

Due to a number of legislative requirements (such as those relating to health & safety and fire and building regulations) some form of emergency lighting will normally be required in majority of non-domestic premises.

This piece of information highlights the recommendations of the emergency lighting standard BS 5266-1: 2016 for the provision of emergency lighting in open areas, escape routes and other locations.

### Defined escape routes

Minimum levels of illumination recommended by clause 5.2.5 of BS 5266-1 should be provided in the defined emergency escape routes within buildings. For escape routes up to 2m in width, the horizontal illuminance along the centre line (at floor level) should be at least 1 lx. As well as this, clause 4.2.1 of BS EN 1838 requires that the central band of the escape route (consisting of not less than half the width of the route) should be illuminated to at least 50 % of that amount. Wider routes should be treated as a number of 2m wide strips, or open area (anti-panic) lighting should be provided.

It should be acknowledged that in earlier editions of BS 5266-1, a reduced level of illumination of 0.2 lx was permitted in escape routes, provided they were kept free from obstruction at all times. Despite this, practice proved that ensuring corridors and stairways were clear and hazard free at all times was difficult to manage. As a result, where such locations are found to have a reduced level of emergency lighting, it must be confirmed that this provision remains suitable for the application.

Some occupants, such as the elderly or those with impaired vision, will take longer to perceive objects and adapt to changes of illuminance. Therefore, the illuminance provided along the escape route(s) may need to be higher than the minimum value specified. (BRE Information Paper 9/97 [28] identifies conditions that benefit from a minimum illuminance of 3 lx on the centre line of the escape route, clause 5.2 refers).

### Open areas and rooms

The objective of open area (anti-panic) lighting is to provide a sufficient level of illumination so that occupants can feel safe and move towards a place of safety when the supply to the normal lighting fails. Excluding a 0.5 m strip around the perimeter of the area, clause 5.2.6 recommends that a minimum illuminance of 0.5 lx is provided at the floor surface in the following open areas:

- rooms greater than 60m<sup>2</sup> in floor area
- areas of any size with an escape route passing through them
- any areas that the site risk assessment has identified a requiring emergency illumination; for example a school's science laboratory where students handling chemicals would be at risk if they were in complete darkness.

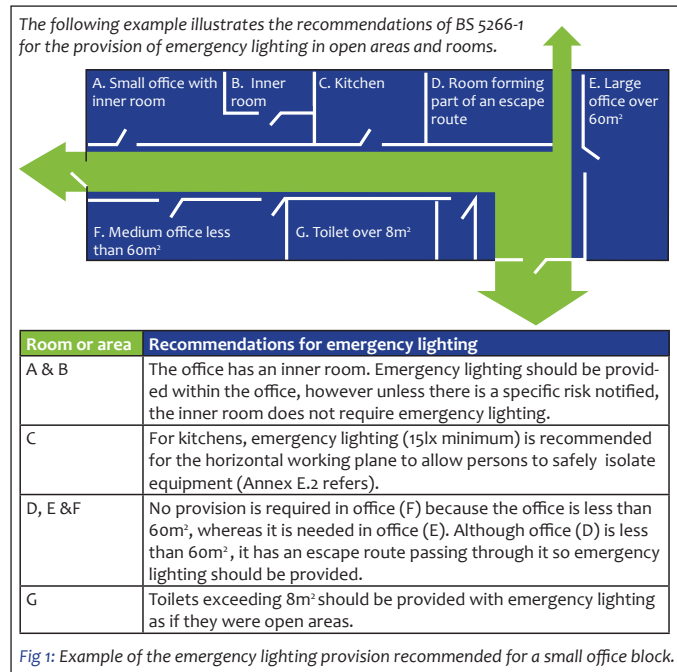


Fig 1: Example of the emergency lighting provision recommended for a small office block.

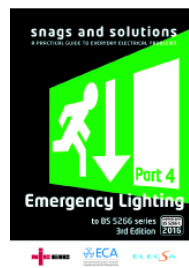
Some factors for consideration in a risk assessment include; underground or windowless areas, high levels of occupancy, if an escape route passes through the area or if there is a requirement to switch off equipment before vacating.

For the designated escape routes shown, luminaires will need to be provided at all points of emphasis in agreement with clause 5.2.8. An example of this would be at changes of direction, exits and outside the building to a place of safety.

### High risk task area lighting

Larger levels of emergency illumination may be needed in areas of particular risk to allow for the safe closure of prospectively dangerous activities. Clause 5.2.7 suggests that an emergency illumination of not less than 10% of the normal lighting is provided at the relevant point of the location of the risk. It should be noted that higher values may be needed depending on the activity. Requirements for high risk task area lighting are specified in BS EN 1838.

In buildings where the occupants are not intended to be evacuated immediately, 'emergency safety lighting' should be provided in conjunction with clause 5.3.



The NICEIC and ELECSA snags and solutions publication; Emergency Lighting Part 4 provides guidance on the design, installation and inspection and testing of emergency lighting systems. For information about the NICEIC Approved Contractor or Domestic Installers schemes, visit [www.niceic.com](http://www.niceic.com).

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