

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

International lamp coding system (ILCOS)

Systeme international de codification des lampes (ILCOS)

[IEC 61231:2010/AMD1:2013](https://standards.iteh.ai/catalog/standards/sist/1db3dae0-9ca0-42f2-b1f9-523f46e4f556/iec-61231-2010-amd1-2013)

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Système international de codification des lampes (ILCOS)

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

M

ICS 29.140

ISBN 978-2-83220-895-3

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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:

FDIS	Report on voting
34A/1663/FDIS	34A/1680/RVD

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 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- withdrawn,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.

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INTRODUCTION TO THE AMENDMENT

This proposal serves:

- a) the implementation of the low frequency square wave operation in ILCOS (International Lamp Coding System):

ILCOS L – wattage – lamp voltage range/starting device/**current wave form and frequency** – lamp cap – dimensions

- b) the implementation of lamps for use in high-pressure mercury equipment under 5.7.1.2. In order to distinguish this, other lamps are listed as normal lamps under 5.7.1.1.
- c) further editorial changes as being presented with PRESCO(RTK)198 and agreed by PRESCO.

CONTENTS

Replace entries 5.1 and 5.8 by the following new entries.

5.1 Incandescent lamps – tungsten filament lamps

5.8 LED modules and lamps

[IEC 61231:2010/AMD1:2013](https://standards.iteh.ai/catalog/standards/sist/1db3dae0-9ca0-42f2-b1f9-523f46e4f556/iec-61231-2010-amd1-2013)

2 Normative references

<https://standards.iteh.ai/catalog/standards/sist/1db3dae0-9ca0-42f2-b1f9-523f46e4f556/iec-61231-2010-amd1-2013>

Replace the last reference by the following new reference:

IEC/TR 62732, *Three-digit code for designation of colour rendering and correlated colour temperature*

4.1 Letter section

Replace the entries for I, S, L, Q and D by the following new entries:

I Incandescent lamps – tungsten filament lamps

S High-pressure sodium vapour lamps

L Low-pressure sodium vapour lamps

Q High-pressure mercury vapour lamps

D LED modules and lamps

4.2 Figure section

Replace the last sentence by the following new sentence:

The sequence and the specific content of the blocks is determined for each lamp category and described in 5.1 to 5.9.

5.1 Tungsten filament lamps

Replace the title of 5.1 by the following new title:

5.1 Incandescent lamps – tungsten filament lamps

5.1.1 ILCOS L for tungsten filament lamps

Replace the title of 5.1.1 with the following new title:

5.1.1 ILCOS L for incandescent lamps – tungsten filament lamps

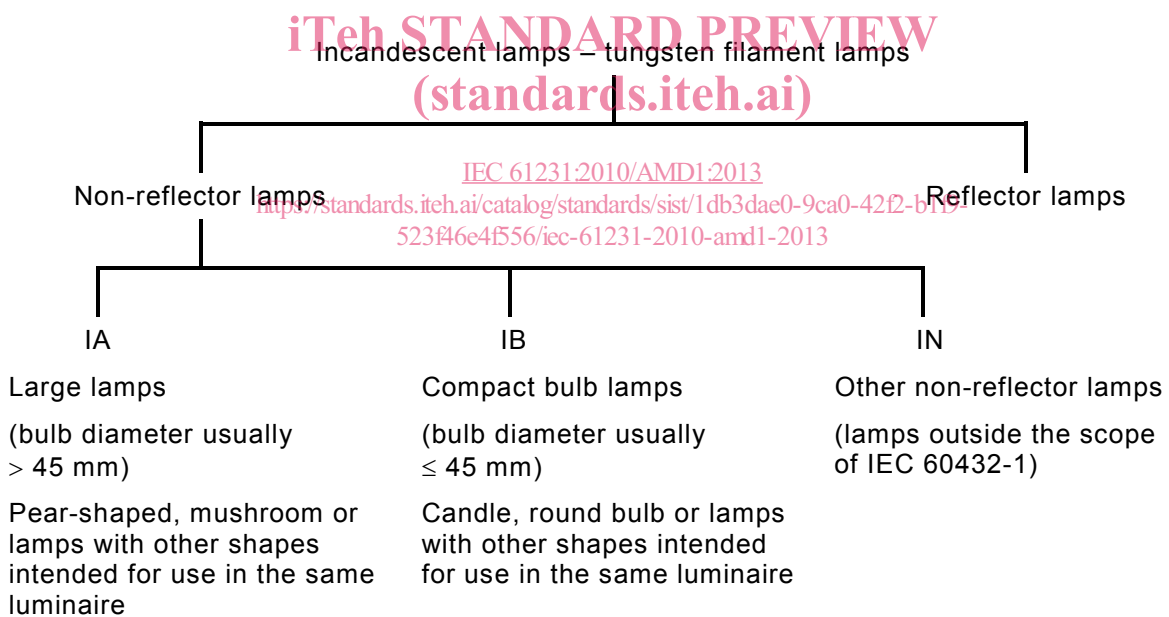
Replace, in the flow diagram, the existing first line:

