



# SLOVENSKI STANDARD SIST EN 60598-2-22:2000

01-september-2000

Nadomešča:

SIST EN 60598-2-22:1996

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**Svetilke - 2-22. del: Posebne zahteve - Svetilke za nujnostno razsvetljavo (IEC 60598-2-22:1997) (vsebuje popravke AC:1999, AC:2005 in AC:2007)**

Luminaires - Part 2-22: Particular requirements - Luminaires for emergency lighting (IEC 60598-2-22:1997)

Leuchten - Teil 2-22: Besondere Anforderungen - Leuchten für Notbeleuchtung (IEC 60598-2-22:1997)

Luminaires - Partie 2-22: Règles particulières - Luminaires pour éclairage de secours (CEI 60598-2-22:1997)

**Ta slovenski standard je istoveten z: EN 60598-2-22:1998**

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**ICS:**

29.140.40      Svetila      Luminaires

**SIST EN 60598-2-22:2000      en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60598-2-22**

October 1998

ICS 29.140.40

Supersedes EN 60598-2-22:1990

Descriptors: Electrical equipment, emergency lighting, luminaire, particular requirement

English version

**Luminaires**  
**Part 2-22: Particular requirements**  
**Luminaires for emergency lighting**  
(IEC 60598-2-22:1997, modified)

Luminaires  
Partie 2-22: Règles particulières  
Luminaires pour éclairage de secours  
(CEI 60598-2-22:1997, modifiée)

Leuchten  
Teil 2-22: Besondere Anforderungen  
Leuchten für Notbeleuchtung  
(IEC 60598-2-22:1997, modifiziert)

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This European Standard was approved by CENELEC on 1998-10-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

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

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

### Foreword

The text of the International Standard IEC 60598-2-22:1997, prepared by SC 34D, Luminaires, of IEC TC 34, Lamps and related equipment, together with common modifications prepared by the Technical Committee CENELEC TC 34Z, Luminaires and associated equipment, was submitted to the formal vote and was approved by CENELEC as EN 60598-2-22 on 1998-10-01.

This European Standard supersedes EN 60598-2-22:1990.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1999-10-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2001-10-01

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes A, B, C and ZA are normative and annexes D and ZB are informative.

Annexes ZA and ZB have been added by CENELEC.

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**Endorsement notice**

The text of the International Standard IEC 60598-2-22:1997 was approved by CENELEC as a European Standard with agreed common modifications as given below.

**COMMON MODIFICATIONS****Contents Add:**

Annex ZA Normative references to international publications with their corresponding European publications

Annex ZB A-deviations

**22.3 Definitions**

Delete and replace the following definitions:

22.3.1 **emergency lighting**: Lighting provided for use when the supply to the normal lighting fails. [CIE Publication 17.4]

22.3.2 **emergency escape lighting**: That part of emergency lighting that provides illumination for the safety of people leaving a location or attempting to terminate a potentially dangerous process before doing so.

22.3.14 **emergency luminaire rated lumen output**: Lumen output as claimed by the luminaire manufacturer 60 s (0,5 s for high-risk task-area lighting luminaires) after failure of the normal supply, and continuously to the end of rated duration of operation."

**22.12.1 Replace the second paragraph by:**

The luminaire shall be tested in the enclosure for a total duration of 390 h, made up of 10 successive cycles of 36 h and a final normal operation for 30 h, at maximum rated supply voltage (range). The luminaire shall be operated normally from maximum supply voltage (range) for 30 h and for 6 h in the emergency mode, in each of the 10 cycles.

**22.15 Add the following note after the second paragraph:**

NOTE: This test is to be conducted as the final test to the product during type testing.

**22.16.1 Replace the third paragraph by:**

Emergency luminaires used for high-risk task-area lighting shall provide the necessary lamp current in order to achieve the rated lumen output claimed by the manufacturer during operation in emergency mode within a maximum 0,5 s after failure of the normal supply, and continuously to the end of rated duration of emergency operation.

**Replace the first indent of the fourth paragraph by:**

- for self-contained luminaires in emergency mode during operation from the internal batteries after a 24 h charge at 0,9 times the minimum rated voltage (range).

22.16.2 b) **Replace** by:

b) the minimum operating voltage, including cable voltage drop for centrally supplied luminaires, 60 s (0,5 s for high-risk task-area lighting luminaires) after the interruption of the normal supply and subsequently during continuous operation to the end of the stated duration of the emergency lighting system.

22.17.2 **Replace** the first three paragraphs by:

22.17.2 Following complete battery discharge according to 22.12.4, the luminaire shall be subjected to a 24 h charging cycle at 0,9 times the minimum rated supply voltage (range) in its normal lighting mode, if applicable.

The supply to the luminaire shall then be reduced within 0,5 s to 0,6 times rated voltage after which the emergency lamps shall operate and remain operating to provide the declared rated luminaire emergency lumen output after 60 s, or lamp current after 0,5 s for high-risk task-area lighting luminaires.

The luminaire supply shall be switched off and on 500 times, each cycle consisting of 2 s off and 2 s on (at 0,85 times supply rated voltage). After these cycles the supply shall again be reduced to 0,6 times rated voltage and the luminaire shall provide rated lumen output after 60 s or respective lamp current after 0,5 s for high-risk task-area lighting luminaires.

22.18 **Replace** the first paragraph by:

Emergency luminaires shall be capable of operating satisfactorily at an ambient temperature of 70 °C for at least 1 h.

**Replace** the fifth paragraph by:

*The luminaire shall be removed from the chamber and the battery charged for 24 h at rated supply voltage (range). The test chamber shall be pre-heated to give an internal ambient temperature of 70 °C. The emergency luminaire shall be returned to the same position as for the previous test. After 1 h the luminaire shall be operated from the emergency supply. The light output reading shall not fall below 50 % of the initial 60 s result at any time from 60 s to 1 h.*

22.19.1 **Replace** the second paragraph by:

*"Compliance is checked by the test of 22.12 and Annex A."*

Annex A **Replace** A.1 by:

A.1 Batteries incorporated in emergency lighting luminaires shall be one of the following types:

- a) sealed nickel cadmium;
- b) valve regulated lead acid;
- c) Other battery types are allowed provided they conform to their relevant safety and performance standard and the relevant requirements of this standard.

**Annex ZA (normative)****Normative references to international publications  
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE: When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60073	1996	Basic and safety principles for man-machine interface, marking and identification Coding principles for indication devices and actuators	EN 60073	1996
IEC 60079	series	Electrical apparatus for explosive gas atmospheres	EN 50014 & related ENs EN 60079	series
IEC 60155	1993	Glow-starters for fluorescent lamps	EN 60155	1995
IEC 60285	1993	Alkaline secondary cells and batteries	EN 60285	1994
+ corr. August	1993	Sealed nickel-cadmium cylindrical rechargeable single cells		
IEC 60364-5-56 (mod)	1980	Electrical installations of buildings Part 5: Selection and erection of electrical equipment Chapter 56: Safety services	HD 384.5.56 S1	1985
IEC 60598-1 (mod)	1996	Luminaires Part 1: General requirements and tests	EN 60598-1	1997
IEC 60742 (mod)	1983	Isolating transformers and safety isolating transformers - Requirements	EN 60742 <sup>1)</sup>	1995
IEC 60896-2	1995	Stationary lead-acid batteries - General requirements and methods of test Part 2: Valve regulated types	EN 60896-2	1996
IEC 60924	1990	D.C. supplied electronic ballasts for tubular fluorescent lamps - General and safety requirements	EN 60924	1991

1) EN 60742 includes A1:1992 to IEC 60742.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60928	1995	Auxiliaries for lamps - A.C. supplied electronic ballasts for tubular fluorescent lamps - General and safety requirements	EN 60928	1995
IEC 61046	1993	D.C. or a.c. supplied electronic step-down convertors for filament lamps - General and safety requirements	EN 61046	1994
IEC 61056-1	1991	Portable lead-acid cells and batteries (Valve-regulated types) Part 1: General requirements, functional characteristics - Methods of test	EN 61056-1	1993
ISO 3864	1984	Safety colours and safety signs	-	-

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**Annex ZB (informative)****A-deviations**

**A-deviation:** National deviation due to regulations, the alteration of which is for the time being outside the competence of the CEN/CENELEC member.

This European Standard falls under Directive 73/23/EEC.

NOTE (from CEN/CENELEC IR Part 2, 3.1.9): Where standards fall under EC Directives, it is the view of the Commission of the European Communities (OJ No C 59; 1982-03-09) that the effect of the decision of the Court of Justice in case 815/79 Cremonini/Vrankovich (European Court Reports 1980, p. 3583) is that compliance with A-deviations is no longer mandatory and that the free movement of products complying with such a standard should not be restricted except under the safeguard procedure provided for in the relevant Directive.

A-deviations in an EFTA-country are **valid instead** of the relevant provisions of the European Standard in that country until they have been removed.

