SLOVENSKI STANDARD
SIST EN 60810:2015/A1:2017

01-september-2017

Sijalke za cestna vozila - Tehnične zahteve - Dopolnilo A1 (IEC 60810:2014/A1:2017)

Lamps for road vehicles - Performance requirements (IEC 60810:2014/A1:2017)

Lampen für Straßenfahrzeuge - Anforderungen an die Arbeitsweise (IEC 60810:2014/A1:2017)

Lampes pour véhicules routiers - Exigences de performances (IEC 60810:2014/A1:2017)

Ta slovenski standard je istoveten z: **EN 60810:2015/A1:2017**

ICS:

29.140.20	Žarnice z žarilno nitko	Incandescent lamps
43.040.20	Naprave za osvetlitev, signalizacijo in opozarjanje	Lighting, signalling and warning devices

SIST EN 60810:2015/A1:2017 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60810:2015/A1

June 2017

ICS 29.140.99

English Version

Lamps for road vehicles - Performance requirements (IEC 60810:2014/A1:2017)

Lampes pour véhicules routiers - Exigences de performances
(IEC 60810:2014/A1:2017)

Lampen für Straßenfahrzeuge - Anforderungen an die Arbeitsweise
(IEC 60810:2014/A1:2017)

This amendment A1 modifies the European Standard EN 60810:2015; it was approved by CENELEC on 2017-04-12. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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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

European foreword

The text of document 34A/1888/CDV, future IEC 60810:2014/A1, 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 60810:2015/A1:2017.

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)	2018-01-12
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-04-12

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Endorsement notice

The text of the International Standard IEC 60810:2014/A1:2017 was approved by CENELEC as a European Standard without any modification.

IEC 60810

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

AMENDMENT 1
AMENDEMENT 1

Lamps for road vehicles – Performance requirements

Lampes pour véhicules routiers – Exigences de performances

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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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:

CDV	Report on voting
34A/1888/CDV	34A/1927/RVC

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

Replace the existing Annex D with the following new Annex D:

Annex D
(normative)

Life and luminous flux maintenance test conditions for discharge lamps

D.1 Ageing

No ageing period is required, but lamps which fail before starting the life test shall be omitted from the test results.

For lamps subject to the luminous flux maintenance test, the initial luminous flux shall be measured after 10 on/off switching cycles as specified in Clause D.4.

D.2 Test circuit and test voltage

Discharge lamps shall be tested with the ballast submitted by the lamp manufacturer and, preferably, designed to operate the lamp in a nominal 12 V system. The test voltage to the ballast shall be 13,5 V. The power supply to the ballast shall be sufficient to secure the high-current flow.

D.3 Burning position and operating conditions

Discharge lamps shall be operated in free air with an ambient temperature of 25 °C ± 5 °C. The burning position shall be horizontal within 10°, with the lead wire down. Precautions should be taken to avoid potential hazards due to high voltages, UV radiation and risk of bulb breakage during starting, run-up and operation of some discharge lamp types.

D.4 Switching cycle

One on/off switching cycle is built up of the following 10 on/off periods (see Table D.1):

Table D.1 – On/off switching cycle

Period	On min	Off min
1	20	0,2
2	8	5
3	5	3
4	3	3
5	2	3
6	1	3
7	0,5	3
8	0,3	0,3
9	20	4,7
10	20	15

The total duration of one on/off switching cycle is 120 min, during which the lamp is switched on for 79,8 min and switched off for 40,2 min. The time during which the lamp is switched off is not considered as part of the life.

For discharge lamps with two defined power modes, a power switching according to Table D.2 shall be applied in addition.

One power switching cycle has a total duration of 113 min. The power switching cycle is superimposed onto the on/off switching cycle of Table D.1.

Figure D.1 show the superposition of the two switching cycles.

NOTE The power switching cycle duration of 113 min is chosen to avoid synchronicity with the 120 min of the on/off cycle. Over the total test duration this results in a percentage of 71 % in low power operation (e. g. low beam) and 29 % high power operation (e. g. high beam).

Table D.2 – Power switching cycle

Period	Power mode	Time min
A	High power	3
B	Low power	20
C	High power	10
D	Low power	20
E	High power	10
F	Low power	20
G	High power	10
H	Low power	20

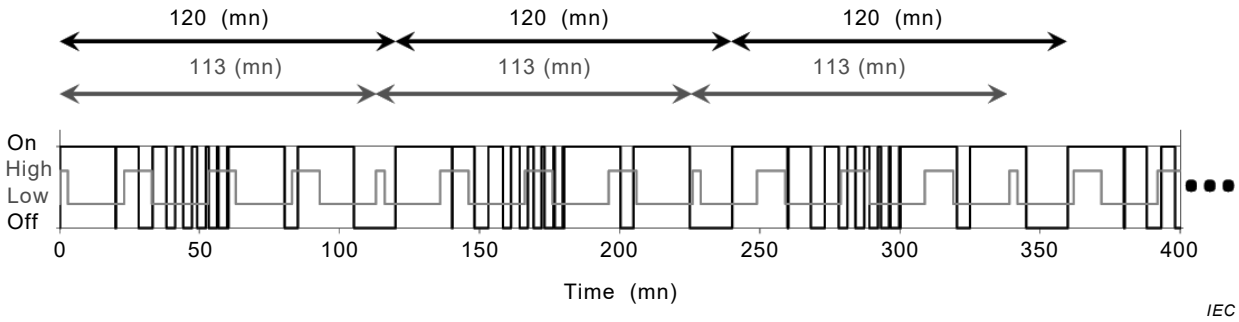

Figure D.1 – Superposition of on/off switching and power switching cycle

Life tests may be interrupted for the purpose of the luminous flux maintenance test.

For discharge lamps with two defined power modes, an additional fast power switching according to Table D.3 shall be performed on 10 lamps. The test consists of 10 steps “5 s low – 2 s high” and 10 steps “20 s low – 10 s high” These 20 steps are repeated until 50 000 operations are reached. A maximum of one lamp may fail the test (no light emitted).

Table D.3 – Fast power switching cycle

Operations	Steps	Power mode	Time s
1	1	Low power	5
2	2	High power	2
3	3	Low power	5
4	4	High power	2
5	5	Low power	5
6	6	High power	2
7	7	Low power	5
8	8	High power	2
9	9	Low power	5
10	10	High power	2
11	11	Low power	20
12	12	High power	10
13	13	Low power	20
14	14	High power	10
15	15	Low power	20
16	16	High power	10
17	17	Low power	20
18	18	High power	10
19	19	Low power	20
20	20	High power	10
21	1	Low power	5
22	2	High power	2
....	....	...	...
50 000	20	High power	10

D.5 Luminous flux maintenance

The luminous flux maintenance is measured after the lamp has been operated 75 % of the characteristic life as declared by the manufacturer.