Tungsten filament lamps

with the following new line:

Incandescent lamps – tungsten filament lamps

as follows:



Replace, in the list of bulb shapes, the second item:

- B candle (bulged)

with the following new item:

- B bulged (candle)

Replace, the introductory sentence "An example with a modifier is" and its list item, by the following new introductory sentence and list:

Some examples with modifiers are:

- BA bulged (candle) with angular tip
- BF bulged (candle) with flutes twisted.

Replace in the list of examples, the item:

IBBA/C Clear candle lamps with angular tip

by the following new item:

IBBA/C Bulged clear (candle) lamps with angular tip

5.1.2 ILCOS LE for tungsten filament lamps

Replace the title of 5.1.2 by the following new title:

5.1.2 ILCOS LE for incandescent lamps – tungsten filament lamps

5.1.3 ILCOS D for tungsten filament lamps

Replace the title of 5.1.3 with the following new title:

5.1.3 ILCOS D for incandescent lamps – tungsten filament lamps

Replace, in the list of examples, the item:

IBB/W-40---35 White candle lamp, 40 W, nominal diameter 35 mm, rest not specified

by the following new item:

IBB/W-40---35 White bulged (candle) lamp, 40 W, nominal diameter 35 mm, rest not specified

5.2.1 ILCOS L for tungsten halogen lamps

Replace the existing 4th paragraph:

The bulb shape can be indicated after the third or fourth letter as described for tungsten filament lamps.

by the following new text:

The bulb shape can be indicated after the third or fourth letter as described for incandescent lamps – tungsten filament lamps.

Replace the existing 5th paragraph:

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<https://standards.iteh.ai/catalog/standards/cist/1d13dae0-9e10-42f2-b1f9-523f46e4f556/iec-61231-2010-amd1-2013>

If it is necessary to indicate the bulb finish, special colours or other technical details, this can be done after one or two slashes as described for tungsten filament lamps (see 5.1.1).

by the following new text:

If it is necessary to indicate the bulb finish, special colours or other technical details, this can be done after one or two slashes as described for incandescent lamps – tungsten filament lamps (see 5.1.1).

Replace the list of examples with the following new list:

HSGST	Single-ended general purpose halogen lamp, self-shielded, tubular shaped
HDG	Double-ended general purpose halogen lamp
HRG	Dichroic reflector general purpose halogen lamp
HMGS	Metal reflector general purpose halogen lamp, self-shielded

5.3.1 ILCOS L for fluorescent lamps

Replace the existing 4th paragraph:

For FB lamps the shape can be indicated as described for tungsten filament lamps (see 5.1.1). A last letter can be added to indicate:

by the following new text:

For FB lamps the shape can be indicated as described for incandescent lamps – tungsten filament lamps (see 5.1.1). A last letter can be added to indicate:

Replace the existing 5th paragraph:

Colours or other bulb finishes can be indicated after a slash, as described for tungsten filament lamps (see 5.1.1).

by the following new text:

Colours or other bulb finishes can be indicated after a slash, as described for incandescent lamps – tungsten filament lamps (see 5.1.1).

Replace the existing introductory sentence of the 6th paragraph:

Further technical details can be given after a second slash as follows:

by the following new introductory sentence:

Further technical details can be given after a double slash as follows:

5.3.3 ILCOS D for fluorescent lamps

Replace the dashed item "- Wattage ... $R_a = 20-39$ " :

by the following new dashed item:

- Wattage: The block specifying wattage can be extended by a slash to give information concerning the colour rendering index and colour temperature as described in IEC/TR 62732.

Replace the existing second example:

FD-36/30/1B-E-G13 Same lamp asgroup 1B ($R_a=80-89$)

abbreviated: FD-36/30/1B

by the following new example:

FD-36/830-E-G13 Same lamp as above, but with indication of colour properties,
colour temperature 3 000 K, colour rendering (R_a) = 80-89

abbreviated: FD-36/830

5.4.1 ILCOS L for high-pressure sodium lamps

Replace the title of 5.4.1 by the following new title:

5.4.1 ILCOS L for high-pressure sodium vapour lamps

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5.4.2 ILCOS LE for high-pressure sodium lamps

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Replace the title and the text of 5.4.2 by the following:

[IEC 61231:2010/AMD1:2013](https://standards.iteh.ai/catalog/standards/sist/11b2d3e0-9ca0-42f2-b1f9-523f46e4f556/iec-61231-2010-amd1-2013)

5.4.2 ILCOS LE for high-pressure sodium vapour lamps

<https://standards.iteh.ai/catalog/standards/sist/11b2d3e0-9ca0-42f2-b1f9-523f46e4f556/iec-61231-2010-amd1-2013>

Not applicable for high-pressure sodium vapour lamps.

