Emergency Lighting: Ensuring Safety and Compliance

Emergency lighting is a vital component of any building's safety system, providing illumination when normal lighting fails due to power loss. Designed to guide occupants to safety and maintain visibility in critical areas, emergency lighting plays a crucial role in reducing risks during evacuations and ensuring compliance with legal requirements.

Why Do I Need Emergency Lighting?

In the event of a fire, power failure, or other emergency, standard lighting may become unavailable, creating hazardous conditions that can lead to panic and accidents. Emergency lighting ensures that escape routes, stairwells, exits, and high-risk areas remain illuminated, allowing people to evacuate safely and emergency services to operate effectively. It is a legal requirement for most commercial and public buildings, protecting occupants and ensuring business continuity in the event of a power outage.

What are the regulations on emergency lighting in the UK?

The main regulations for emergency lighting can be found in The Regulatory Reform (Fire Safety) Order 2005, Building Regulations 2006, The Workplace Directive, British Standard BS 5266 and The Management of Health and Safety at Work Regulations 1999 (Statutory).

These regulations apply to all commercial premises and sectors in the UK. As well as shops, offices, factories, hotels, restaurants, hospitals, warehouses, schools and hospitals, that includes some residential premises, such as HMOs (Houses of Multiple Occupation) and common areas in properties containing at least two private residential dwellings.

The four types of emergency lighting

There are four main types of emergency lighting, each serving a critical role in ensuring safety during an emergency.

- **Escape route lighting** is essential for guiding occupants safely out of a building in the event of a fire or security incident. It helps reduce panic by clearly illuminating evacuation routes, highlighting obstacles, and ensuring that exits are easily identifiable and accessible.
- **Open area lighting**, also known as **anti-panic lighting**, provides sufficient illumination in larger spaces—typically over 60m^2—allowing occupants to navigate safely toward a designated escape route. This type of lighting is crucial in preventing confusion and ensuring a smooth evacuation process.
- **High-risk task area lighting** is designed for environments where hazardous processes must be safely shut down before evacuation. By providing a higher level of illumination, it allows workers to turn off machinery or complete critical safety procedures before leaving the premises.
- **Standby or emergency safety lighting** is used in situations where occupants may remain inside a building for a designated period before evacuation. This system ensures that people can stay in a safe area until the emergency lighting reaches a critical duration, at which point they will be guided to a low-risk location or escorted to safety. Clear plans must outline how long occupants can remain, how the end of the stay-put period will be indicated, and the procedure for directing them to refuges or exits.

Where should emergency lighting be placed?

The precise location of your emergency lighting will be dictated by your fire risk assessment.

The Regulatory Reform (Fire Safety) Order 2005, Part 2, Article 14.2(h) states that: "emergency routes and exits requiring illumination must be provided with emergency lighting of adequate intensity in the case of failure of their normal lighting".

This can include all exit doors, any changes in direction in an escape route, trip hazards (such as stairs), lifts and illuminated fire exit signs, along with firefighting equipment and alarms, large publicly accessible areas of 60m2 or more, windowless rooms and toilets greater than 8m2 and first aid equipment.

What is BS 5266 and is it a legal requirement?

BS 5266-1 falls under Building Regulations and is a legal requirement in the UK. It provides detailed guidance on all aspects of emergency lighting, covering everything from its design and installation to minimum duration, testing and maintenance, and the minimum luminosity required in different areas.

Classifications for emergency lighting

Replacing the old NM/M system of classifying lighting, there is now a different system, using a letter-number-letter-number system from the following categories:

X	1	AG	180

Type

- X = self-contained
- Y = central battery

Mode of operation

- 0 = non-maintained
- 1 = maintained
- 2 = combined non-maintained
- 3 = combined maintained
- 4 = compound non-maintained
- 5 = compound maintained
- 6 = satellite

Facilities

- A = includes test device
- B = includes remote test device
- C = includes inhibiting mode
- D = suitable for high risk task areas
- E = with non replaceable lamp(s) and/or battery
- F = automatic self-test conforming to BS EN 61347-2-7 denoted EL-T
- G = internally illuminated sign

