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**Road Illumination Devices and Systems for Motor
Vehicles**

汽车道路照明装置及系统

(English Translation)

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Road Illumination Devices and Systems for Motor Vehicles

1 SCOPE

This document specifies the criteria for determination of one type, general requirements, light source requirements, light color requirements, photometric characteristics, photometric stability, test methods and inspection rules, with respect to road illumination devices and systems for motor vehicles.

This document is applicable to the design, manufacture and acceptance of road illumination devices and systems, e.g., passing beam, driving beam, front fog lamp and cornering lamp, used for motor vehicles of Categories M and N.

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 4785	Prescription for installation of the external lighting and light-signaling devices for motor vehicles and their trailers
GB/T 43081-2023	Lamps and light sources for road vehicles—Dimensional, electrical and luminous requirements
IEC 60825-1:2014	Safety of laser products-Part 1: Equipment classification and requirements
Note: GB 7247.1-2012	Safety of laser products - Part 1: Equipment classification and requirements (IEC 60825-1:2007, IDT)
IEC 62471-7:2023	Photobiological safety of lamps and lamp systems-Part 7: Light sources and luminaires primarily emitting visible radiation
UN R37	Uniform provisions concerning the approval of filament light sources for use in approved lamps of power-driven vehicles and of their trailers
UN R99	Uniform provisions concerning the approval of gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles
UN R128	Uniform provisions concerning the approval of light emitting diode (LED) light sources for use in approved lamp units on power-driven vehicles and their trailers
R.E.5	Consolidated Resolution on the common specification of light source categories (R.E.5)

3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions established in GB 4785 and the following apply.

3.1 road illumination device

a unit or a group of units used to illuminate the road and objects in the vehicle forward direction to achieve one or more functions

Note: In this document, it is abbreviated as “device”, including one or more functions of headlamp (passing beam, driving beam), front fog lamp and cornering lamp.

3.2 road illumination system

a system comprising the units or groups of units at left and right sides and their controllers and used to illuminate the road and objects in the vehicle forward direction

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