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BSI Standards Publication

Energy performance of lamp controlgear

Part 2: Controlgear for discharge lamps (excluding low-pressure mercury fluorescent lamps) — Method of measurement to determine the efficiency of controlgear

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National foreword

This British Standard is the UK implementation of EN IEC 62442-2:2022. It is identical to IEC 62442-2:2022. It supersedes BS EN IEC 62442-2:2018, which will be withdrawn on 17 March 2025.

The UK participation in its preparation was entrusted to Technical Committee CPL/34/3, Auxiliaries for lamps.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
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March 2022

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Supersedes EN IEC 62442-2:2018 and all of its amendments and corrigenda (if any)

English Version

Energy performance of lamp controlgear - Part 2: Controlgear for discharge lamps (excluding low-pressure mercury fluorescent lamps) - Method of measurement to determine the efficiency of controlgear
(IEC 62442-2:2022)

Performance énergétique des appareillages de lampes -
Partie 2: Appareillages des lampes à décharge (à l'exclusion des lampes à fluorescence à vapeur de mercure à basse pression) - Méthode de mesurage pour la détermination du rendement des appareillages
(IEC 62442-2:2022)

Energieeffizienz von Lampenbetriebsgeräten - Teil 2:
Betriebsgeräte für Hochdruck-Entladungslampen (ausgenommen Leuchtstofflampen) - Messverfahren zur Bestimmung des Wirkungsgrades von Betriebsgeräten
(IEC 62442-2:2022)

This European Standard was approved by CENELEC on 2022-03-16. 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.

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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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

The text of document 34C/1546/FDIS, future edition 3 of IEC 62442-2, prepared by SC 34C "Auxiliaries for lamps" of IEC/TC 34 "Lighting" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62442-2:2022.

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) 2022-12-16
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-03-16

This document supersedes EN IEC 62442-2:2018 and all of its amendments and corrigenda (if any).

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 62442-2:2022 was approved by CENELEC as a European Standard without any modification.

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

IEC 60188 NOTE Harmonized as EN 60188

IEC 60662 NOTE Harmonized as EN 60662

IEC 60923 NOTE Harmonized as EN 60923

IEC 61167 NOTE Harmonized as EN 61167

IEC 62035 NOTE Harmonized as EN 62035

IEC 62442-1 NOTE Harmonized as EN IEC 62442-1

IEC 62442-3 NOTE Harmonized as EN IEC 62442-3

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(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where 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 60050-845	-	International Electrotechnical Vocabulary (IEC) – Part 845: Lighting	-	-
IEC 61347-1	2015	Lamp controlgear - Part 1: General and safety requirements	EN 61347-1	2015
IEC 63103	2020	Lighting equipment - Non-active mode power measurement	EN IEC 63103	2020
IEC TS 63105	2021	Lighting systems and related equipment - Vocabulary	-	-
IEC Guide 115	2021	Application of uncertainty of measurement to conformity assessment activities in the electrotechnical sector	-	-

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Edition 3.0 2022-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Energy performance of lamp controlgear –
Part 2: Controlgear for discharge lamps (excluding low-pressure mercury
fluorescent lamps) – Method of measurement to determine the efficiency of
controlgear**

**Performance énergétique des appareillages de lampes –
Partie 2: Appareillages des lampes à décharge (à l'exclusion des lampes à
fluorescence à vapeur de mercure à basse pression) – Méthode de mesurage
pour la détermination du rendement des appareillages**

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENERGY PERFORMANCE OF LAMP CONTROLGEAR – Part 2: Controlgear for discharge lamps (excluding low-pressure mercury fluorescent lamps) – Method of measurement to determine the efficiency of controlgear

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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IEC 62442-2 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lighting. It is an International Standard.

This third edition cancels and replaces the second edition published in 2018. This edition constitutes a technical revision.

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

- a) the title of Part 2 has been modified;
- b) this edition has been harmonized with IEC 62442-1 and IEC 62442-3;
- c) the reference to and use of the measurement methods for non-active power consumption in accordance with IEC 63103 have been added.

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

Draft	Report on voting
34C/1546/FDIS	34C/1549/RVD

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

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/standardsdev/publications.

A list of all parts in the IEC 62442 series, published under the general title *Energy performance of lamp controlgear*, can be found on the IEC website.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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ENERGY PERFORMANCE OF LAMP CONTROLGEAR –

Part 2: Controlgear for discharge lamps (excluding low-pressure mercury fluorescent lamps) – Method of measurement to determine the efficiency of controlgear

1 Scope

This part of IEC 62442 defines a measurement method of the power losses of electromagnetic controlgear, the total input power and the standby power of electronic controlgear for discharge lamps (excluding low-pressure mercury fluorescent lamps). A calculation method of the efficiency of controlgear for discharge lamp(s) is also defined.

It is assumed that the controlgear are designed for use on DC supplies up to 1 000 V and/or AC supplies up to 1 000 V at 50 Hz or 60 Hz.

This document applies to electrical controlgear-lamp circuits comprised solely of the controlgear and of the lamp(s).

NOTE Requirements for testing individual controlgear during production are not included.

This document specifies the measurement method for the total input power, the standby power and the calculation method of the lamp controlgear efficiency for all controlgear sold for domestic and normal commercial purposes operating with discharge lamps.

This document does not apply to:

- controlgear which form an integral part of lamps;
- controlgear circuits with capacitors connected in series;
- controllable electromagnetic controlgear.

2 Normative references

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 (IEV) – Part 845: Lighting* (available at <http://www.electropedia.org>)

IEC 61347-1:2015, *Lamp controlgear – Part 1: General and safety requirements*

IEC 63103:2020, *Lighting equipment – Non-active mode power measurement*

IEC TS 63105:2021, *Lighting systems and related equipment – Vocabulary*

IEC Guide 115:2021, *Application of uncertainty of measurement to conformity assessment activities in the electrotechnical sector*