



Solutions

For Emergency Lighting Applications

PHILIPS
bodine

Philips Emergency Lighting

Contents

4	What is Emergency Lighting?
6	Emergency Lighting System Design
8	Emergency Code
10	Code-Required Testing
12	Linear
14	LP Series
16	Compact
18	Emergency LED Drivers
20	Product Summary
22	REDiTEST
24	RCT Series
26	Cold-Pak
28	Generator
30	ARC Keeper
32	ELI Series Mini Inverter
34	ELI Series Micro Inverter
36	Special Applications
38	Factory Installation Only

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 guides building occupants along the path of egress to the nearest exit and helps to deter injuries en route.

Emergency illumination shall be provided for a minimum of 1½ hours in the event of failure of normal lighting.
(7.9.2.1, NFPA® Life Safety Code® 2009)



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 mini and micro 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.

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.



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

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 mini and micro 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.

Emergency Lighting System Design

Codes and regulations establish guidelines for emergency lighting equipment. However, there may be circumstances that call for more than minimum standards. Incorporating the right combination of elements into emergency lighting design provides a higher degree of safety and allows people to exit a building quickly and safely in the event of an emergency. The best emergency lighting system is carefully planned for a specific building and its occupants. As a part of this planning process, it is important to consider a variety of factors.

As a part of the planning process, it is important to consider a variety of factors.

Proximity, Shape and Size of Exits

The configuration of walls adjoining the exit way, the amount of space devoted to exit passages and travel distance to exits should be considered when determining the number and placement of emergency lighting units. For example, it is important to place emergency lighting at an intersection of a corridor or hallway. If it is a large area, additional units may be needed to provide adequate light to see any objects blocking the exit path. Emergency lighting should be evenly spaced.

Number of Persons Expected to Occupy a Building

The number of people expected to occupy a building and their knowledge of its interior also influence the level of emergency illumination needed. Large numbers of people unfamiliar with exit paths require more emergency lighting than smaller numbers of people who know the surroundings. Consequently, auditoriums, convention halls and sports arenas often need higher levels of emergency illumination than factories, office buildings and warehouses.

Whether your design requires unit equipment or devices for use in conjunction with generators or central inverter systems, Philips Bodine offers the emergency lighting solution for you.

Color and Texture of Ceiling, Floor and Wall Coverings

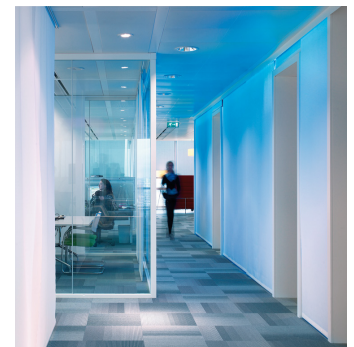
Emergency lighting levels are affected by the color and texture of surrounding areas. Light-colored walls and floors with smooth surfaces require less emergency lighting because of their reflective characteristics than do darker floors and walls with rough surfaces.

The best emergency lighting system is carefully planned for a specific building and its occupants.



Intended Use of a Building

Additional emergency lighting may be required depending on the types of people using a facility. Elementary school children, the elderly and the physically challenged, for example, need more emergency lighting than do apartment residents, college students and factory or office workers. High security facilities and retail situations where valuable merchandise is accessible may require extra illumination. Adequate lighting can be especially critical in hospital settings such as operating and emergency rooms.



Emergency 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 7.8-7.10;
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 (2009), which states:

Emergency illumination shall be provided for not less than 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 the 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 this maintenance.

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



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?”



Functional testing shall be conducted monthly with a minimum of 3 weeks and a maximum of 5 weeks between tests, for not less than 30 seconds, except as otherwise permitted by 7.9.3.1.1(2).
(7.9.3.1.1(1), NFPA® Life Safety Code® 2009)



Code-Required Testing

7.9.3 Periodic Testing of Emergency Lighting Equipment.

7.9.3.1 Required emergency lighting systems shall be tested in accordance with one of the three options offered by 7.9.3.1.1, 7.9.3.1.2, or 7.9.3.1.3.

7.9.3.1.1 Testing of required emergency lighting systems shall be permitted to be conducted as follows:

- (1) Functional testing shall be conducted monthly with a minimum of 3 weeks and a maximum of 5 weeks between tests, for not less than 30 seconds, except as otherwise permitted by 7.9.3.1.1(2).
- (2) The test interval shall be permitted to be extended beyond 30 days with the approval of the authority having jurisdiction.
- (3) Functional testing shall be conducted annually for a minimum of 1½ hours if the emergency lighting system is battery powered.
- (4) The emergency lighting equipment shall be fully operational for the duration of the tests required by 7.9.3.1.1(1) and 7.9.3.1.1(3).
- (5) Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction.

7.9.3.1.2 Testing of required emergency lighting systems shall be permitted to be conducted as follows:

- (1) Self-testing/self-diagnostic battery-operated emergency lighting equipment shall be provided.
- (2) Not less than once every 30 days, self-testing/self-diagnostic battery-operated emergency lighting equipment shall automatically perform a test with a duration of a minimum of 30 seconds and a diagnostic routine.
- (3) Self-testing/self-diagnostic battery-operated emergency lighting equipment shall indicate failures by a status indicator.
- (4) A visual inspection shall be performed at intervals not exceeding 30 days.
- (5) Functional testing shall be conducted annually for a minimum of 1½ hours.
- (6) Self-testing/self-diagnostic battery-operated emergency lighting equipment shall be fully operational for the duration of the 1½ hour test.
- (7) Written records of visual inspections and tests shall be kept by the owner for inspection by the authority having jurisdiction.

7.9.3.1.3. Testing of required emergency lighting systems shall be permitted to be conducted as follows:

- (1) Computer-based, self-testing/self-diagnostic battery-operated emergency lighting equipment shall be provided.
- (2) Not less than once every 30 days, emergency lighting equipment shall automatically perform a test with a duration of a minimum of 30 seconds and a diagnostic routine.
- (3) The emergency lighting equipment shall automatically perform annually a test for a minimum of 1½ hours.
- (4) The emergency lighting equipment shall be fully operational for the duration of the tests required by 7.9.3.1.3 (2) and (3).
- (5) The computer-based system shall be capable of providing a report of the history of tests and failures at all times.

(NFPA® Life Safety Code® 2009)

When normal power fails, emergency lighting guides building occupants along the path of egress to designated exits and helps them avoid obstacles along the way.

Linear

Fluorescent Emergency Ballasts

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. One-lamp, two-lamp, even four-lamp fixtures with T5, T8, T10 or T12 lamps can be converted with a Philips Bodine linear FEB. Using the same light source for both normal and emergency lighting allows emergency lighting to look similar to normal lighting and saves time, labor and materials. In addition, the FEBs' unobtrusive installation does not detract from interior design. Philips Bodine FEBs provide emergency lighting you'll never see ... until you need it.

Philips Bodine linear FEBs provide emergency lighting you'll never see ... until you need it.

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 along the way.

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





Model	Type of Lamps Operated	Max. Lumens*	Feature
B33	32 W (4') T8s or (4-pin) long compacts	3400	Optimized for three-lamp operation
B30	(2'-8') T5s, T8s, T9s, T10s or T12s; (4-pin) long compacts	3500	Full lumen output
B30RCT	(2'-8') T5s, T8s, T9s, T10s or T12s; (4-pin) long compacts	3500	Remote control testing
B30ST	(2'-8') T5s, T8s, T9s, T10s or T12s; (4-pin) long compacts	3500	Automatic self-testing
B50**	(2'-8') T8s, T9s, T10s or T12s; (4-pin) long compacts	1400	Specification grade
B50Cold-Pak	(2'-8') T8s, T9s, T10s or T12s; (4-pin) long compacts	1200	Extreme temperatures
B50RCT	(2'-8') T8s, T9s, T10s or T12s; (4-pin) long compacts	1400	Remote control testing
B50ST	(2'-8') T8s, T9s, T10s or T12s; (4-pin) long compacts	1400	Automatic self-testing
B60	(2'-8') T8s, T9s, T10s or T12s; (4-pin) long compacts	700	Standard grade
B70A	(2'-8') T8s, T10s or T12s; (4-pin) long compacts	700	Extended runtime
B90	(2'-8') T8s, T10s or T12s; (4-pin) long compacts	600	Economical alternative
B100	(2'-4') T8s, T10s or T12s; (4-pin) long compacts	450	Minimum code-compliance

* Refer to specific model specification sheets for lumen output by lamp type.

