BS5266-1 : 2016

Principle changes, additions & points worthy of highlight

BS5266-1 : 2016

The 2011 version concentrated on evacuating occupants from a building in the event of a mains failure.

2016 version now considers a ‘stay put’ policy i.e. people who wish to stay in the building and carry on work processes.

BS5266-1 : 2016

This is a full revision and effectively a new standard

Therefore BS5266-1 : 2011 should be withdrawn

BS5266-1 : 2016

Designs should incorporate BS 5266-1:2016 as of June 2016 (published 31/05/16).

If you are involved with emergency lighting you will need the latest standard *(paper copies can be purchased from IFEDA at 30% discount).*

If your customers are incorporating stay put or dual evacuation this will impact on how an emergency lighting design is created.

All considerations need consultation with the relevant stakeholders.

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BS5266-1 : 2016

BS 5266 is intended for use in conjunction with other standards – these are listed in part 2 ‘normative references’ and should be considered when making design plans and changes.

BS5266-1 : 2016

New Definitions added – listed in part 3

i.e. Borrowed light
Competent person
Emergency safety lighting
High risk task area lighting
Open area lighting
Sign height

Borrowed Light

Def: Light obtained from an adjacent reliable source that is expected to be available at all material times.

Note section 5.2.8.5 Facilities for use by disabled people, and/or any multiple closet facilities without borrowed light, should have emergency illumination from at least one luminaire.

Competent Person

Def: person with the relevant current training and experience, and with access to the requisite tools, equipment and information, and capable of carrying out a defined task

Emergency Safety Lighting

Def: that part of emergency lighting that provides illumination for the safety of people staying in a premises when the supply to the normal lighting fails

High Risk Task Area Lighting

Def: that part of emergency escape lighting that provides illumination for the safety of people involved in a potentially dangerous process or situation and to enable proper shut-down procedures for the safety of the operator and other occupants of the premises

BS EN 1838:2013, 3.6

BS5266-1 High Risk Task Areas

New requirement for **High Risk Task Areas...**

5.2.7 page 8 If emergency escape lighting is required to provide illumination for the safety of people involved in a potentially dangerous process or situation, and to enable proper shut–down procedures for the safety of the operator and other occupants, ***the illuminance value should be not less than 10%*** *of the average of the normal lighting at the location of the point of risk...*

See also BS1838 : 2013

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Open Area Lighting

Def: that part of emergency escape lighting provided to avoid panic and provide illumination allowing people to reach a place where an escape route can be identified

BS EN 1838:2013, 3.5

Sign Height

Def: diameter of a circular geometric shape or height of a rectangular or triangular geometric shape

BS ISO 3864-1:2011, 3.13

Sign Height

The maximum viewing distance normal to escape route signs should be determined from the sign height, using the recommendations given in BS 5499-4:2013, Clause 6 and factor of distance in BS 5499-4:2013, Table 3 for powered internally illuminated escape route signs, or BS 5499-4:2013, Table 2 for externally illuminated escape route signs.

BS5266-1 : 2016

Consultations & Records – part 4

Enlarged section. Introduces the concept of a ‘stay put’ policy and whether lighting is required for those who stay behind to carry on work operations.

An assessment of risk to the occupants of the building must be made and a plan of action formed which includes action to be taken, warning of evacuation and escorting to safe refuges, if used.

