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**Energy performance of lamp controlgear –
Part 1: Controlgear for fluorescent lamps – Method of measurement to determine
the total input power of controlgear circuits and the efficiency of controlgear**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 General	9
4.1 Applicability	9
4.2 Declaration of Ballast lumen factor.....	10
4.3 Dimmable controlgear	10
4.4 Multi- wattage power and/or multi- number-lamp controlgear.....	10
Accuracy of measurement	
4.5 General notes on tests	10
4.6 Sampling of controlgear for testing.....	10
4.7 Number Size of the test samples.....	11
4.8 Conditioning of lamps	11
4.9 Test voltages and frequencies	11
4.10 Sensor and network connections.....	11
5 Method of measurement and calculation of total input power of controlgear-lamp circuits and the efficiency of controlgear	11
5.1 Correction for ballast lumen factor	11
5.2 Method of measurement	12
5.3 Measurement and calculation of the total input power of magnetic controlgear-lamp circuits.....	12
5.4 Calculation of the efficiency of magnetic wire wound electromagnetic controlgear	13
5.5 Measurement and calculation of the total input power of electronic controlgear-lamp circuits	13
5.6 Calculation of the efficiency of electronic controlgear	14
5.7 Measuring the standby power	14
Annex A (normative) Energy performance measurement setup	15
A.1 Measurement setup for magnetic wire wound electromagnetic controlgear.....	15
A.2 Measurement setup for electronic controlgear.....	15
A.2.1 Measurement of the total input power	15
A.2.2 Measuring method of standby power.....	16
A.2.3 Light output measurement	16
A.2.4 Distance to lamp related to lamp length: explanations	18
Annex B (informative) Application of the reference ballast when assessing lamps in electronic operation	20
B.1 Calculation of the reference ballast impedance	20
B.2 Method of adjusting the lamp power.....	20
Bibliography.....	21
Figure A.1 – Measurement of magnetic wire wound electromagnetic controlgear-lamp circuits.....	15
Figure A.2 – Measurement of AC supplied electronic controlgear-lamp circuits	16
Figure A.3 – Test setup for measuring standby power.....	16
Figure A.4 – Side view of light output measurement system.....	17

Figure A.5 – Top view of light output measurement system 17

Figure A.6 – Configuration of lamp and photocell sensor 19

Table 1 – Typical nominal electricity supply details for some regions 11

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENERGY PERFORMANCE OF LAMP CONTROLGEAR –

Part 1: Controlgear for fluorescent lamps – Method of measurement to determine the total input power of controlgear circuits and the efficiency of controlgear

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International Standard IEC 62442-1 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision and has been harmonized with IEC 62442-2 and IEC 62442-3.

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

CDV	Report on voting
34C/1335A/CDV	34C/1376/RVC

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

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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 "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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ENERGY PERFORMANCE OF LAMP CONTROLGEAR –

Part 1: Controlgear for fluorescent lamps – Method of measurement to determine the total input power of controlgear circuits and the efficiency of controlgear

1 Scope

This part of IEC 62442 defines a measurement and calculation method of the total input power for controlgear-lamp circuits when operating with their associated fluorescent lamp(s). The calculation method for the efficiency of the lamp controlgear is also defined. This document applies to electrical controlgear-lamp circuits consisting only of the controlgear and the lamp(s). It is intended 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.

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

This document specifies the measurement method for the total input power and the calculation method of the controlgear efficiency for all controlgear used for domestic and normal commercial purposes operating with the following fluorescent lamps:

- linear fluorescent lamps;
- single-ended (compact) fluorescent lamps;
- other general purpose fluorescent lamps.

This document does not apply to:

- controlgear which form an integral part of the lamp;
- controllable wire-wound magnetic controlgear;
- luminaires, which rely on additional optical performance aspects.