** The upgraded B50 is universal input (120-277) and suitable for damp locations. It replaces models B50U and BDL500.

The Philips Bodine LP Series FEBs provide form as well as function while accommodating innovative, space-saving fluorescent fixture designs.

LP Series

Low-Profile Fluorescent Emergency Ballasts

The low-profile emergency ballasts allow users to meet code without sacrificing room or fixture aesthetics.

Philips Bodine LP Series Low-Profile Fluorescent Emergency Ballasts permit ballast channel installation into space-limited fixtures. Technological advancements in fluorescent lamps and electronic ballasts have led to a proliferation of innovative, space-saving fluorescent fixture designs. Philips Bodine LP Series FEBs accommodate these designs. The FEBs' slim dimensions are ideal for pendant, cove, recessed indirect/direct, surface-mount, low-profile linear and other such fixtures.

The low-profile emergency ballasts operate standard and high-output T5 and T8 lamps and are compatible with electronic, standard, energy-saving and dimming AC ballasts. Their inconspicuous installation not only preserves fixture/room design, it also reduces the likelihood that the emergency ballast will be noticed by would-be vandals. With Philips Bodine LP units, users don't have to choose; they can have form and function.



Recommended uses include office buildings, retail outlets, hospitality spaces, healthcare facilities and any other location where aesthetics is a concern.



Model	Type of Lamps Operated	Max. Lumens*	Feature
LP600STU	One-lamp operation for standard and high output T5s & T8s; (4-pin) long compacts	1325	Automatic self-test; Universal input; Low-mercury lamps
LP600	One-lamp operation for standard and high output T5s & T8s; (4-pin) long compacts	1325	Low-mercury lamps; Sealed/gasketed fixtures
LP550	One-lamp operation for standard and high output T5s & T8s; (4-pin) long compacts	700	Low-mercury lamps; Sealed/gasketed fixtures
LP500	One-lamp operation for 21-54 W standard or high output T5 or 32 W T8	700	Low-mercury lamps; Sealed/gasketed fixtures
LP400	One-lamp operation for 32 W (4') T8s	450	Indoor locations
B50LP	One- or two-lamp operation for 17-215 W (2'-8") T8s, T9s T10s & T12s; (4-pin) long compacts	1300	Damp locations; Sealed/gasketed fixtures
B60LP	One- or two-lamp operation for 17-215 W (2'-8") T8s, T9s T10s & T12s; (4-pin) long compacts	700	Damp locations; Sealed/gasketed fixtures
B60LPU	One- or two-lamp operation for 17-215 W (2'-8") T8s, T9s T10s & T12s; (4-pin) long compacts	700	Universal input; Sealed/gasketed fixtures
B100LP	One-lamp operation for 17-40 W (2'-4") T8s, T10s & T12s; (4-pin) long compacts	500	Damp locations; Sealed/gasketed fixtures

* Refer to specific model specification sheets for lumen output by lamp type.

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.

Compact

Fluorescent Emergency Ballasts

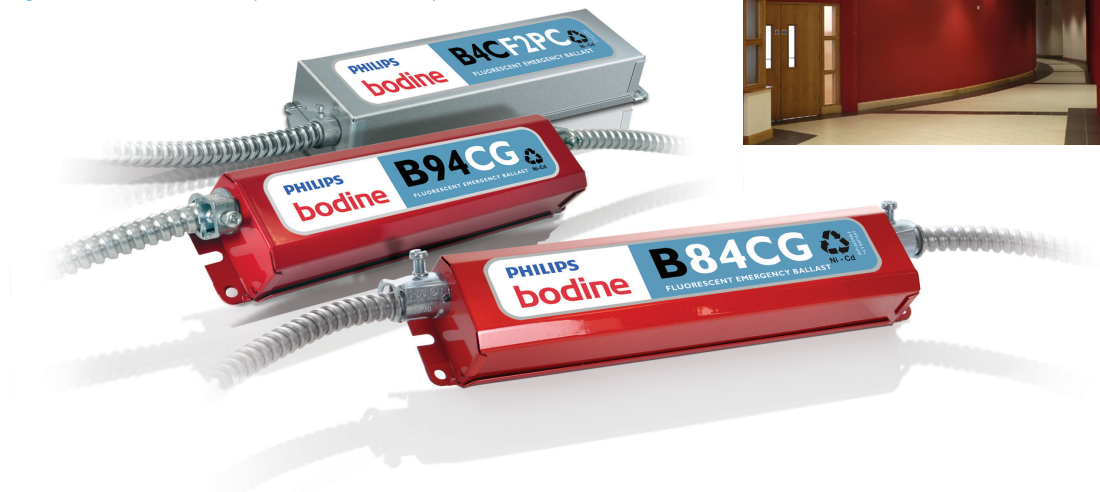
Philips Bodine compact fluorescent emergency ballasts (FEBs) allow you to easily convert new or existing fluorescent fixtures into code-compliant emergency lighting.

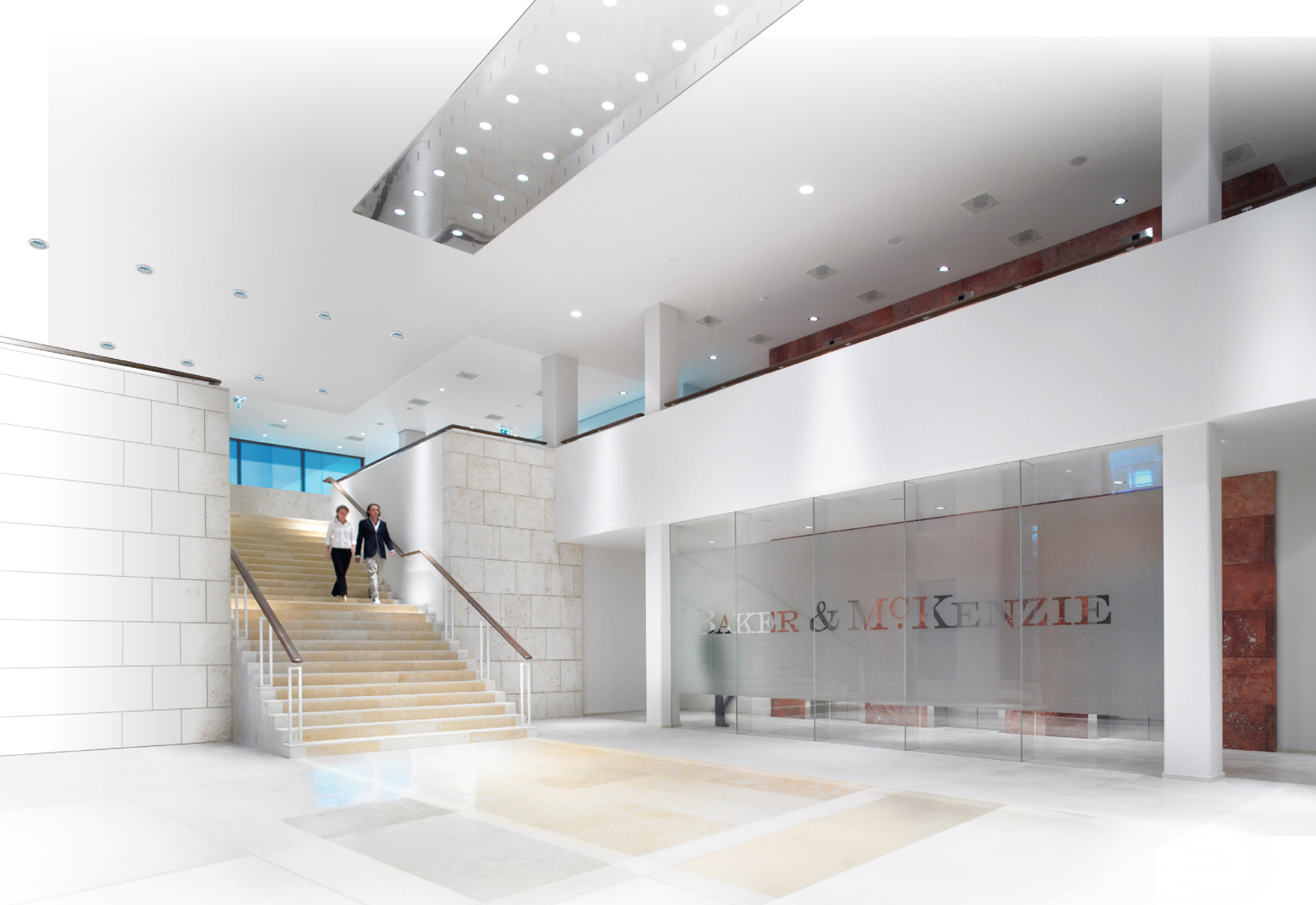
Philips Bodine compact fluorescent emergency ballasts (FEBs) are designed specifically for compact lamp fluorescent fixtures. They allow you to easily convert new or existing fluorescent fixtures into code-compliant emergency lighting. Philips Bodine compact FEBs operate most 2- and 4-pin compact fluorescent 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 start-up 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®).

