

- Maximum response time: 100% of minimum illuminance within 5 s of supply failing.
- Minimum duration: 1 hour.
- Minimum light source general colour rendering index: 40.

8.2.4 High risk area

A high risk area is defined as one where a hazardous activity occurs that has to be made safe or terminated before leaving or where people passing by may be exposed to the hazard, e.g. moving machinery. The presence of a high risk area should be revealed by the risk assessment required by the Fire Precautions (Workplace) Regulations 1997. The lighting requirements for high risk areas are as follows:

- Minimum illuminance on the task: 10% of the maintained illuminance on the reference plane of the task (see *SLL Code for lighting*) but at least 15 lx.
- Minimum/average illuminance uniformity on the reference plane for the task > 0.1 .
- Maximum luminaire luminous intensity: see values in Table 8.1. These values apply in the zone 60 to 90 degrees from downward vertical.
- Maximum response time: 100% of minimum illuminance within 0.5 s of supply failing.
- Minimum duration: period for which the risk exists to people.
- Minimum light source general colour rendering index: 40.

8.2.5 Standby lighting

In areas or places where a continuous operation is required during the failure of the supply to the normal lighting, standby lighting should be installed. An example of such a location would be an operating theatre in a hospital. This system should provide adequate illumination for the visual tasks as recommended in the Schedule of the *SLL Code for lighting*. If standby lighting is used for escape lighting, then the escape lighting part should be segregated from the rest of the system and should conform to the rules applied to emergency lighting systems.

8.3 Design approaches

Emergency lighting should be considered as an integrated part of the building lighting. Unless this is done, there is a risk that the normal lighting and the emergency lighting will clash in appearance to the detriment of the whole scheme.

Emergency lighting can be provided using either self-contained units or a centrally powered system using either batteries or a motor-generator set. A self-contained unit contains its own power source and can be a stand-alone luminaire or an emergency version of the normal lighting luminaires. Central systems provide power to the emergency light source via separate, protected wiring to slave luminaires.

For small buildings, the most economic solution is nearly always self-contained units. In large buildings, such as office blocks, factories and shopping centres, the most economic solution is nearly always central battery systems unless a generator is required for other purposes. The balance of costs between the options is related to the equipment cost and the wiring cost. Central systems use cheaper luminaires without batteries but have a costly central battery and charger/inverter or generator and fuel tanks, both requiring segregated protected wiring.