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 60081:1997, *Double-capped fluorescent lamps – Performance specifications*
IEC 60081:1997/AMD4:2010

IEC 60901:1996, *Single-capped fluorescent lamps – Performance ~~requirements~~ specifications*
IEC 60901:1996/AMD5:2011

IEC 60921:2004, *Ballasts for tubular fluorescent lamps – Performance requirements*

IEC 60929:2011, *AC and/or DC-supplied electronic control gear for tubular fluorescent lamps – Performance requirements*

IEC 61347-2-3, *Lamp control gear – Part 2-3: Particular requirements for AC and/or DC supplied electronic control gear for fluorescent lamps*

IEC 61347-2-8, *Lamp controlgear – Part 2-8: Particular requirements for ballasts for fluorescent lamps*

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Energy performance of lamp controlgear –
Part 1: Controlgear for fluorescent lamps – Method of measurement to determine
the total input power of controlgear circuits and the efficiency of controlgear**

**Performance énergétique des appareillages de lampes –
Partie 1: Appareillages des lampes à fluorescence – Méthode de mesure pour la
détermination de la puissance d'entrée totale des circuits d'appareillage et du
rendement des appareillages**

CONTENTS

FOREWORD	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 General	9
4.1 Applicability	9
4.2 Ballast lumen factor	9
4.3 Dimmable controlgear	10
4.4 Multi-power and/or multi-number-lamp controlgear	10
4.5 General notes on tests	10
4.6 Sampling of controlgear for testing	10
4.7 Size of the test sample	10
4.8 Conditioning of lamps	10
4.9 Test voltages and frequencies	10
4.10 Sensor and network connections	11
5 Method of measurement and calculation of total input power of controlgear-lamp circuits and the efficiency of controlgear	11
5.1 Correction for ballast lumen factor	11
5.2 Method of measurement	11
5.3 Measurement and calculation of the total input power of magnetic controlgear-lamp circuits	12
5.4 Calculation of the efficiency of electromagnetic controlgear	12
5.5 Measurement and calculation of the total input power of electronic controlgear-lamp circuits	12
5.6 Calculation of the efficiency of electronic controlgear	13
5.7 Measuring the standby power	13
Annex A (normative) Energy performance measurement setup	14
A.1 Measurement setup for electromagnetic controlgear	14
A.2 Measurement setup for electronic controlgear	14
A.2.1 Measurement of the total input power	14
A.2.2 Measuring method of standby power	15
A.2.3 Light output measurement	15
A.2.4 Distance to lamp related to lamp length: explanations	17
Annex B (informative) Application of the reference ballast when assessing lamps in electronic operation	19
B.1 Calculation of the reference ballast impedance	19
B.2 Method of adjusting the lamp power	19
Bibliography	20
Figure A.1 – Measurement of electromagnetic controlgear-lamp circuits	14
Figure A.2 – Measurement of AC supplied electronic controlgear-lamp circuits	15
Figure A.3 – Test setup for measuring standby power	15
Figure A.4 – Side view of light output measurement system	16
Figure A.5 – Top view of light output measurement system	16
Figure A.6 – Configuration of lamp and photocell sensor	18

Table 1 – Typical nominal electricity supply details for some regions 11

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Method of measurement to determine the total input power
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SOMMAIRE

AVANT-PROPOS	24
1 Domaine d'application	26
2 Références normatives	26
3 Termes et définitions	27
4 Généralités	29
4.1 Applicabilité	29
4.2 Facteur de flux lumineux du ballast	29
4.3 Appareillages à intensité variable	30
4.4 Appareillages multipuissances et/ou multilampes	30
4.5 Notes générales sur les essais	30
4.6 Echantillonnage des appareillages pour les essais	30
4.7 Taille de l'échantillon d'essai	30
4.8 Conditionnement des lampes	30
4.9 Tensions et fréquences d'essai	31
4.10 Capteur et connexions réseau	31
5 Méthode de mesure et de calcul de la puissance d'entrée totale des circuits d'appareillage-lampe et du rendement des appareillages	31
5.1 Correction pour le facteur de flux lumineux du ballast	31
5.2 Méthode de mesure	31
5.3 Mesure et calcul de la puissance d'entrée totale des circuits d'appareillage magnétique-lampe	32
5.4 Calcul du rendement de l'appareillage électromagnétique	32
5.5 Mesure et calcul de la puissance d'entrée totale des circuits d'appareillage électronique-lampe	33
5.6 Calcul du rendement de l'appareillage électronique	34
5.7 Mesure de la puissance de veille	34
Annexe A (normative) Montage de mesure de la performance énergétique	35
A.1 Montage de mesure pour les appareillages électromagnétiques	35
A.2 Montage de mesure pour les appareillages électroniques	35
A.2.1 Mesure de la puissance d'entrée totale	35
A.2.2 Méthode de mesure de la puissance de veille	36
A.2.3 Mesure du flux lumineux	36
A.2.4 Distance par rapport à la lampe en fonction de la longueur de la lampe: explications	38
Annexe B (informative) Application du ballast de référence lors de l'évaluation des lampes en fonctionnement électronique	40
B.1 Calcul de l'impédance du ballast de référence	40
B.2 Méthode d'ajustement de la puissance de la lampe	40
Bibliographie	41
Figure A.1 – Mesure des circuits d'appareillage électromagnétique-lampe	35
Figure A.2 – Mesure des circuits d'appareillage électronique alimenté en courant alternatif-lampe	36
Figure A.3 – Montage d'essai pour la mesure de la puissance de veille	36
Figure A.4 – Vue latérale du système de mesure du flux lumineux	37
Figure A.5 – Vue de dessus du système de mesure du flux lumineux	37