The B4CF2P/B4CF2PC family features one- or two-lamp parallel operation. These fluorescent emergency ballasts are available in conduit and non-conduit models and in Cold-Pak and non-Cold-Pak models. The B4CF2P Cold-Pak and B4CF2PC Cold-Pak operate in an extended temperature range of -4° F to +122° F (-20° C to +50° C).





Model	Type of Lamps Operated	Max. Lumens*	Feature
B30	(2'-8") T5s, T8s, T9s, T10s or T12s; (4-pin) long compacts, twins, quads or triple-twin tubes	3500	Full lumen output
B30RCT	(2'-8") T5s, T8s, T9s, T10s or T12s; (4-pin) long compacts, twins, quads or triple-twin tubes	3500	Remote control testing
B30ST	(2'-8") T5s, T8s, T9s, T10s or T12s; (4-pin) long compacts, twins, quads or triple-twin tubes	3500	Automatic self-testing
B74CST	(4-pin) twins, quads or triple twin-tubes	1350	Automatic self-testing
B75C	(4-pin) triple twin-tubes	1300	Low-mercury (green) lamps
B84CG	(4-pin) twins, quads or triple twin-tubes; T5 circlines; (4-pin) long compacts	1250	Low-mercury (green) lamps
B4CFG	(4-pin) twins, quads or triple twin-tubes; T5 circlines; (4-pin) long compacts	1250	Low-mercury (green) lamps
B94CG	(4-pin) twins, quads or triple twin-tubes	750	Low-mercury (green) lamps
B94G	(4-pin) twins, quads or triple twin-tubes	750	Low-mercury (green) lamps
B4CFI	(4-pin) twins, quads or triple twin-tubes; T5 circlines; (4-pin) long compacts	1250	Extreme temperatures
B4CF2	(4-pin) twins, quads or triple twin-tubes; T5 circlines; (4-pin) long compacts	1250	Extreme temperatures
B4CF2PC**	(4-pin) twins, quads or triple twin-tubes; T5 circlines; (4-pin) long compacts	925	Parallel operation with conduit
B4CF2P**	(4-pin) twins, quads or triple twin-tubes; T5 circlines; (4-pin) long compacts	925	Parallel operation
B4CF3	(4-pin) twins, quads or triple twin-tubes; T5 circlines; (4-pin) long compacts	1250	Extreme temperatures
B426	(2-pin) twins, quads or triple twin-tubes	950	Suitable for damp locations
B463	(2-pin) quads or triple twin-tubes	650	Suitable for damp locations
B413	(2-pin) twins or quads	625	Suitable for damp locations

* Refer to specific model specification sheets for lumen output by lamp type.

** B4CF2P Cold-Pak and B4CF2PC Cold-Pak models are also available.

Emergency LED Drivers

For Emergency Lighting in LED Applications

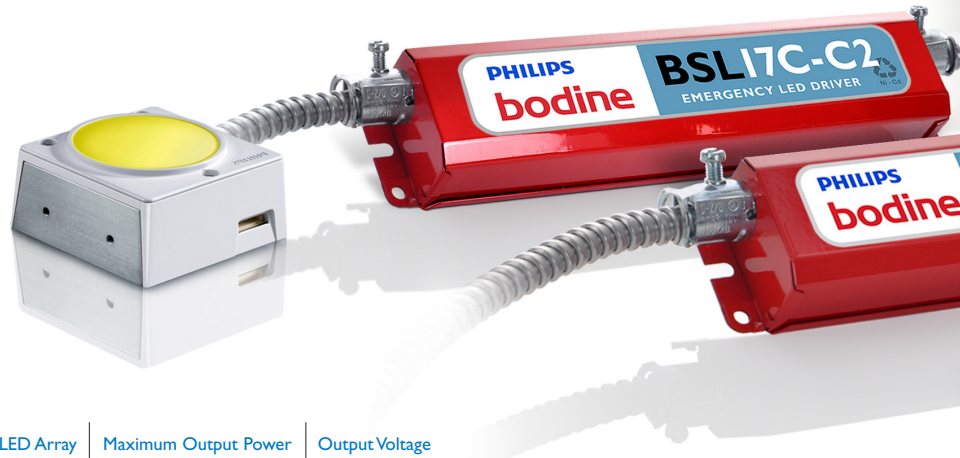
LED: A semiconductor diode that emits light when voltage is applied to it.

The Philips Bodine emergency LED driver line allows LED fixtures to serve as code-compliant emergency lighting sources. The expanding line includes drivers designed for a variety of applications: indoor, outdoor, damp, cold temperatures, steplights, downlights, security lighting, Class 2 installations and more.

As with other types of lighting, LED lighting must meet life safety code requirements for emergency lighting when it is used in an emergency capacity. Therefore, LED fixtures serving as emergency lighting sources must provide 90 minutes of illumination in the event of a power failure.

Emergency LED drivers operate very much like fluorescent emergency ballasts. When normal AC power fails, the emergency LED drivers switch into emergency mode and support LED fixtures for 90 minutes. When AC power is restored, the drivers automatically return to the charging mode.

LED lighting is a rapidly growing segment of the lighting industry. Its popularity is not a mystery. LED technology is continually improving. LEDs offer long life and high efficiency, have low operating costs and are lead and mercury free.



Model	Typical LED Array	Maximum Output Power	Output Voltage
BSL17C	10 - 22	7.0 W	Flexible output voltage: 30 - 80 VDC
BSL17C-C2*	10 - 16	7.0 W	Flexible output voltage: 30 - 50 VDC
BSL23C	1 - 6	4.5 W	Flexible output voltage: 3 - 20 VDC
BSL26C	7 - 11	5.1 W	Flexible output voltage: 3 - 30 VDC
BSL722	8 - 10	23.1 W	Flexible output voltage: 28 - 33 VDC
BSL722 Cold	8 - 10	23.1 W	Flexible output voltage: 28 - 33 VDC

*The BSL17C-C2 operates in conjunction with Class 2 Philips Fortimo modules and other light engines. The unit is UL Classified for use with specific Fortimo DLM and SLM products. This designation means that it can be installed in the factory without the need for further UL testing in Fortimo fixtures for which an emergency option has been filed with UL or field installed in approved fixtures. Contact Philips Bodine Tech Support for more information.

The products contained within this section are UL Component Recognized and designed for factory installation only. These products may not be purchased by manufacturers' representatives or by distributors.

Philips Bodine emergency LED drivers answer the call for emergency lighting in LED applications.



When normal AC power fails, the emergency LED drivers switch into emergency mode and support LED fixtures for 90 minutes.

