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Light and lighting - Basic terms and criteria for specifying lighting requirements

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/24

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English Version

**Light and lighting - Basic terms and criteria for specifying
lighting requirements**

Lumière et éclairage - Termes de base et critères pour
la spécification des exigences en éclairage

Licht und Beleuchtung - Grundlegende Begriffe und
Kriterien für die Festlegung von Anforderungen an die
Beleuchtung

This European Standard was approved by CEN on 15 March 2024.

CEN 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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (EN 12665:2024) has been prepared by Technical Committee CEN/TC 169 “Light and lighting”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2024, and conflicting national standards shall be withdrawn at the latest by November 2024.

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

This document supersedes EN 12665:2018.

The main technical changes in this revision of EN 12665:2018 are through harmonization with the revised CIE International Lighting Vocabulary, CIE S 017:2020.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

EN 12665:2024 (E)**Introduction**

This document specifies a basic framework intended to be used for the specification of lighting requirements.

Where a term is contained in CIE Publication CIE S 017:2020 ILV, *International Lighting Vocabulary* or IEC 60050-845, *International Electrotechnical Vocabulary, Part 845: Lighting*, a reference is given to the equivalent term where the terms in both documents are, for all practical purposes, identical.

NOTE Definitions from CIE S 017:2020 and IEC 60050-845:2020 contain notes providing information on the numbering in previous versions of both documents. These notes were generally omitted as they are not necessary for application in European standards.

For some terms, additional explanation is given in informative Annex A.

The lighting requirements for a space are determined by the need to provide:

- adequate illumination for safety and movement;
- conditions that will facilitate visual performance and colour perception;
- acceptable visual comfort for the occupants in the space.

The relative importance of these factors will vary for different applications. This basic framework covers aspects in the field of vision, photometry and colourimetry, involving natural and man-made optical radiation over the UV, the visible and the IR regions of the spectrum, and application subjects covering all usages of light, indoors and outdoors, including environmental, energy and sustainability requirements and aesthetics and non- image forming biological aspects.

Peculiar and specific terms can be defined in application standards.

Considerations should also be given to the energy used by lighting and to maintenance.

The parameters that need to be specified to ensure good visual conditions and an efficient lighting installation are common to many applications. These are dealt with in Clause 4 of this document.

LED terms and definitions already existing within EN 62504 have not been included in this document.

For terms and definitions concerning daylight openings within a building envelope the following standards may also be consulted:

- EN 12216, *Shutters, external blinds, internal blinds — Terminology, glossary and definitions*
- EN 12519, *Windows and pedestrian doors — Terminology*

1 Scope

This document defines basic terms and definitions for use in all lighting applications. This document also sets out a framework for the specification of lighting requirements, giving details of aspects that are to be considered when setting those requirements.

2 Normative references

There are no normative references in this document.

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