5.4.3 ILCOS D for high-pressure sodium lamps

Replace the title of 5.4.3 by the following new title:

5.4.3 ILCOS D for high-pressure sodium vapour lamps

Replace the list of examples by the following new list:

Examples

ST-150-H/E-E40-53/211 High-pressure sodium vapour lamp, tubular clear, 150 W,
voltage range 70 V-180 V, external starting device, cap E40,
maximum diameter 53 mm, maximum overall length 211 mm
abbreviated: ST-150 (usually with external starting device, and with the dimensions
as given)

SEM-150-H/E-E40-91/227 High-pressure sodium vapour lamp, elliptical diffuse coated
bulb, colour improved, 150 W, voltage range 70 V-180 V,
external starting device, cap E40, maximum diameter 91 mm,
maximum overall length 227 mm

abbreviated: SEM-150

SEQ-210-H-E40-91/227 High-pressure sodium vapour lamp, elliptical diffuse coated bulb, for use in high-pressure mercury equipment, 210 W, voltage range 70 V-180 V, cap E40, maximum diameter 91 mm, maximum overall length 227 mm

abbreviated: SEQ-210

5.5.1 ILCOS L for low-pressure sodium lamps

Replace the title of 5.5.1 by the following new title:

5.5.1 ILCOS L for low-pressure sodium vapour lamps

5.5.2 ILCOS LE for low-pressure sodium lamps

Replace the title and text of 5.5.2 by the following:

5.5.2 ILCOS LE for low-pressure sodium vapour lamps

Not applicable for low-pressure sodium vapour lamps.

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5.5.3 ILCOS D for low-pressure sodium lamps

Replace the title of 5.5.3 by the following new title:
<https://standards.iteh.ai/catalog/standards/sist/1db3dae0-9ca0-42f2-b1f9-523f46e4f556/iec-61231-2010-amd1-2013>

5.5.3 ILCOS D for low-pressure sodium vapour lamps

Replace the list of examples by the following new list:

LS-90-BY22d-68/528 Low-pressure sodium vapour lamp, U-shaped arc tube, 90 W, cap BY22d, maximum bulb diameter 68 mm, maximum overall length 528 mm

abbreviated: LS-90

LSE-E131-BY22d-68/1120 Low-pressure sodium vapour lamp, E-type, designation E131, cap BY22d, maximum bulb diameter 68 mm, maximum overall length 1 120 mm

abbreviated: LSE-E131

5.6.1 ILCOS L for high-pressure mercury lamps

Replace the title of 5.6.1 by the following new title:

5.6.1 ILCOS L for high-pressure mercury vapour lamps

5.6.2 ILCOS LE for high-pressure mercury lamps

Replace the title and text of 5.6.2 by the following:

5.6.2 ILCOS LE for high-pressure mercury vapour lamps

Not applicable for high-pressure mercury vapour lamps.

5.6.3 ILCOS D for high-pressure mercury lamps

Replace the title of 5.6.3 by the following new title.

5.6.3 ILCOS D for high-pressure mercury vapour lamps

Replace the existing dashed item:

- **Lamp voltage range:** The lamp voltage range is indicated as described for high-pressure sodium lamps (see 5.4.3).

by the following new dashed item:

- **Lamp voltage range:** The lamp voltage range is indicated as described for high-pressure sodium vapour lamps (see 5.4.3).

Replace the existing list of examples by the following new list:

Examples

<https://standards.iteh.ai/catalog/standards/sist/1db3dae0-9ca0-42f2-b1f9-504e412c1e61/iec-61231-2010-amd1-2013>

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QE-125-H-E27-76/178 High-pressure mercury vapour lamp, elliptical bulb, diffuse coated, 125 W, voltage range 70 V-180 V, cap E27, maximum bulb diameter 76 mm, maximum overall length 178 mm

abbreviated: QE-125

QE-700-E-E40-152/357 High-pressure mercury vapour lamp, elliptical diffuse coated bulb, 700 W, voltage range >180 V, cap E40, maximum bulb diameter 152 mm, maximum overall length 357 mm

abbreviated: QE-700-E

5.7.1 ILCOS L for metal halide lamps

Replace the existing text of 5.7.1 by the following new text:

5.7.1.1 Normal version

The first letters will be

- MT Single-ended tubular clear lamps
- ME Single-ended lamps with elliptical or BT bulb, diffuse coating
- MC Single-ended lamps with elliptical or BT bulb, clear
- MD Double-ended lamps with clear outer bulb
- MN Double-ended lamps without outer bulb