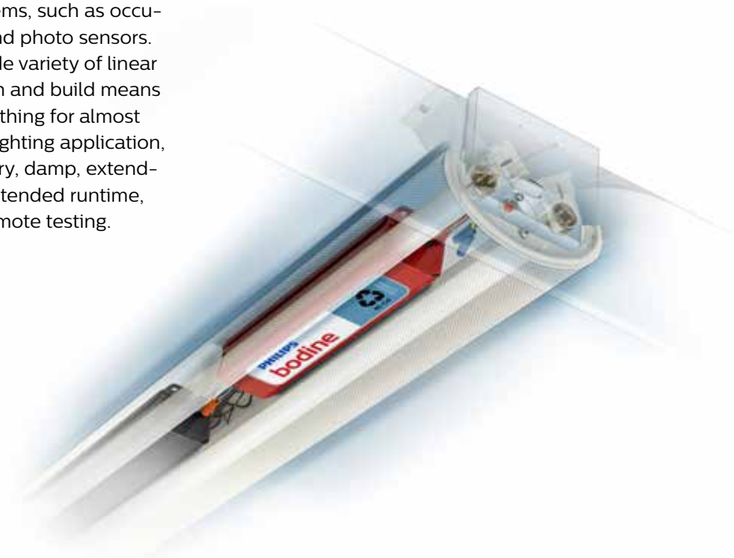
Philips Bodine fluorescent emergency ballasts allow you to convert virtually any new or existing fluorescent fixture into code-compliant emergency lighting.

Philips Bodine linear fluorescent emergency ballasts (FEBs) are designed specifically for linear lamp fluorescent fixtures. These emergency ballasts allow you to convert virtually any new or existing fluorescent fixture into code-compliant emergency lighting. Single-lamp or multilamp fixtures fitted with T5-T12 lamps can be converted using a Philips Bodine linear FEB.

Philips Bodine linear FEBs are compatible with most electronic, standard, energy-saving and dimming AC ballasts, as well as with energy management systems, such as occupancy detectors and photo sensors. In addition, the wide variety of linear products we design and build means that we have something for almost every emergency lighting application, including indoor-dry, damp, extended temperature, extended runtime, self-testing and remote testing.

What is a Fluorescent Emergency Ballast?

A FEB is a battery-powered device that, in the absence of normal AC power, supports one or more fluorescent lamps, providing a minimum 90 minutes of emergency lighting. Emergency lighting is vital to life safety programs and is required in all commercial, industrial and institutional facilities. When normal power fails, emergency lighting guides building occupants along the path of egress to designated exits and helps them avoid obstacles en route.



EOL Circuit Compatibilty

Many Philips Bodine fluorescent emergency ballasts are compatible with end-of-lamp-life (EOL) circuitry in AC ballasts. Philips Bodine ELC products have a significant product advantage for compatibility with AC ballast incorporating EOL circuits.

The EOL circuit in an AC ballast detects lamps that are near failure, or near their end-of-lamp-life. EOL circuits typically sense this condition by measuring the DC offset of the lamp voltage wave form that occurs as the lamp electrode decays. When the circuit determines that the lamp is nearing its end, the AC ballast will shut down rather than powering the lamp. This action is designed to prevent the lamp from overheating. Most EOL detection circuits also trip when a lamp is removed or missing.

When AC ballasts with EOL circuitry are paired with non-ELC fluorescent emergency ballasts, unnecessary AC ballast shutdown can occur. This happens because the EOL circuitry can mistakenly interpret a transition from emergency operation to normal operation as an end-of-lamp-life condition. The EOL circuit then instructs the AC ballast to shut down. Normal lighting is not restored until the AC ballast is reset.

The Philips Bodine ELC circuit was developed to eliminate this problem. Our ELC circuit delays AC ballast operation for approximately three seconds upon restoration of AC power. The delay prevents false tripping of AC ballast end-of-lamp-life shutdown circuits. Because AC ballast operation is delayed for a few seconds, the EOL circuit cannot “see” the transition. Therefore, it cannot misinterpret the transition.

