SLOVENSKI STANDARD

SIST EN 60081:1999/A1:2004

januar 2004

(istoveten EN 60081:1998/A1:2002)

Double-capped fluorescent lamps - Performance specifications - Amendment A1 (IEC 60081:1997/A1:2000, modified)

ICS 29.140.30

Referenčna številka
SIST EN 60081:1999/A1:2004(en)

EUROPEAN STANDARD **EN 60081/A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM April 2002

ICS 29.140.30

English version

Double-capped fluorescent lamps - Performance specifications
(IEC 60081:1997/A1:2000, modified)

Lampes à fluorescence à deux culots - Prescriptions de performance
(CEI 60081:1997/A1:2000, modifiée)

Zweiseitig gesockelte Leuchtstofflampen - Anforderungen an die Arbeitsweise
(IEC 60081:1997/A1:2000, modifiziert)

This amendment A1 modifies the European Standard EN 60081:1998; it was approved by CENELEC on 2001-12-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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

Ref. No. EN 60081:1998/A1:2002 E

Foreword

The text of amendment 1:2000 to the International Standard IEC 60081:1997, prepared by SC 34A, Lamps, of IEC TC 34, Lamps and related equipment, together with common modifications prepared by CENELEC Reporting Secretariat 34A, was submitted to the formal vote and was approved by CENELEC as amendment A1 to EN 60081:1998 on 2001-12-01.

The following dates were fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2002-12-01
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2004-12-01

Endorsement notice

The text of amendment 1:2000 to the International Standard IEC 60081:1997 was approved by CENELEC as an amendment to the European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Add the following note to data sheets 6520, 6530, 6620, 6640, 6650, 6730, 6750, 6840 and 6850 after “Ambient test temperature 35 °C ± 1 °C“:

NOTE This sentence will be deleted in the next amendment to IEC 60081. Since the electrical characteristics on the data sheet pertain to 35 °C measurements there might be a slight change when adapting them to the standard measurement at 25 °C ± 1 °C as given in Annex B.

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60081

AMENDEMENT 1
AMENDMENT 1

2000-01

Amendement 1

Lampes à fluorescence à deux culots – Prescriptions de performance

Amendment 1

Double-capped fluorescent lamps – Performance specifications

Les feuilles de cet amendement sont à insérer dans la CEI 60081 (1997)

The sheets contained in this amendment are to be inserted in IEC 60081 (1997)

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
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Pour prix, voir catalogue en vigueur
For price, see current catalogue

INSTRUCTIONS POUR L'INSERTION DES NOUVELLES PAGES ET FEUILLES DE NORMES DANS LA CEI 60081 (1997)

1. Retirer la page de titre existante, les pages I-4 à I-7 et les pages II-2 à II-7, et insérer la nouvelle page de titre, les nouvelles pages I-4 à I-7 et les nouvelles pages II-2 à II-7.

2. Retirer les feuilles

   60081-IEC-02-1
   60081-IEC-6520-1 (2 pages)
   60081-IEC-6530-1 (2 pages)
   60081-IEC-6640-1 (2 pages)
   60081-IEC-6650-1 (2 pages)

   et insérer les nouvelles feuilles suivantes:

   60081-IEC-02-2
   60081-IEC-6520-2 (2 pages)
   60081-IEC-6530-2 (2 pages)
   60081-IEC-6640-2 (2 pages)
   60081-IEC-6650-2 (2 pages)

3. Insérer les nouvelles feuilles suivantes:

   60081-IEC-2215-1 (3 pages)
   60081-IEC-2415-1 (3 pages)
   60081-IEC-6030-1 (2 pages)
   60081-IEC-6040-1 (2 pages)
   60081-IEC-6050-1 (2 pages)
   60081-IEC-6060-1 (2 pages)
   60081-IEC-6620-1 (2 pages)
   60081-IEC-6730-1 (2 pages)
   60081-IEC-6750-1 (2 pages)
   60081-IEC-6840-1 (2 pages)
   60081-IEC-6850-1 (2 pages)

INSTRUCTIONS FOR THE INSERTION OF NEW PAGES AND STANDARD SHEETS IN IEC 60081 (1997)

1. Remove existing title page, pages I-4 to I-7 and pages II-2 to II-7 and insert in their place new title page, pages I-4 to I-7 and pages II-2 to II-7.