Product Summary & Selection Guide



Linear FEBs

Model	Lamps	Type of Lamps Operated	Max Lumens	Feature
B33	2 or 3	Two or three 32 W (4') T8s; or two or three 39 W or two 40-55 W (4-pin) long compacts. For use with instant start parallel AC ballasts only	3400	Optimized for three-lamp operation
B30	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; one 18-55 W or two 18-39 W (4-pin) long compacts; one 21-54 W (2'-4') standard or high output T5; or one or two 18-42 W (4-pin) twin, quad or triple twin-tube compact lamps	3500	Full lumen output
B30RCT	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; one 18-55 W or two 18-39 W (4-pin) long compacts; one 21-54 W (2'-4') standard or high output T5; or one or two 18-42 W (4-pin) twin, quad or triple twin-tube compact lamps	3500	Remote control testing
B30ST	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; one 18-55 W or two 18-39 W (4-pin) long compacts; one 21-54 W (2'-4') standard or high output T5; or one or two 18-42 W (4-pin) twin, quad or triple twin-tube compact lamps	3500	Automatic self-testing
B50*	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; or one 18-55 W or two 18-39 W (4-pin) long compacts	1400	Specification grade
B50RCT	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; or one 18-55 W or two 18-39 W (4-pin) long compacts	1400	Remote control testing
B50Cold-Pak	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; or one 18-55 W or two 18-39 W (4-pin) long compacts	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; or one 18-55 W or two 18-39 W (4-pin) long compacts	1400	Automatic self-testing
B60	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; or one 18-55 W or two 18-39 W (4-pin) long compacts	700	Standard grade
B70A	1	One 17-215 W (2'-8') T8, T10 or T12 lamp or one (4-pin) long compact. 2-hr runtime, not recommended with reduced-wattage, energy-saving T8 lamps	700	Extended runtime
B90	1	One 17-215 W (2'-8') T8, T10 or T12 lamp or one (4-pin) long compact. Not recommended with reduced-wattage, energy-saving T8 lamps	600	Economical alternative
B100	1	One 17-40 W (2'-4') T8, T10 or T12 lamp or one (4-pin) long compact. 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; 36-55 W (4-pin) long compact; or 22-55 W T5 circline	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; 36-55 W (4-pin) long compact; or 22-55 W T5 circline	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; or 36-55 W (4-pin) long compact	700	Damp locations; Low-profile
LP500	1	One 21-54 W (2'-4') standard or high output T5 or 32 W (4') T8	700	Damp locations; Low-profile
LP400	1	One 32 W (4') T8	450	Indoor 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; or one 18-55 W or two 18-39 W (4-pin) long compacts	1300	Damp locations; Low-profile
B60LP	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; or one 18-55 W or two 18-39 W (4-pin) long compacts	700	Damp locations; Low-profile
B60LPU	1 or 2	One 17-215 W (2'-8') or two 17-40 W (2'-4') T8, T9, T10 or T12 lamps; or one 18-55 W or two 18-39 W (4-pin) long compacts	700	Universal input; Low-profile
B100LP	1	One 17-40 W (2'-4') T8, T10 or T12 or 18-39 W long compact	500	Damp locations; Low-profile

*The upgraded B50 is universal input (120-277) and suitable for damp locations. It replaces models B50U and BDL500. Contact the Philips Bodine Sales Team at 800-223-5728 for more information.

Compact FEBs

Model	Lamps	Type of Lamps Operated	Max Lumens	Feature
B74CST	1 or 2	One 17-215 W (2'-8") or two 17-40 W (2'-4") T8, T9, T10 or T12 lamps; or one 18-55 W or two 18-39 W (4-pin) twin, quad or triple twin tube compacts	1350	Automatic self-testing
B75C	1	One 32-70 W (4-pin) triple twin-tube	1300	Low-mercury (green) lamps
B30	1 or 2	One 17-215 W (2'-8") or two 17-40 W (2'-4") T8, T9, T10 or T12 lamps; one 18-55 W or two 18-39 W (4-pin) long compacts; one 21-54 W (2'-4") standard or high output T5; or one or two 18-42 W (4-pin) twin, quad or triple twin-tube compact lamps	3500	Full lumen output
B30RCT	1 or 2	One 17-215 W (2'-8") or two 17-40 W (2'-4") T8, T9, T10 or T12 lamps; one 18-55 W or two 18-39 W (4-pin) long compacts; one 21-54 W (2'-4") standard or high output T5; or one or two 18-42 W (4-pin) twin, quad or triple twin-tube compact lamps	3500	Remote control testing
B30ST	1 or 2	One 17-215 W (2'-8") or two 17-40 W (2'-4") T8, T9, T10 or T12 lamps; one 18-55 W or two 18-39 W (4-pin) long compacts; one 21-54 W (2'-4") standard or high output T5; or one or two 18-42 W (4-pin) twin, quad or triple twin-tube compact lamps	3500	Automatic self-testing
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
B4CFG	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	Low-mercury (green) lamps
B94CG	1	One 13-42 W (4-pin) twin, quad or triple twin-tube	750	Low-mercury (green) lamps
B94G	1	One 13-42 W (4-pin) twin, quad or triple twin-tube	750	Low-mercury (green) lamps
B4CF1 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 temperatures
B4CF2 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 temperatures
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
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	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
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
B426	1 or 2	One or two 10-26 W (2-pin) twin, quad or triple twin-tube compact	950	Suitable for damp locations
B463	1	One 10-26 W (2-pin) twin, quad or triple twin-tube compact	650	Suitable for damp locations
B413	1	One 5-13 W (2-pin) twin-tube or 9-13 W (2-pin) quad compact	625	Suitable for damp locations

Special App FEBs (UL Component Recognized for factory installation only)

Model	Lamps	Type of Lamps Operated	Max Lumens	Feature
CF94GU	1	One 13-42 W (4-pin) twin, quad or triple twin-tube	700	Open circuit design; Universal input
B213	1	One 5-13 W (2-pin) twin or quad	625	Damp locations
B213H	1	One 5-13 W (2-pin) twin or quad	625	Hazardous locations; Damp locations
BHD55U	1	One 14-54 W (2'-4") T5 bipin; 22-40 W T5 circular; 36-55 W (4-pin) long compact; or 17-55 W (2'-5") T8 bipin	1200	Hazardous locations; Universal input
BHD65U	1 or 2	One 17-215 W (2'-8") or two 17-40 W (2'-4") T8, T9, T10 or T12 lamps; or one 18-39 W long compact. 2-hr runtime with one 32 W T8	700	Hazardous locations; Universal input

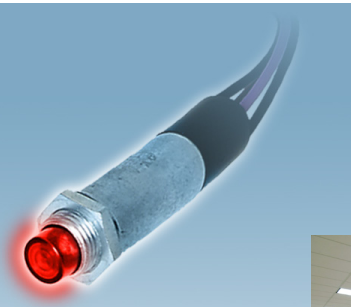
REDiTEST

Self-Testing FEBs

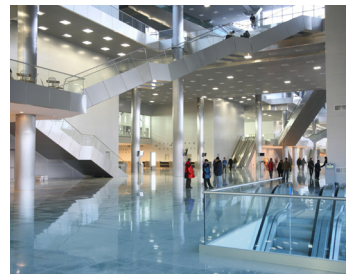
Philips Bodine REDiTEST Self-Testing/Self-Diagnostic Fluorescent Emergency Ballasts automatically test emergency lighting operation for 30 seconds every 30 days and for 90 minutes annually, in accordance with life safety codes. In addition, they continuously self-monitor their charging current and battery voltage. A flashing LED indicator light alerts maintenance personnel to fault conditions.*

Philips Bodine REDiTEST Self-Testing/Self-Diagnostic Fluorescent Emergency Ballasts automatically test emergency lighting operation for 30 seconds every 30 days and for 90 minutes annually.

REDiTEST emergency ballasts reduce the labor, time and cost involved in code-compliant testing. They also ensure testing is done as required. REDiTEST 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. REDiTEST fluorescent emergency ballasts are the automatic solution for meeting code requirements.



A flashing LED indicator light alerts maintenance personnel to fault conditions.