Linear Lamps

Linear fluorescent lamps are given designations such as T5, T8 and T12. The “T” indicates the lamp is linear, while the number is the diameter of the lamp measured in eighths of an inch. A T12, for example, is 12/8” and the T5 is 5/8”.

T5 .625” / 16mm

T8 1” / 26mm

T12 1.5” / 38 mm

Lamp	Inches	Millimeters
T5	.625”	16 mm
T8	1”	26 mm
T9	1.125”	29 mm
T10	1.25”	32 mm
T12	1.5”	38 mm

Compact
Fluorescent Emergency Ballasts

Philips Bodine compact fluorescent emergency ballasts (FEBs) are designed specifically for compact lamp fluorescent fixtures.

They allow you to easily convert new or existing fluorescent fixtures into code-compliant emergency lighting. Philips Bodine compact FEBs operate most 4-pin compact fluorescent lamps, including twin-tube, double twin-tube (quad), triple twin-tube, long compact and 2D. Because the same light source is used for normal and emergency lighting, emergency lighting looks similar to normal lighting – no drastic lighting change or unwanted glare results. In addition, the FEBs' unobtrusive installation does not detract from interior design or encourage vandal activity.

FEB vs. AC Ballast

Fluorescent lamps require AC ballasts for startup and for current regulation during normal operation. When AC power fails and normal lamp operation ceases, the Philips Bodine battery-powered FEBs are critical. FEBs supply power to the lamp(s) and allow the lamp(s) to provide full or reduced illumination for a minimum of 90 minutes in compliance with national safety codes for emergency lighting (e.g., NFPA® Life Safety Code® and National Electrical Code®).

Philips Bodine compact (FEBs) allow you to easily covert new or existing fluorescent fixtures into code-compliant emergency lighting.

Compact Lamps

Philips Bodine compact FEBs operate most 4-pin compact fluorescent lamps, including twin-tube, double twin-tube (quad), triple twin-tube, long compact and 2D.

EOL Circuit Compatibilty

Many Philips Bodine fluorescent emergency ballasts are compatible with end-of-lamp-life (EOL) circuitry in AC ballasts. Philips Bodine ELC products have a significant product advantage for compatibility with AC ballast incorporating EOL circuits. Please see detailed informataion on page 15.

Linear Lamp Fluorescent Emergency Ballasts

Some linear fluorescent models are available with added features, including Self-Test for automatic code-compliance testing, Cold-Pak for extreme cold environments, Low-Profile cases for narrow or space-limited fixtures and products for hazardous locations. Please refer to our web site for more details.

B30

AC/DC Output for T5 or T8 lamps
One- or Two-lamp Operation
Universal Input (120 through 277)
ELC - End-of-Lamp-Life Compatible

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

Illumination Time
90 Minutes

Initial Light Output
900 - 3500 Lumens

Full Warranty
5 Years (NOT pro-rata)

Universal Input Voltage
120-277 VAC, 50/60 Hz

AC Input Current
110 mA

AC Input Power Rating
8.5 Watts

Test Switch/Charging Indicator Light
2W-ITS (2-wire Illuminated Test)

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

Battery Charging Current
280 mA

Recharge Time
24 Hours

Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F)

Dimensions
16.6" x 2.8" x 2.85"
(422 mm x 71 mm x 73 mm)
2' (610 mm) Flexible Conduit
Mounting Center 16.05" (408mm)

Weight
7.5 lbs. (3.41 kg)

Alternative Models:
B30ST - Self-Testing
B30HV - High Voltage Input

B33

3-Lamp Parallel Illumination
Up to 3400 Lumen Output
Dual-Input Voltage (120/277)

UL LISTED
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes

Initial Light Output
2700 - 3400 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

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
8.7 lbs. (3.9 kg)

B50

AC/DC for T5 or T8 Lamps
One- or Two-lamp Operation
Universal Input (120V through 277V)
ELC - End-of-Lamp-Life Compatible

UL LISTED FOR US AND CANADA
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes

Initial Light Output
Up to 1600 Lumens

Full Warranty
5 Years (NOT pro-rata)