2. Remove sheets

   60081-IEC-02-1
   60081-IEC-6520-1 (2 pages)
   60081-IEC-6530-1 (2 pages)
   60081-IEC-6640-1 (2 pages)
   60081-IEC-6650-1 (2 pages)

   and insert the following new sheets:

   60081-IEC-02-2
   60081-IEC-6520-2 (2 pages)
   60081-IEC-6530-2 (2 pages)
   60081-IEC-6640-2 (2 pages)
   60081-IEC-6650-2 (2 pages)

3. Insert the following new sheets:

   60081-IEC-2215-1 (3 pages)
   60081-IEC-2415-1 (3 pages)
   60081-IEC-6030-1 (2 pages)
   60081-IEC-6040-1 (2 pages)
   60081-IEC-6050-1 (2 pages)
   60081-IEC-6060-1 (2 pages)
   60081-IEC-6620-1 (2 pages)
   60081-IEC-6730-1 (2 pages)
   60081-IEC-6750-1 (2 pages)
   60081-IEC-6840-1 (2 pages)
   60081-IEC-6850-1 (2 pages)

AVANT-PROPOS

Le présent amendement a été établi par le sous-comité 34A: Lampes, du comité d'études 34 de la CEI: Lampes et équipements associés.

Le texte de cet amendement est issu des documents suivants:

FDIS	Rapport de vote
34A/896/FDIS	34A/907/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cet amendement.

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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:

FDIS	Report on voting
34A/896/FDIS	34A/907/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.

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NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
60081

Cinquième édition
Fifth edition
1997

Modifiée selon l'amendement 1 (2000)
Amended in accordance with amendment 1 (2000)

Lampes à fluorescence à deux culots – Prescriptions de performance

Double-capped fluorescent lamps – Performance specifications

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Telefax: +41 22 919 0300 e-mail: inmail@iec.ch IEC web site http: //www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

IEC 60061-1:1969, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 1: Lamp caps*

IEC 60155:1993, *Glow starters for fluorescent lamps*

IEC 60598 (all parts), *Luminaires*

IEC 60921:1988, *Ballasts for tubular fluorescent lamps – Performance requirements*

IEC 60927:1996, *Auxiliaries for lamps – Starting devices (other than glow starters) – Performance requirements*

IEC 60929:1990, *A.C. supplied electronic ballasts for tubular fluorescent lamps – Performance requirements*

IEC 61049:1991, *Capacitors for use in tubular fluorescent and other discharge lamp circuits – Performance requirements*

IEC 61195:1993, *Double-capped fluorescent lamps – Safety specifications*

IEC 61231:1993, *International lamp coding system (ILCOS)*

1.4 Definitions

For the purpose of this International Standard, the definitions of IEC 60050(845) and the following definitions apply.

1.4.1
fluorescent lamp
discharge lamp of the low-pressure mercury type, in which most of the light is emitted by one or several layers of phosphors excited by the ultra-violet radiation from the discharge [IEV 845-07-26, modified]

1.4.2
double-capped fluorescent lamp
fluorescent lamp having two separate caps and mostly of tubular form and linear shape

1.4.3
nominal value
approximate quantity value used to designate or identify a lamp

1.4.4
rated value
quantity value for a characteristic of a lamp for specified operating conditions. The value and the conditions are specified in this standard, or assigned by the manufacturer or responsible vendor

1.4.5
lumen maintenance
ratio of the luminous flux of a lamp at a given time in its life to its initial luminous flux, the lamp being operated under specific conditions. The ratio is generally expressed as a percentage