* The user-selectable audible alarm feature is being phased out of the REDiTEST line.

automatic solution for meeting code requirements.



REDiTEST 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.

Model	Type of Lamps Operated	Max. Lumens*	Feature
B30ST	One- or two-lamp operation for most 17-215 W (2'-8") T5s-T12s; (4-pin) long compacts	3500	Full lumen output
B50ST	One- or two-lamp operation for most 17-215 W (2'-8") T8s-T12s; (4-pin) long compacts	1400	Specification grade
B74CST	One- or two-lamp operation for most 17-215 W (2'-8") T8s-T12s; (4-pin) compacts	700	For compact lamp fixtures
LP600STU	One-lamp operation for standard and HO T5s and T8s	1325	Low-profile; Universal input

* Refer to specific model specification sheets for lumen output by lamp type.

Remote control testing is as easy as POINT-CLICK-TEST.

RCT Series

Remote Testing Fluorescent Emergency Ballasts

Philips Bodine RCT Remote Control Testing Fluorescent Emergency Ballasts, Modules and CheckMate ETI allow tests of emergency operation from up to 32 feet away. No ladders or extension devices required. You simply point the WHRCT handheld remote control transmitter toward the infrared receiver in the RCT unit, select the 30-second or 90-minute code-compliant test option and press a button. One WHRCT can be used to test any and all RCT equipment.

RCT emergency lighting products reduce the time, labor and cost needed to test one fixture or 100 fixtures.

RCT emergency lighting products reduce the time, labor and cost associated with testing. They are ideal for fixtures in crowded locations and in difficult-to-access installations. The Philips Bodine RCT is POINT-CLICK-TEST technology.



Model	Feature
RCT Modules*	Converts existing emergency lighting fixtures into remote control units.
CheckMate	Provides remote control testing for existing exits signs and wall packs.



*Two RCT modules are available, RCT-A (without conduit) and RCT-C (with conduit). The modules work in conjunction with select Philips Bodine fluorescent emergency ballasts and an AC ballast to convert existing emergency fixtures into remote control testing emergency lighting units. Please consult the factory at 888.263.4638 for list of compatible Philips Bodine emergency ballasts.



Benefits of Remote Control Testing

Remote control testing with CheckMate or RCT greatly improves the testing process. It reduces testing time, reduces testing costs in terms of labor hours, dramatically lessens the workload and inconvenience involved, can be done with minimal interruption to normal facility activities and, most importantly, helps provide assurance that emergency lighting will be there when it's needed. If simplified testing with big benefits is your goal, contact Philips Emergency Lighting at 800-223-5728 or visit our website, www.philips.com/bodine.

RCT Fluorescent Emergency Ballasts, RCT Retrofit Modules and the CheckMate ET I for exit signs and wall packs are available.



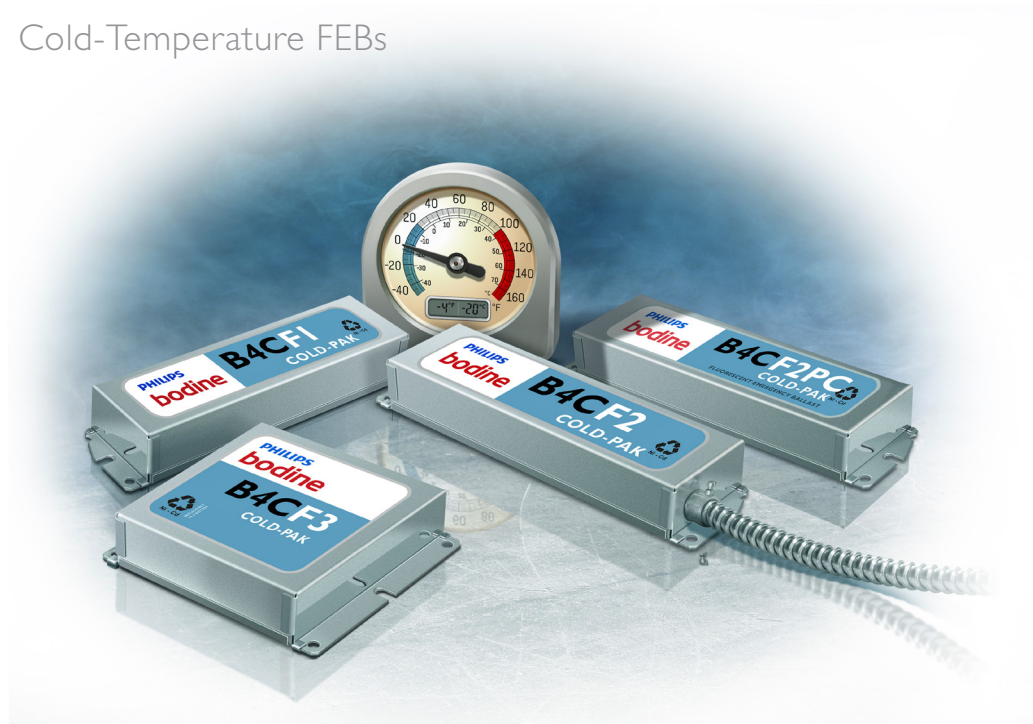
Model	Type of Lamps Operated	Max. Lumens*	Feature
B30RCT	One- or two-lamp operation for most 17-215 W (2'-8") T5s - T12s; long compacts	3500	Full lumen output
B50RCT	One- or two-lamp operation for most 17-215 W (2'-8") T8s - T12s; long compacts	1400	Specification grade

* Refer to specific model specification sheets for lumen output by lamp type.

Cold-Pak

Cold-Temperature FEBs

Cold-Paks are designed to withstand temperatures ranging from -4°F to $+131^{\circ}\text{F}$ (-20°C to $+55^{\circ}\text{C}$) and are suitable for use in indoor and damp locations.



The B50 Cold-Pak

The Philips Bodine Cold-Pak Extended-Temperature Fluorescent Emergency Ballast line provides code-compliant emergency lighting under challenging conditions. Cold-Paks are designed to withstand temperatures ranging from -4°F to $+131^{\circ}\text{F}$ (-20°C to $+55^{\circ}\text{C}$) and are suitable for use in indoor and damp locations. Non-conduit Cold-Paks may also be used in sealed & gasketed fixtures. The Cold-Pak line includes models for linear and compact lamps.

Cold-Paks are ideal for a variety of applications, including wall sconces, downlights, bollards, cold storage areas, parking garages and canopied outdoor walkways. They are a great option for outdoor egress. Like our other FEBs, Cold-Paks provide a minimum 90 minutes of emergency lighting.

Recommended uses for the Cold-Pak include cold storage facilities, exterior stairways, food processing plants, outdoor canopies and parking garages. **B4CF1 Cold-Pak, B4CF2 Cold-Pak, B4CF2PC Cold-Pak, B4CF2PC Cold-Pak and B4CF3 Cold-Pak** are ideal for bollards, downlights and sconces.



How low does your emergency ballast go? Philips Bodine Cold-Pak emergency ballasts provide reliable, code-compliant emergency lighting in environments with temperatures as extreme as -4° F / -20° C.



Model	Type of Lamps Operated	Max. Lumens*	Feature
B50 Cold-Pak	(2'-8") T8s, T9s, T10s or T12s	1200	For linear lamp fixtures
B4CF1 Cold-Pak	(4-pin) twins, quads or triple twin-tubes; T5 circline; long compacts	1250	For compact fixtures
B4CF2 Cold-Pak	(4-pin) twins, quads or triple twin-tubes; T5 circline; long compacts	1250	For compact fixtures; Conduit for remote mounting
B4CF2P Cold-Pak	(4-pin) twins, quads or triple twin-tubes; T5 circline; long compacts	925	For compact fixtures; One- or two-lamp parallel operation
B4CF2PC Cold-Pak	(4-pin) twins, quads or triple twin-tubes; T5 circline; long compacts	925	For compact fixtures; One- or two-lamp parallel operation; With conduit
B4CF3 Cold-Pak	(4-pin) twins, quads or triple twin-tubes; T5 circline; long compacts	1250	For compact fixtures; Alternate case size

* Refer to specific model specification sheets for lumen output by lamp type.

