

LED modules for general lighting — Safety specifications

ICS 29.140.99; 31.080.99

National foreword

This British Standard is the UK implementation of EN 62031:2008+A2:2015. It is identical to IEC 62031:2008, incorporating amendment 1:2012 and amendment 2:2015. It supersedes BS EN 62031:2008+A1:2013, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by A1 A1.

The UK participation in its preparation was entrusted by Technical Committee CPL/34, Lamps and Related Equipment, to Subcommittee CPL/34/1, Electric lamps.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

The publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments/corrigenda issued since publication

Date	Comments
30 April 2013	Implementation of IEC amendment 1:2012 with CENELEC endorsement A1:2013. Annex ZA updated.
31 January 2015	Implementation of IEC amendment 2:2015 with CENELEC endorsement A2:2015. Annex ZA updated

**LED modules for general lighting -
Safety specifications
(IEC 62031:2008)**

Modules de DEL pour éclairage général -
Spécifications de sécurité
(CEI 62031:2008)

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

This European Standard was approved by CENELEC on 2008-07-01. 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, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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 document 34A/1237/FDIS, future edition 1 of IEC 62031, prepared by SC 34A, Lamps, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62031 on 2008-07-01.

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) 2009-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2011-07-01

NOTE In this standard, the following print types are used:

- Requirements proper: in roman type.
- *Test specifications: in italic type.*
- Explanatory matter: in smaller roman type.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62031:2008 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60968	NOTE Harmonized as EN 60968:1990 (modified).
IEC 62384	NOTE Harmonized as EN 62384:2006 (not modified).

Foreword to amendment A1

The text of document 34A/1608/FDIS, future edition 1 of IEC 62031:2008/A1, 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/A1:2013.

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) 2013-09-03
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-12-03

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/A1:2012 was approved by CENELEC as a European Standard without any modification.

Foreword to amendment A2

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:

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implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2017-10-24
standards conflicting with the
document have to be withdrawn

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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).

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.
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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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 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 60417	-	Data-base Graphical symbols for use on equipment	-	-
IEC 60598-1	-	Luminaires - Part 1: General requirements and tests	EN 60598-1	-
IEC 60838-2-2	- ¹⁾	Miscellaneous lampholders - Part 2-2: Particular requirements - Connectors for LED modules	EN 60838-2-2	2006 ²⁾
IEC 61347-1 (mod)	2007	Lamp controlgear - Part 1: General and safety requirements	EN 61347-1	2008
IEC 61347-2-13	2006	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	EN 61347-2-13	2006
IEC 62471 (mod)	2006	Photobiological safety of lamps and lamp systems	EN 62471	2008
ISO 4046-4	2002	Paper, board, pulps and related terms - Vocabulary - Part 4: Paper and board grades and converted products	-	-

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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INTRODUCTION

The first edition of a safety standard for LED modules for general lighting applications acknowledges the need for relevant tests for this new source of electrical light, sometimes called “solid state lighting”.

The provisions in the standard represent the technical knowledge of experts from the fields of the semiconductor industry and those of the traditional electrical light sources.

Two types of LED modules are covered: with integral and external control gear.