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REDLINE VERSION

colour inside

Self-ballasted compact fluorescent lamps for general lighting services – Performance requirements

INTERNATIONAL
ELECTROTECHNICAL
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SELF-BALLASTED COMPACT FLUORESCENT LAMPS FOR GENERAL LIGHTING SERVICES – PERFORMANCE REQUIREMENTS

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This Redline version provides you with a quick and easy way to compare all the changes between this standard and its previous edition. A vertical bar appears in the margin wherever a change has been made. Additions are in green text, deletions are in strikethrough red text.

International Standard IEC 60969 has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34: Lamp and related equipment.

This second edition cancels and replaces the first edition published in 1988, Amendment 1:1991 and Amendment 2:2000. This edition constitutes a technical revision.

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

a) title change;
b) scope is now limited to compact fluorescent lamps, but expanded to cover all lamps of voltages greater than 50 V and all power ratings;
c) introduction of requirements for lamp equivalency claims, switching withstand, starting time, low temperature, run up time, treatment of claims for different operating conditions;
d) enhanced assessment and compliance criteria especially for lifetime;
e) introduction in-rush test conditions and displacement factor.

The text of this standard is based on the following documents:

FDIS	Report on voting
34A/1923/FDIS	34A/1945/RVD

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

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

The committee has decided that the contents of this 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

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SELF-BALLASTED COMPACT FLUORESCENT LAMPS FOR GENERAL LIGHTING SERVICES – PERFORMANCE REQUIREMENTS

1 Scope

This document specifies performance requirements together with test methods and conditions required to show compliance of ~~tubular~~ self-ballasted compact fluorescent ~~and other gas-discharge~~ lamps ~~with integrated means for controlling starting and stable operation (self-ballasted lamps)~~ intended for ~~domestic and similar~~ general lighting ~~purposes~~ services ~~having~~.

~~– a rated wattage up to 60 W;~~

~~– a rated voltage of 100 V to 250 V;~~

~~– Edison screw or bayonet caps.~~

This document applies to self-ballasted compact fluorescent lamps of voltages > 50 V and all power ratings with lamp caps complying with IEC 60061-1.

NOTE Some features of this document could be applicable to self-ballasted compact fluorescent lamps of voltages ≤ 50 V and to other types of self-ballasted gas discharge lamps.

The requirements of this document relate only to type testing.

~~Recommendations for whole product testing or batch testing are under consideration.~~

The performance requirements specified in this document are additional to the safety requirements specified in IEC 60968.

It can be expected that self-ballasted compact fluorescent lamps, which comply with this document, will start and operate satisfactorily at normal conditions (voltages between 92 % and 106 % of rated supply voltage, ambient air temperature of between -10 °C and 40 °C and in a luminaire complying with IEC 60598-1).

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 60630, *Maximum lamp outlines for incandescent lamps*

IEC 60968, *Self-ballasted fluorescent lamps for general lighting services – Safety requirements*

IEC 61000-3-2:2014, *Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current <= 16 A per phase)*

IEC 61000-4-7, *Electromagnetic compatibility (EMC) – Part 4-7: Testing and measurement techniques – General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto*

IEC TR 61341, *Method of measurement of centre beam intensity and beam angle(s) of reflector lamps*

CIE 015-2004, *Colorimetry*

CIE 13.3, *Method of Measuring and Specifying Colour Rendering Properties of Light Source*

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Edition 2.0 2016-10

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Self-ballasted compact fluorescent lamps for general lighting services – Performance requirements

Lampes à fluorescence compactes à ballast intégré pour l'éclairage général – Exigences de performances



IEC 60969:2016-10(en-fr)

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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LAMPES À FLUORESCENCE COMPACTES À BALLAST INTÉGRÉ POUR L'ÉCLAIRAGE GÉNÉRAL – EXIGENCES DE PERFORMANCES

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Cette deuxième édition annule et remplace la première édition parue en 1988, l'Amendement 1:1991 et l'Amendement 2:2000. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) modification du titre;
b) le domaine d'application se limite désormais aux lampes à fluorescence compactes, mais a été élargi pour couvrir toutes les lampes présentant des tensions supérieures à 50 V et toutes les puissances;

c) ajout d'exigences pour les déclarations d'équivalence de lampe, la résistance aux cycles de commutation, le temps d'amorçage, la basse température, le temps de stabilisation, le traitement des déclarations concernant des conditions de fonctionnement différentes;

d) amélioration des critères d'évaluation et de conformité, en particulier concernant la durée de vie;

e) ajout de conditions d'essais de courant d'appel et facteur de déphasage.

Le texte de cette norme est issu des documents suivants:

FDIS	Rapport de vote
34A/1923/FDIS	34A/1945/RVD

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

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LAMPES À FLUORESCENCE COMPACTES À BALLAST INTÉGRÉ POUR L'ÉCLAIRAGE GÉNÉRAL – EXIGENCES DE PERFORMANCES

1 Domaine d'application

Le présent document spécifie les exigences de performances, les méthodes d'essais et les conditions exigées pour démontrer la conformité des lampes à fluorescence compactes à ballast intégré destinées à l'éclairage général.

Le présent document s'applique aux lampes à fluorescence compactes à ballast intégré présentant des tensions > 50 V et de toutes puissances avec des culots de lampes satisfaisant à l'IEC 60061-1.

NOTE Certaines caractéristiques du présent document peuvent être applicables à des lampes à fluorescence compactes à ballast intégré présentant des tensions ≤ 50 V ainsi qu'à d'autres types de lampes à décharge dans un gaz à ballast intégré.

Les exigences du présent document s'appliquent seulement aux essais de type.

Les exigences de performances spécifiées dans le présent document s'ajoutent aux exigences de sécurité spécifiées dans l'IEC 60968.

Il peut être attendu que les lampes à fluorescence compactes à ballast intégré, qui satisfont au présent document, soient amorcées et fonctionnent de manière satisfaisante dans des conditions normales (tensions comprises entre 92 % et 106 % de la tension d'alimentation assignée, à une température de l'air ambiant comprise entre -10 °C et 40 °C et au sein d'un luminaire satisfaisant à l'IEC 60598-1).

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 60630, *Encombrement maximal des lampes à incandescence*

IEC 60968, *Lampes à fluorescence à ballast intégré pour l'éclairage général – Règles de sécurité*

IEC 61000-3-2:2014, *Compatibilité électromagnétique (CEM) – Partie 3-2: Limites – Limites pour les émissions de courant harmonique (courant appelé par les appareils <= 16 A par phase)*

IEC 61000-4-7, *Compatibilité électromagnétique (CEM) – Partie 4-7: Techniques d'essai et de mesure – Guide général relatif aux mesures d'harmoniques et d'interharmoniques, ainsi qu'à l'appareillage de mesure, applicable aux réseaux d'alimentation et aux appareils qui y sont raccordés*

IEC TR 61341, *Méthode de mesure de l'intensité dans l'axe du faisceau et de l'angle (ou des angles) d'ouverture des lampes à réflecteur*

CIE 015-2004, *Colorimetry* (disponible en anglais seulement)

CIE 13.3, *Method of Measuring and Specifying Colour Rendering Properties of Light Source* (disponible en anglais seulement)