



SLOVENSKI STANDARD
SIST EN 60188:1999/A5:1999
01-julij-1999

High-pressure mercury vapour lamps - Amendment A5 (IEC 60188:1974/A5:1991)

High-pressure mercury vapour lamps

Quecksilberdampf-Hochdrucklampen

Lampes à décharge à vapeur de mercure à haute pression

Ta slovenski standard je istoveten z: EN 60188:1988/A5:1993

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ICS:

29.140.30 Fluorescent lamps.
Discharge lamps

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EUROPEAN STANDARD
NORME EUROPÉENNE
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EN 60188/A5

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Descriptors: Lighting fitting, mercury vapour lamp, definition, dimension, electrical characteristic, test conditions, luminous flux, torsion test, electrical starting test

Amendment A5 to the English version of EN 60188

High-pressure mercury vapour lamps

(IEC 188 : 1974/A5 : 1991, modified)

Lampes à décharge à vapeur de mercure à haute
pression
(CEI 188 : 1974/A5 : 1991, modifié)

Quecksilberdampf-Hochdrucklampen
(IEC 188 : 1974/A5 : 1991, modifiziert)

This amendment A5 modifies the European Standard EN 60188 : 1988. It was approved by CENELEC on 1993-07-06. 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, 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 CENELEC questionnaire procedure, performed for finding out whether or not amendment 5 : 1991 to the International Standard IEC 188 : 1974 could be accepted without textual changes, has shown that some common modifications were necessary for the acceptance as a European Standard.

The reference document, together with the common modifications prepared by Reporting Secretariat SR 34A, was submitted to the CENELEC members for formal vote.

The text of the draft was approved by CENELEC as amendment A5 to EN 60188 on 6 July 1993.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1994-03-01
- latest date of withdrawal of conflicting national standards (dow) 1994-03-01

For products which have complied with EN 60188 : 1988 and its amendment A4 : 1990 before 1994-03-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1999-03-01.

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HIGH-PRESSURE MERCURY VAPOUR LAMPS

INFORMATION as to original IEC text:

The Foreword of IEC Publication 188 (1974) is not part of this European Standard. It reads:

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendations and the corresponding national rules should, as far as possible, be clearly indicated in the latter.
- 4) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its recommendations.

PREFACE OF IEC PUBLICATION 188 (1974)

This standard has been prepared by Sub-Committee 34A: Lamps, of IEC Technical Committee No. 34, Lamps and Related Equipment.

Draft proposals for this standard were prepared by the Experts' Working Group (PRESCO) and as a result of the meetings held in London in 1968 and in Washington in 1970, drafts, Documents 34A(Central Office)57 and 34A(Central Office)70, were submitted to the National Committees for approval under the Six Months' Rule in February 1970 and in May 1971. Amendments, Document 34A(Central Office)73, were submitted to the National Committees for approval under the Two Months' Procedure in June 1971.

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The following countries voted explicitly in favour of publication:

Australia	Netherlands
Austria	Poland
Canada	Portugal
Czechoslovakia	Sweden
Denmark	Switzerland
Finland	Turkey
France	Union of Soviet
Germany	Socialist Republics
Italy	United Kingdom
Japan	Yugoslavia
Korea (Republic of)	

HIGH-PRESSURE MERCURY VAPOUR LAMPS

SECTION ONE — TEST REQUIREMENTS

1. Scope

These recommendations state the methods of test to be used for determining the characteristics of high-pressure mercury vapour lamps with or without a red correcting fluorescent coating, operating on a.c. mains with a ballast satisfying the requirements of IEC Publication 262: Ballasts for High Pressure Mercury Vapour Lamps. These requirements relate only to type testing.

Details of maximum lamp outlines are also included for guidance in luminaire design.

2. Definitions

For the definitions of general terms used in these recommendations, reference should be made to Group 45: Lighting, of the International Electrotechnical Vocabulary (see IEC Publication 50(45)). For the purpose of this publication the following definitions shall apply:

2.1 *Rated wattage*

The wattage marked on the lamp.

2.2 *Lamp starting voltage*

The r.m.s. voltage at the lamp terminals at which the lamp starts.

2.3 *Minimum open circuit voltage for stable operation*

The minimum open circuit voltage to be provided by an inductive ballast for stable operation of the lamp.

2.4 *Initial readings*

The photometric and electrical measurements, made at the end of the ageing period.

2.5 *Red ratio*

The ratio of the luminous flux emitted by the lamp in the red portion of the visible spectrum to the total luminous emission of the lamp.

For the purpose of this recommendation, the red portion is defined by the part of the visible spectrum comprising the wavelengths above 600 nm.

2.6 *Rated luminous flux*

The rated luminous flux expressed in lumens, declared by the manufacturer or the responsible seller.

2.7 Reference ballast

A special inductive type ballast designed for use: *a)* in testing lamps, *b)* as a comparison standard for testing ballasts, and *c)* in the selection of reference lamps. It is essentially characterized by a stable voltage/current ratio which is relatively uninfluenced by variations in current, temperature and magnetic surroundings.

2.8 Lamp neck length

The distance measured parallel to the lamp axis between the bottom of the cap contact and that point on the lamp bulb where the diameter is 2 mm greater than the maximum neck diameter.

2.9 Calibration current

The value of the current on which the calibration and control of the reference ballast are based.

2.10 Type test

A 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 specification.

2.11 Type test sample

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

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3. Marking

The following information shall be distinctly and durably marked on the lamp:

- a)* mark of origin. This may take the form of a trade mark, the manufacturer's identification mark or the name of the responsible seller;
- b)* rated wattage.

4. Lamp dimensions

The lamp dimensions shall comply with the requirements given on the relevant lamp sheet.

5. Caps

a) The cap on the completed lamp shall comply with IEC Publication 61: Lamp caps and holders together with gauges for the control of interchangeability and safety.

Note. – In some countries, 50 W, 80 W and 125 W lamps or corresponding replacement types may be required with E27/30 caps, in order to ensure contact-making in certain non-standard E27 lampholders. The use of these caps is deprecated and lamps so fitted should include the following warning either on, or inserted in, the individual packing:

"Do not touch the lamp cap when inserting the lamp into, or removing the lamp from, the lampholder:"

This warning should also be included in a catalogue which refers to these E27/30-capped lamps.

The following countries have indicated that they do not wish to retain lamps with E27/30 caps.

- Finland
- France
- Poland
- South Africa
- Sweden
- USA
- UK

b) The cap shall be so constructed and attached to the bulb that it will withstand the torsion test specified in Appendix A.

SECTION FOUR – INFORMATION FOR LUMINAIRE DESIGN

12. Maximum cap temperatures

The temperature of the lamp cap shall not exceed the following:

<i>Cap</i>	<i>Maximum cap temperature (°C)</i>
E27	210
E40	250

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