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

GB/T 48054-2026

Replacing GB/T 15766.2-2016

**Lamps, light sources and LED packages for road vehicles -
Performance specifications**

道路车辆用灯、光源和LED封装 性能规范

(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 supersedes GB/T 15766.2-2016 "Performance Requirements for Light Bulbs of Road Motor Vehicles" and is consistent with GB/T 15766.2-2016.

Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows.

---The requirements for continuous operating rated life and continuous operating luminous flux maintenance have been changed (see Chapter 5, Chapter 5 of the 2016 edition);

---Added requirements for discharge lamps with built-in starting devices and ballasts (see

6.8);

---Added test requirements for the white discharge lamp group (see 6.9);

---Requirements and test methods for LED light sources have been added (see Chapter 7);

---Added LED light source luminous flux maintenance test conditions (see Appendix B).

This document is modified to adopt IEC 60810:2022 "Performance requirements for lamps, light sources and LED packages for road vehicles".

Compared with IEC 60810:2022, this document has undergone the following structural adjustments.

---Sections 3.14 to 3.16 correspond to sections 3.13.1 to 3.13.3 of IEC 60810:2022;

---3.17~3.19 correspond to 3.14~3.16 of IEC 60810:2022;

---Appendix A corresponds to Appendix D of IEC 60810:2022;

---Appendix B corresponds to Appendix I of IEC 60810:2022;

---Appendix C corresponds to Appendix F of IEC 60810:2022;

---Appendix D corresponds to Appendix A of IEC 60810:2022;

---Appendix E corresponds to Appendix B of IEC 60810:2022;

---Appendix F corresponds to Appendix C of IEC 60810:2022;

---Appendix G corresponds to Appendix E of IEC 60810:2022;

---Appendix H corresponds to Appendix G of IEC 60810:2022;

---Appendix I corresponds to Appendix H of IEC 60810:2022.

The technical differences between this document and IEC 60810:2022, and the reasons therefor, are as follows.

---The file scope has been changed (see Chapter 1) to suit my country's national conditions;

---IEC 60050-845 has been replaced with the normatively referenced GB/T 2900.65 (see Chapter 3) to facilitate inter-standard collaboration;

---IEC 60809 (see Chapters 1, 3, 4.1, 6.1, and 7.1) has been replaced with the normatively referenced GB/T 43081 for standardization purposes.

Inter-agency collaborative applications;

application;

---IEC 60061-1 (see 7.1 and 7.7) has been replaced with the normatively referenced GB/T 1406 (all parts) to facilitate inter-standard agreement.

Same application;

---CISPR25 (see 7.5) has been replaced with the normatively referenced GB/T 18655 to facilitate inter-standard collaboration;

---IEC 60068-2-14 (see 7.6) has been replaced with the normatively referenced GB/T 2423.22 to facilitate inter-standard collaboration;

---ISO 7637-2:2011 has been replaced with the normatively referenced GB/T 21437.2 (see 7.12 and 7.13) to facilitate inter-standard coordination.

application;

---ISO 10605 has been replaced with the normatively referenced GB/T 19951 (see 7.14) to facilitate inter-standard collaboration;

---The requirements for the test voltage have been changed (see 7.14 and 7.16) to make this document more accurate in application;

---The requirements and test methods for LED packaging have been changed (see Chapter 8) because their content is not applicable to my country's national conditions;

---The destructive physical testing requirements for LED packaging (see Annex J of IEC 60810:2022) have been removed to adapt to my country's national conditions;

---The LED packaging test report (see Annex K of IEC 60810:2022) has been deleted to adapt to my country's national conditions;

---The LED packaging test re-inspection matrix table (see Annex L of IEC 60810:2022) has been deleted to adapt to my country's national conditions;

---The LED package reliability verification guide (see Annex M of IEC 60810:2022) has been removed to adapt to my country's national conditions.

The following editorial changes have been made to this document.

---Footnote a in Table 3 and footnote e in Table 4 have been deleted because the referenced documents have been obsolete (see Chapter 5 of IEC 60810:2022);

---IEC 60682 (see C.1, F.1 of IEC 60810:2022) has been replaced by GB/T 20152 as an informative reference;

---IEC 60068-2-6 (see E.1, B.1 of IEC 60810:2022) has been replaced by GB/T 2423.10 (referenced for informational purposes).

---IEC 60068-2-47 (see E.2.2, B.2.2 of IEC 60810:2022) has been replaced by GB/T 2423.43 (see E.2.2, B.2.2 of IEC 60810:2022) for informative reference;

---ISO 2859-1 (see F.4.2, C.4.2 of IEC 60810:2022) has been replaced by GB/T 2828.1 (see F.4.2, C.4.2 of IEC 60810:2022) for informative reference;

---ISO 2854 (see F.4.3, C.4.3 of IEC 60810:2022) has been replaced by GB/T 4889 (referenced for informational purposes).

---IEC 60417 (see Annex I, Annex H of IEC 60810:2022) has been replaced by GB/T 5465.2-2023 (see Annex H of IEC 60810:2022) for informational reference.

---The numbering of figures and tables has been changed.

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 Technical Committee on Standardization of Lighting Appliances (SAC/TC224).

1 Scope

This document specifies the performance requirements for road vehicle lamps, light sources, and LED packages, including lifespan, luminous flux maintenance, torsional strength, and glass envelope.

Strength, vibration, and shock resistance are tested, and corresponding test methods are described. Temperature limits, maximum lamp profile, and maximum permissible voltage are given.

This document applies to filament lamps and discharge lamps used on the front lighting devices, light signaling devices, and interior lighting devices of road vehicles.

LED light sources and LED packaging. In particular, lamps and light sources listed in GB/T 43081.

This document does not apply to lighting fixtures used on road vehicles.

For some performance requirements mentioned in this document, please refer to the data in the relevant tables. For light not listed in the tables...

The performance requirements of the source are based on data provided by the manufacturer and responsible distributor of the light source.

These performance requirements supplement the basic requirements specified in GB/T 43081. However, the performance requirements in this document are not to be used for type testing.

The basis for verification.

Note 1: The terms "filament lamp" and "discharge lamp" differ across various vocabulary and standards. In this document, "filament lamp" and "discharge lamp" are used interchangeably.

The word "source" can also be used to describe similar products. However, in this