

---

**Mejne vrednosti in metode merjenja karakteristik občutljivosti za radijske motnje električne razsvetljave in podobne opreme - Dopolnilo A1**

Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

Grenzwerte und Messverfahren für Funkstörungen von elektrischen Beleuchtungseinrichtungen und ähnlichen Elektrogeräten

Limites et méthodes de mesure des perturbations radioélectriques produites par les appareils électriques d'éclairage et les appareils analogues

<https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015>

**Ta slovenski standard je istoveten z: EN 55015:2013/A1:2015**

---

**ICS:**

33.100.10      Emisija      Emission

**SIST EN 55015:2013/A1:2015**      en

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 55015:2013/A1:2015](https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015)

<https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015>

EUROPEAN STANDARD

**EN 55015:2013/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2015

ICS 33.100.10

English Version

## Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment (CISPR 15:2013/A1:2015)

Limites et méthodes de mesure des perturbations radioélectriques produites par les appareils électriques d'éclairage et les appareils analogues  
(CISPR 15:2013/A1:2015)

Grenzwerte und Messverfahren für Funkstörungen von elektrischen Beleuchtungseinrichtungen und ähnlichen Elektrogeräten  
(CISPR 15:2013/A1:2015)

This amendment A1 modifies the European Standard EN 55015:2013; it was approved by CENELEC on 2015-05-01. 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.

[SIST EN 55015:2013/A1:2015](https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-)

<https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7->

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.



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 CIS/F/654/FDIS, future CISPR 15:2013/A1, prepared by CISPR SC F "Interference relating to household appliances tools, lighting equipment and similar apparatus" of CISPR "International special committee on radio interference" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 55015:2013/A1:2015.

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) 2016-02-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-05-01

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 document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive 2004/108/EC, see informative Annex ZZ, included in EN 55015:2013.

[SIST EN 55015:2013/A1:2015](https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015)  
<https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015>

## Endorsement notice

The text of the International Standard CISPR 15:2013/A1:2015 was approved by CENELEC as a European Standard without any modification.

In the Bibliography of EN 55015:2013, the following note has to be deleted for the standard indicated:

CISPR 16-2-1:2008	NOTE	Harmonised as EN 55016-2-1:2009 (not modified).
-------------------	------	---

In the Bibliography of EN 55015:2013, the following notes have to be added for the standards indicated:

IEC 60449	NOTE	Harmonized as HD 193.
IEC 61347-1:2007 + A1:2010 + A2:2012	NOTE	Harmonized as EN 61347-1:2008 (modified) + A1:2011 (not modified) + A2:2013 (not modified).

## 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](http://www.cenelec.eu).

#### **Addition to Annex ZA of EN 55015:2013**

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
<i>Add to Annex ZA of EN 55015:2013 the following new references:</i>				
IEC 60061-1	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps	EN 60061-1	-
IEC 60921	2004	Ballasts for tubular fluorescent lamps - Performance requirements	EN 60921	2004
CISPR 16-2-1	2014	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements	EN 55016-2-1	2014

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 55015:2013/A1:2015](https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015)

<https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015>



# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE  
COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES

AMENDMENT 1 **iTeh STANDARD PREVIEW**  
AMENDEMENT 1 **(standards.iteh.ai)**

**Limits and methods of measurement of radio disturbance characteristics of  
electrical lighting and similar equipment**

[SIST EN 55015:2013/A1:2015  
https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015](https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7-ae9c4fedeed3/sist-en-55015-2013-a1-2015)

**Limites et méthodes de mesure des perturbations radioélectriques produites  
par les appareils électriques d'éclairage et les appareils analogues**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

ICS 33.100.10

ISBN 978-2-8322-2387-1

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## FOREWORD

This amendment has been prepared by subcommittee CISPR F: Interference relating to household appliances tools, lighting equipment and similar apparatus.

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

FDIS	Report on voting
CIS/F/654/FDIS	CIS/F/660/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 website 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.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

**IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.**

---



## 1 Scope

Add, at the beginning of the second existing list, the following new item:

- auxiliaries intended to be built into lighting equipment;

Replace the last existing item of the list and the existing note by the following new text:

- apparatus for which the electromagnetic compatibility requirements in the radio-frequency range are explicitly formulated in other CISPR standards, even if they incorporate a built-in lighting function.

NOTE 1 Examples of exclusions are:

- built-in lighting devices for display back lighting and signalling;
- range hoods, refrigerators, freezers;
- photocopiers, projectors;
- lighting equipment for road vehicles.

Add, after the fourth existing paragraph of this subclause starting with "Multi-function equipment..", the following new paragraph and new note:

For equipment outside the scope of this standard and which includes lighting as a secondary function, there is no need to separately assess the lighting function against this standard, provided that the lighting function was operative during the assessment in accordance with the applicable standard.