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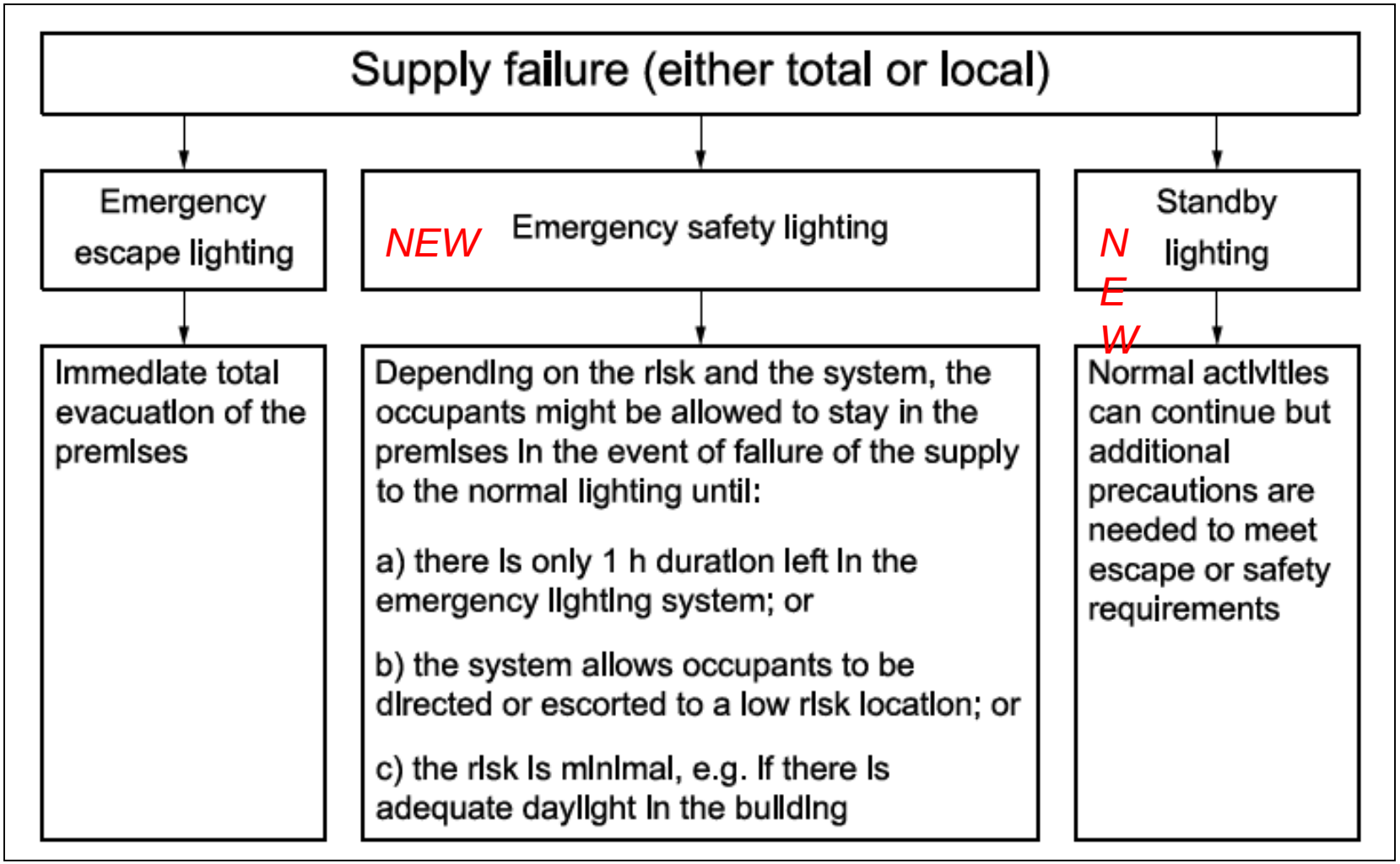
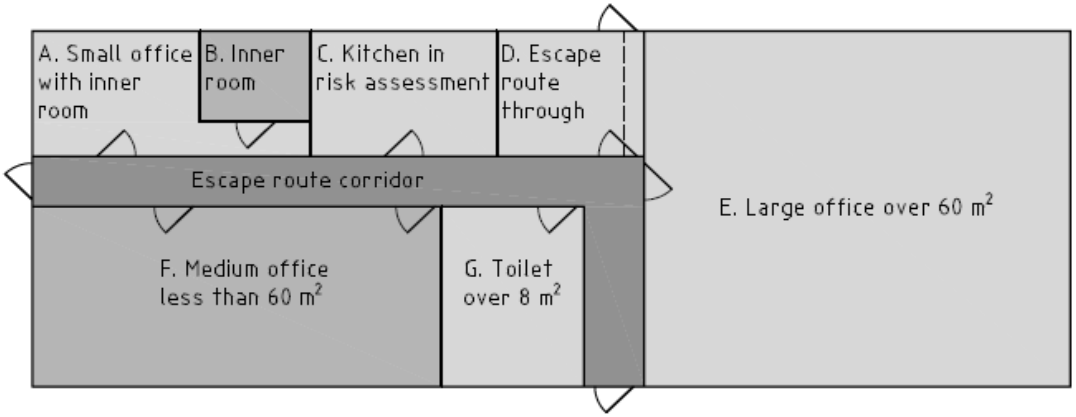
Types of Emergency Lighting

