



BSI Standards Publication

Light and lighting — Commissioning of lighting systems in buildings

National foreword

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**Light and lighting — Commissioning of
lighting systems in buildings**

*Lumière et éclairage — Mise en service des systèmes d'éclairage dans
les bâtiments*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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.

Introduction

Building users are demanding a better quality of visual environment while there is a need to reduce the impact on natural resources and minimize energy use from lighting. A successful control system design can help to deliver the correct quantity and quality of light where it is needed and when it is needed. The use of a well-designed, installed and commissioned control system can provide a high level of energy efficiency, support flexibility of use of a space and increase occupant satisfaction, especially when the controls are linked to the availability of daylight.

Commissioning is a quality-oriented process for achieving, verifying and documenting whether the performance of lighting systems and assemblies meets defined objectives and criteria. Potential benefits of the commissioning include:

- reduced energy consumption and operating costs;
- higher user acceptance and satisfaction;
- enhanced marketability and value of commercial property;
- full accountability by project participants for the quality of their work;
- verification that a lighting system performs as intended.

The purpose of this document is to identify the minimum requirements for commissioning of lighting systems, including roles and responsibilities (see [Figure 1](#)), commissioning activities, documentation requirements and system handover.

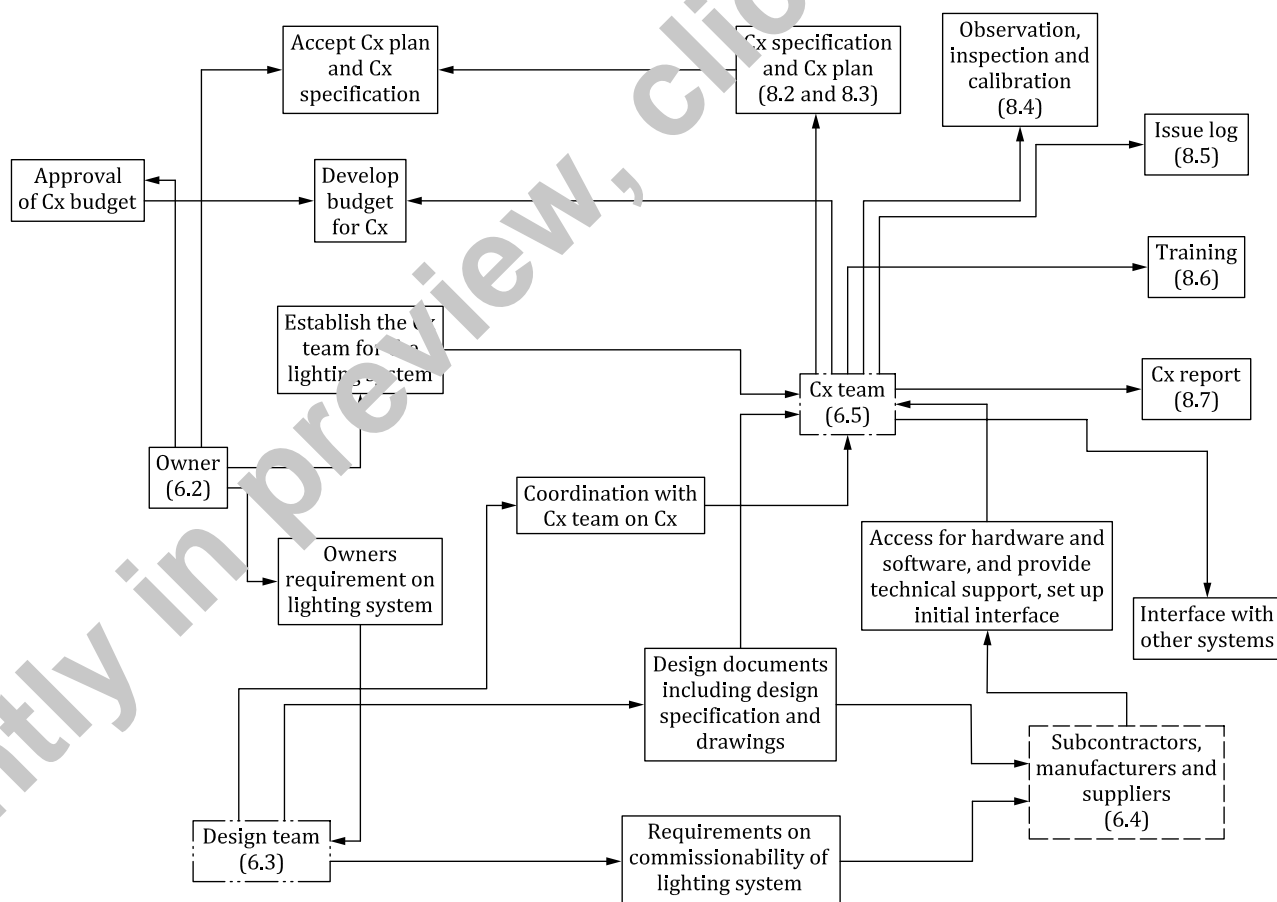


Figure 1 — Overview of roles and responsibilities during commissioning

Light and lighting — Commissioning of lighting systems in buildings

1 Scope

This document specifies requirements for the commissioning of lighting systems in buildings to meet design specifications. This document presents details of the commissioning of lighting systems without focusing on the technical characteristics of specific components.

This document can be applied to new installations of non-residential buildings and public spaces of multi-residence buildings.

This document does not cover the commissioning of lighting systems concerning the electrical power connection aspects which are deemed to be in compliance with relevant legislation or standards.

This document is not applicable to the commissioning of emergency lighting.

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 52000-1, *Energy performance of buildings — Overarching EPB assessment — Part 1: General framework and procedures*

CIE DIS 017:2016, *ILV: International Lighting Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 52000-1 and CIE DIS 017 and the following apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

lighting system

system designed to provide lighting

Note 1 to entry: The lighting system can be dedicated to:

- a) the support of (a) specified visual task(s) under specified conditions considering other requirements such as human comfort, safety, the appearance of the surrounding environment and energy consumption;
- b) the support of other than human tasks.

Note 2 to entry: The lighting system can include a set of light sources, other physical components, communication protocols, *user interfaces* (3.5), software and networks to provide central control and monitoring functions.

Note 3 to entry: The light source(s) and the related equipment can be integrated in a single item, e.g. an LED module, a lamp or a luminaire.