SLOVENSKI STANDARD
oSIST prEN IEC 60810:2026

01-december-2026

Sijalke, svetlobni viri in paketi svetlečih diod (LED) za cestna vozila - Tehnične zahteve

Lamps, light sources and LED packages for road vehicles - Performance requirements

Lampes, sources lumineuses et LED encapsulées pour véhicules routiers - Exigences de performances

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ICS:

29.140.99	Drugi standardi v zvezi z žarnicami	Other standards related to lamps
43.040.20	Naprave za osvetlitev, signalizacijo in opozarjanje	Lighting, signalling and warning devices

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34A/2483/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: **IEC 60810 ED6**	
DATE OF CIRCULATION: **2026-10-09**	CLOSING DATE FOR VOTING: **2027-01-01**
SUPERSEDES DOCUMENTS: **34A/2462A/RR**	

IEC SC 34A : ELECTRIC LIGHT SOURCES	
SECRETARIAT: United Kingdom	SECRETARY: Mr Petar Luzajic
OF INTEREST TO THE FOLLOWING COMMITTEES:	HORIZONTAL FUNCTION(S):
ASPECTS CONCERNED:	
☒ SUBMITTED FOR CENELEC PARALLEL VOTING	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING

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TITLE:

Lamps, light sources and LED packages for road vehicles - Performance requirements

PROPOSED STABILITY DATE: 2030

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Lamps, light sources and LED packages for road vehicles - Performance requirements

FOREWORD

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IEC 60810 has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34: Lamps and related equipment. It is an International Standard.

This sixth edition cancels and replaces the fifth edition published in 2017. This edition constitutes a technical revision.

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

a) introduction of requirements for several new LED light source categories;
b) updating of the requirements for LED light sources;
c) re-writing the requirements for LED package and making reference to AEC Q102
d) introduction of requirements and test methods for OLED light sources.

The text of this International Standard is based on the following documents:

Draft	Report on voting
34A/XX/FDIS	34A/XX/RVD

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

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The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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– withdrawn, or
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INTRODUCTION

The following reference is to be checked :

United Nations Vehicle Regulations - 1958 Agreement, *Agreement concerning the adoption of uniform technical prescriptions 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* (available at www.unece.org/trans/main/wp29/wp29regs.html)[1]

The following items were listed in the bibliography but not cited in the text. Please find a suitable place to cite them to justify their inclusion in the bibliography:

IEC 60068-2-20, *Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads*IEC 60068-2-20 [1]

IEC 60417, *Graphical symbols for use on equipment*IEC 60417 [2]

IEC 60809:1995/AMD5:2012 [3]

ISO 3534-2, *Statistics - Vocabulary and symbols - Part 2: Applied statistics*ISO 3534-2 [4]

ICNIRP, Guidelines on Limits of Exposure to Ultraviolet Radiation of Wavelengths Between 180 nm and 400 nm (Incoherent Optical Radiation). Health Physics 87 (2): 171-186; 2004[5]

United Nations Vehicle Regulations - 1958 Agreement, Agreement concerning the adoption of uniform technical prescriptions 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(available at www.unece.org/trans/main/wp29/wp29regs.html)[6]

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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[7]

Addendum 98: UN 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[8]

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 of their trailers[9]

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[1] Also known as The 1958 Agreement. In the text of this document the regulations under this agreement are referred to as, for example, UN Regulation 37 or R37.

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1 Scope

This document is applicable to filament lamps, discharge lamps, LED light sources, LED packages and OLED light sources to be used in road vehicles, i.e. in headlamps, fog-lamps, signalling lamps and interior lighting. It is especially applicable to those lamps and light sources which are listed in IEC 60809:2021.

It specifies requirements and test methods for the measurement of performance characteristics such as lamp life, luminous flux maintenance, torsion strength, glass bulb strength and resistance to vibration and shock. Moreover, information on temperature limits, maximum lamp outlines and maximum tolerable voltage surges is given as guidance for lighting and electrical equipment design.