Universal Input Voltage
120 Through 277 VAC, 50/60 Hz

AC Input Current
60 mA

AC Input Power Rating
5.0 Watts

Test Switch/Charging Indicator Light
2W-ITS (2-wire Illuminated Test)

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

Battery Charging Current
180 mA

Recharge Time
24 Hours

Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F)

Dimensions
13.31" x 2.2" x 1.18"
(338.1 mm x 55.88 mm x 29.97 mm)
Mounting Center 12.8" (325 mm)

Weight
2.7 lbs. (1.26 kg)

Alternative Models:
B50ST - Self-Testing
B50 Cold-Pak
B50LP - Low Profile

LP600

Low-Profile for Space-Limited Fixtures
Standard and HO T5 and T8 Lamps
Universal Input (120V through 277V)
ELC - End-of-Lamp-Life Compatible

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

Illumination Time
90 Minutes

Initial Light Output
600 - 1325 Lumens @ 25°C

Full Warranty
5 Years (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
180 mA

AC Input Power Rating
3.0 Watts

Test Switch
Single Pole

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

Battery Charging Current
165 mA

Recharge Time
24 Hours

Charging Indicator Light
LED

Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F)

Dimensions
21.5" L x 1.18" W x 1.18" H
(546 mm x 30 mm x 30 mm)
Mounting Center 21.1" (536 mm)

Weight
3.3 lbs. (1.5 kg)

Alternative Models:
LP600STU - Self-Tesing

B60

One- or Two-lamp Operation
Indoor/Damp Locations
ELC - End-of-Lamp-Life Compatible

UL LISTED
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes

Initial Light Output
600 - 700 Lumens

Full Warranty
3 Years (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
280 mA

AC Input Power Rating
3.5 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)
0°C to +50°C (32°F to 122°F (Damp)
0°C to +55°C (32°F to 131°F) (Dry)

Dimensions
9.4" x 2.4" x 1.5"
(238 mm x 60 mm x 38 mm)
Mounting Center 8.9" (226 mm)

Weight
2.5 lbs. (1.13 kg)

Alternative Models:
B60LP - Low Profile

B70A

Two-Hour Operation
Indoor/Damp Locations
ELC - End-of-Lamp-Life Compatible

UL LISTED
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes (Standard)
120 minutes (One 32 W T8, One 34-40 W T12)

Initial Light Output
600 - 700 Lumens

Full Warranty
3 Years (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
280 mA

AC Input Power Rating
3.5 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

Ballast Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F (Damp)
0°C to +55°C (32°F to 131°F) (Dry)

Dimensions
9.4" x 2.4" x 1.5"
(238 mm x 60 mm x 38 mm)
Mounting Center 8.9" (226 mm)

Weight
2.5 lbs. (1.13 kg)

B90

One-Lamp Emergency Illumination
Indoor/Damp Locations
ELC - End-of-Lamp-Life Compatible

UL LISTED
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes (Standard)

Initial Light Output
500 - 600 Lumens

Full Warranty
1 Year (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
280 mA

AC Input Power Rating
3.5 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

Ballast Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F (Damp)
0°C to +55°C (32°F to 131°F) (Dry)

Dimensions
9.4" x 2.4" x 1.5"
(238 mm x 60 mm x 38 mm)
Mounting Center 8.9" (226 mm)

Weight
2.5 lbs. (1.13 kg)

B100

Convenient Code-Compliance
Indoor/Damp Locations
ELC - End-of-Lamp-Life Compatible

UL LISTED
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes (Standard)

Initial Light Output
350 - 400 Lumens

Full Warranty
1 Year (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
280 mA

AC Input Power Rating
2.5 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

Ballast Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F (Damp)
0°C to +55°C (32°F to 131°F) (Dry)

Dimensions
9.4" x 2.4" x 1.5"
(238 mm x 60 mm x 38 mm)
Mounting Center 8.9" (226 mm)

Weight
2.1 lbs. (1.13 kg)

Compact Lamp Fluorescent Emergency Ballasts

Some compact fluorescent models are availble for extreme cold environments (Cold-Pak). Please refer to the product comparison chart or our web site for more details.

