



SLOVENSKI STANDARD SIST EN 60598-1:2015

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Nadomešča:

SIST EN 60598-1:2009

SIST EN 60598-1:2009/A11:2009

Svetilke - 1. del: Splošne zahteve in preskusi (IEC 60598-1:2014, spremenjen)

Luminaire - Part 1: General requirements and tests (IEC 60598-1:2014 , modified)

Leuchten - Teil 1: Allgemeine Anforderungen und Prüfungen (IEC 60598-1:2014 ,
modifiziert)

Luminaire - Partie 1: Exigences générales et essais (IEC 60598-1:2014 , modifiée)

[SIST EN 60598-1:2015](https://standards.iteh.ai/catalog/standards/sist/08d48e9d-7bf5-4510-a58e-05ee4aa065e5/sist-en-60598-1-2015)

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Ta slovenski standard je istoveten z: EN 60598-1:2015

ICS:

29.140.40

Svetila

Luminaire

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en

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EUROPEAN STANDARD

EN 60598-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2015

ICS 29.140.40

Supersedes EN 60598-1:2008

English Version

Luminaire -
Part 1: General requirements and tests
(IEC 60598-1:2014 , modified)

Luminaire -
Partie 1: Exigences générales et essais
(IEC 60598-1:2014 , modifiée)

Leuchten -
Teil 1: Allgemeine Anforderungen und Prüfungen
(IEC 60598-1:2014 , modifiziert)

This European Standard was approved by CENELEC on 2014-10-20. 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.

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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

Foreword

The text of document 34D/1110/FDIS, future edition 8 of IEC 60598-1, 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 60598-1:2015.

A draft amendment, which covers common modifications to IEC 60598-1 (34D/1110/FDIS), was prepared by CLC/TC 34Z "Luminaires and associated equipment" and approved by CENELEC.

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) 2015-10-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2017-10-20

This document supersedes EN 60598-1:2008.

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.

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

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60598-1:2014 are prefixed "Z".

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Endorsement notice

The text of the International Standard IEC 60598-1:2014 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

3 Marking

3.2.12 Delete NOTE 4.

3.3 Add a new subclause:

3.3.101 Where the terminal block is not supplied with the luminaire, the packaging needs to contain the following wording:

"Terminal block not included. Installation may require advice from a qualified person."

4 Construction

4.11.6 At the end of the paragraph commencing "Following completion of these tests...", add "[the test voltage however being reduced to 1 500 V]".

5 External and internal wiring

5.2.1 Add under the item 'connecting leads (tails)', related to the indent "Fixed luminaires" the following additional text:

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connecting leads (tails):

account shall be taken of national installation rules/practice when deciding whether to supply a connection device or not. Where the luminaire is delivered with connecting leads (tails) and without a means of connection to the supply, the manufacturer of the luminaire shall specify which terminal block may be used which shall conform to EN 60998-2-1 or EN 60998-2-2; either the terminal block to be used shall be specified or the following shall be defined:

- the type of terminal (screw/screwless);
- number of terminals;
- rated voltage;
- rated connecting capacity;
- any necessary preparation of the ends of conductors;
- any fixing method.

The requirements of 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 shall be applied.

5.2.2 In paragraph 1, replace "IEC 60227 and IEC 60245" by "EN 50525".

Delete paragraph 2.

Replace Table 5.1 by:

Table 5.1 – Supply cord

Luminaire	Rubber	PVC	No insulation
Ordinary class I luminaires	H03RT-H ^c	H03VVH2-F ^c H03VV-F ^c	
Ordinary class II luminaires	H05RR-F ^c	H03VVH2-F ^(c) H03VV-F ^c	
Luminaires other than ordinary class I and II	H05RN-F ^c	H03VVH2-F ^{(a)c} H03VV-F ^{a c}	
Portable rough service luminaires	H07RN-F ^c	-	
Class III or with SELV circuits luminaires (up to 25V a.c./60V d.c.)			Un-insulated conductor ^b
Class III or with SELV circuits luminaires (above 25V a.c./60V d.c.), including 50V a.c./120 d.c.	Unsheathed basic insulated conductor		
^a For indoor use only ^b In accordance to HD 60364 "Electrical installations of buildings" un-insulated conductors are not allowed in certain special installations and locations, e.g. HD 60364-7-701 "Locations containing a bath or shower". ^c For supply voltages greater than 250 V, higher voltage grade cables and cords than those given in the above table may be necessary.			

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12 Endurance test and thermal test

12.4.2 c) Line 2, after "90 °C" **add** "(see footnote^c to Table 12.2 relating to unsleeved fixed wiring)".

