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Engineering Note 4 - Emergency Lighting General Definitions

Overview

'Emergency lighting' is a statutory requirement for premises where members of the public congregate. It covers shopping centres, theatres, cinemas, places of entertainment, sports centres, factories and offices.

The requirements for 'Emergency lighting' are set out in British Standards and dictate the lighting levels based upon the size of the escape routes needed to ensure the safe exit of individuals from the premises.

In brief 'emergency lighting' is required to replace the normal lighting as soon as the mains supply fails. Under emergency conditions the lighting levels must be just sufficiently bright for standard exit routes and can be illuminated up to full brightness for high risk areas. Each scheme is therefore planned according to the size and nature of the building with specific lighting levels needed to comply with the standards.

Definition of Terms used in Emergency Lighting

SINGLE POINT UNIT - (S.P.U.) This unit is self-contained and incorporates its own battery and charger. It is normally connected to the local mains circuit so that if a failure in that area occurs it will light up the exit route. Life span between 3 - 6 years.

CENTRAL BATTERY SYSTEM - (C.B.S.) This system incorporates all the batteries for a scheme and fireproof cables pass the battery power to the lighting points in the event of a mains failure. The Central Battery System is normally designed with adequate provision for expansion and has a life span of 5 years upwards.

NON MAINTAINED - S.P.U. or C.B.S only comes into effect when the mains fails.

SUSTAINED - applicable to S.P.U.'s only. **TWO LAMPS** - one lamp operates on the mains, typically in the case of EXIT BOXES and the other lamp operates when the mains supply fails. This method extends to the life of the emergency lamp and ensures reliability of the fitting. The main lamp can be controlled with other lighting circuits.

MAINTAINED - This type of circuit applies to both S.P.U.'S and C.B.S.'s where the lamp or load can be controlled from the mains or the battery. Under normal mains healthy conditions, the lamp or load is controlled via the mains circuit. When there is a power failure the battery automatically takes over and continues to provide power.

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