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Light and lighting — Building information modelling properties for lighting — Lighting systems

National foreword

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Foreword

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 274, *Light and Lighting*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Building information modelling (BIM) is a concurrent process that gives engineering and construction professionals the tools to more efficiently plan, construct, and manage buildings and infrastructure.

Within standardisation committees much work is being performed to define the fundamental principles of BIM that will allow this to happen in an effective and consistent manner.

For lighting applications, it is essential that this work is monitored and where required input is made to ensure that the requirements for lighting applications are considered.

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Light and lighting — Building information modelling properties for lighting — Lighting systems

1 Scope

This technical specification identifies and clarifies lighting properties for digital building design and maintenance.

This document provides all the needed properties to design and to describe lighting systems. These properties are intended to be used for mapping between data providers and requesters. The mapping of the identifiers enables the exchange of luminaire and sensing device data within different databases.

The unambiguous mapping and description of properties improves the data quality, reduces misinterpretations and the processing time in digital environments. Therefore, the properties listed in this document establish the essential description of lighting systems in BIM systems and databases.

The listed properties in this document are used to structure the product data sheet which is complemented with real product information.

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.

ISO 23386:2020, *Building information modelling and other digital processes used in construction — Methodology to describe, author and maintain properties in interconnected data dictionaries*

CIE S 017:2020, *ILV: International Lighting Vocabulary*

ISO 80000-7, *Quantities and units — Part 7: Light*

3 Terms and definitions

For the purposes of this document, the following terms and definitions given in CIE S 017, ISO 80000-7 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
building information modelling
BIM
use of a shared digital representation of a built object (including buildings, bridges, roads, process plants, etc.) to facilitate design, construction and operation processes to form a reliable basis for decisions

Note 1 to entry: The acronym BIM also stands for the shared digital representation of the physical and functional characteristics of any construction works.

[SOURCE: ISO 29481-1:2016, 3.2]

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