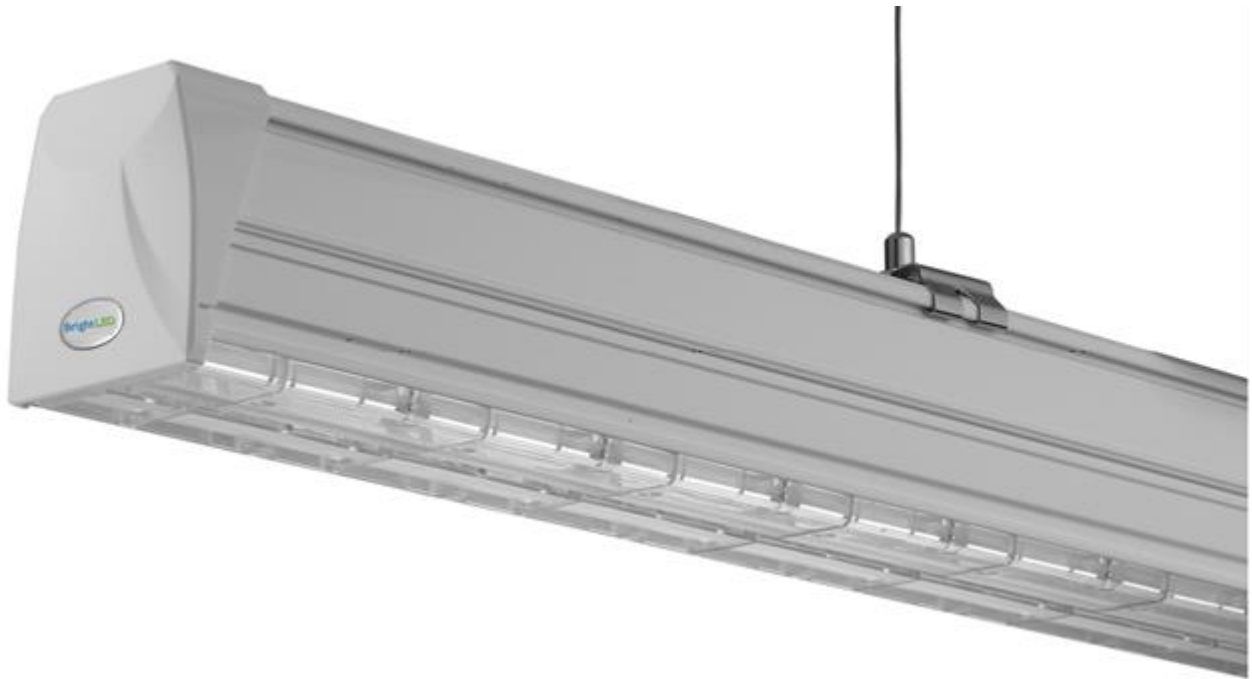


Bright LED

LED Linear Trunking System





EMERGENCY SOLUTION

Thanks to the preset 11-wire trunking rail, emergency lighting can be well integrated into standard lighting. With two independent emergency lighting circuits and the optional self contained battery. BrightLED's linear lighting can provide full power or reduced power emergency lighting in the event of power failure. General lighting combines with automatically-operating emergency lighting into one integrative lighting solution. You can have more than one option to work out the emergency lighting solution by this system.

ELECTRONIC PARTS

In the luminaire with emergency function, there are one LED lamp driver, one emergency driver and optional self contained battery to control the lamp for general lighting and emergency lighting.

Emergency driver is for switching from mains to emergency operation. When power cut happens, emergency driver will automatically switch to external emergency supply (generator or central battery) or self contained emergency supply (battery). By self contained emergency supply, luminaire work at reduced power: 6W (CSD-E1) or 12W (CSD-E2).



BrightLED uses **Nickel metal-hydrate (NiMH) battery**. The battery in the lamp is rechargeable and it is maintenance-free. There are two options for battery: 1800mAh (CSB1) and 3600mAh (CSB2), which deliver different illumination and duration time under 6W (CSD-E1) or 12W (CSD-E2) emergency power.

LED lamp driver provides power to the luminaire directly. Options are provided with **40W, 65W or 80W** to drive for a variety of illumination for different lighting requirements of diverse areas.

Different combinations of LED lamp driver, emergency driver and built-in battery can offer three emergency lighting models in general, users can choose by them-selves according to the actual needs of different projects.



EMERGENCY LIGHTING MODELS

Based on emergency supply, BrightLED's linear emergency light falls into three models as following:

- by external emergency supply only(EL1/EN1, EL2/EN2)
- by built-in battery supply only
- by both of external emergency supply and built-in battery supply

Besides, A 5W independent emergency spotlight is provided for option. It only lights on with battery supply in case of power failure.



