

ICS 27.010
CCS F01



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

GB 37478-2025

Replacing GB 37478-2019

**Minimum allowable values of energy efficiency and energy
efficiency grades of LED luminaires for road and tunnel lighting**

道路和隧道照明用LED灯具能效限定值及能效等级

Issued on: May 30, 2025

Implemented on: June 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

Foreword	3
1 Scope	4
2 Normative References	4
3 Terms and Definitions	4
4 Technical Requirements	5
5 Test Methods	7

Foreword

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA ICS

Replacing GB 37478-2019

Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades of LED Luminaires for Road and Tunnel Lighting

7 Table of Contents Foreword

.....	3
1 Scope	4
2 Normative References	4
3 Terms and Definitions	4
4 Technical Requirements	5

7 Foreword This document was drafted in accordance with the rules provided in GB/T 1.1-2020 Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents .This document serves as a replacement for GB 37478-2019 Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades of LED Luminaires for Road and Tunnel Lighting . In comparison with GB 37478-2019, apart from structural adjustments and editorial modifications, the main technical changes are as follows:

- a) The rated power supply voltage range for applicable products is modified (see Chapter 1; Chapter 1 of Version 2019);
- b) The term and definition of "standby power" are added (see 3.4);
- c) The provisions on the energy efficiency grades of LED luminaires for road and tunnel lighting are modified (see

4.1.2 and 4.1.3;

4.2 of Version 2019);

2 Normative References

The contents of the following documents constitute indispensable clauses of this document through the normative references in the text. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 24826 General Lighting - Light Emitting Diode (LED) Products and Related Equipment - Terms and Definitions

GB/T 39018 Intelligent Lighting Equipment - Non-active Mode Power Measurement

GB/T 39394 Test Method for LED Lamps, LED Luminaires and LED Modules

3 Terms and Definitions

The terms and definitions defined in GB/T 24826 and the following are applicable to this document.

3.1 LED luminaire A luminaire containing one or more LED light sources. [source: GB/T 24826-2016, 3.17]

3.3 minimum allowable value of energy efficiency of LED luminaire Under the test conditions specified in the standard, the minimum allowable value of the luminous efficacy of an LED luminaire.

3.4 standby power In standby mode, the average power consumption of an LED luminaire.
NOTE 1: standby mode is a mode of the control gear in which the control gear is connected to the power supply voltage and the lighting function is turned off, but can be turned on by an external trigger signal rather than a network trigger signal. NOTE 2: an external trigger signal can be a sensor or timer.

4 Technical Requirements 4.1 Energy Efficiency Grades 4.1.1 The energy efficiency of LED luminaires for road and tunnel lighting is divided into 3 grades, with Grade 1 being the highest efficiency.

--- The End - - -