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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 61195/A1**

February 2013

ICS 29.140.30

English version

**Double-capped fluorescent lamps -  
Safety specifications  
(IEC 61195:1999/A1:2012)**

Lampes à fluorescence à deux culots -  
Prescriptions de sécurité  
(CEI 61195:1999/A1:2012)

Zweiseitig gesockelte Leuchtstofflampen -  
Sicherheitsanforderungen  
(IEC 61195:1999/A1:2012)

This amendment A1 modifies the European Standard EN 61195:1999, it was approved by CENELEC on 2012-11-16. 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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**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 34A/1536/CDV, future amendment 1 to edition 2 of IEC 61195, 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 61195:1999/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) 2013-08-16
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-11-16

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 61195:1999/A1:2012 was approved by CENELEC as a European Standard without any modification.

In the Bibliography of EN 61195:1999, the following note has to be **added** for the standard indicated:

IEC 62471

NOTE

SIST EN 61195:2000/A1:2013  
Harmonised as EN 62471.

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IEC 61195

Edition 2.0 2012-10

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

AMENDMENT 1  
AMENDEMENT 1

Double-capped fluorescent lamps – Safety specifications

Lampes à fluorescence à deux culots – Prescriptions de sécurité

[SIST EN 61195:2000/A1:2013](https://standards.iteh.ai/catalog/standards/sist/b2959104-8fe4-45fa-9a07-3e7e6f5d6fae/sist-en-61195-2000-a1-2013)

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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:

CDV	Report on voting
34A/1536/CDV	34A/1577/RVC

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.

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## INTRODUCTION

*Add the following new introduction*

The standards IEC 62471 and IEC/TR 62471-2 contain horizontal requirements available that need to be introduced into product standards, e.g. to IEC 61195.

The horizontal requirements are transformed into requirements for double-capped fluorescent lamps.

The lamps within the scope of this standard are general lighting service (GLS) lamps according to the definition 3.11 of IEC 62471:2006, "...lamps intended for lighting spaces that are typically occupied or viewed by people..."

According to Clause 6 of IEC 62471:2006, radiation of GLS lamps is measured at a distance equivalent to 500 lx.

Measured at the 500 lx distance, GLS lamps will not exceed risk group 1 for blue light hazard and risk group 0 for IR radiation. This combination of risk group and hazard does not require marking (Table 1 of IEC/TR 62471-2:2009).

Hazards from UV radiation of GLS lamps are now covered in 2.13 of IEC 61195.

Hence, IEC 62471 does not require any additional marking for GLS lamps.

## CONTENTS

*Add the following:*

### 2.13 UV radiation

## 1 Scope

*Add the following new paragraphs at the end of the scope before the note:*

This part of the standard covers photobiological safety according to IEC 62471 and IEC/TR 62471-2.

Blue light and infrared hazards are below the level which requires marking.

### 1.3 Definitions

*Add after 1.3.10, the following new definition 1.3.11:*

#### 1.3.11

#### **specific effective radiant UV power**

effective power of the UV radiation of a lamp related to its luminous flux

[SIST EN 61195:2000/A1:2013](#)

NOTE 1 Specific effective radiant UV power is expressed in mW/klm.

NOTE 2 The effective power of the UV radiation is obtained by weighting the spectral power distribution of the lamp 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, like mechanical damage or discoloration.

## 2 Safety requirements

*Add a new subclause 2.13 after the existing subclause 2.12:*

### 2.13 UV radiation

The specific effective radiant UV power emitted by the lamp shall not exceed the value of 2 mW/klm. For reflector lamps it shall not exceed the value of 2 mW/(m<sup>2</sup> · klx).

NOTE In IEC 62471 exposure limits are given as effective irradiance values (unit W/m<sup>2</sup>) and for risk group classification the values for general lighting lamps are reported at an illuminance level of 500 lx. The borderline for risk group exempt is 0,001 W/m<sup>2</sup> at an illuminance level of 500 lx. This means the specific value, related to the illuminance, is 0,001 divided by 500 in W/(m<sup>2</sup>·lx), which is 2 mW/(m<sup>2</sup>·klx). Since lx = lm/m<sup>2</sup>, this equals 2 mW/klm specific UV power.

Compliance is checked by spectroradiometric measurement, under the same conditions as for the lamp's electrical and photometric characteristics as given in IEC 60081.

**Table 4 – Grouping of test records – Sampling and acceptable quality levels**

Add a new line below 2.10.2:

2.13	UV radiation	Design	By family, group, type	4	4	-
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**Bibliography**

Add the following new entries:

IEC 62471, *Photobiological safety of lamps and lamp systems*

IEC/TR 62471-2, *Photobiological safety of lamps and lamp systems – Part 2: Guidance on manufacturing requirements relating to non-laser optical radiation safety*

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