Table 12.2 In footnote^c **add** the following:

- after "European installation standards": "(HD 60364 (HD 384))";
- after "European cable standards": "(EN 50525)".

Bibliography

Add the following notes for the standards indicated:

IEC 60081:1997	NOTE Harmonized as EN 60081:1998 (not modified).
IEC 60216 Series	NOTE Harmonized as EN 60216 Series (not modified).
IEC 60364 Series	NOTE Harmonized as HD 384/HD 60364 Series (partly modified).
IEC 60364-5-51:2001	NOTE Harmonized as HD 60364-5-51:2006 (modified). ¹⁾
IEC 60364-7-701	NOTE Harmonized as HD 60364-7-701.
IEC 60364-7-702	NOTE Harmonized as HD 60364-7-702

¹⁾ Superseded by HD 60364-5-51:2009.

IEC 60598-2-3:2002	NOTE Harmonized as EN 60598-2-3:2003 (not modified).
IEC 60598-2-5:1998	NOTE Harmonized as EN 60598-2-5:1998 (not modified).
IEC 60598-2-6:1994	NOTE Harmonized as EN 60598-2-6:1994 (not modified).
IEC 60664-3:2003	NOTE Harmonized as EN 60664-3:2003 (not modified).
IEC 60695 Series	NOTE Harmonized as EN 60695 Series (not modified).
IEC 60695-2-11:2000	NOTE Harmonized as EN 60695-2-11:2001 (not modified).
IEC 60811-3-1:1985	NOTE Harmonized as EN 60811-3-1:1995 (not modified).
IEC 60901:1996	NOTE Harmonized as EN 60901:1996 (not modified).
IEC 60921:2004	NOTE Harmonized as EN 60921:2004 (not modified).
IEC 60923:2005	NOTE Harmonized as EN 60923:2005 (not modified).
IEC 60925:1989	NOTE Harmonized as EN 60925:1991 (not modified).
IEC 60929:2006	NOTE Harmonized as EN 60929:2006 (not modified). 2)
IEC 60950-1:2005	NOTE Harmonized as EN 60950-1:2006 (modified).
IEC 61195:1999	NOTE Harmonized as EN 61195:1999 (not modified).
IEC 61210:1993	NOTE Harmonized as EN 61210:1995 (modified). 3)
IEC 61346-1:1996	NOTE Harmonized as EN 61346-1:1996 (not modified).
IEC 61535:2009	NOTE Harmonized as EN 61535:2009 (modified).
IEC 61995 Series	NOTE Harmonized as EN 61995 Series (partly modified).
ISO 75-2:1993	NOTE Harmonized as EN ISO 75-2:1996 (not modified). 4)

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2) Superseded by EN 60929:2011.

3) Superseded by EN 61210:2010.

4) Superseded by EN ISO 75-2:2004, which is also superseded by EN ISO 75-2:2013.

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60061	Series	Lamp caps and holders together with gauges for the control of interchangeability and safety	EN 60061	Series
IEC 60061-2 (mod)	1969	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2: Lampholders	EN 60061-2 + A1 to A37	1993
IEC 60061-3	1969	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3: Gauges	EN 60061-3 + A1 to A38	1993
IEC 60065 (mod)	2001	Audio, video and similar electronic apparatus - Safety requirements	EN 60065 + corr. March + corr. August + A11 + A12	2002 2006 2007 2008 2011
IEC 60068-2-75	1997	Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests	EN 60068-2-75	1997
IEC 60079	Series	Explosive atmospheres	EN 60079	Series
IEC/TR 60083	–	Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC	–	–
IEC 60085	2007	Electrical insulation - Thermal evaluation and designation	EN 60085	2008
IEC 60112	2003	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	2003
IEC 60155	1993	Glow-starters for fluorescent lamps	EN 60155	1995
IEC 60227	Series	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V	EN 50525 ¹⁾	Series