The B4CF2P Cold-Pak and B4CF2PC Cold-Pak units have a temperature range of -4° F to +122° F (-20° C to +50° C). All other models are suitable for -4° F to +131° F (-20° C to +55° C).

Generator

Products for Generator Systems

Generators are often employed to backup the normal power supply for important systems, such as lighting. Philips Emergency Lighting offers distinct product families created to work with generators: GTD, GEN and BLCD-20B. The Philips Bodine GTD Family consists of bypass and transfer devices, while the Philips Bodine GEN Series consists of fluorescent emergency backup ballasts designed to provide interim illumination. The BLCD-20B operates as a control or bypass device and is similar to the GTD products.



The GTD Generator Transfer Device, GTD20A Emergency Lighting Relay Control Device and BLCD-20B Emergency Lighting Control Unit work in conjunction with a generator or central inverter system to supply emergency lighting regardless of local light switch position. This means emergency lighting is no longer dependent on expensive night lighting. In fact, you can switch off normal lighting at the end of the day or whenever it's not needed without jeopardizing emergency lighting operation. These energy-saving devices sense the loss of normal power and, in response, switch the lighting load to a generator- or inverter-fed circuit.



Model	Function	Lighting Load
GTD	Transfer Device	3A max for fluorescent and LED
GTD20A	Transfer or Bypass Device	20A max for fluorescent, incandescent, HID and LED
BLCD-20B	Control or Bypass Device	20A max for fluorescent; 10A max for incandescent

work with generators: GTD, GEN and BLCD-20B.

Model	Type of Lamps Operated	Lumen Output	Illumination Time
GEN1	One 17-32 W T8; one 20-40 W T10 or T12; or one 18-55 W (4-pin) compact	1050-3200	Up to 5 minutes
GEN3*	Two or three 32 W (4') T8s or two 40-55 W (4-pin) long compacts	4700-7900	Up to 2 minutes

* GEN3 is designed for use with instant start parallel AC ballasts only.



GEN Series

Generators can take up to 10 seconds to power emergency lighting. GEN Series Fluorescent Backup Ballasts provide uninterrupted, high illumination in the interim period between AC power loss and generator startup. Should the generator fail to bring up emergency lighting, GEN Series backup ballasts provide at least two minutes of illumination. They are ideal for any application in which constant illumination is critical, including operating rooms, prison staging areas, cash exchange areas and sensitive manufacturing locations.

The GTD

The GTD is designed for areas in which only one fixture may be needed for egress lighting, such as a stairwell or classroom, or in areas where multiple switches are in use. It functions by transferring both the hot and the neutral. The GTD supports a lighting load up to 3A.

The GTD20A

The GTD20A is installed in areas such as corridors or conference rooms where multiple egress fixtures are used and are controlled with a single switch. It functions as a transfer or bypass device and allows multiple application and wiring options, including wiring schemes for both line and low voltage dimming. The GTD20A features universal input and supports a maximum lighting load of 20A.

BLCD-20B

The BLCD-20B operates as a control or bypass device. The small (1.7" x 2.97" x 1.64"), easy-to-install unit mounts directly onto a junction box and supports a lighting load up to 20A. The BLCD-20B features auto-select to automatically select the correct voltage (120/277V) and offers a remote testing capability that permits it to interface with fire alarms and security panels.

The Philips Bodine ARC Keeper detects the power interruption before it can threaten the arc and immediately begins providing supplemental power.

ARC Keeper

HID Backup Ballasts

The Philips Bodine ARC Keeper family allows metal halide fixtures to serve as emergency lighting. Additionally, they prevent the nuisance downtime that often accompanies HID lighting because of its sensitivity to AC utility power interruptions. An interruption of four milliseconds or more can extinguish the HID lamp arc and create the need for restrike. ARC Keeper HID Metal Halide Backup Ballasts and e-ARC Keeper for 20-39 W Electronic HID Ballasts detect the interruption before it can threaten the arc and immediately begin providing supplemental power.

ARC Keeper backup ballasts, including the low-temperature Arctic ARC Keeper, support the lamp for up to two minutes. The e-ARC Keeper supports the electronic HID ballast for up to 30 seconds. All provide power long enough to allow a minor disturbance to pass or a generator to engage.

ARC Keeper models are available for pulse-start and probe-start lamps (PLS and PRB), extended temperature ranges (Arctic ARC Keeper) and low-wattage applications (e-ARC Keeper). ARC Keeper backup ballasts are ideal for gymnasiums, parking garages, hangars, warehouses and other high-bay installations. Arctic ARC Keeper units are designed for cold-temperature applications. The Arctic ARC Keeper operates in a temperature range of -40° F to +131° F (-40° C to +55° F). Other ARC Keeper models, including e-ARC Keeper, operate at +32° F to +131° F (0° C to +55° C). The e-ARC Keeper is suited to low-ceiling, low-wattage uses such as retail stores and hotel lobbies.

ARC Keeper

Philips Emergency Lighting offers ARC Keeper models for both pulse-start and probe-start lamps. The ARC Keeper family also includes Arctic units designed for an extended-temperature range of -40° F to +131° F (-40° C to +55° C).

e-ARC Keeper

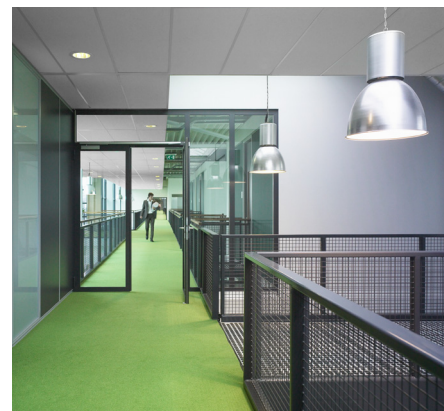
The e-ARC Keeper for 20-39W Electronic HID Ballasts is designed for low-wattage applications. The e-ARC Keeper differs from other ARC Keeper models in that it provides power to the electronic HID ballast rather than the HID lamp.





Model	Feature
AK175PRB	Maintains the arc with one 175 W or energy-saving 150 W metal halide probe-start lamp
AK250PRB	Maintains the arc with one 250 W or energy-saving 225 W metal halide probe-start lamp
AK400PRB	Maintains the arc with one 400 W or energy-saving 360 W metal halide probe-start lamp
AK400PRB-SP	For use with installations not providing an unswitched line
AK175PLS	Maintains the arc with one 100 to 175 W metal halide pulse-start lamp
AK175PLS-208V	Maintains the arc with one 100 to 175 W metal halide pulse-start lamp
AK175PLS-240V	Maintains the arc with one 100 to 175 W metal halide pulse-start lamp
AK400PLS	Maintains the arc with one 200 to 400 W metal halide pulse-start lamp
AK400PLS-208V	Maintains the arc with one 200 to 400 W metal halide pulse-start lamp
AK400PLS-240V	Maintains the arc with one 200 to 400 W metal halide pulse-start lamp
eAK39	Maintains the arc with one 20 - 39 W metal halide lamp

ARC Keeper backup ballasts are ideal for gymnasiums, parking garages, hangars, warehouses and other high-bay installations.



Model	Feature
Arctic175PLS-120V	Maintains the arc with one 100 to 175 W metal halide pulse-start lamp
Arctic175PLS-208V	Maintains the arc with one 100 to 175 W metal halide pulse-start lamp
Arctic175PLS-240V	Maintains the arc with one 100 to 175 W metal halide pulse-start lamp
Arctic175PLS-277V	Maintains the arc with one 100 to 175 W metal halide pulse-start lamp
Arctic400PLS-120V	Maintains the arc with one 200 to 400 W metal halide pulse-start lamp
Arctic400PLS-208V	Maintains the arc with one 200 to 400 W metal halide pulse-start lamp
Arctic400PLS-240V	Maintains the arc with one 200 to 400 W metal halide pulse-start lamp
Arctic400PLS-277V	Maintains the arc with one 200 to 400 W metal halide pulse-start lamp



Cold-temperature applications: -40° F to +131° F (-40° C to +55° C)

ELI Series

Emergency Lighting Mini Inverter



The Philips Bodine ELI-100-SD and ELI-250-SD Self-Diagnostic Emergency Lighting Mini Inverters provide backup power for fluorescent, incandescent and LED lighting operation.* They support up to 100 W and 250 W, respectively, for 90 minutes, in accordance with requirements for emergency lighting.