<u>Clause</u>	<u>Deviation</u>
22.3.8	<p><b>France</b> (Regulation for fire hazard safety for buildings open to the public - Clause EC 15).</p> <p>The installation of elements adjacent to the luminaire is not allowed.</p>
22.6.6	<p><b>France</b> (Regulation for fire hazard safety for buildings open to the public - Clause EL 3).</p> <p>Combined luminaires are not allowed to be used for escape lighting. Circuits energizing luminaires for escape lighting are required to be independent of other electrical circuits.</p>
22.15	<p><b>France</b> (Regulation for fire hazard safety for buildings open to the public - Clause EC 4).</p> <p>For centrally supplied luminaires, a glow wire temperature of 850 °C and an extinguishing time of 5 s is required.</p> <p>For self-contained luminaires, a glow wire temperature of 750 °C and an extinguishing time of 5 s is required.</p>
22.16.2 and 22.16.3	<p><b>France</b> (Regulation for fire hazard safety for buildings open to the public - Clause E 7).</p> <p>Photometric characteristics of the luminaire are not to be checked.</p>



Corrigendum to EN 60598-2-22:1998

English version

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NOTE: This corrigendum replaces the corrigendum to EN 60598-2-22:1998 of December 1998.

Foreword

Replace the latest date of withdrawal of conflicting national standards (dow) by:

- latest date by which national standards conflicting  
with the EN have to be withdrawn (dow) 2005-10-01
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February 1999

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## Corrigendum to EN 60598-2-22:1998

English version

NOTE This corrigendum replaces the corrigendum February 1999.

Foreword

**Replace** the latest date for withdrawal of national conflicting standards (dow) by:

- latest date by which national standards conflicting with the EN have to be withdrawn (dow) 2007-03-01

Annex ZA

**Replace** the reference to IEC 60598-1 by:

IEC 60598-1 (mod)	sliding, latest edition	Luminaires Part 1: General requirements and tests	EN 60598-1	sliding, latest edition
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Annex ZB

**Add:**

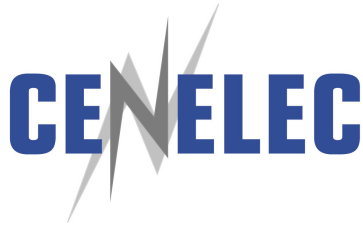
Clause

Deviation

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- 22.4 **Spain** (Royal Decree 842/2002; Spanish regulation on low voltage installations: Technical Instruction ITC-BT-28: Chapter 3.4.1)  
"Rest mode": The self contained emergency luminaires shall be provided with a "rest mode" facility, which must be placed built-in or outside the equipment.
- 22.13 **Spain** (Royal Decree 842/2002; Spanish regulation on low voltage installations: Technical Instruction ITC-BT-28: Chapter 3.4.1)  
Resistance to dust and moisture: The minimum IP classification of a self contained emergency luminaire with fluorescent lamps shall be IP 22.
- 22.16.1 **Spain** (Royal Decree 842/2002; Spanish regulation on low voltage installations: Technical Instruction ITC-BT-28: Chapter 3.1.1 & 3.1.2)  
Rated duration of operation: The rated duration of operation for the self contained emergency luminaires used for Safety lighting (escape or ambient lighting) shall be equal or higher than 1 hour.
- 22.16.1 **Spain** (Royal Decree 842/2002; Spanish regulation on low voltage installations: Technical Instruction ITC-BT-28: Chapter 3.4.1)  
Functional safety: The minimum rated lumen output for self contained emergency luminaires with incandescent lamps shall be 30 lumen.
- 22.17.1 **Spain** (Royal Decree 842/2002; Spanish regulation on low voltage installations: Technical Instruction ITC-BT-28: Chapter 3.1)  
Changeover operation from normal to emergency mode shall occur when the normal supply voltage is less than 0,7 times the rated value.

December 2005



## Corrigendum to EN 60598-2-22:1998

English version

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NOTE This corrigendum replaces the corrigendum December 2005.

Foreword**Replace** the latest date for withdrawal of national conflicting standards (dow) by:

- latest date by which national standards conflicting with the EN have to be withdrawn (dow) 2008-03-01

Annex ZA**Replace** the reference to IEC 60598-1 by:

IEC 60598-1 (mod)	sliding, latest edition	Luminaires Part 1: General requirements and tests	EN 60598-1	sliding, latest edition
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Annex ZB**Add:**ClauseDeviation

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October 2007