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Emergency escape lighting systems

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/24

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Supersedes EN 50172:2004

English Version

Emergency escape lighting systems

Systèmes d'éclairage de sécurité

Sicherheitsbeleuchtungsanlagen

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Contents

Page

European foreword

This document (EN 50172:2024) has been prepared by CLC/TC 34" Lighting".

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2025-05-27
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2027-05-27

This document supersedes EN 50172:2004 and all of its amendments and corrigenda (if any).

EN 50172:2024 includes the following significant technical changes with respect to EN 50172:2004:

— Requirements for emergency escape lighting equipment have been added

— Requirements for the initial verification have been added

— Requirements for the handover documentation have been added

— Requirements to the logbook have been added

— Requirements to maintenance and verification of emergency escape lighting systems have been modified

— Guidance for the selection of appropriate system durations and activation times for various use cases have been added as Annex A

— Recommendations how the onsite measurement should be carried out have been added as Annex B

— Considerations for emergency lighting systems during and after a premises lockdown or prolonged periods where power is disconnected have been added as Annex C

— Requirements how the system wiring should be carried out have been added as Annex D

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

This document is read in conjunction with EN 1838.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Introduction

Table 1 shows an overview of the different forms of emergency lighting. For more details see EN 1838.

Table 1 — Forms of emergency lighting

<table>
<tr><td colspan="5">Emergency lighting</td></tr>
<tr><td colspan="3">Emergency escape lighting</td><td rowspan="2">Local area lighting</td><td rowspan="2">Standby lighting</td></tr>
<tr><td>Escape route lighting</td><td>Open area (anti-panic) lighting</td><td>High-risk task area lighting</td></tr>
<tr><td colspan="4">Safety signs including adaptive safety signs</td><td></td></tr>
</table>

While EN 1838 includes luminous requirements for emergency escape lighting systems (and stand-by lighting systems), this document provides electrical installation requirements specific for emergency escape lighting systems together with verification, operation and maintenance documentation and test requirements for such systems. Emergency lighting is a key element of building safety and of utmost importance to prevent harm and save lives in emergency situations. Such situations are rare, but their rarity is also the reason why issues may remain undetected and the functionality of the emergency lighting system may thus be impaired just in the very moment that emergency lighting is actually required. Such issues may be related to building layout updates or changes in use pattern, or simply the ageing of emergency lighting equipment over time, for instance. Therefore, maintenance of emergency lighting systems is just as essential as its initial proper installation.

Hence, this document does contain detailed requirements not only for the initial verification of emergency escape lighting systems, but also for its continuous monitoring and maintenance which is the only way to ensure that emergency escape lighting will adequately be provided whenever required.

Note that legal requirements throughout Europe are not limited to the initial installation of emergency lighting, but also comprise requirements related to continuous monitoring and maintenance.

1 Scope

This document specifies electrical installation requirements specific for emergency escape lighting systems together with verification, operation and maintenance documentation and test requirements for such systems.

NOTE 1 Emergency escape lighting includes escape route lighting, open area (anti-panic) lighting and high-risk task area lighting. Escape route safety signs are part of emergency escape lighting.

NOTE 2 Emergency escape lighting systems include adaptive and non-adaptive systems, as well as high and low-mounted systems.

This document does not cover stand-by lighting requirements.

NOTE 3 Systems used for stand-by lighting can also be used for emergency escape lighting, given the corresponding requirements are fulfilled, see EN 1838.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1838:—,[1] *Lighting applications - Emergency lighting*

ISO 8528-12, *Reciprocating internal combustion engine driven alternating current generating sets — Part 12: Emergency power supply to safety services*

EN 50171:2021, *Central safety power supply systems*

HD 60364-5-51:2009,[2] *Electrical installations of buildings - Part 5-51: Selection and erection of electrical equipment - Common rules*

HD 60364-5-56:2018, *Low-voltage electrical installations - Part 5-56: Selection and erection of electrical equipment - Safety services*

HD 60364-6:2016, *Low-voltage electrical installations - Part 6: Verification*

EN IEC 60598-2-22:2022, *Luminaires - Part 2-22: Particular requirements - Luminaires for emergency lighting (IEC 60598-2-22)*

EN 62034, *Automatic test systems for battery powered emergency escape lighting*

ISO 3864-1, *Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings*

EN IEC 62485-2, *Safety requirements for secondary batteries and battery installations - Part 2: Stationary batteries (IEC 62485-2)*

EN IEC 62485-5, *Safety requirements for secondary batteries and battery installations - Part 5: Safe operation of stationary lithium ion batteries*

[1] A new edition of EN 1838 is under preparation by CEN TC 169. Stage at the time of publication: FprEN 1838:2024.
[2] As amended by HD 60364-5-51:2009/A11:2013 and HD 60364-5-51:2009/A12:2017.