* ELI-100-SD and ELI-250-SD have a square wave output in emergency mode that may not be compatible with some ballasts, LED drivers or integrally ballasted screw-in LED lamps. Please check with your ballast/driver/lamp manufacturers to ensure their products are compatible with square wave input.

ELI-100-SD and ELI-250-SD supply indoor and outdoor applications and may be installed up to 1000 feet from the fixtures they serve. Unlike emergency ballasts, they provide power to the input side of the fixture. This feature eliminates compatibility issues.

The mini inverters are designed with self-diagnostic circuitry. The circuitry checks operating parameters during the start-up, standby and testing phases. If a fault is detected, the red fault indicator light flashes. In addition, ELI-100-SD and ELI-250-SD will self-test for 15 minutes every 25 to 30 days.

The ELI-100-SD and ELI-250-SD are UL Listed and ideal for schools, restaurants, office buildings, stairways and many other locations.

Model	Feature
ELI-100-SD	100 W Self-diagnostic operation
ELI-250-SD	250 W Self-diagnostic operation



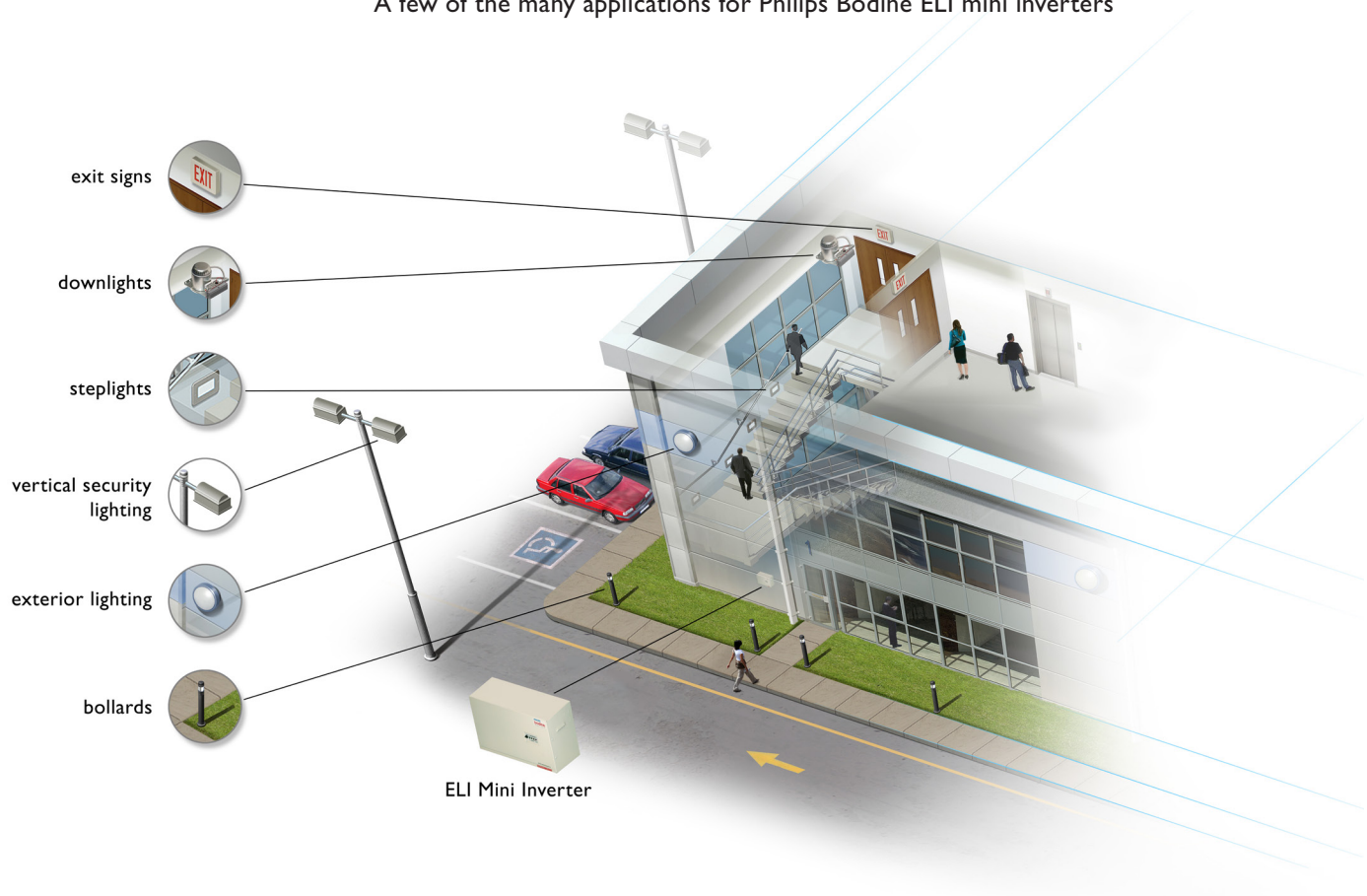
The ELI-100-SD and ELI-250-SD mini inverters supply indoor and outdoor applications and may be installed up to 1000 feet from the fixtures they serve.

backup power for fluorescent, incandescent and LED sources.



ELI-100-SD and ELI-250-SD are ideal for schools, restaurants, office buildings, stairways and many other locations.

A few of the many applications for Philips Bodine ELI mini inverters



ELI Series

Emergency Lighting Micro Inverters

The Philips Bodine 20 W ELI-S-20 emergency lighting micro inverter transforms LED and fluorescent fixtures into code-compliant emergency lighting.



It is the ideal emergency backup for the Edison-base (screw-base) LED lamps that are commonly replacing CFLs in retrofit applications and is a superior choice for office, retail, hospitality and other similar spaces.

ELI-S-20 allows fixtures to be on, off, switched or dimmed. It supports 100% of AC rated output throughout its 90-minute runtime so fixtures operate at full brightness during emergency operation. The device provides power to the input side of the fixture, including the ballast, and is designed for use with indoor applications.

The ELI-S-20 features an LED-friendly sinusoidal (sine) waveform rather than square waveform output. Sinusoidal waveform is characterized by very low harmonic distortion and by clean power similar to that produced by utility-supplied electricity, making the ELI-S-20 well suited for even the most sensitive LED lighting.

The micro inverter is UL Listed unit equipment and designed for new and retrofit lighting projects.

ELI-S-20 includes auto select (120/277 VAC) to reduce wiring errors. With the convenient auto select, ELI-S-20 automatically detects input voltage and sets the output voltage accordingly.



Model	Max. Wattage	Feature
ELI-S-20	20	For LED and fluorescent lamps



with a bright future.



The **ELI-S-20** micro inverter is a battery-powered backup device that provides emergency power to a connected lighting load up to 20 W.

Product Highlights

- Works with LED and fluorescent fixtures up to 20 W
- Is unit equipment
- Supplies 90 minutes of emergency illumination at full brightness
- Provides power to the input side of connected lighting loads
- Ideal for screw-base LED lamps
- Suitable for indoor, dry and damp applications
- Features fused output load connections
- AC Input Power Rating: 9.5 W;
output voltage 120/277 VAC (auto select), 60 Hz
- Dimensions: 1.6" x 2.8" x 2.85"
- Remote mounting distance: 250 feet maximum
- Warranty: 5 years (not pro-rata)
- UL Listed / CSA Certification pending

Special Applications

Products for Less Than Perfect Conditions

Emergency lighting is included in facility planning because it is a critical life safety component. It guides building occupants along the path of egress during the loss of normal power. Unfortunately, the path of egress may involve special considerations or include conditions that are less than perfect. Philips Emergency Lighting manufactures special application products to meet such needs.

