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

GB/T 31887.5-2025

Replacing GB/T 31887.5-2023

**Cycles - Lighting and retro-reflective devices - Part 5: Lighting
systems not powered by the cycle's movement**

自行车 照明和回复反射装置 第5部分：自行车非发电机供电的照明系统
(English Translation)

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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 Part 5 of GB/T 31887 "Bicycle lighting and retroreflective devices". GB/T 31887 has been published as follows.

Part 2.

---Part 1: Illumination and Light Signaling Devices;

---Part 2: Reflection Device;

---Part 3: Installation and Use of Illumination and Retroreflective Devices;

---Part 4: Lighting systems powered by bicycle generators;

---Part 5: Lighting systems for bicycles that are not powered by generators.

This document replaces GB/T 31887.5-2023 "Bicycle lighting and retroreflective devices - Part 5: Bicycle non-generator lighting".

Compared with GB/T 31887.5-2023, the main technical changes in "Electric Lighting Systems" are as follows, except for structural adjustments and editorial modifications.

a) The terminology and definitions have been changed; "ISO 6742-4" has been added to the introductory text, and "integrated lamps and power supplies" and "lamp and replaceable power supplies" have been removed.

Terms and definitions for "source," "lamp and dedicated power supply," and "battery pack" (see Chapter 3, 2023 edition);

b) Added requirements for non-generator-powered lighting systems for bicycles (see 4.1);

c) The requirements for the low battery indicator have been changed (see 4.4, 6.3 in the 2023 version);

d) Power requirements have been changed (see 4.5, 6.4 in the 2023 version);

e) The test method for forward-emitting lamps in open systems has been modified (see 7.3.1, 7.1.1 in the 2023 version);

f) The test method for rear-emitting lamps in a closed system has been modified (see 7.4.1, 7.2.1 in the 2023 edition);

g) The requirements of the instruction manual have been changed (see Chapter 8, Chapter 8 of the 2023 edition).

This document is equivalent to ISO 6742-5:2023 "Bicycle lighting and retroreflective devices - Part 5: Bicycle non-generator lighting".

Electric lighting systems.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Light Industry Council.

This document is under the jurisdiction of the National Bicycle Standardization Technical Committee (SAC/TC155).

Introduction

GB/T 31887 "Bicycle Lighting and Retroreflective Devices" was drafted based on the safety requirements of bicycles at night, and its purpose is to ensure...

This document ensures the safety of bicycle lighting and retroreflective devices manufactured in accordance with this document during nighttime riding. GB/T 31887 is proposed to be submitted to 5 departments.

Composition.

---Part 1: Lighting and Light Signaling Devices. The purpose is to specify the optical performance requirements for bicycle lighting and light signaling devices.

To ensure standardized product quality and consumer safety while riding at night.

---Part 2: Retroreflective Device. The purpose is to specify the optical performance requirements for bicycle retroreflective devices, facilitating product quality control.

Standardize quantities and ensure consumer safety while riding at night.

---Part 3: Installation and Use of Lighting and Retroreflectors. The purpose is to provide information on the installation and use of bicycle lighting and retroreflectors.

Standardized installation requirements facilitate product installation and use, ensuring optimal light performance of lighting and retroreflective devices and guaranteeing consumer safety.

Safety for riders at night.

---Part 4: Lighting Systems Powered by Bicycle Generators. The purpose is to assess the performance of lighting devices powered by bicycle generators.

These requirements facilitate standardized product quality and ensure consumer safety while cycling at night.

---Part 5: Lighting Systems for Bicycles Without Generators. The purpose is to provide lighting systems for bicycles without generators.

Performance requirements are set to facilitate standardized product quality and ensure consumer safety during nighttime riding.

GB/T 31887 (all parts) is a recommended national standard. GB/T 31887.3 contains product installation and usage requirements, and is consistent with GB/T 31887.1.

The product optical performance standards GB/T 31887.2, GB/T 31887.4, and GB/T 31887.5 are somewhat related. These five recommended national standards...

The aim is to ensure high-quality optical performance and reliability from start to finish for all types of lighting and retroreflective devices, requiring this from the product design stage.

Security issues were first considered.

The scope of GB/T 31887 (all parts) is limited to safety considerations regarding the optical performance of the product. If the bicycle is used on public roads, then...

You must abide by the National Road Traffic Safety Law and related management regulations.

Bicycle safety and quality are directly related to consumers' traffic safety and lives. Since 1995, my country has successively released three versions of bicycle licenses.

The standards for lighting equipment and three versions of bicycle reflector device standards provide a basis for the upgrading and optics improvement of bicycle lighting and

reflector products in my country.

The improved performance provides technical support. GB/T 22791-2008 is equivalent to ISO 6742-1:1987 "Bicycle lighting and reflectors".

The optical and physical requirements for lighting equipment - Part 1: Lighting apparatus - GB/T 31887-2015 are equivalent to ISO 6742-2:1985.

ISO 6742, revised in 2015, defines optical and physical requirements for vehicle lighting and reflective devices as part 2. retroreflective devices.

The standard for cloth has been revised from two parts to five parts. Therefore, GB/T 22791 has been incorporated into GB/T 31887, which was originally revised from two parts.

It consists of 5 parts. The standard level is in line with international standards, and it will continue to provide technical support for the safety of bicycle products in my country.

Bicycle lighting and retroreflective devices Part 5: Bicycles without generator power supply Lighting system

1 Scope

This document specifies the performance requirements for non-generator-powered lighting systems for bicycles and describes the corresponding test methods. This document applies to...

Lighting and light signaling devices conforming to ISO 6742-1. The lighting system includes lighting and light signaling devices and those not powered by bicycle rotation.

Power source, such as a battery.

This document applies to bicycles used on public roads, particularly two-wheeled bicycles conforming to ISO 4210 and ISO 8098.

Lighting system.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 31887.3-2025 Bicycle lighting and retroreflective devices - Part 3: Installation and maintenance of lighting and retroreflective devices Use (ISO 6742-3:2023, IDT) ISO 6742-1:2023 Bicycle lighting and retroreflective apparatus - Part 1: Lighting and light