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SIST EN 60968:1999/A2:2000

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60968/A2**

October 1999

ICS 29.140.30

English version

**Self-ballasted lamps for general lighting services  
Safety requirements  
(IEC 60968:1988/A2:1999)**

Lampes à ballast intégré pour l'éclairage  
général - Prescriptions de sécurité  
(CEI 60968:1988/A2:1999)

Lampen mit eingebautem Vorschaltgerät  
für Allgemeinbeleuchtung  
Sicherheitsanforderungen  
(IEC 60968:1988/A2:1999)

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This amendment A2 modifies the European Standard EN 60968:1990; it was approved by CENELEC on 1999-10-01. 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, 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**

### Foreword

The text of document 34A/874/FDIS, future amendment 2 to IEC 60968, prepared by SC 34A, Lamps, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 60968:1990 on 1999-10-01.

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) 2000-07-01
- latest date by which the national standards conflicting  
with the amendment have to be withdrawn (dow) 2002-10-01

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### Endorsement notice

The text of amendment 2:1999 to the International Standard IEC 60968:1988 was approved by CENELEC as an amendment to the European Standard without any modification.

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

60968

1988

AMENDEMENT 2  
AMENDMENT 2  
1999-07

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Amendement 2

**Lampes à ballast intégré pour  
l'éclairage général – Prescriptions de sécurité**

iTeh STANDARD PREVIEW

Amendment 2

(standards.iteh.ai)

**Self-ballasted lamps for  
general lighting services – Safety requirements**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue*

## 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/874/FDIS	34A/888/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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#### 4 Marking

Replace, on page 11, item 4) in 4.2 by the following new item 4):

- 4) Special conditions or restrictions which shall be observed for lamp operation, for example, operation in dimming circuits. Where lamps are not suitable for dimming, the following symbol may be used:



IEC 928/99

Replace the existing table 1 by the following new table 1:

**Table 1 – Interchangeability gauges and lamp cap dimensions**

Lamp cap	Cap dimensions to be checked by the gauge	Gauge sheet No. from IEC 60061-3
B22d or B15d	A max. and A min. D1 max. N min. Diametrical position of the pins Insertion in lampholder Retention in lampholder	} 7006-10 } and } 7006-11  7006-4A 7006-4B
E27	Max. dimensions of the screw thread Min. major diameter of the screw thread Contact making	7006-27B 7006-28A 7006-50
E26	Max. dimensions of the screw thread Max. major diameter of the screw thread	7006-27D 7006-27E
E14	Max. dimensions of the screw thread Min. major diameter of the screw thread Contact making	7006-27F 7006-28B 7006-54

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## 6 Protection against electric shock

Replace the existing fourth, fifth and sixth paragraphs by the following new paragraphs:

Compliance is checked with the aid of a gauge in accordance with the current edition of IEC 60061-3, sheet 7006-51A for E27 caps and sheet 7006-55 for E14 caps.

NOTE – Requirements for E26 caps are under consideration.

Lamps with B22 or B15 caps are subject to the same requirements as normal incandescent lamps with this cap.

### 7.1 Insulation resistance

Replace the existing third paragraph by the following new note:

NOTE – The insulation resistance of bayonet caps between shell and contacts is under consideration.

## 7.2 Electric strength

Replace the existing fifth paragraph of the first dash by the following new note:

NOTE – The distance between the foil and the current-carrying parts is under consideration.

Replace the existing second dash by the following new dash:

- Bayonet caps : between shell and contacts (under consideration).

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Replace the existing clause 8 by the following new clause 8:

## 8 Mechanical strength

### *Torsion resistance*

The cap shall remain firmly attached to the bulb or that part of the lamp which is used for screwing the lamp in or out when subjected to the torque levels listed below.

B22d .....	3 Nm
B15d .....	1,15 Nm
E26 and E27 .....	3 Nm
E14 .....	1,15 Nm

The test is made by means of the test holders shown in figures 2 and 3.

The torque shall not be applied suddenly, but shall be increased continuously from zero to the specified value.

In the case of uncemented caps, relative movement between cap and bulb is permitted provided it does not exceed 10°.

After the mechanical strength test the sample shall comply with the requirements of accessibility (see clause 6).



Replace the existing clause 9 by the following new clause 9:

## 9 Cap temperature rise

The cap temperature rise  $\Delta t_s$  of the complete lamp during run-up, stabilization period and after stabilization shall not exceed the values mentioned below when measured under the conditions specified in IEC 60360:

B22d .....	125 K
B15d .....	120 K
E27 .....	120 K
E14 .....	120 K
E26 .....	under consideration

Measurement shall be carried out at rated voltage. If the lamp is marked with a voltage range it shall be measured at the mean voltage of that range, provided the limits of the voltage range do not differ by more than 2, % from the mean voltage. For lamps with a wider range, the measurement shall be made at the highest value of the range.

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Figure 2

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Replace the existing table by the following new table.

Dimension	E14	E26	E27	Tolerance
C	20,0	32,0	32,0	Min.
K	11,5	11,0	11,0	± 0,3
O	12,0	23,0	23,0	± 0,1
S	7,0	12,0	12,0	Min.