



**NSAI**  
Standards

Irish Standard  
I.S. EN 62471:2008

# Photobiological safety of lamps and lamp systems (IEC 62471:2006 (MOD))

## I.S. EN 62471:2008

*Incorporating amendments/corrigenda issued since publication:*

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**I.S. EN 62471:2008**

**EUROPEAN STANDARD**

**EN 62471**

**NORME EUROPÉENNE**

**EUROPÄISCHE NORM**

**September 2008**

ICS 29.140

Partially supersedes EN 60825-1:1994 + A1:2002 + A2:2001

English version

## **Photobiological safety of lamps and lamp systems** (IEC 62471:2006, modified)

**Sécurité photobiologique des lampes  
et des appareils utilisant des lampes  
(CEI 62471:2006, modifiée)**

**Photobiologische Sicherheit  
von Lampen und Lampensystemen  
(IEC 62471:2006, modifiziert)**

This European Standard was approved by CENELEC on 2008-09-01. 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 the International Standard IEC 62471:2006, prepared by IEC TC 76 "Optical radiation safety and laser equipment", together with the common modifications prepared by the Technical Committee CENELEC TC 76, Optical radiation safety and laser equipment, was submitted to the formal vote and was approved by CENELEC as EN 62471 on 2008-09-01.

This European Standard partially supersedes EN 60825-1:1994 + corrigendum February 1995 + A1:2002 + A2:2001 + A2:2001/corrigendum April 2004.

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) | 2009-09-01 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2011-09-01 |

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 62471:2006/CIE S 009:2002 was approved by CENELEC as a European Standard with agreed common modifications as given below.

The International Standard IEC 62471:2006 was prepared as CIE S 009:2002 by the International Commission on Illumination. It was submitted to the IEC National Committees for voting under the Fast Track Procedure. It is published as a double logo IEC and CIE standard.

## COMMON MODIFICATIONS

### 4 Exposure limits

**Move** the contents of the whole Clause 4 into a new informative Annex ZB. Keep the numbering.

**Replace** the current Clause 4 with the following:

#### 4 Exposure limits

The original Clause 4 of IEC 62471:2006 contains provisions governing limiting values for the exposure of persons falling within the area of the health and safety of workers. Within Europe those limiting values are already covered by the Artificial Optical Radiation Directive (2006/25/EC). Thus, the limits of the directive have to be applied instead of those fixed in IEC 62471:2006.

For information the original Clause 4 of IEC 62471:2006 was moved to the informative Annex ZB under retention of the respective numbering.

### 4.1 General

**Delete** the first paragraph.

### Table 6.1 – Emission limits for risk groups of continuous wave lamps

**Add** the following note to the table:

NOTE    The action functions: see Table 4.1 and Table 4.2  
           The applicable aperture diameters: see 4.2.1  
           The limitations for the angular subtenses: see 4.2.2  
           The related measurement condition 5.2.3 and the range of acceptance angles: see Table 5.5.

**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>
CIE 17.4	1987	International Lighting Vocabulary (ILV)	-	-
CIE 53	1982	Methods of characterizing the performance of radiometers and photometers	-	-
CIE 63	1984	The spectroradiometric measurement of light sources	-	-
CIE 105	1993	Spectroradiometry of pulsed optical radiation sources	-	-
ISO/IEC Guide	1995	Guide to the expression of uncertainty in measurement (GUM)	-	-

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