Universal Input

Philips Emergency Lighting's universal input fluorescent emergency ballasts are designed for an input voltage range of 120 through 277 (50 or 60 Hz) and offer a number of advantages over standard emergency ballasts. They minimize inventories, simplify wiring and tolerate harsh line conditions. Recommended applications for Philips Bodine universal products include fixtures subject to international line voltages; in drilling rigs where generators are the primary source of power; and exposed to noticeable line voltage variation or harmonic distortion.

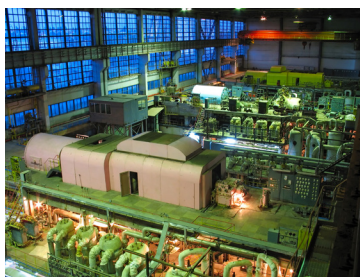


Extended Runtime

While 90 minutes is the standard code-required time for emergency lighting operation, there are cases in which a greater runtime is required or desired. Hospitals, grade schools and assisted-living facilities, for example, might benefit from a longer runtime. Philips Bodine extended runtime fluorescent emergency ballasts provide two- and four-hour runtimes to accommodate special applications.

Central Battery Backup

For facilities that have dedicated systems and a central battery supply, the Philips Bodine CB 90-48 Central Battery Backup Ballast provides instant emergency illumination to existing fluorescent fixtures when AC power is lost.



include conditions that are less than perfect.



Model	Type of Lamps Operated	Max. Lumens*	Feature
B50***	(2'-8") T8s, T9s, T10s or T12s; (4-pin) long compacts	1400	Universal input
B60LPU	Two-lamp operation for 17-215 W (2'-8") T8s, T9s, T10s or T12s; (4-pin) long compacts	700	Universal input; Low-profile
BDL60U	(2'-8") T8s, T9s, T10s or T12s; (4-pin) twins, quads, triple twin-tubes or long compacts	700	Universal input
B54U (4hrs)	(2'-4") T8s, T9s, T10s or T12s; including T12 HO; (4-pin) long compacts	450	Universal input; Four-hour emergency illumination
B54 (4hrs)	(2'-4") T8s, T9s, T10s or T12s; (4-pin) twins, quads, triple twin-tubes or long compacts	450	Four-hour emergency illumination
B70A (2hrs)	(2'-8") T8s, T9s, T10s or T12s; (4-pin) twins, quads, triple twin-tubes or long compacts	700	Two-hour emergency illumination
B426-2HRS	(2-pin) twins, quads or triple twin-tubes	950	Two-hour emergency illumination
BHD55U**	(2'-4") T5s; (2'-5") T8s; (4-pin) long compacts	1200	Universal input; Suitable for Class I, Division II applications
BDH65U**	(2'-8") T8s, T9s, T10s or T12s; (4-pin) long compacts	700	Universal input; Suitable for Class I, Division II applications
B213H**	(2-pin) twins or quads	625	Suitable for Class I, Division II applications
CF94GU**	(4-pin) twins, quads, triple twin-tubes or long compacts	700	Universal input; Open circuit design
LP600STU	One-lamp operation for standard and high output T5s & T8s; (4-pin) long compacts	1325	Low-profile: Universal input; Automatic self-testing

* Refer to specific model specification sheets for lumen output by lamp type.

** Factory installation only

*** The upgraded B50 is universal input (120-277) and suitable for damp locations. It replaces models B50U and BDL500.

The products contained within this section are UL Component Recognized and designed for factory installation only. These products may not be purchased by manufacturers' representatives or by distributors.

Factory Installation Only

Open Circuit Design Emergency Ballasts

Philips Bodine CF Open Circuit Design Fluorescent Emergency Ballasts permit emergency lighting for space-constrained fixtures. The CF units are essentially Philips Bodine emergency ballasts without the well-known red can. They consist of a battery and an open circuit board with a charger and electronic components. Four different battery configurations are available for each product. The design and the battery options allow for remarkable installation flexibility. Philips Bodine open circuit design products are UL Component Recognized for factory installation only.



Model	Type of Lamps Operated	Max. Lumens	Feature
CF94GU*	One 13-42 W (4-pin) twin, quad or triple twin-tube	700	ELC; Four battery style options available: Universal input; Suitable for damp locations and for sealed & gasketed fixtures

*End-of-lamp-life compatible (ELC)

Hazardous

Locations such as oil refineries, paint booths and textile mills are associated with potential fire and explosion hazards, including combustible gases, liquids, dust and fibers. Philips Bodine fluorescent emergency ballasts for hazardous (classified) location fixtures contain hermetically sealed relays to eliminate the "arcs and sparks" of ignition sources. These emergency ballasts are UL Component Recognized for factory installation only and are suitable for use in Class I, Division II type fixtures.



Model	Type of Lamps Operated	Max. Lumens	Feature
B213H**	One 5-13 W (2-pin) twin or quad	625	For use in Class I, Division II applications; Suitable for damp locations and for sealed & gasketed fixtures
BHD55U*	One 14-54 W (2'-4") T5 bipin; 22-40 W T5 circular; 36-55 W (4-pin) long compact; or 17-55 W (2'-5") T8 bipin	1200	ELC; Universal input; For use in Class I, Division II applications; Suitable for damp locations and for sealed & gasketed fixtures
BHD65U	One 17-215 W (2'-8") or two 17-40 W (2'-4") T8, T9, T10 or T12 lamps; or one 18-39 W long compact	700	Universal input; For use in Class I, Division II applications; Suitable for damp locations and for sealed & gasketed fixtures

* End-of-lamp-life compatible (ELC)

** B213 is also available. B213 is not designed for use in Class I, Division II applications. It is, however, UL Component Recognized for factory installation only.



Philips Emergency Lighting Celebrates 50 Years (1962 - 2012)

Philips Emergency Lighting turned 50 in 2012. What began in 1962 as a small family-owned company in western Tennessee is now a global leader in emergency lighting solutions for commercial, industrial and institutional applications. The company provides Philips Bodine brand products to the market and specializes in a broad range of fluorescent, LED, HID,

inverter, incandescent and generator-compatible emergency lighting technologies. For more information on award-winning Philips Bodine product lines, please visit www.philips.com/bodine or call toll free 800-223-5728. We at Philips Emergency Lighting thank you for your support during the last half-century, and we look forward to the next 50 years.

Philips Emergency Lighting is a division of Philips Electronics North America Corporation.

Award-Winning Technology

- * Lightfair 2007 *Most Innovative Product of the Year*
- * Lightfair 2008 *Winner: Industrial, Vandal, Emergency, Exit & Emergency Category*
- * Lightfair 2009 *Winner: Industrial, Vandal, Emergency, Exit & Emergency Category*
- * Progress Report 2008
- * Progress Report 2009
- * Progress Report 2010
- * Progress Report 2011
- * The LED Show 2010 *Winner: Best Safety Product Category*
- * The LED Show 2011 *Winner: Best Emergency/Backup Category*
- * EC&M Product of the Year 2011 *Winner: Power Sources Category*
- * Architectural SSL Magazine's Product Innovation Awards 2011 *Silver Winner: Drivers Category*
- * TFM Readers Choice Award 2010 *Winner: Emergency Lighting Category*
- * TFM Readers Choice Award 2011 *Winner: Emergency/Strobe Lights Category*

Disclaimer

The Solutions catalog is a summary publication designed to provide a brief overview of emergency lighting and the Philips Bodine product line. It does not contain the detailed information you need for product purchase or specification. It is necessary for you to consult product specification and instruction sheets or call the factory before buying or specifying. The Solutions catalog is current as of the publication date (January 2012), and Philips Emergency Lighting has taken reasonable steps to ensure accuracy. However, changes to products and technology are expected and ongoing and may affect the accuracy of catalog content. In addition, content is not comprehensive and inadvertent errors may occur. Philips Emergency Lighting is not liable for any loss or damage arising from use of the Solutions catalog. Please consult the Philips Emergency Lighting Sales or Technical Support departments if you have questions about Philips Bodine products, product applications or catalog content.



© 2012 Philips Emergency Lighting
All rights reserved.

Document order number: L0000031