

ICS 31.260

CCS L 51



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

GB/T 30117.5-2019

**Photobiological safety of lamps and lamp systems -- Part 5:
Image projectors**

Issued on: October 18, 2019

Implemented on: May 1, 2020

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

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Foreword

GB/T 30117 "Photobiological safety of lamps and lamp systems" is intended to be divided into the following sections.

--- Part 1. Classification method;

--- Part 2. Guidance on manufacturing requirements related to the safety of non-laser light radiation;

--- Part 3. Guidelines for the safe use of strong pulse light source equipment on the human body;

--- Part 4. Measurement methods;

--- Part 5. Projector;

--- Part 6. Light radiation safety of ultraviolet lamps.

This part is Part 5 of GB/T 30117.

This section is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to IEC 62471-5:2015 "Photobiological safety of lamps and lamp systems-Part 5. Projectors".

The Chinese documents that have a consistent correspondence with the international documents referenced normatively in this section are as follows.

--- GB/T 2900 (all parts) Electrical term [IEC 60050 (all parts)]

--- GB 4943.1-2011 Information Technology Equipment Safety Part 1. General Requirements (IEC 60950-1:2005, MOD)

--- GB 7247.1-2012 Safety of laser products Part 1. Equipment classification and requirements (IEC 60825-1:2007, IDT)

--- GB 8898-2011 Audio, Video and Similar Electronic Equipment Safety Requirements (IEC 60065:2005, MOD)

--- GB/T 30117.2-2013 Photobiological safety of lamps and lamp systems Part 2. Safety related manufacturing of non-laser optical radiation

Requirements Guide (IEC 62471-2..2009, IDT)

The following editorial changes have been made in this section.

--- To facilitate understanding of the errata regarding errors in Appendix B of the original IEC text, an informative appendix NA has been added.

Please note that some elements of this document may involve patents. The issuer of this document is not responsible for identifying these patents.

This section is proposed by China Machinery Industry Federation.

This section is under the jurisdiction of the National Technical Committee for Standardization of Optical Radiation Safety and Laser Equipment (SAC/TC284).

This section was drafted. Hangzhou Zheda Tricolor Instrument Co., Ltd., Huizhou City, Guangdong Province, Metrology Supervision and Inspection Institute, Xiamen Metrology Inspection

Ding Testing Institute, Puyang Quality and Technical Supervision and Testing Center, Hangzhou Santai Detection Technology Co., Ltd., Zhejiang Tricolor Optoelectronic Technology Co., Ltd.

the company.

1 Scope

This part of GB/T 30117 specifies the photobiological safety requirements for light radiation emitted by projectors. This part of GB/T 30117 is not involved

And other hazards such as electrical, mechanical or fire hazards.

The following requirements are proposed in this part of GB/T 30117.

--- Evaluation of light radiation safety of the projector;

--- projector danger category;

--- Test conditions and measurement conditions;

--- Manufacturer's requirements containing user information.

This part of GB/T 30117 is the photobiological safety of projectors, including laser photos that meet the requirements of 4.4 in IEC 60825-1..2014

Projectors, and visible light projectors not included in IEC 60825-1.

This part of GB/T 30117 does not deal with the safety requirements of laser display

products using collimated laser beams (usually scanning).

Includes laser projectors that use a laser source, such as micro-electromechanical systems (MEMS) without scanning beams or projections based on liquid crystal displays system.

Note. The projector with a built-in laser complies with the regulations applicable to embedded lasers in IEC 60825-1. Visible light emitted in 4.4 of IEC 60825-1..2014

Laser products are excluded from the laser product classification.

This part of GB/T 30117 only includes visible light projectors, but does not include ultraviolet (UV) projectors, infrared (IR) projectors, general lighting

Evaluation of lamps (GLS, see IEC 62471) or spotlight systems suitable for general lighting, etc., not included in other standards

Regulations.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

IEC 60050 (all parts) Electrical Terms (International Electrotechnical Vocabulary)

IEC 60065 audio, video and similar electronic equipment safety requirements (Audio, video and similar electronic appa-

tus-Safetyrequirements)

IEC 60825-1..2014 Safety of laser products. Part 1. Equipment classification, requirements (Safetyoflaserproducts-

Part 1. Equipmentclassificationandrequirements)

IEC 60950-1 Information technology equipment security-Part 1. General requirements (Informationtechnologyequipment-

Safety-Part 1. General requirements)

IEC 62471 Photobiological safety of lamps and lamp systems

3 terms and definitions

The terms and definitions defined in IEC 62471 and IEC 60050 and the following apply to this document.