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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 29455-2025

Replacing GB/T 29455-2012

Economical operation for lighting facilities

照明设施经济运行

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 29455-2012 "Economic Operation of Lighting Facilities". Compared with GB/T 29455-2012, except for structural adjustments and... Aside from editorial changes, the main technical changes are as follows:

- a) The term and definition of "economic operation" have been added, while the terms "luminaire efficiency," "luminaire luminous efficacy," "luminaire beam angle," and "beam efficiency" have been removed. Terms and definitions (see Chapter 3, 2012 edition);
- b) The technical requirements have been changed (see Chapter 4, Chapters 4, 5, and 6 of the 2012 edition);
- c) The evaluation methods and requirements for the economic operation of lighting facilities have been changed (see Chapter 5, Chapter 7 of the 2012 edition). Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Energy Infrastructure and Management (SAC/TC20). This document was drafted by: China National Institute of Standardization, China Academy of Building Research Co., Ltd., and Zhejiang Guannan Energy Technology Co., Ltd. Jiangsu Volt Lighting Group Co., Ltd., Xiamen Puwei Optoelectronic Technology Co., Ltd., Beijing Rational Energy Use Assessment Center, Guoneng (Ningbo) Energy Conservation and Environmental Protection Bao Technology Co., Ltd., Shenzhen Yonghengguang Smart Technology Group Co., Ltd., Fulu Lighting Co., Ltd., and Feixue Environmental Art Design (Shenzhen) Co., Ltd. Limited Liability Company, Jianke Environmental Energy Technology Co., Ltd. The main drafters of this document are: Liang Xiuying, Liu Xiaohong, Shen Wei, Wang Xiaoliu, Lu Fuxing, Zhong Ying, Ge Ling, Huang Xinwei, Zheng Fanchun, and Wu Xuefei. Chen Yanru, Zhang Gongming, and Ma

Yuexin. This document was first published in 2012, and this is its first revision. Economic operation of lighting facilities

1 Scope

GB/T 29455-2025 is the Chinese national standard covering running an installed lighting scheme well - the switching and dimming zones, the daylight and occupancy control, the maintenance and cleaning schedule that recovers the lumens a dirty luminaire loses, and the indicators of power density per area. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 29455-2012.

This document specifies the technical requirements, evaluation methods, and evaluation requirements for the economical operation of lighting facilities. This document applies to the design, selection, installation, commissioning and verification, operation control, management and maintenance, and operation of newly built and renovated lighting facilities. Evaluation, etc.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 35626 Specification for Limiting Interference Light from Outdoor Lighting

GB 50033 Standard for Daylighting Design of Buildings

GB/T 50034 Standard for Lighting Design of Buildings

GB 50582 Standard for Lighting Design of Outdoor Work Sites

GB/T 51268-2017 Standard for Testing and Evaluation of Green Lighting CJJ

45 Urban Road Lighting Design Standard JGJ153 Standard for Lighting Design and Testing of Sports Venues JGJ/T 163 Standard for Urban Nightscape Lighting Design

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 economic operation Based on meeting lighting needs and ensuring safe and reliable operation, lighting facilities should be matched through scientific management, operational adjustments, or technological improvements. A reasonable operating mode that achieves energy conservation, low carbon emissions, and high economic efficiency.

4.1 Design Requirements

4.1.1 Lighting facilities should be designed according to the actual conditions and lighting needs of the lighting location, and make full use of natural light.

4.1.2 The design of building lighting facilities shall comply with the relevant provisions of GB/T 50034, and the daylight factor and natural illuminance shall comply with the relevant provisions of GB 50033. Relevant regulations.

4.1.3 The design of urban road lighting facilities shall comply with the relevant provisions of CJJ45.

4.1.4 The design of lighting facilities for outdoor work sites shall comply with the relevant provisions of GB 50582. For large-area work sites with roofs, it is advisable to utilize the roof lighting. Natural lighting throughout.