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

GB/T 31832-2025

Replacing GB/T 31832-2015

Technical requirements for application of LED road lighting

LED城市道路照明应用技术要求

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Table of Contents

1	Scope	
2	Normative references	
3	Terms and Definitions	
4	Technical Specifications for Street Light Controllers	
5	Floodlights with Special Requirements	
5.1	Classification of LED Lighting Fixtures	
5.2	LED Lighting Fixture Specifications	
6	Communication Protocol Technical Specifications	
6.1	Basic Provisions	
6.2	Electrical Performance	6
6.3	Photometric performance	6
6.4	Colorimetric performance	7
6.5	Energy Efficiency	7
6.6	Security	8
6.7	Durability	8
7.1	Basic Provisions	9
7.2	Security	9
7.3	Electrical Performance	9
7.4	Durability	10
8	Control System	
10	Appendix A (Informative) Economic Analysis Calculation Methods	
13	Particular requirements for DC or AC electronic control devices for LED modules	
14	Appendix D (Informative) Calculation of Lighting Energy Saving Rate	
15	Appendix E (Informative) Recommendations on the Luminous Flux of LED Luminaires	
16	Appendix F (Normative) Color Tolerance Calculation	
17	Reference	18

1 Scope

GB/T 31832-2025 is the Chinese national standard covering LED street lighting as installed - the luminance and uniformity on the carriageway, the glare and the light trespass into windows, the colour temperature and its effect at night, the dimming regime and the maintained output after years of service. It replaces GB/T 31832-2015, under the Ministry of

Housing and Urban-Rural Development. In force from 1 February 2026. Issued on 31 October 2025, it has been in force since 1 February 2026, replacing GB/T 31832-2015.

This document specifies the general requirements, classification and specifications, and performance characteristics of LED luminaires used for urban road (including urban tunnel) lighting. Drive power supply performance and control system. This document applies to LED lighting fixtures and applications used for urban road (including urban tunnel) lighting.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below. 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 7000.1 Luminaires - Part

3 Terms and Definitions

The terms and definitions defined in JGJ/T 119 and the following terms and definitions apply to this document.

3.1 The vertical distance from the light center of the lamp to the road surface.

4 Technical Specifications for Street Light Controllers

GB/T 34923.6 Street Light Control and Management System Part

5 Floodlights with Special Requirements

GB/T 7921-2008 Uniform color space and color difference formula

GB 17625.1 Electromagnetic compatibility limits - Part

6 Communication Protocol Technical Specifications

GB 37478 Minimum Energy Efficiency Values and Energy Efficiency Grades for LED Luminaires for Road and Tunnel Lighting

GB/T 39462 Safety Guidelines for Low-Voltage DC Systems and Equipment

GB/T 40994 Service Functions and Operation Management Specifications for Smart Multifunctional Pole in Smart Cities CJJ

45 Urban Road Lighting Design Standard CJJ

89 Construction and Acceptance Code for Urban Road Lighting Engineering JGJ/T 119
Architectural Lighting Terminology Standard JJG245 Verification Procedure for Photometers

6.7 Durability 8

7.Drive power supply performance 9.

10 Appendix A (Informative) Economic Analysis Calculation Methods

12 Appendix B (Normative) Method for Determining LED Luminous Light Distribution Type Parameters D1 and D2

13 Appendix C (Normative) Classification Method for Luminous Flux Zones of LED Lighting Fixtures

13 Particular requirements for DC or AC electronic control devices for LED modules

GB/T 24825 Performance Specification for DC or AC Electronic Control Devices for LED Modules

GB/T 34923.4 Street Light Control and Management System Part

17 Reference 18

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 supersedes GB/T 31832-2015 "Technical Requirements for LED Urban Road Lighting Applications" and is consistent with GB/T 31832-2015. Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows:

---Some terms and definitions have been changed (see Chapter 3, Chapter 3 of the.2015 edition);

---The requirement to conduct carbon footprint accounting for lighting products throughout their entire life cycle has been added (see 4.6);

---Added classification requirements for LED lighting fixtures (see 5.1);

---The luminous flux limit for spillage light from LED road lighting fixtures has been changed (see 5.2.3,

5.3 in the.2015 version);

- The starting inrush current limit for LED luminaires has been added (see 6.2.5);
- Added relevant regulations regarding DC-powered LED luminaires (see 6.2.7, 6.2.8, and 6.2.9);
- The efficiency limits for LED luminaires have been changed (see 6.5, 6.2.2 in the 2015 edition);
- Added LED semi-high mast lighting fixtures, LED high mast lighting fixtures, LED courtyard lights, and LED guardrail lights. The regulations are as follows (see 5.2.2, 5.2.4, 6.5.2, 6.5.3 and 6.5.4);
- Added specifications for drive power supply performance (see Chapter 7);