1.4.6
initial readings
starting characteristics of a lamp, measured before ageing, and the electrical, photometric and cathode characteristics of a lamp, measured at the end of the 100 h ageing period

1.4.7
starting aid
conductive strip affixed to the outer surface of a lamp, or a conductive plate which is spaced within an appropriate distance from the lamp. A starting aid is usually connected to earth potential, and can only be effective when it has an adequate potential difference from one end of the lamp

1.4.8
reference ballast
special ballast, either inductive for lamps for operation on a.c. mains frequencies, or resistive for lamps for operation on high frequency. It is designed for the purpose of providing comparison standards for use in testing ballasts, for the selection of reference lamps and for testing regular production lamps under standardized conditions. It is essentially characterized by the fact that, at its rated frequency, it has a stable voltage/current ratio which is relatively uninfluenced by variations in current, temperature and magnetic surroundings, as outlined in the relevant ballast standard [IEC 845-08-36, modified]

1.4.9
calibration current of a reference ballast
value of the current on which the calibration and control of the reference ballast are based

1.4.10
type test
test or a series of tests made on a type test sample for the purpose of checking compliance of the design of a given product with the requirements of the relevant standard

1.4.11
type test sample
sample consisting of one or more similar units submitted by the manufacturer or responsible vendor for the purpose of a type test

1.5 Lamp requirements

1.5.1 General

A lamp, on which compliance with this standard is claimed, shall comply with the requirements of IEC 61195.

A lamp shall be so designed that its performance is reliable in normal and accepted use. In general, this can be achieved by satisfying the requirements of the following subclauses.

The requirements and information given apply to 95 % of production.

NOTE The requirements and tolerances permitted by this standard are based on testing of a type test sample submitted by the manufacturer for that purpose. In principle, this type test sample should consist of units having characteristics typical of the manufacturer's production and be as close to the production centre-point values as possible.

It may be expected with the tolerances given in the standard that products manufactured in accordance with the type test sample will comply with the standard for the majority of the production. Due to the production spread, however, it is inevitable that there will sometimes be products outside the specified tolerances. For guidance on sampling plans and procedures for inspection by attributes, see IEC 60410.

Annex F
(informative)

Information for luminaire design

F.1 General

In order to safeguard proper functioning of the lamp, the relevant information, given in this annex, should be taken into account when designing luminaires.

F.2 Free space

For mechanical acceptance of lamps complying with this standard, a free space should be provided in the luminaire, based on the maximum lamp dimensions specified on the relevant lamp data sheet.

F.3 Series capacitors used in capacitive circuits

An initial capacitor tolerance of 10 %, which is typical for shunt connected capacitors, is unsuitable for series capacitors. The summation of capacitor and ballast tolerances may lead to poor lamp performance, when unfavourable tolerances coincide.

In order to satisfy the requirements specified on the relevant lamp data sheets, either the capacitor tolerance should be narrow, or the capacitor and the inductive reactance component of the ballast should be selected so that unfavourable tolerances do not coincide.

F.4 Starting aid

Operation of lamps on a.c. mains or high frequency starterless circuits requires, in most cases, the presence of a conductive starting aid at earth potential. This can be a conventional part of the luminaire.

The distance between the surface of the lamp and the starting aid should not exceed the value specified for the lamp starting characteristics on the relevant lamp data sheet. In addition, a minimum distance of 3 mm should be observed.

2 Data sheets

2.1 General principles of numbering of data sheets

The first number represents the number of this standard "60081", followed by the letters "IEC".

The second number represents the data sheet number.

The third number represents the edition of the page of the data sheet. In cases where a data sheet has more than one page, it is possible for the pages to have different edition numbers, with the data sheet number remaining the same.

2.2 Diagrammatic data sheets for location of lamp dimensions

2.2.1 List of diagrammatic data sheets

60081-IEC-01 Linear-shaped lamps with G5 or G13 caps.

60081-IEC-02 Linear-shaped lamps with Fa6, Fa8, R17d caps or W4.3×8.5d.