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Light Sources for Power-Driven Vehicles—Safety Requirements
机动车用光源 安全性要求

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Light Sources for Power-Driven Vehicles—Safety Requirements

1 SCOPE

This document specifies the criteria for determination of the same type, general requirements, requirements for filament light sources, requirements for gas-discharge light sources, requirements for LED light sources, and inspection rules, with respect to the light sources for power-driven vehicles, and describes the corresponding test methods.

This document is applicable to the replaceable light sources fitted to the road lighting and light-signaling devices of motor vehicles of categories M, N, O and L.

2 NORMATIVE REFERENCES

The following normative documents contain provisions which, through normative reference in this text, constitute essential provision of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

GB 4599	Road illumination devices and systems for motor vehicles
GB 4785	Prescription for installation of the external lighting and light-signaling devices for motor vehicles and their trailers
GB/T 26178-2010	The measurement of luminous flux
GB/T 45603-2025	Specification of categories of light sources for power-driven vehicles
IEC 60061-1	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 1: Lamp caps
IEC 60061-2	Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2: Lamp holders

3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions established in GB 4785 and GB/T 45603-2025, as well as the following apply.

3.1 category of light sources

normalized designations according to the design characteristics of standardized light sources

Note: Each category of light sources has a specific designation, e.g., H4, P21W, T4W, PY21W, RR10W, D2S, LW2, LY3, and LR1.

3.2 LED substitute light source

a category of LED light sources with filament light sources in pair, which are fitted with a lamp cap with a different locating key structure from that of the corresponding category of filament light sources

4 Criteria for Determination of the Same Type

Light sources which don't differ in the following main characteristics are deemed of the same type:

- Category of light source;
- Manufacturer;
- Bulb design and/or cap design of filament light source and gas-discharge light source, and structure of LED light source. In the case of filament light source and gas-discharge light source, a selective-yellow bulb or an additional selective-yellow outer bulb, solely intended to change the color of light emitted but not the other characteristics, does not constitute a change of type of the light source;
- Nominal voltage;



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