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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Luminaire performance – Part 1: General requirements

Performance des luminaires – Partie 1: Exigences générales

IEC 62722-1:2014-09(en-fr)

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FOREWORD

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International Standard IEC 62722-1 has been prepared by subcommittee 34D: Luminaires, of IEC technical committee 34: Lamps and related equipment.

This first edition cancels and replaces IEC PAS 62722-1 published in 2011 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC PAS 62722-1.

a) The inclusion of more precise requirements for the comparison of the photometric distribution shape, with the comparison method given in Annex D.
b) Further regional standards added to the schedule given in Annex A

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

FDIS	Report on voting
34D/1132/FDIS	34D/1141/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.

A list of all the parts in the IEC 62722 series, published under the general title *Luminaire performance* can be found on the IEC website.

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

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- withdrawn,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

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INTRODUCTION

The first edition of a performance standard for luminaires (general requirements) acknowledges the need for defining performance data to be provided, the presentation of this data, the basis of its measurement, and the associated tolerances that may be reasonably expected. Information to support responsible environmental use is also included. Part 2 of the IEC 62722-2 series will be introduced where additional performance requirements for specific types of light source are required.

The provisions in this standard represent the technical knowledge of experts from the fields of the luminaire industry and associated components such as lamps and controlgear.

LUMINAIRE PERFORMANCE –

Part 1: General requirements

1 Scope

This part of IEC 62722 covers specific performance and environmental requirements for luminaires, incorporating electric light sources for operation from supply voltages up to 1 000 V. Unless otherwise detailed, performance data covered under the scope of this standard are for the luminaires in a condition representative of new manufacture, with any specified initial aging procedures completed.

IEC 62722-1 covers requirements for luminaires to support energy efficient use and responsible environmental management to the end of life. The object of this Part 1 is to provide a set of requirements which are considered to be generally applicable to most types of luminaires. Where additional performance requirements for specific types of light source are relevant, these are specified in the IEC 62722-2 series. The IEC 62722-2 series may also cover a wider scope of performance aspects appropriate to the particular light source technology.

NOTE The structure of these performance standards also allows for the possibility of Part 3 standards to be introduced in the future should standardisation of performance criteria linked to specific luminaire applications be determined as necessary (e.g. floodlighting, street lighting, etc.).

It is the intention that the requirements of this Part 1 are to be met by the provision of information and data provided by the luminaire manufacturer (or responsible vendor). Conformity is considered to be met by the provision of the requested information. Any verification of data is to be conducted by the measurement requirements of this standard.

Semi-luminaires are not covered under the scope of this standard.

For some types of luminaire (e.g. decorative/household) the provision of performance data under the scope of this standard may not be appropriate.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60598-1, *Luminaires – Part 1: General requirements and tests*

IEC 60598-2 (all parts), *Luminaires – Part 2: Particular requirements*

IEC 60598-2-22, *Luminaires – Part 2-22: Particular requirements – Luminaires for emergency lighting*

IEC 62722-2 (all parts), *Luminaire performance – Part 2: Particular requirements*

CIE 34:1977, *Road lighting lantern and installation data: Photometrics, classification and performance*

CIE 43:1979, *Photometry of floodlights*

CIE 121:1996, *The photometry and goniophotometry of luminaires*

CIE 121-SP1:2009, *The photometry and goniophotometry of luminaires – Supplement 1: Luminaires for emergency lighting*

NOTE Annex A provides details of regional standards the use of which are preferred in some countries.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in the IEC 60598-1 as well as the following apply.

3.1
input power
electrical power from the mains supply consumed by the luminaire including the operation of all electrical components necessary for its intended functioning

3.2
standby power
electrical power from the mains supply consumed by the luminaire under normal operating conditions, with the lamps switched off via a control signal

Note 1 to entry: Standby power is expressed in watts.

Note 2 to entry: For emergency lighting luminaires this does not include the emergency lighting charging power.

3.3
emergency lighting charging power
electrical power from the mains supply consumed by the charging circuit of emergency luminaires to keep the battery charged

Note 1 to entry: Emergency lighting charging power is expressed in watts.

3.4
luminaire efficacy
ratio of the luminaires total luminous flux versus its input power at rated supply voltage, excluding any emergency lighting charging power

Note 1 to entry: Luminaire efficacy is expressed in lumens per watt.

3.5
light output ratio <of a luminaire>
LOR
ratio of the total luminous flux of the luminaire, measured under specified practical conditions with its own light sources and equipment, to the sum of the individual luminous fluxes of the same light sources when operated outside the luminaire with the same equipment, under specified conditions

Note 1 to entry: This note applies to the French language only.

3.6
rated value
quantitative value for a characteristic of a luminaire for specific operating conditions specified in this standard, or in applicable standards, or assigned by the manufacturer or responsible vendor

3.7
test voltage
voltage at which tests are carried out