Duration in minutes

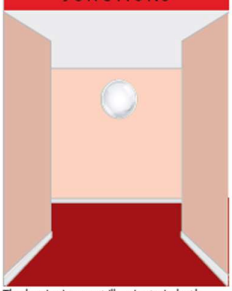
- 10 minutes
- 60 minutes
- 120 minutes
- 180 minutes

NON-MAINTAINED

INTERNAL FINAL EXIT

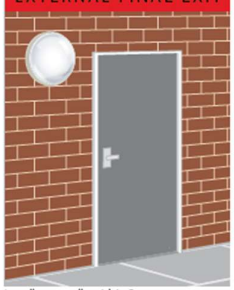
Panic bars, locks etc need to be illuminated to allow them to be easily seen and operated.

JUNCTIONS

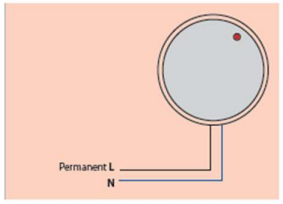


The luminaire must illuminate in both directions at the change of direction or intersection.

EXTERNAL FINAL EXIT

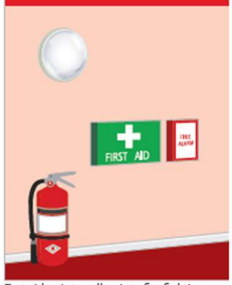


Install externally within 2 metres horizontal distance of any final exits. Sufficient light will be needed to muster a roll call.



The lighting only operates when the normal mains supply fails (emergency lighting only).

ALARM AREAS

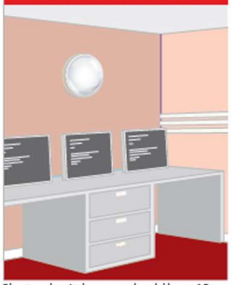


First aid points, call points, fire fighting equipment and fire alarm panels should have 15 lux of vertical illuminance.

LIFTS

To provide emergency illuminations in all lifts.

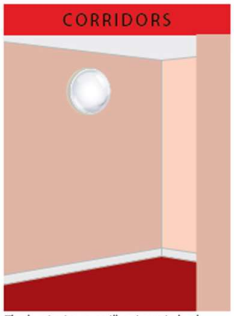
CONTROL ROOMS



Plant and switch rooms should have 15 lux in plane of visual task. First aid rooms 15 lux and treatment rooms 50 lux on horizontal working plane for minimum duration of 30 minutes.

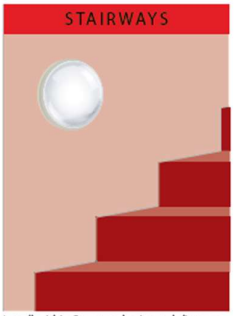
NON-MAINTAINED

CORRIDORS



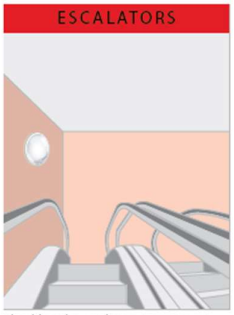
The luminaire must illuminate in both directions at the change of direction or intersection.

STAIRWAYS

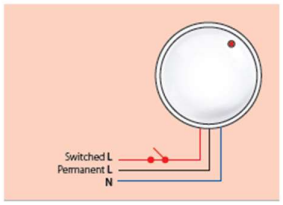


Install within 2 metres horizontal distance of change in floor level or stairs (each tread to receive direct light).

ESCALATORS



Should not be used as an escape route but requires the same illumination to protect users on it when the supply fails.

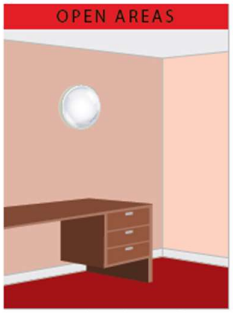


The lighting operates normally and continues to operate when the normal mains supply fails (mains lighting and emergency lighting).

TOILETS

Disabled toilets or multiple 'closets' without borrowed light should have at least one luminaire.

