

ICS 31.260
CCS L51



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

GB 44703-2024

General requirements for optical radiation safety

光辐射安全通用要求

Issued on: September 29, 2024

Implemented on: October 1, 2026

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

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the Ministry of Industry and Information Technology of the People's Republic of China.

This document aims to protect the health of users and related personnel by regulating the light radiation safety of luminous products and their working processes. In the process of formulation, the rapid growth of demand for high-brightness luminous products and industrial development in my country's market economy and social development were taken into consideration. Factors such as trends are the most basic general requirements that should be followed to ensure optical radiation safety and public health. The standards involved in the technical content of this document include IEC 60825 (all parts) and IEC 62471 (all parts) corresponding to GB/T 7247 (all parts) and GB/T 30117 (all parts),

including the optical radiation safety standards for typical products independently formulated by my country. These standards specify the optical radiation safety compliance requirements and corresponding verification methods for different product categories, providing guidance for relevant departments, industries, and enterprises. Provide a basis for ensuring the light radiation safety of luminous products and their working processes.

General requirements for optical radiation safety

1 Scope

GB 44703-2024 is the Chinese national standard on general requirements for optical radiation safety, in the field of electronics. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 29 September 2024 by the State Administration for Market Regulation; Standardization Administration of China, and takes effect on 1 October 2026. Classification: ICS 31.260, CCS L51. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the risk classification, identification and safety control of optical radiation safety of laser products and incoherent optical products and their working processes. General requirements in other aspects. This document applies to laser products in the 180nm~1mm band and incoherent optical products in the 200nm~3μm band. Optical radiation safety of products and their working processes.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 2893.1 Graphic symbols, safety colors and safety signs Part

3 Terms and definitions

The terms and definitions defined in GB/T 7247.1 and GB/T 30117.1 and the following apply to this document.

3.1 Optical radiation

3.2 Laser The particles of matter are stimulated to emit and amplify the light radiation

produced.

Note. Laser has good monochromaticity, coherence and directionality, and is also called coherent light. A device that can generate laser is called a laser. [Source: GB/T 15313-2008, 2.1.1, modified]

3.3 Laser products Products containing lasers. [Source: GB/T 7247.1-2024, 3.48, modified]

3.4 Incoherent light Optical radiation that is not laser or has no coherent properties.

3.5 Products that produce incoherent light.

Note. The most common incoherent light products are various lighting fixtures, ultraviolet lamps, projectors, electronic displays, etc.