

ICS 29.140
CCS K 72



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

GB/T 7000.202-2023

Replacing GB 7000.202-2008; GB 7000.219-2008

**Luminaires - Part 2-2: Particular requirements - Recessed
luminaires**

(English Translation)

Issued on: December 28, 2023

Implemented on: January 1, 2026

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Preface
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
4 General test requirements
5 Classification of lamps
6 Marks
7 Structure
8 Creepage distances and clearances
9 Grounding regulations
10 Terminal
11 External and internal wiring
12 Protection against electric shock
13 Durability test and thermal test
14 Protection against dust, solid foreign objects and water
15 Insulation resistance and electrical strength
16 Resistant to heat, fire and marking
Appendix A (Normative) Measurement of ambient temperature in facilities
Appendix B (Normative) Thermal test of recessed lamps
Appendix C (informative) Explanation on ventilation lighting fixtures
Appendix D (informative) List of modified sub-clauses for more stringent or critical requirements that require retesting
Reference

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 is part 2-2 of GB (T)7000: GB (T)7000 has released the following parts:

---Lamps Part 1: General requirements and tests (GB/T 7000.1-2023);

---Lamps Part 2-1: Fixed universal lamps with special requirements (GB/T 7000.201-2023);

- Lamps Part 2-3: Special requirements for road and street lighting fixtures (GB 7000.203-2013);
- Lamps Part 2-4: Movable general-purpose lamps with special requirements (GB/T 7000.204-2023);
- Lamps Part 2-5: Special requirements for floodlights (GB/T 7000.205-2023);
- Lamps Part 2-6: Special requirements for lamps with built-in tungsten filament lamp transformers or converters (GB 7000.6-2008);
- Lamps Part 2-8: Special requirements portable lamps (GB/T 7000.208-2023);
- Safety requirements for lighting fixtures for photography and film (non-professional use) (GB 7000.19-2005);
- Lamps Part 2-10: Special requirements for removable lamps for children (GB 7000.4-2007);
- Lamps Part 2-11: Special requirements for aquarium lamps (GB/T 7000.211-2023);
- Lamps Part 2-12: Night lights with special requirements for power socket installation (GB/T 7000.212-2023);
- Lamps Part 2-13: Special requirements for ground recessed lamps (GB/T 7000.213-2023);
- Lamps Part 2-14: Special requirements for lamps using cold cathode tubular discharge lamps (neon lamps) and similar equipment (GB 7000.214-2015);
- Lamps Part 2-17: Special requirements for stage lighting, television, film and photography venues (indoor and outdoor) (GB/T 7000.217-2023);
- Lamps Part 2-18: Special requirements for lamps for swimming pools and similar places (GB/T 7000.218-2023);
- Lamps Part 2-20: Special requirements for light strings (GB/T 7000.220-2023);
- Lamps Part 2-21: Special requirements for light strips (GB/T 7000.221-2023);
- Lamps Part 2-22: Special requirements for emergency lighting fixtures (GB/T 7000.222-2023);
- Lamps Part 2-23: Special requirements for extra-low voltage (ELV) lighting systems for light sources (GB/T 7000.223-2023);
- Lamps Part 2-24: Special requirements for surface temperature lamps (GB/T 7000.224-2023);

---Lamps Part 2-25: Special requirements for lamps used in hospitals and rehabilitation building clinics (GB 7000.225-2008):

This document replaces GB 7000.202-2008 "Lamps - Part 2-2: Special Requirements for Embedded Lamps" and GB 7000.219-2008 "Lamps Part 2-19: Ventilated luminaires with special requirements": This document is mainly based on GB 7000.202-2008 and integrates Contents of GB 7000.219-2008: Compared with GB 7000.202-2008, in addition to structural adjustments and editorial changes, the main technical changes as follows:

- a) Changed the "scope" of the standard (see Chapter 1, Chapter 1 of GB 7000.202-2008);
- b) Added the content of "Terms and Definitions" (see Chapter 3, Chapter 3 of GB 7000.202-2008);
- c) Added the "General test requirements" clause (see Chapter 4);
- d) The content of "marking" is added (see 6.1~6:4), and the "F mark of thermal insulation ceiling" is deleted (see GB 7000.202-2008 5:1);
- e) The provisions on "impact energy and spring compression of the embedded part of the lamp" are deleted (see Chapter 6 of GB 7000.202-2008);
- f) Changed the standards that the mechanical and electrical properties of "external wiring and internal wiring" should comply with (see Chapter 11, GB 7000.202-Chapter 10 of:2008);
- g) Added the installation and test requirements of Appendix B in "Durability and Thermal Test" (see 13.2), and the test strips for the thermal test of ventilated lamps parts and temperature limits (see 13.4);
- h) Added IP test requirements for recessed parts of recessed lighting fixtures (see 14.3);
- i) Appendix A "Measurement of ambient temperature in facilities" has been changed (see Appendix A, Appendix A of GB 7000.202-2008);
- j) Added Appendix B "Thermal Test of Recessed Lamps":

Compared with GB 7000.219-2008, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) Changed the "scope" of the standard (see Chapter 1, Chapter 1 of GB 7000.219-2008);
- b) Added the "General test requirements" clause (see Chapter 4);
- c) Changed the classification description of lamps (see Chapter 5, Chapter 4 of GB 7000.219-2008);
- d) Added the content of "marking" (see 6.1~6:4), deleted the content of "ventilated lamps" mark (see GB 7000.219-2008 5:1~5:4);

- e) The content of "structure" has been changed (see Chapter 7, Chapter 6 of GB 7000.219-2008);
- f) Changed the standards that the mechanical and electrical properties of "external wiring and internal wiring" should comply with (see Chapter 11, GB 7000.219-Chapter 10 of:2008);
- g) Added the content of "protection against electric shock" (see Chapter 12);
- h) Changed the content of "durability test and thermal test" (see Chapter 13, Chapter 12 of GB 7000.219-2008);
- i) Added IP test requirements for recessed parts of recessed lighting fixtures (see 14.3);
- j) Changed normative Appendix A "Measurement of ambient temperature in facilities" (see Appendix A, Appendix A of GB 7000.219-2008);
- k) Added normative appendix B "Thermal Test of Recessed Lamps":

This document is modified to adopt IEC 60598-2-2:2023 "Lamps Part 2-2: Special Requirements for Recessed Luminaires":

The technical differences between this document and IEC 60598-2-2:2023 and their reasons are as follows:

---Modified the scope of Chapter 1 to comply with the writing requirements of our country's standards;

---Replaced IEC 60598-1 with normatively quoted GB/T 7000.1 to facilitate the application of the series of standards:

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

Introduction

GB (T)7000 "Lamps" is intended to consist of the following parts:

---Part 1: General requirements and tests: The purpose is to specify the use of electric light sources and lamps with a power supply voltage not exceeding 1000V:

General requirements:

---Part 2-1: Special requirements for fixed general-purpose luminaires: The purpose is to stipulate that the power supply voltage does not exceed 1000V for electro-optical Requirements for fixed general-purpose luminaires whose source is a light source:

---Part 2-2: Special requirements for recessed lighting fixtures: The purpose is to stipulate that the power supply voltage does not exceed 1000V and the electric light source is used as the light source: