

## Solo Surface Emergency Luminaire

### Product Specification

- Mains voltage:	230V +/- 10%
- Mains frequency:	50 - 60Hz
- Power Consumption	4VA
- No user-serviceable fuses internal fuses:	
- Emergency output:	155lm
- Emergency Duration:	3 Hours
- Battery:	3.6V 1.8Ah NiCd
- Ambient temperature range:	+10°C to +35°C
- Min/Max Conductor sizes:	0.5-2.5mm <sup>2</sup>
- Weight	400g
- Charging time:	24 hours
- Protection class:	II
- Degree of protection:	IP20
- Material:	UL94 V0 PC
- Em module complies with:	BS EN 61347-2-7/2-13
- Suitable for installation to EN50172 and BS7671	

*The unit provides reinforced insulation between the mains supply and battery charging circuit and employs self-resetting protection against short-circuit of battery terminals. Normal charging will resume automatically once a fault is removed.*

### Installation

Ensure the mains supply is isolated before attempting installation!  
Please refer to the diagram on page 2 for fixing details.

It should not be mounted in an external location or in areas where temperatures below 10°C may be frequent in cold months and likewise, do not use the luminaire in a hot environment where the temperature is maintained at 35°C or above. In either case, the battery's design life of 4 years will be compromised and provision of three hour emergency duration may not be possible when needed.

Determine the fixing location, type of cable entry to the luminaire and the direction of an escape route for lensed versions.

Cable entry points are provided at opposite sides of the gear tray, which are suitable for use with most 20mm conduit fittings, cable glands, grommets etc. If these are to be used, it is strongly recommended the gear tray is fixed in position beforehand.

If the supply cable is to be fed from within the ceiling, it can be guided down through the cable entry slots in the centre of the gear tray.

### Fixing

Once the location and lens orientation are determined, the circular gear tray can be fixed in position by either the two standard fixing holes at the sides (141.5mm centres) or by the BESA fixing slots (50.8mm centres) in the middle of the gear tray. Fixing point locations and the resulting direction of the escape route are shown in the diagram on page 1.

Please note, to access BESA fixing locations the lamp assembly will need to be carefully removed by squeezing the four supports inwards in pairs whilst pulling the metal disk away from them. The lamp assembly can then be clicked back into place once the gear tray is fixed in place.

Additional fixing holes and cable entry points may be added if required, but care to avoid internal components must be observed at all times.

Conduit cut-out guides are included on the inside of the front cover.

### Features

- > Universal first-fix gear tray with options for either through-ceiling, or side conduit cable entry
- > Option of either square or round stylish covers
- > Optional lensed versions for corridor applications
- > Also available with Self-Test and DALI capability
- > Built-in charge indicator LED on lamp head
- > Incorporates 3 x 1.8Ah NiCd high temperature cells as standard
- > Emergency spacing (2.5m ceiling) : 8m open area/ 19m escape route
- > Constant current battery charger
- > Deep discharge protection (DDP) to protect cells from over discharge

**NOTE** – To comply with regulations, installation must be carried out by suitably qualified competent person and in accordance with the current IEE wiring regulations (BS7671) and building regulations. This luminaire requires a permanent supply for charging the battery pack.

### Wiring

When fixed in position, prepare the supply cables with a strip length of 6mm (10mm maximum). Min/max Conductor sizes: 0.5 - 2.5 mm<sup>2</sup>. Incoming mains connections should be made to push-wire terminals marked 'L', 'E' and 'N'. Please note the Earth terminal is only provided for the purpose of terminating the incoming cable(s) and is not required for function or safety. This product requires a permanent supply (via test key switch where required). Once the supply connections are made, ensure the cord restraint is fixed in position as required.

### Function test and commissioning

Note: This luminaire will only operate the white LED upon mains supply failure from the internal battery supply; it cannot be operated as a standard light source.

After installation, the red battery lead should be connected to the battery positive and the mains supply turned on. The green indicator LED should now be visible on the lamp head's front bezel, showing the battery is connected and being charged.

When the mains supply is turned off, the white LED will illuminate in emergency mode. Reinstate the mains power, or disconnect the battery to stop emergency operation.

Once the luminaire is ready for commissioning the battery positive should be connected and the front cover fitted into position. The mains supply can then be instated and must remain uninterrupted for a minimum of 24 hours for the luminaire to fully charge its internal battery.

After 24 hours, the mains supply should then be turned off and the luminaire checked for a minimum of 3-hours duration. If successful the label on the battery must be initialled and dated by the commissioning engineer.

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## **Emergency Lighting 'standard' or 'manual' Test**

The following minimum inspections and tests should be carried out:

### Monthly

Switch off the mains power supply to the luminaire. Inspect the emergency light for satisfactory operation. Any defects should be noted and actioned by a competent person as soon as possible.

### Yearly

Switch off the mains power supply to the luminaire. Leave the unit to run for the rated period (e.g. three hours). The light should remain operable from the battery for the whole period.

Please be aware that further inspection / testing may be required, e.g. by risk assessment / local legislation.

## **Maintenance**

There are no user serviceable parts within the product. The battery pack must be replaced when the 3 hour duration is no longer achieved.

The battery is not considered user-replaceable and must be referred to a competent engineer. Please contact one-LUX for technical support or suitable replacement parts.

Front cover removal: If the front cover needs to be removed after fitting place, carefully press a narrow blade screwdriver through the small slots located at opposite sides of cover's side walls whilst pulling that side of the cover away from the base.

## **Batteries and Disposal**

The battery has a designed service life of 4 years and must be replaced in a timely manner to ensure the integrity of the emergency lighting system is maintained. In any case, the battery should be replaced with when it no longer provides the rated duration (3 hours).

The manufacturer of this luminaire is committed to fulfil its obligations as a producer of batteries used in emergency lighting applications. End-of-life batteries may either be returned to the manufacturer at the customers cost and arrangements will be made to ensure their correct disposal. Alternatively it may be more convenient for the customer to deliver end-of-life batteries to site(s) of authorized treatment facilities at their cost and it will be ensured that they are accepted back and subsequently treated to the standard required by the regulations.

## **Disclaimer**

This product and its associated accessories have been designed and manufactured to comply with the requirements of EN60598-2-22 and required additional standards. Operation beyond the parameters specified in this document and the associated standards may result in reduced performance and ultimate premature failure, with the warranty made void. The specifier should be aware of the environment to which this luminaire and components are used and adhere to its specifications. Please contact our Technical department if you are in any doubt.