¹⁾ EN 50525 Series, which is related to, but not directly equivalent with IEC 60227 Series, applies instead.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60238	2004	Edison screw lampholders	EN 60238 + corr. January	2004 2005
IEC 60245	Series	Rubber insulated cables - Rated voltages up to and including 450/750 V	EN 50525 ²⁾	Series
IEC 60269	Series	Low-voltage fuses	EN/HD 60269	Series
IEC 60320	Series	Appliance couplers for household and similar general purposes	EN 60320	Series
IEC 60357	2002	Tungsten halogen lamps (non-vehicle) - Performance specifications	EN 60357 + corr. July	2003 2003
IEC 60360	1998	Standard method of measurement of lamp cap temperature rise	EN 60360	1998
IEC 60364-4-41 (mod)	2005	Low-voltage electrical installations - Part 4-41: Protection for safety - Protection against electric shock	HD 60364-4-41 + corr. July	2007 2007
IEC 60384-14	2005	Fixed capacitors for use in electronic equipment Part 14: Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	EN 60384-14	2005 ³⁾
IEC 60400	2008	Lampholders for tubular fluorescent lamps and starterholders	EN 60400	2008
IEC 60417	data-base	Graphical symbols for use on equipment	–	–
IEC 60432-1 (mod) A1	1999 2005	Incandescent lamps - Safety specifications - Part 1: Tungsten filament lamps for domestic and similar general lighting purposes	EN 60432-1 A1	2000 2005
IEC 60432-2 (mod) A1 (mod)	1999 2005	Incandescent lamps - Safety specifications - Part 2: Tungsten halogen lamps for domestic and similar general lighting purposes	EN 60432-2 A1	2000 2005
IEC 60432-3	2002	Incandescent lamps - Safety specifications - Part 3: Tungsten-halogen lamps (non-vehicle)	EN 60432-3	2003 ⁴⁾
IEC 60449 + A1	1973 1979	Voltage bands for electrical installations of buildings	HD 193 S2	1982
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993

2) EN 50525 Series, which is related to, but not directly equivalent with IEC 60245 Series, applies instead.

3) Superseded by EN 60384-14:2013 (DOW = 2016-07-10).

4) Superseded by EN 60432-3:2013 (DOW = 2015-08-08).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60570 (mod)	2003	Electrical supply track systems for luminaires	EN 60570	2003
IEC 60598-2	Series	Luminaires - Part 2: Particular requirements	EN 60598-2	Series
IEC 60598-2-4	1997	Luminaires - Part 2: Particular requirements - Section 4: Portable general purpose luminaires	EN 60598-2-4	1997
IEC 60634	1993	Heat test source (H.T.S.) lamps for carrying out heating tests on luminaires	EN 60634	1995
IEC 60662 (mod)	1980	High-pressure sodium vapour lamps	EN 60662	1993 ⁵⁾
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60682	1980	Standard method of measuring the pinch temperature of quartz-tungsten-halogen lamps	EN 60682	1993
IEC 60684	Series	Flexible insulating sleeving	EN 60684	Series
IEC 60695-2	Series	Fire hazard testing - Part 2: Glowing/hot-wire based test methods	EN 60695-2	Series
IEC 60695-2-10	2000	Fire hazard testing - Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure	EN 60695-2-10	2001 ⁶⁾
IEC 60695-11-5	2004	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	2005
IEC 60838	Series	Miscellaneous lampholders	EN 60838	Series
IEC 60989	–	Separating transformers, autotransformers, variable transformers and reactors	–	–
IEC 60990	1999	Methods of measurement of touch current and protective conductor current	EN 60990	1999
IEC 61032	1997	Protection of persons and equipment by enclosures - Probes for verification	EN 61032	1998

⁵⁾ Superseded by EN 60662:2012 (DOW = 2015-01-02).

⁶⁾ Superseded by EN 60695-2-10:2013 (DOW = 2016-05-14).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61058-1 (mod)	2000	Switches for appliances - Part 1: General requirements	EN 61058-1	2002 ⁷⁾
IEC 61140	2001	Protection against electric shock - Common aspects for installation and equipment	EN 61140	2002
IEC 61167	1992	Metal halide lamps	EN 61167	1994 ⁸⁾
IEC 61184	2008	Bayonet lampholders	EN 61184	2008
IEC 61199	1999	Single-capped fluorescent lamps - Safety specifications	EN 61199	1999 ⁹⁾
IEC 61249	Series	Materials for printed boards and other interconnecting structures	EN 61249	Series
IEC 61347	Series	Lamp controlgear	EN 61347	Series
IEC 61347-2-9	2000	Lamp controlgear - Part 2-9: Particular requirements for ballasts for discharge lamps (excluding fluorescent lamps)	EN 61347-2-9 + corr. July + corr. December	2001 ¹⁰⁾ 2003 2010
IEC 61558-1	2005	Safety of power transformers, power supplies, reactors and similar products Part 1: General requirements and tests	EN 61558-1 + corr. August	2005 2006
IEC 61558-2 (mod)	Series	Safety of power transformers, power supplies, reactors and similar products Part 2: Particular requirements and test	EN 61558-2	Series
IEC 61558-2-5	1997	Safety of power transformers, power supply units and similar - Part 2-5: Particular requirements for shaver transformers and shaver supply units	EN 61558-2-5 + A11	1998 ¹¹⁾ 2004 ¹¹⁾
IEC 61558-2-6	1997	Safety of power transformers, power supply units and similar - Part 2-6: Particular requirements for safety isolating transformers for general use	EN 61558-2-6	1997 ¹²⁾
IEC 62031	2008	LED modules for general lighting - Safety specifications	EN 62031	2008

7) EN 61058-1 includes A1:2001 to IEC 61058-1 (mod).