B30HV

High Input Voltage
Operates 4-Pin 2D Lamps
High Lumen Output
ELC - End-of-Lamp-Life Compatible

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

Illumination Time
90 Minutes

Initial Light Output
1100 - 3500 Lumens

Full Warranty
5 Years (NOT pro-rata)

Input Voltage
347-480 VAC, 50/60 Hz

AC Input Current
30 mA

AC Input Power Rating
8.6 Watts

Test Switch/Charging Indicator Light
2W-ITS (2-wire Illuminated Test)

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

Battery Charging Current
290 mA

Recharge Time
24 Hours

Temperature Rating (Ambient)
+5°C to 50°C (41°F to 122°F)

Dimensions
16.6" x 2.8" x 2.85"
(422 mm x 71 mm x 73 mm)
2' (610 mm) Flexible Conduit
Mounting Center 16.05" (408mm)

Weight
7.5 lbs. (3.41 kg)

B75C

For use with 4-Pin Compact Lamps w/o Integral Starters
For Low-Mercury (Green Lamps)
ELC - End-of-Lamp-Life Compatible

UL LISTED
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes

Initial Light Output
600 - 1300 Lumens

Full Warranty
5 Years (NOT pro-rata)

Input Voltage
120/277 VAC, 60 Hz

AC Input Current
300 mA

AC Input Power Rating
4.0 Watts

Test Switch
Single Pole

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

Battery Charging Current
300 mA

Recharge Time
24 Hours

Charging Indicator Light
LED

Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F)

Dimensions
13.3" x 2.5" x 1.5"
(338 mm x 63 mm x 38 mm)
2' (610 mm) Flex Conduit Each End

Mounting Center
12.8" (325 mm)

Weight
3.5 lbs. (1.6 kg)

B84CG

Specification Grade
For Low-Mercury (Green Lamps)
Up to 1250 Lumens Output
ELC - End-of-Lamp-Life Compatible

UL LISTED
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes

Initial Light Output
Up to 1250

Full Warranty
2 Years (NOT pro-rata)

Input Voltage
120/277 VAC, 60 Hz

AC Input Current
300 mA

AC Input Power Rating
4.0 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)
0°C to +50°C (32°F to 122°F)

Dimensions
12.0" x 2.4" x 1.5"
(305 mm x 60 mm x 38 mm)
2' (610 mm) Flex Conduit Each End

Mounting Center
11.5" (292 mm)

Weight
4.3 lbs. (1.95 kg)

B94CGU

For use with 4-Pin Compact Lamps w/o Integral Starters
Universal Input Voltage
ELC - End-of-Lamp-Life Compatible

UL LISTED For US and Canada
Factory or Field Installation (Indoor and Damp)

Illumination Time
90 Minutes

Initial Light Output
300 - 750

Full Warranty
2 Years (NOT pro-rata)

Universal Input Voltage
120 through 277 VAC, 50 or 60 Hz

AC Input Current
50 mA

AC Input Power Rating
4.0 Watts

Test Switch
Single Pole

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

Battery Charging Current
300 mA

Recharge Time
24 Hours

Charging Indicator Light
LED

Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F)

Dimensions
9.4" x 2.4" x 1.5"
(238 mm x 60 mm x 38 mm)
2' (610 mm) Flex Conduit Each End

Mounting Center
8.9" (226 mm)

Weight
3.0 lbs. (1.4 kg)

Alternative Models:
B94GU (no conduit)
BHD94GU - Hazardous locations

B4CF2P

Specification Grade
One- or Two-lamp Parallel Operation
For Damp Locations
ELC - End-of-Lamp-Life Compatible

UL LISTED
Factory or Field Installation (Damp)

Illumination Time
90 Minutes

Initial Light Output
Up to 925 Lumens @ 25°C

Full Warranty
5 Years (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
330 mA

AC Input Power Rating
4 Watts

Test Switch
Single Pole

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

Battery Charging Current
220 mA

Recharge Time
36 Hours

Charging Indicator Light
LED

Temperature Rating (Ambient)
0°C to +50°C (32°F to +122°F)

Dimensions
9.4" x 2.6" x 1.5"
(238 mm x 66 mm x 38 mm)

Mounting Center
8.9" (226 mm)

