

<b>STN</b>	<b>Svietidlá</b> <b>Časť 2-22: Osobitné požiadavky</b> <b>Svietidlá na núdzové osvetlenie</b> <b>Zmena A1</b>	<b>STN</b> <b>EN 60598-2-22/A1</b>  36 0600
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Luminaires  
Luminaires for emergency lighting

Part 2-22: Particular requirements

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. 07/20

STN EN 60598-2-22 z augusta 2016 sa bez zmeny A1 môže používať do 27. 3. 2023.

Obsahuje: EN 60598-2-22:2014/A1:2020, IEC 60598-2-22:2014/AMD1:2017

**131178**

EUROPEAN STANDARD

**EN 60598-2-22:2014/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2020

ICS 29.140.40

English Version

**Luminaires - Part 2-22: Particular requirements - Luminaires for  
emergency lighting  
(IEC 60598-2-22:2014/A1:2017)**

Luminaires - Partie 2-22: Exigences particulières -  
Luminaires pour éclairage de secours  
(IEC 60598-2-22:2014/A1:2017)

Leuchten - Teil 2-22: Besondere Anforderungen - Leuchten  
für Notbeleuchtung  
(IEC 60598-2-22:2014/A1:2017)

This amendment A1 modifies the European Standard EN 60598-2-22:2014; it was approved by CENELEC on 2019-12-18. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN 60598-2-22:2014/A1:2020 (E)****European foreword**

The text of document 34D/1296/FDIS, future edition 1 of IEC 60598-2-22/A1, prepared by IEC/TC 34D: Luminaires of IEC technical committee 34: Lamp and related equipment was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60598-2-22:2014/A1:2020.

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) 2020-09-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-03-27

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 has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

**Endorsement notice**

The text of the International Standard IEC 60598-2-22:2014/A1:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60364-5-56      NOTE      Harmonized as HD 60364-5-56

Replace Annex ZA of EN 60598-2-22:2014 by the following one:

## Annex ZA (normative)

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

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.

NOTE 1 Where 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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60073	-	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators	EN 60073	2002
IEC 60598-1	-	Luminaires -- Part 1: General requirements and tests	EN 60598-1	2015
			+ A1	2018
IEC 60896-21	-	Stationary lead-acid batteries -- Part 21: Valve regulated types - Methods of test	EN 60896-21	2004
IEC 61056-1	-	General purpose lead-acid batteries (valve-regulated types) -- Part 1: General requirements, functional characteristics - Methods of test	EN 61056-1	2012
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	2012
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	2011
			+AC	2011
			A1	2017
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	2012
			+ FprA1	2017 (in preparation)
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)	EN 61347-2-12	2005
			A1	2010

**EN 60598-2-22:2014/A1:2020 (E)**

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61347-2-13	-	Lamp controlgear -- Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	EN 61347-2-13	2014
			A1	2017
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	2017
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	2017
IEC 62034	-	Automatic test systems for battery powered emergency escape lighting	EN 62034	2012
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 SPI	-	The Photometry and Goniophotometry of Luminaires - Supplement 1: Luminaires for Emergency Lighting	-	-

## Annex ZZ (informative)

### Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered

This European Standard has been prepared under a Commission's standardization request relating to harmonized standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

**Table ZZ.1 — Correspondence between this European standard and Annex I of Directive 2014/35/EU [2014 OJ L96]**

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
<b>1. General conditions</b>		
a) the essential characteristics, the recognition and observance of which will ensure that electrical equipment will be used safely and in applications for which it was made, shall be marked on the electrical equipment, or, if this is not possible, on an accompanying document;	22.6 22.17	
b) the electrical equipment, together with its component parts, shall be made in such a way as to ensure that it can be safely and properly assembled and connected;	All	
c) the electrical equipment shall be so designed and manufactured as to ensure that protection against the hazards set out in points 2 and 3 is assured, providing that the equipment is used in applications for which it was made and is adequately maintained.	See item 2 and 3 of this table	
<b>2. Protection against hazards arising from the electrical equipment</b> Measures of a technical nature shall be laid down in accordance with point 1, in order to ensure that:		

**EN 60598-2-22:2014/A1:2020 (E)**

<b>Safety objectives of Directive 2014/35/EU</b>	<b>Clause(s) / sub-clause(s) of this EN</b>	<b>Remarks / Notes</b>
a) persons and domestic animals are adequately protected against the danger of physical injury or other harm which might be caused by direct or indirect contact;	22.7 22.8 22.9 22.10 22.11 22.12 22.15 22.20	
b) temperatures, arcs or radiation which would cause a danger, are not produced;	22.7 22.8 22.13 22.15	EMF is not covered
c) persons, domestic animals and property are adequately protected against non-electrical dangers caused by the electrical equipment which are revealed by experience;	22.7 22.15 22.8 22.18 22.20 22.21	
d) the insulation is suitable for foreseeable conditions.	22.8 22.14 22.15 22.20	
<b>3. Protection against hazards which may be caused by external influences on the electrical equipment</b> Technical measures shall be laid down in accordance with point 1, in order to ensure that the electrical equipment:		
a) meets the expected mechanical requirements in such a way that persons, domestic animals and property are not endangered;	22.6 22.7	
b) is resistant to non-mechanical influences in expected environmental conditions, in such a way that persons, domestic animals and property are not endangered;	22.14 22.16 22.19	
c) does not endanger persons, domestic animals and property in foreseeable conditions of overload.	22.7 22.13 22.16 22.19 22.20	

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.





IEC 60598-2-22

Edition 4.0 2017-09

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

AMENDMENT 1  
AMENDEMENT 1

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

**Luminaires –  
Partie 2-22: Règles particulières – Luminaires pour éclairage de secours**





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IEC 60598-2-22

Edition 4.0 2017-09

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE

AMENDMENT 1  
AMENDEMENT 1

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

**Luminaire –  
Partie 2-22: Règles particulières – Luminaire pour éclairage de secours**

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ICS 29.140.40

ISBN 978-2-8322-4809-6

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## FOREWORD

This amendment has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

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

FDIS	Report on voting
34D/1296/FDIS	34D/1304/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website 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.

## INTRODUCTION to Amendment 1

The light output of LED light sources depends also on the temperature at which it is operated. Typically the temperature is controlled by a heat sink on which it is mounted (e.g. luminaire surface).

For this reason, the calculation of the ratio of the electrical parameter ( $EOF_x$ ) will be introduced in the LED controlgear standards IEC 61347-2-13 and IEC 61347-2-7, as the direct measurement of EBLF is not practicable.

In particular  $EOF_1$  is defined as the ratio of the current in emergency mode from constant current controlgear divided by the nominal current of LED ( $I_{\text{normal mode}}$ ):

$$EOF_1 = I_{\text{emergency}} / I_{\text{normal mode}}$$

Knowing that the light output of an LED light source is nearly<sup>1</sup> directly proportional with the forward current flowing through it, it is possible to calculate the luminous flux of the luminaire in emergency mode by using the  $EOF_1$  or  $I_{\text{emergency}}$  from constant current controlgear.

This document contains a proposal for the modification of IEC 60598-2-22 to use the factor  $EOF_1$  or  $I_{\text{emergency}}$  in the luminaire.

<sup>1</sup> Any non-linearity due to the increased efficacy at lower operation temperature leads to an increased tolerance of the light output in the emergency mode but always positive.

IEC 60598-2-22:2014/AMD1:2017  
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## **22.2 Normative references**

*Delete the reference to IEC 60354-5-56*

*Add the following new reference:*

*CIE S025, Test Method for LED Lamps, LED Luminaires and LED Modules*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**