

Lamps for road vehicles
Dimensional, electrical and luminous requirements

EVS

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 60809:2015 sisaldab Euroopa standardi EN 60809:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 60809:2015 consists of the English text of the European standard EN 60809:2015.
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English Version

**Lamps for road vehicles - Dimensional, electrical and luminous
requirements
(IEC 60809:2014)**

Lampes pour véhicules routiers - Exigences
dimensionnelles, électriques et lumineuses
(IEC 60809:2014)

Lampen für Straßenfahrzeuge - Maße, elektrische und
lichttechnische Anforderungen
(IEC 60809:2014)

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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

Foreword

The text of document 34A/1798/FDIS, future edition 3 of IEC 60809, prepared by SC 34A "Lamps", of IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60809:2015.

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) 2015-10-20
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-01-20

This document supersedes EN 60809:1996.

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Endorsement notice

The text of the International Standard IEC 60809:2014 was approved by CENELEC as a European Standard without any modification.

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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>
IEC 60050	series	International electrotechnical vocabulary	-	-
IEC 60051-1	-	Direct acting indicating analogue electrical measuring instruments and their accessories - Part 1: Definitions and general requirements common to all parts	EN 60051-1	-
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 60810	2014	Lamps for road vehicles - Performance requirements	EN 60810	2015
IEC 60983	-	Miniature lamps	EN 60983	-
IEC 62504	-	General lighting - Light emitting diode (LED) products and related equipment - Terms and definitions	EN 62504	-
CIE 15	2004	Colorimetry	-	-
UNECE 1958 Agreement	-	Agreement concerning the adoption of uniform technical prescription for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions	-	-
UNECE 4	-	1958 Agreement, Addendum 3: Regulation No. 4: Uniform provisions concerning the approval of devices for the illumination of rear registration plates of power-driven vehicles and their trailers	-	-
UNECE 6	-	1958 Agreement, Addendum 5: Regulation No. 6: Uniform provisions concerning the approval of direction indicators for power-driven vehicles and their trailers	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
UNECE 7	-	1958 Agreement, Addendum 6: Regulation No. 7: Uniform provisions concerning the approval of front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles (except motor cycles) and their trailers	-	-
UNECE 23	-	1958 Agreement, Addendum 22: Regulation No. 23: Uniform provisions concerning the approval of reversing and manoeuvring lamps for power-driven vehicles and their trailers	-	-
UNECE 37	-	1958 Agreement, Addendum 36: Regulation No. 37: Uniform provisions concerning the approval of filament lamps for use in approved lamp units of power-driven vehicles and of their trailers	-	-
UNECE 38	-	1958 Agreement, Addendum 37: Regulation No. 38: Uniform provisions concerning the approval of rear fog lamps for power-driven vehicles and their trailers	-	-
UNECE 50	-	1958 Agreement, Addendum 49: Regulation No. 50: Uniform provisions concerning the approval of front position lamps, rear position lamps, stop lamps, direction indicators and rear-registration-plate illuminating devices for vehicles of category L	-	-
UNECE 77	-	1958 Agreement, Addendum 76: Regulation No. 77: Uniform provisions concerning the approval of parking lamps for power-driven vehicles	-	-
UNECE 87	-	1958 Agreement, Addendum 86: Regulation No. 87: Uniform provisions concerning the approval of daytime running lamps for power-driven vehicles	-	-
UNECE 91	-	1958 Agreement, Addendum 90: Regulation No. 91: Uniform provisions concerning the approval of side-marker lamps for motor vehicles and their trailers	-	-
UNECE 99	-	1958 Agreement, Addendum 98: Regulation No. 99: Uniform provisions concerning the approval of gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	-	-
UNECE 101	-	1958 Agreement, Addendum 100: Regulation No. 101: Uniform provisions concerning the approval of passenger cars powered by an internal combustion engine only, or powered by a hybrid electric power train with regard to the measurement of the emission of carbon dioxide and fuel consumption and/or the measurement of electric energy consumption and electric range, and of categories M ₁ and N ₁ vehicles powered by an electric power train only with regard to the measurement of electric energy consumption and electric range	-	-
UNECE 119	-	1958 Agreement, Addendum 118: Regulation No. 119: Uniform provisions concerning the approval of cornering lamps for power-driven vehicles	-	-
UNECE 128	-	1958 Agreement, Addendum 127: Regulation No. 128: Uniform provisions concerning the approval of light emitting diode (LED) light sources for use in approved lamp units on power-driven vehicles and their trailers	-	-

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LAMPS FOR ROAD VEHICLES –
DIMENSIONAL, ELECTRICAL AND LUMINOUS REQUIREMENTS**

FOREWORD

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International Standard IEC 60809 has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34, Lamps and related equipment.

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

FDIS	Report on voting
34A/1798/FDIS	34A/1819/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 third edition cancels and replaces the second edition (1995), its Amendment 1 (1996), its Amendment 2 (2002), its Amendment 3 (2004), its Amendment 4 (2009) and its Amendment 5 (2012). This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the introduction of requirements for non-replaceable filament lamps;
- b) the introduction of requirements for LED light sources.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2. However, as the original editable data sheets and some figures from previous editions were not available, they have been reproduced in their old format which does not comply fully with the current drafting rules.

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.

LAMPS FOR ROAD VEHICLES – DIMENSIONAL, ELECTRICAL AND LUMINOUS REQUIREMENTS

1 Scope

This International Standard is applicable to replaceable and standardised lamps (filament lamps, discharge lamps and LED light sources) to be used in headlamps, fog-lamps and signalling lamps for road vehicles. In some applications, these lamps may be installed as non-replaceable.

This standard is especially applicable to those lamps which are the subject of legislation. In particular, it includes the lamps contained in Regulations No. 37, No. 99, No. 128 and its series of amendments of the Geneva Agreement of 20 March 1958 of the United Nations Economic Commission for Europe (UNECE). However, the standard may be used for other lamps falling under the scope of this standard, as well as lamps which are subject of legislation but not contained in Regulations No. 37, No. 99 and No. 128, e.g. the non-replaceable (filament) lamps and LED modules.

For replaceable and standardised lamps, the standard specifies the technical requirements with methods of tests and basic interchangeability (dimensional, electrical and luminous) for lamps of normal production and for standard (étalon) lamps.

For most of the requirements given in this standard, reference is made to the “relevant lamp data sheet”. For all lamps listed in Clause 8, data sheets are contained in this standard or included by reference. For other lamps, the relevant data are supplied by the lamp manufacturer or responsible vendor. It could be based on national legislation.

Other requirements to replaceable and standardised lamps such as lamp life, luminous flux maintenance, torsion strength and resistance to vibration and shock are specified in IEC 60810. Such requirements to non-replaceable lamps are given in this standard.

For some test methods, reference is made to IEC 60810.

Road vehicle lamps for supplementary purposes which are not the subject of legislation are specified in IEC 60983.

In countries which legislate for approval, for example under the terms of the aforementioned UN Regulations, it is suggested that reference is made to this standard for assessment of compliance. IEC 60810 and IEC 60983 are not intended for that purpose.

NOTE 1 In various vocabularies and standards, different terms are used for “incandescent lamp”, “discharge lamp” and “LED lamp”. In this standard “filament lamp”, “discharge lamp” and “LED light source” are used. However, where only “lamp” is written all three kinds of lamp are meant, unless the context clearly shows that it applies to one kind only.

NOTE 2 Wherever the term “device” is used, it is meant to designate equipment which is used as luminaire. It can take the form and purpose of a headlight or signal light.

2 Normative references

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.