For some of the requirements given in this document, reference is made to data given in tables. For lamps not listed in such tables, the relevant data are supplied by the lamp manufacturer or responsible vendor.

The performance requirements are additional to the basic requirements specified in IEC 60809:2021. They are, however, not intended to be used by authorities for legal type-approval purposes.

NOTE 1 In the various vocabularies and standards, different terms are used for "incandescent lamp" (IEC 60050-845, 845-07-04) and "discharge lamp" (IEC 60050-845, 845-07-17). In this document, "filament lamp" and "discharge lamp" are used. However, where only "lamp" is written both types are meant, unless the context clearly shows that it applies to one type only.

NOTE 2 This document does not apply to luminaires.

NOTE 3 In this document, the term LED light source is used, in other standards the term LED lamps can be used to describe similar products.

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2 Normative references

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The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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, *International Electrotechnical Vocabulary - Part 845: Lighting (available at http://www.electropedia.org)*

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

IEC 60068-2-5, *Environmental testing - Part 2-5: Tests - Test S: Simulated solar radiation at ground level and guidance for solar radiation testing and weathering*

IEC 60068-2-5:2018, *Environmental testing - Part 2-5: Tests - Test S: Simulated solar radiation at ground level and guidance for solar radiation testing and weathering*

IEC 60068-2-6, *Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)*

IEC 60068-2-14, *Environmental testing - Part 2-14: Tests - Test N: Change of temperature*

IEC 60068-2-27, *Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock*

IEC 60068-2-43, *Environmental testing - Part 2-43: Tests - Test Kd: Hydrogen sulphide test for contacts and connections*

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IEC 60068-2-58, *Environmental testing - Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60068-2-60, *Environmental testing - Part 2-60: Tests - Test Ke: Flowing mixed gas corrosion test*

IEC 60809:2021, *Lamps and light sources for road vehicles - Dimensional, electrical and luminous requirements*

IEC 62506, *Methods for product accelerated testing*

ISO 2859-1:2026, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 7637-2:2011, *Road vehicles - Electrical disturbances from conduction and coupling - Part 2: Electrical transient conduction along supply lines only*

ISO 10605, *Road vehicles - Test methods for electrical disturbances from electrostatic discharge*

CISPR 25, *Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers*

Addendum 47: Regulation No. 48, Uniform provisions concerning the approval of vehicles with regard to the installation of lighting and light-signalling devices

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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 M1 and N1 vehicles powered by an electric power train only with regard to the measurement of electric energy consumption and electric range

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Addendum 122: Regulation No. 123, Uniform provisions concerning the approval of adaptive front-lighting systems (AFS) for motor vehicles

AEC Q102

ANSI/ESDA/JEDEC JS-001-2012

ANSI/ESDA/JEDEC JS-001-2012, Joint JEDEC/ESDA standard for electrostatic discharge sensitivity testing human body model (HBM) - component level

CIE 015:2018, Colorimetry

CIE015, *CIE 015*

JESD22-A101D

JESD22-A101D, Steady-state temperature humidity bias life test

JESD22-A104E

JESD22-A104E, Temperature cycling

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JESD22-A105C

JESD22-A105C, Power and temperature cycling

JESD22-A108F

JESD22-A108F, Temperature, bias, and operating life

JESD22-A115C

JESD22-A115C, Electrostatic discharge (ESD) sensitivity testing machine model (MM)

R.E.5

R.E.5, Consolidated Resolution on the common specification of light source categories

R.E.5 is published by UNECE under the reference ECE/TRANS/WP.29/1127 and is available at the following address (website checked on 6 March 2019) http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html

R101

UN R10

UN R48

UN R123

UN R128

UN R148

UN Regulation R48

United Nations Vehicle Regulations - 1958 Agreement, Agreement concerning the adoption of uniform technical prescriptions 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 (available at www.unece.org/trans/main/wp29/wp29regs.html)

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3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-845 and IEC 60809:2021, and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

– IEC Electropedia: available at https://www.electropedia.org/
– ISO Online browsing platform: available at https://www.iso.org/obp

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