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

GB/T 18774-2023

Replacing GB 18774-2002

Double-capped fluorescent lamp - Safety specifications

双端荧光灯 安全规范

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Foreword

This document was issued on 28 December 2023 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 January 2026.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

It is classified under ICS 29.140.30, Chinese classification K71.

It replaces GB 18774-2002, which is superseded.

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 18774-2002 "Safety Requirements for Double-Ended Fluorescent Lamps". Compared with GB 18774-2002, except for structural adjustments and compilation

In addition to editorial changes, the main technical changes are as follows.

---Added scope description related to photobiological safety (see Chapter 1);

---Added the term "effective ultraviolet radiation power ratio" (see 3.11);

---Added system requirements (see 4.3.3);

--- Added technical requirements related to ultraviolet radiation (see 4.13);

---Added technical requirements for water contact protection of lamp glass bulbs (see 4.14).

This document is equivalent to IEC 61195.2014 "Safety Specification for Double-Ended

Fluorescent Lamps".

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

This document is proposed by China Light Industry Federation.

This document is under the jurisdiction of the National Lighting Appliances Standardization Technical Committee (SAC/TC224).

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The previous versions of this document and the documents it replaces are as follows.

---First released in.2002 as GB 18774-2002;

---This is the first revision.

Safety Specifications for Double-Ended Fluorescent Lamps

1 Scope

GB/T 18774-2023 covers the safety of double-capped fluorescent lamps for general lighting, the tubular sources built on Fa6, Fa8, G5, G13, 2G13, R17d and W4.3 by 8.5d caps. The safety requirements form the body of the document, followed by the rating clause that sets out the values a lamp is declared against, and by design parameters given both for the lamp itself and for the ballast that drives it, so that a tube and the gear it is paired with are described in the same terms. A normative annex fixes the qualification conditions under which type testing is carried out, and conformity rests on the manufacturer's own evaluation of the product, supported by finished-lamp inspection records. These provisions exist because a fluorescent tube is handled by people. It is pushed into a socket that may still be live, it is carried and stored in quantity, and it then runs for years above a ceiling where nobody looks at it. A tube whose cap works loose, whose pins can be reached during relamping, or that is operated outside the parameters its ballast assumes turns into an electrical and thermal hazard in an ordinary occupied room. Written for lamp and ballast manufacturers, test laboratories, and the buyers and importers who need a stated basis for accepting a shipment.

This document specifies the safety requirements for all categories of double-ended fluorescent lamps for general lighting using the following lamp bases. Fa6, Fa8, G5, G13, 2G13, R17d and W4.3x8.5d.

This document describes the manufacturer's demonstration that its products comply with

the requirements of this document based on all product evaluations associated with finished lamp inspection records.

specific method of request. This method is also used for product certification. This document establishes in detail the batch inspection procedure, which provides a limited evaluation of the batch.

This document also specifies the photobiological safety requirements according to IEC 62471.

Blue light hazards and infrared hazards are below levels that require labeling.

Note. The qualification conditions of this document only involve safety indicators and do not consider the performance of double-ended fluorescent lamps for general lighting such as luminous flux, color, start-up and operating characteristics.

When using this document see IEC 60081.

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.

IEC 60061-1 Lamp caps and holders and specifications for testing interchangeability and safety - Part 1. Lamp caps and holders

Note. GB/T 1406 (all parts) Type and size of lamp holder (IEC 60061-1)

IEC 60061-3 Lampcaps and holders and gauges for testing their interchangeability and safety. Part 3. Gauges (Lampcaps and holders)

Note. GB/T 1483 (all parts) Lamp holder and lamp holder inspection gauge (IEC 60061-3) tions)

Note. GB/T 10682-2010 Performance requirements for double-ended fluorescent lamps (IEC 60081.2005, NEQ)

IEC 60695-2-10 Fire Hazard Test for Electrical and Electronic Products Part 10. Glow Wire/Hot Wire Basic Test Method Glow Wire

Note. GB/T 5169.10-2017 Fire Hazard Test for Electrical and Electronic Products Part 10. Glow Wire/Hot Wire Basic Test Method Glow Wire Device and

General test method (IEC 60695-2-10.2013, IDT)

Note. GB/T 14044-2008 Performance requirements for ballasts for tubular fluorescent lamps (IEC 60921.2006, MOD)

3 Terms and definitions

The following terms and definitions apply to this document.

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