



Double-capped fluorescent lamps - Performance specifications

Lampes à fluorescence à deux culots - Spécifications de performance

Ta slovenski standard je istoveten z: EN 60081:1998/FprA6:2015/prAA:2017

29.140.30 Fluorescenčne sijalke. Sijalke Fluorescent lamps.
Discharge lamps

SIST EN **en**
60081:1999/FprA6:2015/oprAA:2017

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 60081:1998/
FprA6:2015

FprAA

January 2017

ICS 29.140.30

English Version

Double-capped fluorescent lamps - Performance specifications

Lampes à fluorescence à deux culots - Spécifications de performance

To be completed

This draft amendment FprAA, if approved, will modify the European Standard ; it is submitted to CENELEC members for enquiry.
Deadline for CENELEC: 2017-03-31.

It has been drawn up by CLC/TC 34A.

If this draft becomes an amendment, 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.

This draft amendment was established by CENELEC 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.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

EN 60081:1998/FprA6:2015/prAA:2017

1 European foreword

2 This draft amendment to the draft European Standard EN 60081:1998/FprA6:2015 was prepared by
3 CLC/TC 34A, Lamps. It contains common modifications to 34A/1835/CDV (future
4 IEC 60081:1997/A6:201X) and is submitted to the Enquiry.

5 If approved, this draft amendment will be merged together with EN 60081:1998/FprA6:2015 and both
6 drafts will be published as one single document, i.e. EN 60081:1998/A6:201X (based on
7 IEC 60081:1997/A6:201X, modified), with the implementation dates of this prAA.

8 The following dates are proposed:

- latest date by which the existence of this document has to be (doa) dor + 6 months
announced at national level
- latest date by which this document has to be implemented at (dop) dor + 12 months
national level by publication of an identical
national standard or by endorsement
- latest date by which the national standards conflicting with this (dow) dor + 36 months
document have to be withdrawn (to be confirmed or
modified when voting)

9 Clauses, subclauses, notes, tables, figures and annexes which are additional to those in
10 IEC 60081:1997/A6:201X are prefixed "Z".

11 For the relationship with EU Directive(s) see informative Annexes ZZ, which is an integral part of this
12 document.

13 This standard provides test methods related to parameters as prescribed by EC Regulation 245/2009,
14 and EU Regulation 874/2012 while conformity assessment (sampling, conformity procedures as well
15 as limits) for market surveillance are specified in the text of the above Regulations.

16

17	Text of prAA to draft EN 60081:1998/FprA6:2015	
18	CONTENTS	Add the following annexes:
19		Annex ZA (normative) Normative references to international publications with
20		their corresponding European publications
21		Annex ZZA (informative) Relationship between this European Standard and the
22		requirements of Commission Regulation (EC) No 245/2009
23		Annex ZZB (informative) Relationship between this European Standard and the
24		requirements of Commission Regulation (EU) No 874/2012
25		
26	1.Z1	Add the following clause before clause 1.3
27		1.Z1 Overall statement
28		Where a Commission Regulation specifies limits for parameters these limits shall be
29		used instead of the limits specified in this standard.
30	1.4.Z1	After 1.4.11 add new definitions 1.4.Z1 up to 1.4..Z3:
31		1.4.Z1
32		efficacy
33		'luminous efficacy of a source', 'light source efficacy' or 'lamp efficacy' (η_{source})
34		quotient of the luminous flux emitted (Φ) by the power consumed by the source
35		(P_{source}). $\eta_{\text{source}} = \Phi / P_{\text{source}}$. Unit: lm/W.
36		Note 1 to entry: The power dissipated by auxiliary equipment such as ballasts is not included in the
37		power consumed by the source.
38		[SOURCE: Regulation 245/2009 Annex II, 1.a)]
39		1.4.Z2
40		lamp lumen maintenance factor (LLMF)
41		ratio of the luminous flux emitted by the lamp at a given time in its life to the initial
42		luminous flux
43		[SOURCE: Regulation 245/2009 Annex II, 1.b)]
44		1.4.Z3
45		lamp survival factor (LSF)
46		fraction of the total number of lamps which continue to operate at a given time under
47		defined conditions and switching frequency
48		[SOURCE: Regulation 245/2009 Annex II, 1.c)]
49	1.5.6	Before the text in 1.5.6, add a new header 1.5.6.Z1
50		1.5.6.Z1 General
51		After 1.5.6.Z1 add new 1.5.6.Z2 and 1.5.6.Z3
52		1.5.6.Z2 Chromaticity, colour temperature and colour rendering index
53		The chromaticity coordinates and correlated colour temperature of an individual lamp
54		shall be calculated according to CIE 15 from a measurement made under the
55		conditions of Annex B.
56		The colour rendering index of an individual lamp shall be calculated according to
57		CIE 13.3 from a measurement made under the conditions of Annex B.
58		1.5.6.Z3 Efficacy
59		The efficacy of an individual lamp shall be calculated from a measurement of luminous
60		flux and power according to the conditions of Annex B.