Weight
3.1 lbs. (1.4 kg)

Alternative Models:
B4CF2PC (with conduit)

B4CF2P Cold-Pak

Specification Grade
One- or Two-lamp Parallel Operation
For Damp Locations
ELC - End-of-Lamp-Life Compatible

UL LISTED
Factory or Field Installation (Damp)

Illumination Time
90 Minutes

Initial Light Output
Up to 925 Lumens @ 25°C

Full Warranty
5 Years (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
330 mA

AC Input Power Rating
15 Watts

Test Switch
Single Pole

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

Battery Charging Current
220 mA

Recharge Time
36 Hours

Charging Indicator Light
LED

Temperature Rating (Ambient)
-20°C to +50°C (-4°F to +122°F)

Dimensions
9.4" x 2.6" x 1.5"
(238 mm x 66 mm x 38 mm)

Mounting Center
8.9" (226 mm)

Weight
3.1 lbs. (1.4 kg)

Alternative Models:
B4CF2PC Cold-Pak (with conduit)

B4CF3

Cold-Pak for Extreme Temperatures
One-lamp Emergency Illumination
For Damp Locations
ELC - End-of-Lamp-Life Compatible

NRTL/C

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

Illumination Time
90 Minutes

Initial Light Output
Up to 1250 Lumens @ 25°C

Full Warranty
5 Years (NOT pro-rata)

Dual Input Voltage
120/277 VAC, 60 Hz

AC Input Current
300 mA

AC Input Power Rating
Heater On: 16 Watts
Heater Off: 4 Watts

Test Switch/Charging Indicator Light
Illuminated Test Switch

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

Battery Charging Current
220 mA

Recharge Time
24 Hours

Temperature Rating (Ambient)
-20°C to +55°C (-4°F to +131°F)

Dimensions
6.0" x 5.5" x 1.625"
(153 mm x 140 mm x 41 mm)

Mounting Center
5.5" (140 mm)

Weight
2.5 lbs. (1.14 kg)

CF94GU

Open Circuit Design
One-lamp Emergency Illumination
4-Pin Lamps w/o Integral Starter
ELC - End-of-Lamp-Life Compatible

UL COMPONENT RECOGNIZED
Factory Installation Only

Illumination Time
90 Minutes

Initial Light Output
300 - 750 Lumens

Full Warranty
2 Years (NOT pro-rata)

Universal Input Voltage
120 Through 277 VAC, 50 or 60 Hz

AC Input Current
70 mA

AC Input Power Rating
5.5 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
36 Hours

Charging Indicator Light
LED

Temperature Rating (Ambient)
0°C to + 55°C (32°F to 131°F)

Dimensions
4.25" x 2.575" x 1.25"
(108 mm x 66 mm x 32 mm)
Vertical Mounting Center 1.85"
(47 mm)
Horizontal Mounting Center 3.55"
(90 mm)

Weight
1.6 lbs. (0.73 kg)