OPEN AREAS

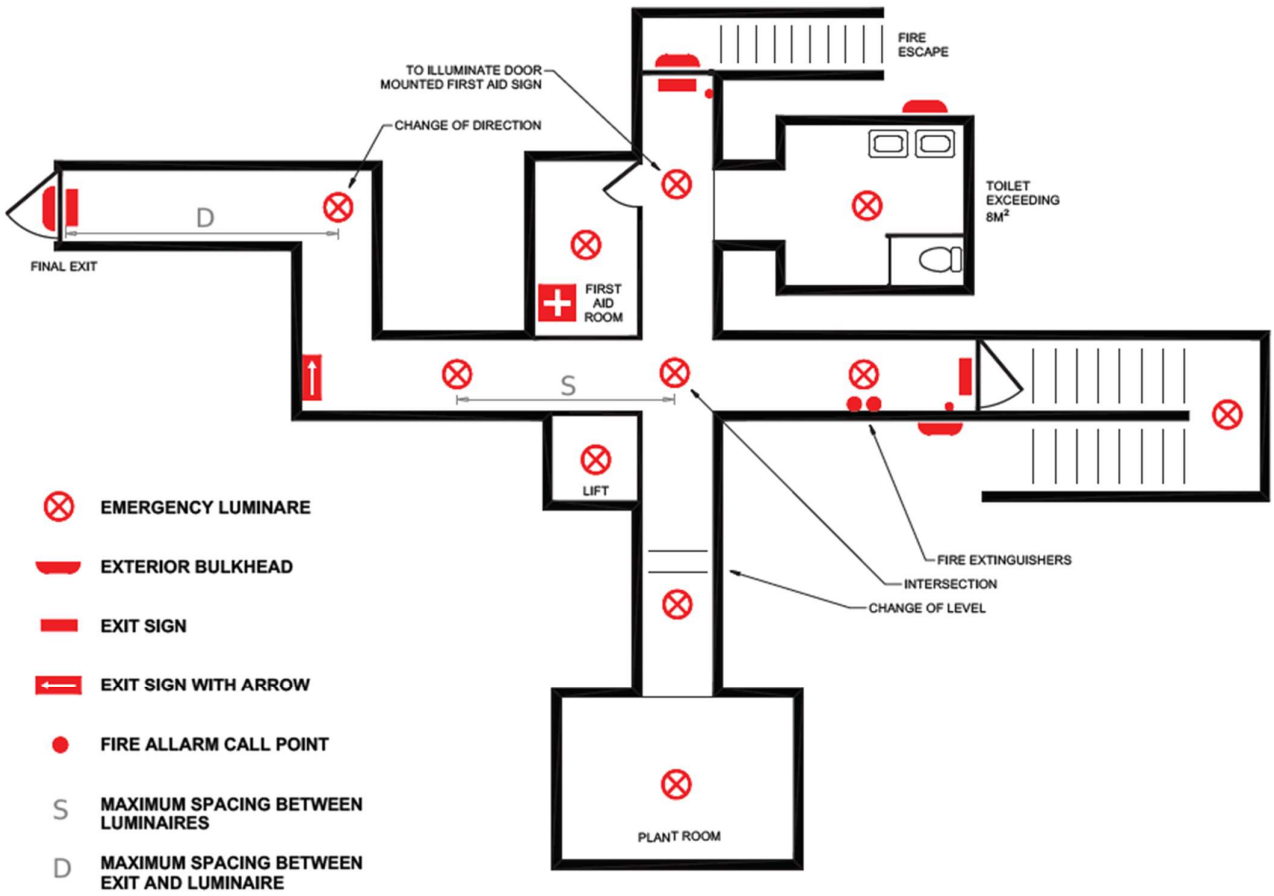


Open rooms either with a particular hazard, an escape route passing through or larger than 60m. Reception areas 15 lux in plane of visual task (e.g. switchboards) full duration.

HAZARDOUS AREAS

Areas of high risk should be illuminated to 10% of normal lighting or 15 lux, whichever is greater. Kitchens 15 lux horizontal on working plane and switches/ cut offs for minimum duration 30 minutes.

EMERGENCY LIGHTING TYPICAL INSTALLATION DESIGN



LEGENDS

LG1
Arrow Down
Single Sided

LG2
Arrow Right
Single Sided

LG3
Arrow Left
Single Sided

LG4
Arrow up
Single Sided

LG6
Double Sided
Down

LG5
Double Sided
Left/Right