8) Superseded by EN 61167:2011.

9) Superseded by EN 61199:2011.

10) Superseded by EN 61347-2-9:2013 (DOW = 2015-12-04).

11) Superseded by EN 61558-2-5:2010.

12) Superseded by EN 61558-2-6:2009.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62035 (mod)	1999	Discharge lamps (excluding fluorescent lamps) - Safety specifications	EN 62035	2000 ¹³⁾
IEC 62471 (mod)	2006	Photobiological safety of lamps and lamp systems	EN 62471	2008
IEC 80416-1	2001	Basic principles for graphical symbols for use on equipment - Part 1: Creation of symbol originals	EN 80416-1	2001 ¹⁴⁾
ISO 4046-4	2002	Paper, board, pulps and related terms - Vocabulary - Part 4: Paper and board grades and converted products	–	–

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¹³⁾ Superseded by EN 62035:2014 (DOW = 2017-09-15).

¹⁴⁾ Superseded by EN 80416-1:2009.

Annex ZB (normative)

Special national conditions

Special national condition: National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions.

NOTE If it affects harmonization, it forms part of the European Standard or Harmonization Document.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

Clause Special national condition

3.3 Denmark

Supply cords of class I luminaires, which are delivered without a plug, shall be provided with a visible tag with the following text:

Vigtigt !
Lederen med grøn/gul isolation
må kun tilsluttes en klemme mærket

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If essential for the safety of the luminaire, the tag shall in addition be provided with a diagram, which shows the connection of the other conductors, or be provided with the following text:

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05ee4e066e5/sist-en-60598-1-2015
For tilslutning af the øvrige ledere,
se medfølgende vejledning.

NOTE "ø" may be replaced by "oe"; "æ" may be replaced by "ae".

Clause Special national condition**4.5.1** **Denmark**

Socket-outlets intended for providing power to other appliances shall be in compliance with DS60884-2-D1:2011, the Standard Sheets being applied as follows:

Class I Standard Sheet DK 1-3a, DK 1-1c and DK 1-1d

For class I luminaires, the earthing contact of the socket-outlet shall be electrically connected to the earthing terminal of the appliance.

Class II luminaires with a degree of protection not higher than IPX0, Standard Sheet DKA 1-4a can be used.

EXEMPTION:

Socket-outlets supplied from isolation transformers (shaver supply units) and socket-outlets on outdoor luminaires may be in accordance with the requirement of DS60884-2-D1:2011 for fixed socket-outlets.

5.2.1 **Cyprus**

Domestic luminaires intended for connection to a standard United Kingdom 13 A socket must be pre-fitted with an approved plug complying with BS 1363.

Cord sets for domestic luminaires for connection with an appliance inlet must be pre-fitted with an approved plug complying with BS 1363.

Plugs must be fitted with the correct fuse.

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Denmark

Supply cords on single-phase portable luminaires having a rated current not exceeding 13 A shall be provided with a plug according to the following table:

Class of luminaire	DS60884-2-D1:2011	EN 50075 Standard Sheet
Class I	DK 2-1a, C 2b, C 3b or C 4	
Class II	DKA 2-1a, DKA 2-1b, C 5, C 6	I

For luminaires having an appliance inlet, the plug on the supply cord shall comply with the above requirements.

If multi-phase luminaires and single-phase luminaires having a rated current exceeding 13 A are provided with a supply cord with a plug, the plug shall comply with the following table or EN 60309.

Plug	
Class of luminaire	DS60884-2-D1:2011
Class I	DK 6-1a
Class II	DK 6-1a*
* Earthing contact not connected.	

Clause Special national condition

Finland

For luminaires provided with non-detachable flexible cables and cords and a plug, the plug shall comply with the requirements of CEE Publication 7 and EN 50075, the Standard Sheets to be applied being as follows:

- Class I luminaires CEE 7, sheet IV or VII
- Class II luminaires CEE 7, sheet XVI (alt I only) or CEE 7, sheet XVII or
EN 50075, sheet I

United Kingdom

Domestic luminaires intended for connection to a standard United Kingdom 13 A socket must be pre-fitted with an approved plug complying with BS 1363.

Cord sets for domestic luminaires for connection with an appliance inlet must be pre-fitted with an approved plug complying with BS 1363.

Plugs must be fitted with the correct fuse.

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