Product Comparison

and lamp compatibility

Linear Lamp FEBs

Model	Lamps	Type of Lamps Operated	Max Lumens	Feature
B33	2 or 3	Two or three 32 W (4') T8s. For use with instant start parallel AC ballasts only	3400	Optimized for two- or three-lamp parallel emergency operation
B30	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; or one 21-54 W (2'-4') standard or high output T5	3500	Full lumen output except T5
B30HV	1 or 2	One 14-215 W (2'-8') or two 17-40 W (2'-4') T5, T8, T9, T10 or T12 lamps; one standard or high output T5 lamps; or one 16-55W (4-pin) 2D lamp	3500	High voltage, high bay operation; 347-480 VAC
B30ST	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; or one 21-54 W (2'-4') standard or high output T5	3500	Automatic self-testing
B50	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T5, T8, T9, T10 or one T12 long compact lamp	1400	Specification grade; Universal input, AC/DC output
B50 Cold-Pak	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps	1200	Extreme temperatures
B50ST	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps	1400	Automatic self-testing; Universal input
B60	1 or 2	One 32-215 W (2'-8') or two 32-40 W (2'-4') T8, T9, T10 or T12 lamps	700	Standard grade
B60LP	1 or 2	One 32-215 W (2'-8') or two 32-40 W (2'-4') T8, T9, T10 or T12 lamps	700	Low-profile
B70A	1	One 32-215 W (2'-8') T8, T10 or T12 lamp. 2-hr runtime. Not recommended with reduced-wattage, energy-saving T8 lamps	700	Extended runtime
B90	1	One 32-215 W (2'-8') T8, T10 or T12 lamp. Not recommended with reduced-wattage, energy-saving T8 lamps	600	Economical alternative
B100	1	One 32-40 W (2'-4') T8, T10 or T12 lamp. Not recommended with reduced-wattage, energy-saving T8 lamps	450	Minimum code-compliance
LP600STU	1	One 14-54 W (2'-4') standard or high output T5; 17-55 W (2'-5') T8; or 22-55 W T5 circline; long compacts	1325	Automatic self-test; Universal input; Low-profile
LP600	1	One 14-54 W (2'-4') standard or high output T5; 17-55 W (2'-5') T8; or 22-55 W T5 circline; long compacts	1325	Damp locations; Low-profile
LP550	1	One 14-54 W (2'-4') standard or high output T5; 32-44 W (4'-5') standard or high output T8; long compacts	700	Damp locations; Low-profile
LP500	1	One 21-54 W (2'-4') standard or high output T5 or 32 W (4') T8; long compacts	700	Damp locations; Low-profile
B50LP	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps	1300	Damp locations; Low-profile

NOTE: *The lamp information included within this publication is designed to serve as a general guide and may not include all lamps or relevant details. For complete lamp information, see the individual product specification sheets. Spec sheets are available on our website, www.philips.com/bodine. You may also consult the factory.*

Compact Lamp FEBs

Model	Lamps	Type of Lamps Operated	Max Lumens	Feature
B30HV	1 or 2	One 18-42 W compact fluorescent lamp. Also one 14-215 W (2'-8') or two 17-40 W (2'-4') T5, T8, T9, T10 or T12 lamps; one standard or high output T5 lamps; or one 16-55W (4-pin) 2D lamp	3500	High voltage, high bay operation; 347-480 VAC
B75C	1	One 32-70 W (4-pin) triple twin-tube	1300	Low-mercury (green) lamps
B84CG	1	One 13-42 W (4-pin) twin, quad or triple twin-tube lamp; one 22-40 W T5 circline; or one 18-39 W long compact	1250	Low-mercury (green) lamps
B94GU	1	One 18-42 W (4-pin) twin, quad or triple twin-tube	750	Low-mercury (green) lamps; Universal input
B4CF2P	1 or 2	One 13-42 W or two parallel 13-26 W (4-pin) twin, quad or triple twin-tube lamps; one 18-39 W or two parallel 18-27 W long compacts; or one 22-40 W T5 circline	925	Parallel operation
B4CF2PC	1 or 2	One 13-42 W or two parallel 13-26 W (4-pin) twin, quad or triple twin-tube lamps; one 18-39 W or two parallel 18-27 W long compacts; or one 22-40 W T5 circline	925	Parallel operation; With conduit
B4CF2P Cold-Pak	1 or 2	One 13-42 W or two parallel 13-26 W (4-pin) twin, quad or triple twin-tube lamps; one 18-39 W or two parallel 18-27 W long compacts; or one 22-40 W T5 circline	925	Extreme temps; Parallel operation
B4CF2PC Cold-Pak	1 or 2	One 13-42 W or two parallel 13-26 W (4-pin) twin, quad or triple twin-tube lamps; one 18-39 W or two parallel 18-27 W long compacts; or one 22-40 W T5 circline	925	Extreme temps; Parallel operation; With conduit
B4CF3 Cold-Pak	1	One 13-42 W (4-pin) twin, quad or triple twin-tube; one 22-40 W T5 circline; or one 18-39 W long compact	1250	Extreme temps; Alternate case size

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Philips Bodine fluorescent linear and compact lamp emergency ballasts are listed for factory/field installation or factory installation only. Please refer to individual product specification sheets for proper listing information.

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