Figure A.6 – Configuration de la lampe et du capteur à cellule photoélectrique 39

Tableau 1 – Détails relatifs à l'alimentation en électricité nominale type pour certaines régions 31

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

PERFORMANCE ÉNERGÉTIQUE DES APPAREILLAGES DE LAMPES –

Partie 1: Appareillages des lampes à fluorescence – Méthode de mesure pour la détermination de la puissance d'entrée totale des circuits d'appareillage et du rendement des appareillages

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Cette deuxième édition annule et remplace la première édition parue en 2011. Cette édition constitue une révision technique et a été harmonisée avec l'IEC 62442-2 et l'IEC 62442-3.

Le texte de cette Norme internationale est issu des documents suivants:

CDV	Rapport de vote
34C/1335A/CDV	34C/1376/RVC

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette Norme internationale.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

Une liste de toutes les parties de la série IEC 62442, publiées sous le titre général *Performance énergétique des appareillages de lampes*, peut être consultée sur le site web de l'IEC.

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PERFORMANCE ÉNERGÉTIQUE DES APPAREILLAGES DE LAMPES –

Partie 1: Appareillages des lampes à fluorescence – Méthode de mesure pour la détermination de la puissance d'entrée totale des circuits d'appareillage et du rendement des appareillages

1 Domaine d'application

La présente partie de l'IEC 62442 définit une méthode de mesure et de calcul de la puissance d'entrée totale pour les circuits d'appareillage-lampe fonctionnant avec la ou les lampes à fluorescence qui leur sont associées. La méthode de calcul du rendement des appareillages de lampe est également définie. Le présent document s'applique aux circuits électriques d'appareillage de lampe constitués exclusivement de l'appareillage et de(s) lampe(s). Il s'applique à des alimentations en courant continu jusqu'à 1 000 V et/ou à des alimentations en courant alternatif de 1 000 V au maximum, à 50 Hz ou 60 Hz.

NOTE Les exigences pour les essais de chaque appareillage pendant la production ne sont pas incluses.

Le présent document spécifie la méthode de mesure de la puissance d'entrée totale et la méthode de calcul du rendement pour tous les appareillages à usage domestique et usage commercial normal, fonctionnant avec les lampes à fluorescence suivantes:

- lampes à fluorescence rectilignes;
- lampes à fluorescence (compactes) à culot unique;
- autres lampes à fluorescence universelles.

Le présent document ne s'applique pas:

- aux appareillages qui font partie intégrante de la lampe;
- aux appareillages magnétiques bobinés commandables;
- aux luminaires soumis à des aspects supplémentaires relatifs aux performances optiques.

2 Références normatives

Les documents suivants cités dans le texte constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60081:1997, *Lampes à fluorescence à deux culots – Prescriptions de performance*
IEC 60081:1997/AMD4:2010

IEC 60901:1996, *Lampes à fluorescence à culot unique – Prescriptions de performances*
IEC 60901:1996/AMD5:2011

IEC 60921:2004, *Ballasts pour lampes tubulaires à fluorescence – Exigences de performances*

IEC 60929:2011, *Appareillages électroniques alimentés en courant alternatif et/ou continu pour lampes tubulaires à fluorescence – Exigences de performances*

IEC 61347-2-3, *Appareillages de lampes – Partie 2-3: Exigences particulières pour les appareillages électroniques alimentés en courant alternatif et/ou en courant continu pour lampes fluorescentes*

IEC 61347-2-8, *Appareillages de lampes – Partie 2-8: Prescriptions particulières pour les ballasts pour lampes fluorescentes*