EN 60081:1998/FprA6:2015/prAA:2017

61	1.5.7	Replace text of 1.5.7 with new 1.5.7.Z1 and 1.5.7. Z2
62		1.5.7.Z1 Lamp lumen maintenance factor
63		The lamp lumen maintenance factor of an individual lamp shall be calculated from
64		measurements of its luminous flux made at appropriate times according to the
65		conditions of Annex B. Lamp operation between these measurements shall be as
66		prescribed in Annex C.
67		1.5.7.Z2 Lamp survival
68		The survival of an individual lamp shall be determined by operating lamps under the
69		conditions prescribed in Annex C until the lamp fails to remain alight or delivers low
70		light output (in case of doubt, low light output refers to noticeably less than 50 % of
71		rated light output).
72	1.5.Z1	After 1.5.8 add new 1.5.Z1
73		1.5.Z1 Mercury content
74		The average mercury content shall be measured in accordance with the CV AAS
75		method as described in EN 62321-4. Lamp sample preparation shall be in accordance
76		with EN 62554.
77	B.1.3.Z.1	Before the text in B.1.3, add a new header B.1.3.Z1
78		B.1.3.Z1 General
79		After B.1.3.Z1 add new B.1.3.Z.2
80		B.1.3.Z.2 Measurement ballast
81		For lamps that are specified for operation on both a.c. mains frequencies and high
82		frequency, the information given on the data sheet for "HF measurement ballast
83		characteristics" defines the reference ballast for HF operation.
84	Bibliography	After 1.7 Add
85		Bibliography
86		COMMISSION REGULATION (EC) No 245/2009 of 18 March 2009 implementing
87		Directive 2005/32/EC of the European Parliament and of the Council with regard to
88		ecodesign requirements for fluorescent lamps without integrated ballast, for high
89		intensity discharge lamps, and for ballasts and luminaires able to operate such lamps,
90		and repealing Directive 2000/55/EC of the European Parliament and of the Council
91		COMMISSION REGULATION (EU) No 874/2012 of 12 July 2012 supplementing
92		Directive 2010/30/EU of the European Parliament and of the Council with regard to
93		energy labelling of electrical lamps and luminaires
94		-----
95		

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
		Light and lighting – Measurement and presentation of photometric data of lamps and luminaires – Part 1: Measurement and file format	EN 13032-1 A1	2004 2012
IEC 60050 (845)	1987	International Electrotechnical Vocabulary (IEV) – Chapter 845: Lighting	-	-
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 60061-2	-	Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 2: Lampholders	EN 60061-2	-
IEC 60061-3	-	Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 3: Gauges	EN 60061-3	-
IEC 60155	-	Glow starters for fluorescent lamps	EN 60155	-
IEC 60432-1	-	Incandescent lamps – Safety Specifications – Part 1: Tungsten filament lamps for domestic and similar general lighting purposes	EN 60432-1	-
IEC 60598 (all parts)		Luminaires	EN 60598-1	-
IEC 60630	-	Maximum lamp outlines for incandescent lamps	EN 60630	-
IEC/TR 60887	-	Glass bulb designation system for lamps	-	-
IEC 60921	-	Ballasts for tubular fluorescent lamps – Performance requirements	EN 60921	-
IEC 60927	-	Auxiliaries for lamps – Starting devices (other than glow starters) – Performance requirements	EN 60927	-

EN 60081:1998/FprA6:2015/prAA:2017

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60929	-	AC supplied electronic ballasts for tubular fluorescent lamps – Performance requirements	EN 60929	-
IEC 61049	-	Capacitors for use in tubular fluorescent lamps – Performance requirements	EN 61049	-
IEC 61195	-	Double-capped fluorescent lamps – Safety specifications	EN 61195	-
IEC/TS 61231	-	International lamp coding system (ILCOS)	-	
IEC 62321-4	-	Determination of certain substances in electrotechnical products - Part 4: Mercury in polymers, metals and electronics by CV-AAS, CV-AFS, ICP-OES and ICP-MS	EN 62321-4	-
IEC 62554	-	Sample preparation for measurement of mercury level in fluorescent lamps	EN 62554	-
IEC/TR 62750	2012	Unified fluorescent lamp dimming standard calculations	-	

98

99

Annex ZZA (informative)

Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EC) No 245/2009 aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/495 to provide one voluntary means of conforming to the ecodesign requirements of Commission Regulation (EC) No 245/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council [2009 OJ L76].

Once this standard is cited in the Official Journal of the European Union under that Commission Regulation, compliance with the clauses of this standard given in Table ZZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding ecodesign requirements of that Regulation and associated EFTA regulations.

Table ZZA.1 – Correspondence between this European Standard and Commission Regulation (EC) No 245/2009 of 18 March 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for fluorescent lamps without integrated ballast, for high intensity discharge lamps, and for ballasts and luminaires able to operate such lamps, and repealing Directive 2000/55/EC of the European Parliament and of the Council [2009 OJ L76] and Commission's standardization request M/495

Ecodesign requirement of Regulation (EC) No 245/2009 [2009 OJ L76]	Clause(s) / subclause(s) of this EN	Remarks / Notes
Annex III, article 1.1 and article 1.3(a)	Annex B	Lamp power
Annex III, article 1.1 and article 1.3(b)	Annex B	Luminous flux
Annex III, Table 12 and article 1.3(e)	Clause 1.5.7.Z2	Lamp survival factor (LSF)
Annex III, Table 11 and article 1.3(d)	Clause 1.5.7.Z1	Lamp lumen maintenance factor (LLMF)
Annex I, articles 1(a) and 1(e)	Clause 1.5.6.Z2	Chromaticity coordinates (x, y)
Annex III Table 6, article 1.2 and article 1.3(g)	Clause 1.5.6.Z2	Colour rendering index (CRI)
Annex III Table 6 and article 1.3(h)	Clause 1.5.6.Z2	Correlated colour temperature (CCT)
Annex I and articles 1(e)	Clause 1.5.2	Caps
Annex III article 1.3(f)	Clause 1.5.Z1	Mercury content