New diagram and concepts of 'lighting'. Ref Intro page 1



Examples of rooms requiring em/ls



Key

Area	Dimensions	Function and relevant considerations	Emergency lighting needed
Escape route	(2 × 17) m	Corridor leading to exits; luminaires required at change of direction, exits and outside building to place of safety	Yes
Room A with inner room	(3 × 9) m = 27 m²	Small office in which the office becomes the escape route of the inner room and needs emergency lighting	Yes
Room B	(2 × 4) m = 8 m²	Inner room with no risks	No
Room C	(3 × 4) m = 12 m²	Kitchen needing emergency lighting in the risk assessment for the premises	Yes
Room D	(3 × 4) m = 12 m²	Small office, escape route passes through this open area	Yes
Room E	(10 × 8) m = 80 m²	Main office larger than 60 m² floor area	Yes
Room F	(5 × 11) m = 55 m²	Medium office smaller than 60 m² floor area	No
Room G	(5 × 6) m = 30 m²	Toilet larger than 8 m² floor area	Yes

Ref BS5266-1 page 9

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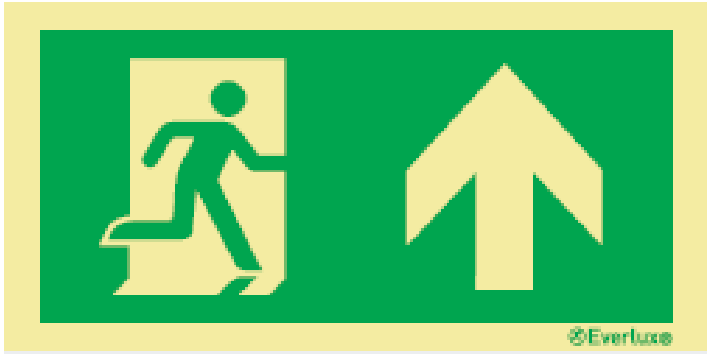
BS5266-1 Safety Signs on Escape Routes

Escape route signs should be located and operated in accordance with:

BS 5499-4:2013 – For appropriate direction (Table 1 pages 9 & 10)
BS EN ISO 7010:2012 – Use of E001 and E002
New section regarding the maximum viewing distance and sign height referencing BS 5499-4:2013, Tables 2&3, page 13.

Figure 4 BS 5499-4:2013

BS5266-1 Safety Signs on Escape Routes



An escape route sign is a combination sign consisting of the emergency exit sign BSEN ISO 7010:2012, E001 or E002 (as above) and should be accompanied by a directional arrow.

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5.2.9.1.2 Colorimetric & Photometric Characteristics

New section, Part 5.
Covers Escape Routes and Safety Signs.

Both refer to BS ISO 3864-4:2011 Tables 2&3 Illumination response time to BS EN 1838:2013 i.e. 50% within 5s, 100% within 60s

Members, especially designers and installers should ensure that any signs purchased meet these requirements.

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Emergency Safety Lighting

Expanded section, Part 5.

*New: The minimum illuminance over the area where people might have to move during a failure of the supply to the normal lighting should be not less than **1 lx** on the floor area...*

Consider also:

For staff with visual impairments BRE publication 9/97 (28) and HSE publication HSG 38 (30) details the minimum illuminance required for safe movement under normal conditions.

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Standby Lighting

New section, 5.4 page 14

Standby lighting powered by an alternative power supply source, such as a generator, should provide the same lighting conditions as those provided by the normal lighting system. This lighting should permit occupants to operate the premises normally.

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Generators

Ref section 7.3 page 17
Generators that are used to supply the emergency lighting should be able to supply the emergency lighting load automatically within 5 s for normal applications or 0.5 s for high risk task areas.

n.b. If the generator is only used for standby duty and does not form part of either escape or safety emergency lighting, then fire-resisting wiring systems are not required.

Wiring Systems & Circuits

Ref section 8.2.1

New requirement for the use of porcelain terminal blocks on the emergency supply cable for central power supply systems where the supply is looped in and out of luminaires.

A circuit protective device should be installed in the supply to each luminaire to safeguard the emergency supply.

Wiring Systems & Circuits

Ref section 8.3.3 Test facility:

Expanded to add:-

The test facility should be able to be used for both monthly short tests and annual full duration tests.

The test facility should be protected from unauthorized operation.

The test device should not interrupt power to any other electrical equipment that could cause a hazard.

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Emergency Lighting Design Procedures

Ref section 10.2 page 26

3 additional (or updated) requirements

(m) Establish areas that require standby lighting.

(o) Establish high risk areas and specific locations that require emergency lighting.

(p) Establish areas that require emergency safety lighting.

Certificates and Log Book

Ref Sect 11 New requirement regarding the certification of installations:

Where a log book or similar document already exists for an installation which is to be modified, the information it contains should be integrated into the revised document.

If the original completion certificates are not available an inspection of the installation should take place and if all is satisfactory a certificate of verification for existing premises should be issued.

See Annex K page 54 for example

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Routine Inspections & Tests

Ref Sect 12 New requirement regarding inspections and testing (now states when):

The system should be inspected and tested at regular intervals in accordance with BS EN 50172.

Functional operation should be checked at least every month.

Full rated test on each luminaire should be performed at least annually.

A visual inspection of each luminaire should be performed at least annually.

Precautions and actions are included when testing with particular regards to the batteries and functionality after testing.

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Servicing & Repair

Ref Sect 13 Expanded detailing the actions required by both the Responsible Person and the Competent Person.

Emergency lighting servicing of specialist components

Ref 13.4

To reduce the time taken to repair a system, a supply of essential spares and consumables should be kept on site so that systems can be restored to working condition as quickly as possible.

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Annexes

Previously 9 annexes now 13:-

Annex A: Summary of standards covering emergency lighting

Annex B: Developments in emergency lighting application and technology

Annex C: Guidance on the application of em' lighting systems

Annex D: Measuring illuminance of emergency lighting

Annex E: Typical illuminance for specific locations

Annex F: Emergency Lighting classifications

Annex G: Guidance on illuminance measurements and calculations

cont…

Annexes

Previously 9 now 13:-

Annex H: Model completion certificate**

Annex I: model certificate for completion of small new installations*

Annex J: The emergency lighting log-book

Annex K: Model certification for verification of existing installations

Annex L: Additional guidance on the compliance checklist and report for an existing site

Annex M: Model periodic inspection and test certificate

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Annexes

Annex H: Model completion certificate**

This is a certificate for the verification of an existing installation with no restriction on size or number of luminaires.

It should not be confused with the model periodic inspection and test certificate also within this annex.

Annexes

Annex I: model certificate for completion of small new installations*

*This certificate is only relevant to installations with up to 25 self contained luminaires.
It is no longer used to verify existing installations.
And any reference to centrally powered systems has been removed.

BS5266-1 : 2016

To reiterate: Designs should incorporate BS 5266-1:2016 as of June 2016 (published 31/05/16).

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