SLOVENSKI STANDARD
SIST EN 62031:2008/A2:2015

01-maj-2015

Moduli LED za splošno razsvetljavo - Varnostne specifikacije (IEC 62031:2008/A2:2014)

LED modules for general lighting - Safety specifications

LED-Module für Allgemeinbeleuchtung - Sicherheitsanforderungen

Modules de DEL pour éclairage général - Spécifications de sécurité

Ta slovenski standard je istoveten z: **EN 62031:2008/A2:2015**

ICS:

29.140.99	Drugi standardi v zvezi z žarnicami	Other standards related to lamps

SIST EN 62031:2008/A2:2015 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62031:2008/A2

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English Version

LED modules for general lighting - Safety specifications (IEC 62031:2008/A2:2014)

Modules de DEL pour éclairage général - Spécifications de sécurité (IEC 62031:2008/A2:2014)

LED-Module für Allgemeinbeleuchtung - Sicherheitsanforderungen (IEC 62031:2008/A2:2014)

This amendment A2 modifies the European Standard EN 62031:2008; it was approved by CENELEC on 2014-10-24. 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: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of document 34A/1771/FDIS, future IEC 62031:2008/A2, prepared by SC 34A "Lamps" of IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62031:2008/A2:2015.

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)	2015-07-24
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2017-10-24

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 62031:2008/A2:2014 was approved by CENELEC as a European Standard without any modification.

In the Bibliography of EN 62031:2008, the following note has to be **added** for the standard indicated:

IEC 62471	NOTE	Harmonized as EN 62471.

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

In Annex ZA of EN 62031:2008 ***delete*** *the reference to IEC 62471.*

Add *to Annex ZA of EN 62031:2008 the following new reference:*

IEC/TR 62778	-	Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires	-	-

IEC 62031

Edition 1.0 2014-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 2
AMENDEMENT 2

LED modules for general lighting – Safety specifications

Modules de DEL pour éclairage général – Spécifications de sécurité

INTERNATIONAL
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FOREWORD

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

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

FDIS	Report on voting
34A/1771/FDIS	34A/1788/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 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.

1 Scope

Add, after Note 3, the following new note:

NOTE 4 This standard includes photobiological safety.

2 Normative references

Delete the reference to IEC 62471.

Add the following new reference:

IEC TR 62778, *Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires*

3 Terms and definitions

Add, after 3.12, the following new definition:

3.13
ultraviolet hazard efficacy of luminous radiation
$K_{S,v}$
quotient of an ultraviolet hazard quantity to the corresponding photometric quantity

NOTE 1 Ultraviolet hazard efficacy of luminous radiation is expressed in mW/klm.

NOTE 2 The ultraviolet hazard efficacy of luminous radiation is obtained by weighting the spectral power distribution of the lamp or LED module with the UV hazard function $S_{UV}(\lambda)$. Information about the relevant UV hazard function is given in IEC 62471. It only relates to possible hazards regarding UV exposure of human beings. It does not deal with the possible influence of optical radiation on materials, such as mechanical damage or discoloration.

7.1 Mandatory marking for built-in or independent modules

Replace the existing item g) by the following:

g) If the assessment of blue light hazard according to IEC TR 62778 results in assignment to risk group 0 or risk group 1, no marking for photobiological safety is required. If the assessment of blue light hazard according to IEC TR 62778 results in a threshold illuminance value E_{thr}, marking with the E_{thr}, is required.

16 Creepage distances and clearances

Replace the existing sentence by the following:

The requirements of IEC 61347-1 apply except for conductive accessible parts where IEC 60598-1 is applicable.

Add, after Clause 21 introduced by Amendment 1, a new clause as follows:

22 Photobiological safety

22.1 UV radiation

The ultraviolet hazard efficacy of luminous radiation of an LED module shall not exceed 2 mW/klm.

Compliance is checked by measurement of the spectral power distribution and subsequent calculation of the ultraviolet hazard efficacy of luminous radiation.

LED modules not relying on the conversion of UV radiation are expected to not exceed the maximum allowed ultraviolet hazard efficacy of luminous radiation. They do not require measurement.

22.2 Blue light hazard

The blue light hazard shall be assessed according to IEC TR 62778, which shall be regarded as normative when testing LED modules to this standard.

NOTE Clause C.2 of IEC TR 62778 gives a method to classify LED modules where full spectral data is not available.

22.3 Infrared radiation

LED modules are expected to not reach a level of infrared radiation where marking or other safety measurements are required. They do not require measurement.

Annex D – Information for luminaire design

Add, after Clause D.3 introduced by Amendment 1, a new Clause D.4 as follows: