Irish Standard
I.S. EN 60662:2012

High-pressure sodium vapour lamps - Performance specifications (IEC 60662:2011 (MOD))

I.S. EN 60662:2012

Incorporating amendments/corrigenda issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:	*This document is based on:*	*Published:*
EN 60662:1993/A10:1997 + A9:1997 + A7:1995 +A6:1994 +A5:1994 + A4:1994	EN 60662:2012	11 May, 2012

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Údarás um Chaighdeáin Náisiúnta na hÉireann

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN 60662

May 2012

ICS 29.140.30

Supersedes EN 60662:1993 + A4:1994 + A5:1994 + A6:1994 + A7:1995 + A9:1997 + A10:1997

English version

High-pressure sodium vapour lamps - Performance specifications
(IEC 60662:2011, modified)

Lampes à vapeur de sodium à haute pression -
Spécifications de performance
(CEI 60662:2011, modifiée)

Natriumdampf-Hochdrucklampen -
Anforderungen an die Arbeitsweise
(IEC 60662:2011, modifiziert)

This European Standard was approved by CENELEC on 2012-01-02. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 European Standard 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, 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.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 60662:2012 E

Foreword

This document (EN 60662:2012) consists of the text of IEC 60662:2011 prepared by SC 34A, "Lamps, of IEC TC 34, Lamps and related equipment", together with the common modifications prepared by CLC/SR 34 "Lamps and related equipment".

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)	2013-01-02
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2015-01-02

This European Standard supersedes EN 60662:1993 + A4:1994 + A5:1994 + A6:1994 + A7:1995 + A9:1997 + A10:1997.

Main items that required development of EN 60662:2011 are:

— restriction to performance requirements. Safety requirements are given in EN 62035: *Discharge lamps (excluding fluorescent lamps) – Safety specifications*;

— introduction of a test device for ignition;

— split of the lamp data sheets which make use of the test device and those which do not;

— provisions for measurement during starting, measurement of electrical and photometrical characteristics and tests for lumen maintenance and life;

— general review e.g. of maximum lamp outlines and alignment of data;

— new order of data sheets by wattage.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of the International Standard IEC 60662:2011 was approved by CENELEC as a European Standard with common modifications.

COMMON MODIFICATIONS

Lamps with the following caps are excluded from EN 60662, as they do not comply with European safety requirements:

E26

E39.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60081:1997	NOTE	Harmonized as EN 60081:1998 (not modified).
IEC 61231	NOTE	Harmonized as EN 61231.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60050-845	1987	International Electrotechnical Vocabulary (IEV) - Chapter 845: Lighting	-	-
IEC 60061-1 (mod)	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps	EN 60061-1	-
IEC 60061-3	-	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3: Gauges	EN 60061-3	-
IEC 60923 + A1	2005 2006	Auxiliaries for lamps - Ballasts for discharge lamps (excluding tubular fluorescent lamps) - Performance requirements	EN 60923 + A1	2005 2006
IEC 61347-2-1	-	Lamp controlgear - Part 2-1: Particular requirements for starting devices (other than glow starters)	EN 61347-2-1 + corr. July + corr. December	-
IEC 62035 (mod)	-	Discharge lamps (excluding fluorescent lamps) - Safety specifications	EN 62035	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HIGH-PRESSURE SODIUM VAPOUR LAMPS – PERFORMANCE SPECIFICATIONS

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60662 has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34: Lamps and related equipment.

This second edition cancels and replaces the first edition published in 1980 and its amendments. It constitues a technical revision.

Main items that required development of the 2nd edition of IEC 60662 are:

- restriction to performance requirements. Safety requirements are given in IEC 62035: *Discharge lamps (excluding fluorescent lamps) – Safety specifications*;
- introduction of a test device for ignition;
- split of the lamp data sheets which make use of the test device and those which do not;
- provisions for measurement during starting, measurement of electrical and photometrical characteristics and tests for lumen maintenance and life;
- general review e.g. of maximum lamp outlines and alignment of data;
- new order of data sheets by wattage.

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

FDIS	Report on voting
34A/1432/FDIS	34A/1452/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site 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.

INTRODUCTION

The relation between data sheet numbers of the first and the second edition is given below.

Lamp data sheets							
1st edition	2nd edition		1st edition	2nd edition		1st edition	2nd edition
1010	3250		1090	1105		2120	3300
1010	3255		1100	9000		2120	3305
1010	3260		1110	0770		2130	3310
1020	3265		1120	0775		2130	3315
1020	3270		1130	0780		2140	4500
1030	4400		1140	0785		2140	4505
1030	4405		1150	9005		2150	4510
1030	4410		1160	9010		2150	4515
1040	4415		1170	0550		3010	2300
1040	4420		1180	0555		3020	3400
1050	2150		1190	0560		3030	4600
1050	2155		-	6000		4010	3500
1060	2160		2100	2200		4020	3505
1060	2165		2110	2210		4030	4700
1070	1119		2110	2215		4040	4705
1080	1100						

Lamp outline sheets				
1st edition	2nd edition		1st edition	2nd edition
-	150 01		9030 mod.	400 01
9010	250 01		9031	400 02
9011	250 02		9032	400 03
9012 mod.	250 03		9040 mod.	400 04
9020	250 04			

HIGH-PRESSURE SODIUM VAPOUR LAMPS – PERFORMANCE SPECIFICATIONS

1 Scope

This International Standard specifies performance requirements for high-pressure sodium vapour lamps for general lighting purposes which comply with the safety requirements of IEC 62035.

For some of the requirements given in this standard, reference is made to “the relevant lamp data sheet”. For some lamps these data sheets are contained in this standard. For other lamps, falling under the scope of this standard, the relevant data are supplied by the lamp manufacturer or responsible vendor.

The requirements of this standard relate only to type testing.

The requirements dealing with the lamp starting test and associated information for ballast/ignitor design are different depending on the practice of the country in which the lamp type was originally developed.

NOTE The requirements and tolerances permitted by this standard correspond to 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 being as close to the production centre point values as possible.

It may be expected with the tolerances given in the standard that product manufactured in accordance with the type test sample will comply with the standard for the majority of 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.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-845:1987, *International Electrotechnical Vocabulary – Chapter 845: Lighting*

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

IEC 60061-3, *Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 3: Gauges*

IEC 60923:2005, *Auxiliaries for lamps – Ballasts for discharge lamps (excluding tubular fluorescent lamps) – Performance requirements*[1]
Amendment 1 (2006)

IEC 61347-2-1, *Lamp controlgear – Part 2-1: Particular requirements for starting devices (other then glow starters)*

IEC 62035, *Discharge lamps (excluding fluorescent lamps) – Safety specifications*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-845 and the following apply.

[1)] There exists a consolidated edition 3.1 that comprises edition 3 and its Amendment 1.