SVENSK STANDARD SS-EN 60598-2-22

| Fastställd | Utgåva | Sida | Ansvarig kommitté |
|---|---|---|---|
| 2014-11-19 | 3 | 1 (1+34) | SEK TK 34 |



# Ljusarmatur –
# Säkerhet –
# Del 2-22: Särskilda fordringar på armatur för nödbelysning

*Luminaires –*
*Part 2-22: Particular requirements –*
*Luminaires for emergency lighting*

Som svensk standard gäller europastandarden EN 60598-2-22:2014. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60598-2-22:2014.

**Nationellt förord**

Europastandarden EN 60598-2-22:2014

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 60598-2-22, Fourth edition, 2014 - Luminaires - Part 2-22: Particular requirements - Luminaires for emergency lighting**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60598-2-22, utgåva 2, 1998, SS-EN 60598-2-22/A1, utgåva 1, 2003, SS-EN 60598-2-22/A2, utgåva 2, 2008 och SS-EN 60598-22 C2, utgåva 1, 2006, gäller ej fr o m 2017-07-24.

ICS 29.140.40

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
Postadress: Box 1284, 164 29 KISTA
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## *Standarder underlättar utvecklingen och höjer elsäkerheten*

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

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SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

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## *Var med och påverka!*

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 60598-2-22

October 2014

ICS 29.140.40

Supersedes EN 60598-2-22:1998

English Version

# Luminaires - Part 2-22: Particular requirements - Luminaires for emergency lighting (IEC 60598-2-22:2014)

Luminaires - Partie 2-22: Exigences particulières - Luminaires pour éclairage de secours (CEI 60598-2-22:2014)

Leuchten - Teil 2-22: Besondere Anforderungen - Leuchten für Notbeleuchtung (IEC 60598-2-22:2014)

This European Standard was approved by CENELEC on 2014-07-24. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.


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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**



Ref. No. EN 60598-2-22:2014 E

SEK Svensk Elstandard

## Foreword

The text of document 34D/1119/FDIS, future edition 4 of IEC 60598-2-22, prepared by SC 34D, "Luminaires", of IEC TC 34, "Lamps and related equipment", was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60598-2-22:2014.

The following dates are fixed:

| | | |
|---|---|---|
| • latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2015-04-24 |
| • latest date by which the national standards conflicting with the document have to be withdrawn | (dow) | 2017-07-24 |

This document supersedes EN 60598-2-22:1998

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

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

## Endorsement notice

The text of the International Standard IEC 60598-2-22:2014 was approved by CENELEC as a European Standard without any modification.

# Annex ZA
(normative)

## Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

| Publication | Year | Title | EN/HD | Year |
|---|---|---|---|---|
| IEC 60073 | - | Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators | EN 60073 | - |
| IEC 60155 | - | Glow-starters for fluorescent lamps | EN 60155 | - |
| IEC 60364-5-56 (mod) | - | Low-voltage electrical installations -- Part 5-56: Selection and erection of electrical equipment - Safety services | HD 60364-5-56 | - |
| | | | +A11 | 2013 |
| | | | +A1 | 2011 |
| | | | +AA | |
| IEC 60598-1 | - | Luminaires -- Part 1: General requirements and tests | EN 60598-1 | - |
| IEC 60896-21 | - | Stationary lead-acid batteries -- Part 21: Valve regulated types - Methods of test | EN 60896-21 | - |
| IEC 61056-1 | - | General purpose lead-acid batteries (valve-regulated types) -- Part 1: General requirements, functional characteristics - Methods of test | EN 61056-1 | - |
| IEC 61347-2-2 | - | Lamp controlgear -- Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament lamps | EN 61347-2-2 | - |
| IEC 61347-2-3 | - | Lamp controlgear -- Part 2-3: Particular requirements for a.c. and/or d.c. supplied electronic control gear for fluorescent lamps | EN 61347-2-3 | - |
| | | | +AC | 2011 |
| IEC 61347-2-7 | - | Lamp controlgear -- Part 2-7: Particular requirements for battery supplied electronic controlgear for emergency lighting (self-contained) | EN 61347-2-7 | - |
| IEC 61347-2-12 | - | Lamp controlgear - Part 2-12: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps) | - | - |
| IEC 61347-2-13 | - | Lamp controlgear -- Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules | FprEN 61347-2-13 | - |
| IEC 61951-1 | - | Secondary cells and batteries containing alkaline or other non-acid electrolytes - Portable sealed rechargeable single cells -- Part 1: Nickel-cadmium | EN 61951-1 | - |

| | | | | |
|---|---|---|---|---|
| IEC 61951-2 | - | Secondary cells and batteries containing alkaline or other non-acid electrolytes - Portable sealed rechargeable single cells -- Part 2: Nickel-metal hydride | EN 61951-2 | - |
| IEC 62034 | - | Automatic test systems for battery powered emergency escape lighting | EN 62034 | - |
| ISO 3864-1 | 2011 | Graphical symbols_- Safety colours and safety signs_- Part_1: Design principles for safety signs and safety markings | - | - |
| ISO 3864-4 | - | Graphical symbols_- Safety colours and safety signs_- Part_4: Colorimetric and photometric properties of safety sign materials | - | - |
| ISO 30061 | - | Emergency lighting | - | - |
| CIE 121 SPI | - | The Photometry and Goniophotometry of Luminaires - Supplement 1: Luminaires for Emergency Lighting | - | - |

# CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

# LUMINAIRES –

# Part 2-22: Particular requirements – Luminaires for emergency lighting

## FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60598-2-22 has been prepared by subcommittee 34D: Luminaires of IEC technical committee 34: Lamp and related equipment.

This fourth edition cancels and replaces the third edition published in 1997, AMD1:2002 and AMD2:2008. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) Clause 22.3, addition of definitions for PELF and Self-contained portable emergency luminaire;
b) Clause 22.5, updated with the introduction of requirements for non-replaceable lamp and batteries;

c) Clause 22.6, improved requirements to confirm that the charge indication is correctly connected to the circuit together with other clarifications regarding the controlgear and the remote box with its connecting cabe to the emergency luminaire;

d) Clause 22.12, improved requirements to ensure that the luminaire shall not become unsafe;

e) Clause 22.16, full revision of the photometric testing to align with ISO and CIE;

f) Clause 22.17, now only references the requirements which are now covered in IEC 61347-2-7;

g) Clause 22.19, now only references the requirements which are now covered in IEC 61347-2-7;

h) Annex A, now includes nickel metal hydride batteries and reference to cell types in IEC 61951-1;

i) Annex B, minor changes to the classifications;

j) Annex C, Figure C.1 deleted in favour of a revised text;

k) Annex E, the additional requirements covering self-contained portable emergency luminaires

The text of this standard is based on the following documents:

| FDIS | Report on voting |
|---|---|
| 34D/1119/FDIS | 34D/1131/RVD |

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This standard is to be read in conjunction with IEC 60598-1 *Luminaires – Part 1: General requirements and tests*.

A list of all parts in the IEC 60598 series, published under the general title *Luminaires*, can be found on the IEC website.

In this standard, the following print types are used:

– requirements: in roman type

– *test specifications: in italic type*

– notes: in small roman type.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

# LUMINAIRES –

# Part 2-22: Particular requirements – Luminaires for emergency lighting

## 22.1 Scope

This part of IEC 60598 specifies requirements for emergency luminaires for use with electrical lamps on emergency power supplies not exceeding 1 000 V.

This part does not cover the effects of non-emergency voltage reductions on luminaires incorporating high pressure discharge lamps.

This part gives general requirements for emergency lighting equipment.

This part continues to use the term “lamp” which also includes “light source(s)" where appropriate.

## 22.2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60073, *Basic and safety principles for man-machine interface, marking and identification – Coding principles for indication devices and actuators*

IEC 60155, *Glow-starters for fluorescent lamps*

IEC 60364-5-56, *Electrical installations of buildings – Part 5: Selection and erection of electrical equipment – Chapter 56: Safety services*

IEC 60598-1, *Luminaires – Part 1: General requirements and tests*

IEC 60896-21, *Stationary lead-acid batteries - Part 21: Valve regulated types - Methods of test*

IEC 61056-1, *General purpose lead-acid batteries (valve-regulated types) - Part 1: General requirements, functional characteristics - Methods of test*

IEC 61347-2-2, *Lamp controlgear - Part 2-2: Particular requirements for d.c. or a.c. supplied electronic step-down convertors for filament* lamps

IEC 61347-2-3, *Lamp control gear - Part 2-3: Particular requirements for a.c. and/or d.c. supplied electronic control gear for fluorescent* lamps

IEC 61347-2-7, *Lamp controlgear – Part 2-7; Particular requirements for battery supplied electronic controlgear for emergency lighting (self-contained)*

IEC 61347-2-12, *Lamp controlgear - Part 2-12: Particular requirements for d.c. or a.c. supplied electronic ballasts for discharge lamps (excluding fluorescent lamps)*

IEC 61347-2-13, *Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED* modules

IEC 61951-1, *Secondary cells and batteries containing alkaline or other non-acid electrolytes. Portable sealed rechargeable single cells – Part 1: nickel-cadmium*

IEC 61951-2, *Secondary cells and batteries containing alkaline or other non-acid electrolytes. Portable sealed rechargeable single cells – Part 2: Nickel-metal hydride*

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

ISO 3864-1:2011, *Graphical symbols — Safety colours and safety signs. Part 1: Design principles for safety signs and safety markings*

ISO 3864-4:2011, *Graphical symbols — Safety colours and safety signs. Part 4: Colorimetric and photometric properties of safety sign materials*

ISO 30061:2007, *Emergency lighting*

CIE 121 SP1, *The photometry of emergency luminaires*