SIST EN 55015:2013/A1:2015

NOTE 2 Examples of equipment with a secondary lighting function may be range hoods, fans, refrigerators, freezers, ovens and TV with ambient lighting.

## 2 Normative references

Add, to the existing list, the following new references:

IEC 60061-1, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 1: Lamp caps*

IEC 60921:2004, *Ballasts for tubular fluorescent lamps – Performance requirements*

CISPR 16-2-1:2014, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-1: Methods of measurement of disturbances and immunity – Conducted disturbance measurements*

## 3 Terms and definitions

Add, after the existing definition 3.1, the following new terms and definitions:

### 3.2

#### **converter**

electrical device to transform the mains voltages, and/or current levels and/or frequency for light sources

**3.3****base of the luminaire**

side opposite of the optical window of the luminaire or mounting surface in normal use

**3.4****optical window**

side of the lighting equipment from which the light emanates

**3.5****ELV****extra-low voltage**

voltage which does not exceed 50 V a.c. or 120 V ripple free d.c. between conductors or between any conductor and earth (voltage band 1 of IEC 60449).

Note 1 to entry: Ripple free is conventionally defined for sinusoidal ripple voltage as ripple content of not more than 10 % r.m.s.: the maximum peak value does not exceed 140 V for a nominal 120 V ripple-free d.c. system.

[SOURCE: IEC 61347-1:2007/AMD1:2010, 3.27]

**3.6****restricted ELV lamp**

ELV lamp with specific restrictions on the type of control gear and the cable length that can be applied to it as provided by the manufacturer

Note 1 to entry: ELV lamps without detailed description of restrictions are non-restricted.

**3.7****passive circuit**

electronic circuit not containing any active switching electronic components

Note 1 to entry: A passive circuit is not likely to produce any electromagnetic disturbances. E.g. a mains rectifying diode is considered a passive component.

**3.8****secondary function**

any function of an equipment not being essential for fulfilling the primary function, defined by the manufacturer

**3.9****primary function**

function of an equipment which is defined as such by the manufacturer

**3.10****semi luminaire**

devices (sometimes called adaptors) equipped, on the one side, with any IEC-standardised lamp cap system to allow mounting in a standard incandescent lampholder and, on the other side, with a lampholder to allow the insertion of a replaceable light source with a non-standard cap

Note 1 to entry: A semi luminaire is to be treated as a self-ballasted lamp with a replaceable light source.

**4.1 Frequency ranges**

*Delete the existing note of this subclause.*

**Table 3b – Radiated disturbance limits in the frequency range 30 MHz to 300 MHz at a measuring distance of 10 m**

Replace the existing table and title by the following new table and title:

**Table 3b – Radiated disturbance limits in the frequency range 30 MHz to 300 MHz at a measuring distance of 3 m or 10 m**

Frequency range MHz	Quasi-peak limits dB( $\mu$ V/m) <sup>a</sup>	
	3 m <sup>b,c</sup>	10 m <sup>b</sup>
30 to 230	40	30
230 to 300	47	37

<sup>a</sup> At the transition frequency, the lower limit applies.

<sup>b</sup> Either of the two measurement distances and the associated limits can be applied to demonstrate compliance.

<sup>c</sup> Care should be taken when measuring a large EUT at 3 m and at frequencies near 30 MHz due to near field effects.

## 5.1 General

Replace the second existing paragraph of this subclause by the following new paragraph:

No emission requirements apply to (standards.iteh.ai)

- lamps, with the exception of self-ballasted lamps, double-capped self-ballasted lamps and ELV lamps, <https://standards.iteh.ai/catalog/standards/sist/1ba97062-093e-48e2-a2c7->
- auxiliaries to be built into lighting equipment (see, however, NOTE 2 of 5.3.1 in this respect).

### 5.3.3.3 Independent convertors

Replace the existing text of this subclause by the following new text:

Independent electronic convertors for incandescent lamps or LED light sources shall comply with the terminal voltage limits given in Tables 2a and 2b; and with the radiated disturbance limits of Table 3b, and if the light is regulated by an external device with separate control lines, the disturbance voltage at the control terminals shall comply with the terminal voltage limits given in Table 2c.

Where the convertor has a non-detachable load supply cable, or where the manufacturer gives strict installation instructions which define the position, type and maximum length of cable(s) to be connected to the lamp(s), then (under these conditions) instead of the terminal voltage limits given in Table 2b, the radiated disturbance limits given in Tables 3a shall be complied with.

### 5.3.5 Semi-luminaires

Replace in the first existing paragraph of this subclause “with an Edison screw or bayonet cap” by “with an IEC 60061-1 standardized lamp cap”.