

ICS 29.140.99

CCS K 71



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

**GB/T 43627-2023**

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**Double-capped LED lamps designed to retrofit liner fluorescent  
lamps - Safety specifications**

双端LED灯（替换直管形荧光灯用）安全规范

**(English Translation)**

**Issued on: December 28, 2023**

**Implemented on: January 1, 2026**

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

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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 is equivalent to IEC 62776:2014 "Safety Specification for Double-Ended LED Lamps (Replacing Straight Tube Fluorescent Lamps)":

This document has made the following minimal editorial changes:

---Incorporated the amendments to IEC 62776:2014/COR1.2015, the clauses involved in these amendments have been adopted outside it the margins are indicated by vertical double lines (||):

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 specifies the safety requirements and interchangeability requirements for double-ended LED lamps with G5 or G13 bases used to replace fluorescent lamps with the same base:

requirements, as well as test methods and inspection conditions to verify their compliance:

The scope of application is as follows:

---Rated power: 125W and below;

---Rated voltage: 250V and below:

These double-ended LED lamps are used to replace double-ended fluorescent lamps without any modifications to the fixture:

Existing fixtures into which replacement double-ended LED lamps are installed may be fixtures containing inductors or electronic controls:

The requirements of this document relate only to type testing:

Recommendations for full product inspection or batch inspection are provided in Appendix A:

**Note 1:** The "lamp" appearing in this document represents "double-ended LED lamp (for replacing straight tube fluorescent lamps)" unless otherwise specified:

This document applies to general lighting (excluding, for example, explosive environments): If the lamp is used in other situations, there may be additional requirements:

This document does not apply to retrofit double-ended LED lamps that require modifications to the lamp:

**Note 2:** This document includes photobiological safety requirements:

## 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:

GB/T 18774-2023 Safety specifications for double-ended fluorescent lamps (IEC 61195:2014, IDT) GB/T 19510.1-2023 Light source control device Part 1: General requirements and safety requirements (IEC 61347-1:2017, MOD) Note: There is no technical difference between the quoted content of GB/T 19510.1-2023 and the quoted content of IEC 61347-1:2017:

GB/Z 39942-2021 Apply GB/T 20145 to evaluate the blue light hazards of light sources and lamps (IEC TR62778:2014, IDT) Note: There is no technical difference between the cited content of GB/Z 39942-2021 and the cited content of the latest version of the withdrawn IEC TR62778:

ISO 4046-4:2002 Paper, paperboard, pulp and their terms Glossary Part 4: Paper and paperboard grades and processed products) IEC 60061-1 Lampcaps, lampholders and gauges for testing their interchangeability and safety - Part 1: Lampcaps and Note: GB/T 1406 (all parts) Type and size of lamp holder (IEC 60061-1) IEC 60061-3 Lampcaps, lampholders and gauges for testing their interchangeability and safety - Part 3: Gauges (Lampcaps and Note: GB/T 1483 (all parts) Lamp holder and lamp holder inspection gauge (IEC 60061-3) IEC 60061-4 Lamp caps, lamp holders and gauges for testing their safety and interchangeability Part 4: Guidance and general information (Lamp