



Introduction

Traditional emergency lighting is based on high mounted luminaries.

Emergency way guidance lighting systems consist of low mounted tracks of light and the marking of exit doors on escape routes, in combination with emergency exit signs and intermediate directional signs.

The purpose of the system is to direct people safely onto and along the escape routes and to guide them to a safe area. The system comes into operation when power to the normal lighting fails or, in some cases, as soon as the fire alarm system is actuated.

Walk through assessments carried out by Building Research Establishment (BRE) on routes marked by electrical systems in the presence of smoke showed that the low mounted systems offered more visual information about the path between signs than high mounted luminaries, and that exit signs alone did not offer sufficient visual cues along the path.

Applications

Low mounted electrical way guidance systems should comply with the recommendations of the relevant British Standard for Emergency lighting specifically for electrical low mounted way guidance systems for emergency use

The British Standard, a, provides recommendations for the planning, design, installation and servicing of electrical low mounted way guidance systems, for use within emergency lighting systems.

Low-level way guidance systems can be of great benefit and assistance to persons escaping from a building where there is a tendency for special disorientation to occur, i.e.:

- a) Town centre developments
- b) Large residential accommodation such as Hospitals and Hotels
- c) Buildings where there is extensive corridor approach to the accommodation
- d) Large premises used for public assembly
- e) High risk premises/areas with complex geometry.

Design Guidance

Emergency way guidance systems should follow the under mentioned design principles:

- a) Identify each exit door along the escape route
- b) Direct people towards these exits, using a continuous, low mounted luminous wayfinding track together with high and low mounted signs
- c) Emphasise changes of level, for example at stairs, single steps and ramps
- d) Emphasise hazards such as protruding corners
- e) Indicate locations of fire alarm call points and fire fighting equipment.

Types of Way Finding Systems

a) Electroluminescent Lamps

These continuous strips of light are constructed of a coloured phosphor layer sandwiched between aluminium foil and a transparent electrode. These are then sealed in a high density polymer. The phosphor glows brightly on the application of a 115 volt AC supply.

b) Miniature Incandescent Lamps

These are a series of tiny light bulbs sealed in a tube and powered by an electric supply.

c) LED Tracks

These are continuous lines of electrically powered light emitting diodes.

d) Photoluminescent Way Finding Systems

These systems are not electrically powered. Light is emitted for a number of hours following exposure to natural or artificial light. White fluorescent lamps are the most effective energising source.