EXTERNAL EMERGENCY POWER SUPPLY MODEL

In the external emergency supply model, no battery is in the luminaire. Two independent emergency circuits – EL1 and EN1, EL2 and EN2 -in the trunking can be opted for connecting luminaire to the generator or central battery for emergency supply. Each luminaire can be either connected to generator or central battery. Different lamps in one circuit can be opted for generator supply or central battery supply if it is available and necessary.

Emergency driver can detect when power cuts and automatically switch luminaire from mains supply to emergency supply by generator or central battery. Luminaire lights on for 100% brightness in this case.

● - on ○ - off

CHR	L1	EL1/EL2	Lamp brightness
●	○	○	0
●	●	○	100%
○	○	●	100%



BUILT-IN BATTERY SUPPLY MODEL

When luminaire is under this emergency lighting model, the only emergency power supply is from the built-in batteries.

When power cuts, the emergency driver automatically switch to the built-in battery supply model. Luminaire lights on with reduced power - 6W (CSD-E1) or 12W (CSD-E2) under battery operation. There are two options for battery - 1800mAh (CSB1) and 3600mAh (CSB2) battery. There are two emergency lighting models by battery supply as following.

Emergency lighting models by built-in battery

Emergency power: 6W(CSD-E1)	Emergency power: 12W(CSD-E2)
luminous flux: 780lm	luminous flux: 1560lm
Battery: 1800mAh (CSB1)	Battery: 3600Amh (CSB2)
Duration: 3h	Duration: 3h

● - on ○ - off

CHR	L1	Battery	Lamp brightness
●	○	○	0
●	●	○	100%
○	○	●	30%



EXTERNAL EMERGENCY SUPPLY AND BUILT-IN BATTERY SUPPLY MODEL

Emergency lighting of this system has two choices of emergency supply. One is by the emergency circuits to either generator or central safety battery; the other one is by built-in battery supply.

When power fails, luminaire will firstly switch to either generator or central safety battery for emergency power supply by EL1 or EL2 circuit. It illuminates at 100% brightness.

If luminaire fails to get external emergency power supply, it will automatically switch to built-in battery supply. Emergency lighting will operate by external emergency power supply as long as it's available. Lamp lights on with reduced 6W (CSD-E1) or 12W (CSD-E2) by battery operation. There are two options for battery - 1800mAh (CSB1) and 3600mAh (CSB2) battery.



Emergency lighting models by built-in battery

Emergency power: 6W(CSD-E1)
 luminous flux: 780lm
 Battery: 1800mAh (CSB1)
 Duration: 3h

Emergency power: 12W(CSD-E2)
 luminous flux: 1560lm
 Battery: 3600mAh (CSB2)
 Duration: 3h

● - on ○ - off

CHR	L1	EL1/EL2	Battery	Lamp brightness
●	○	○	○	0
●	●	○	○	100%
○	○	●	○	100%
○	○	○	●	30%

DURATION

Working time of BrightLED emergency lighting depends on both reduced lighting power and capacity of built-in battery. BrightLED emergency lighting offers 3 hours working time.

RESPONSE TIME

BrightLED emergency lighting can switch on within 1 second. The very short response time can prevent people panicking in the darkness.

REMARKS AND WARNINGS

- Wires between lamps and batteries will be disconnected during transportation.
- Keep batteries away from direct sunlight, high temperature and high humidity.
- During long terms of storage, battery should be charged and discharged once each month, or permanent damage to batteries may result.
- When discarding batteries, insulate the + and - terminals of batteries with insulating tape, etc. When disposed of improperly, batteries may short, causing them to become hot, burst or ignite.

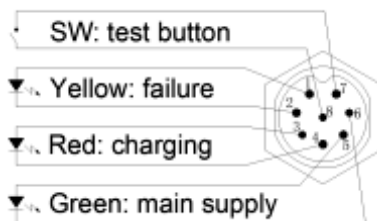
STATUS INDICATING WIRE

There is a wire with status indicators for showing the operation status of the emergency lighting system and performing regular functional test.

Test button and three indicators (green, yellow and red) are on the indicating wire. Regular test on the emergency function can be simulated by the test button to make sure they will operate when required. Press and hold on the button, and then power will be cut-off and emergency lighting operation will be activated.

Signals of the indicators are as following.

- Green indicator: On-----Mains supply is connected
Off-----Mains supply is disconnected
- Red indicator: On-----Battery is charging
Off-----Battery charging finished
- Yellow indicator: On-----System failure
Off-----Working



Installation of the indicating wire is to insert it in the lamp by one side.

The other side with indicators sketches outside.

WIRING AND FEED-IN



For details of wiring and power feed-in instructions, please take reference to file WIRING AND FEED-IN.

FG: Ground

EL1: Emergency 1 supply Live

EN1: Emergency 1 supply Neutral

EL2: Emergency 2 supply Live

EN2: Emergency 2 supply Neutral

DIM+: positive of 1-10v input

DIM-: minus of 1-10v input

DA/L: positive of DALI input, or live when work as DIM **switch:**

DA/N minus of DALI input, or Neutral when work as DIM switch

CHR: for the detection of power connection and battery charging

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