

ICS 29.140.30

CCS K 71



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

GB/T 16844-2023

Replacing GB 16844-2008

**Self-ballasted fluorescent lamps for general lighting service -
Safety specifications**

普通照明用自镇流荧光灯 安全规范

(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	
1 Scope	
2 Normative references	
3 Terms and Definitions	
4 General requirements and general test requirements	
5 Signs	
5.1 Lamp markings	
5.2 Class marking	
5.3 Eligibility of the mark	
5.4 Logo	
6 Interchangeability, mass and bending moments	
6.1 Interchangeability	
6.2 Bending moment and mass of the lamp acting on the lamp holder	
7 Protection against electric shock	
8 Insulation resistance and electrical strength	
8.1 General requirements	
8.2 Insulation resistance	
8.3 Electrical strength	
9 Mechanical strength	
9.1 General requirements	
9.2 Torque resistance	
9.3 Axial pressure of screw-type lamp cap	
10 Lamp head temperature rise	
11 Heat resistance	13
12 Fire protection and combustion prevention	14
13 Fault status	
13.1 General requirements	
13.2 Test conditions	
13.3 Simulation of lights not starting	
14 Creepage distances and clearances	15
15 End-of-life test of lamp	
15.1 General requirements	15

15.2 Test device	
15.3 Eligibility	16
16 Photobiosafety	16
16.1 Ultraviolet radiation	
16.2 Other photobiological effects	
17 Abnormal work	
18 Test conditions for dimming lamps and three-position lamps	
19 All product ratings	17
20 Verification of type test	
21 Lighting Design Information	18
Appendix A (informative) All product evaluation	19
Appendix B (informative) Lamp design information	
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 replaces GB 16844-2008 "Safety Requirements for Self-Ballasted Lamps for General Lighting": Compared with GB 16844-2008, except for the structure in addition to adjustments and editorial changes, the main technical changes are as follows:

---Added "This document covers photobiological safety according to the requirements of IEC 62471 and IEC TR62471-2" (see Chapter 1);

---Added the definition of "effective ultraviolet radiation power ratio" (see 3.8);

---Added "mark position" (see 5.4);

---Added "bending moment and mass of the lamp acting on the lamp holder" (see 6.2);

---Added "axial pressure of screw-type lamp holder" (see 9.3);

---Added "simulation of light not starting" (see 13.3);

---Added "creepage distance and clearance" (see Chapter 14);

---Added "end-of-life test of lamp" (see Chapter 15);

---Added "photobiological safety" (see Chapter 16);

---Added "abnormal work" (see Chapter 17);

---Added "test conditions for dimming lamps and three-speed lamps" (see Chapter 18);

---Added "all product evaluation" (see Chapter 19);

---Added "type test verification" (see Chapter 20);

---Added "Lamp Design Information" (see Chapter 21):

This document is equivalent to IEC 60968:2015 "Safety Requirements for Self-ballasted Fluorescent Lamps for General Lighting":

This document has made the following minimal editorial changes:

---In order to coordinate with the existing standardization documents, the name of the document is changed to "Safety Specifications for Self-ballasted Fluorescent Lamps for General Lighting";

---Incorporates the contents of technical corrigendum IEC 60968:2015/COR1.2015:

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

1 Scope

This document applies to tubular fluorescent lamps (self-ballasted fluorescent lamps) that integrate control start-up and stable ignition components: This document stipulates Safety and interchangeability requirements, as well as test methods and conditions for checking compliance:

This document is applicable to lamps used as general lighting in homes and similar occasions, with rated voltage 50V~250V, rated frequency 50Hz or 60Hz, the lamp head used meets the requirements of IEC 60061-1:

For lamp base and lampholder systems not specifically mentioned in this document, relevant information on safety-related tests provided by the manufacturer applies:

The requirements of this document relate only to type testing:

Recommended methods for total product inspection and batch product inspection are given in Appendix A:

This document has covered photobiological safety according to the requirements of IEC 62471 and IEC TR62471-2: Blue light and infrared hazards are lower than necessary Find the level of identification:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this

document; for undated referenced documents, the latest version (including all amendments) applies to this document:

ISO 4046-4:2002 Glossary of paper, paperboard, pulp and related terms Part 4: Paper and paperboard grades and processed products) Note: GB/T 4687-2007 Paper, cardboard, pulp and related terms (ISO 4046-4:2002, MOD) IEC 60061-1 Lampcaps, lampholders and gauges for testing their interchangeability and safety - Part 1: Lampcaps and Note: GB/T 1406.1-2008 Types and dimensions of lamp holders Part 1: Screw-type lamp holders (IEC 60061-1:2005, MOD) GB/T 1406.2-2008 Types and dimensions of lamp holders Part 2: Pin-type lamp holders (IEC 60061-1:2005, MOD) GB/T 1406.3-2021 Types and dimensions of lamp holders Part 3: Prefocused lamp holders (IEC 60061-1:2018, MOD) GB/T 1406.4-2008 Types and dimensions of lamp holders Part 4: Miscellaneous lamp holders (IEC 60061-1:2005, MOD) GB/T 1406.5-2008 Types and dimensions of lamp holders Part 5: Bayonet type lamp holders (IEC 60061-1:2005, MOD) IEC 60061-3 Lampcaps, lampholders and gauges for testing their interchangeability and safety - Part 3: Gauges (Lampcaps and Note: GB/T 1483.1-2008 Inspection Gauges for Lamp Holders and Lamp Holders Part 1: Gauges for Screw-type Lamp Holders and Lamp Holders (IEC 60061-3:2004, MOD) GB/T 1483.2-2008 Inspection Gauges for Lamp Holders and Lamp Holders Part 2: Gauges for Plug-in Lamp Holders and Lamp Holders (IEC 60061-3:2004, MOD) GB/T 1483.3-2008 Inspection Gauges for Lamp Holders and Lamp Holders Part 3: Gauges for Prefocused Lamp Holders and Lamp Holders (IEC 60061-3:2004, MOD) GB/T 1483.4-2009 Inspection Gauges for Lamp Holders and Lamp Holders Part 4: Gauges for Miscellaneous Lamp Holders and Lamp Holders (IEC 60061-3:2004, MOD) GB/T 1483.5-2008 Inspection Gauges for Lamp Holders and Lamp Holders Part 5: Gauges for Bayonet Lamp Holders and Lamp Holders (IEC 60061-3:2004, MOD) rise) Note: GB/T 24392-2009 Measurement method of lamp cap temperature rise (IEC 60360:1998, IDT)