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Replacing GB 18409-2001

Photometric characteristics of parking lamps for power-driven vehicles

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Foreword

Clauses 5, 6 of this Standard are mandatory; the rest are recommendatory.

This Standard uses redrafting method to modify and adopt United Nations Economic Commission for Europe ECE R77-2011 Uniform Provisions on Approval of Vehicle Parking Lights (ECE R77 Rev.2, ECE R77 Rev.2 Amend 1, ECE R77 Rev.2 Amend 2). The main differences are as follows:

- deleted the terms of management;
- deleted the annex of “Minimum requirements for inspector sampling”;
- added inspection rules.

This Standard replaces GB 18409-2001 Photometric characteristics of parking lamps for power - Driven vehicles. Compared with the previous edition, the main modifications are as follows:

- modified Clause 2 “References” of the previous edition to “Normative references” of this edition;
- modified Clause 3 “Definitions” of the previous edition to “Terms and definitions” of this edition;
- modified the determination rules for different types in 6.1 of the previous edition to Clause 4 “Different types of parking lamps” of this edition;
- modified the inspection rules of Clause 6 of the previous edition;
- modified the detection requirements for lamps of multiple light sources;
- added the content related to light source module;
- added the detection requirements for lamps of multiple mounting positions;
- added the detection requirements for non-filament bulbs;
- added photometric distribution requirements for parking lamps of which the installation height is less than or equal to 750 mm.

This Standard was proposed by Ministry of Industry and Information Technology of the People 's Republic of China.

This Standard shall be under the jurisdiction of National Technical Committee on Automobile of Standardization Administration of China (SAC/TC 114).

Photometric characteristics of parking lamps for power-driven vehicles

1 Scope

This Standard specifies the technical requirements, test methods and inspection rules of parking lamps for power-driven vehicles.

This Standard is applicable to parking lamps irrespective of types used by M, N categories of vehicles.

2 Normative references

The following standards contain the provisions which, through reference in this Part of GB/T 3903, constitute the provisions of this Part. For dated references, subsequent amendments (excluding corrections) or revisions do not apply to this Part. However, the parties who enter into agreement based on this Part are encouraged to investigate whether the latest versions of these documents are applicable. For undated reference documents, the latest versions apply to this Part.

GB 4599, *Motor vehicle headlamps equipped with filament lamps*

GB 4785, *Prescription for installation of the external lighting and light-signaling devices for motor vehicles and their trailers*

GB 15766.1, *Lamps for road vehicles - Dimensional electrical and luminous requirements*

ECE R37, *Uniform provisions concerning the approval of filament lamps for use in approved lamp units of power-driven vehicles and of their trailers*

3 Terms and definitions

The terms and definitions specified in GB 4785 apply to this document.

4 Different types of parking lamps

It refers to the parking lamps which have differences in the following aspects:

6 Test method

6.1 General

6.1.1 Test darkroom, test parking lamps and equipment shall comply with the provisions of GB 4599.

6.1.2 It shall determine the apparent surface boundary in the reference axis direction of parking lamps.

6.1.3 Appropriate shielding should be provided to avoid the effects of stray light.

6.1.4 Before measurement, the parking lamp shall be fully pre-ignited at the test voltage, to make its optical properties tend to be stable.

6.1.5 The measurement distance should ensure that the inverse square law of distance in photometry can be applied.

6.1.6 Observed from the reference center, the angle of the light receiver is between 10' and 1°.

6.1.7 The angle deviation of each measuring direction should not be more than 15'.

6.2 Measurements of photometric characteristics, light color and color characteristics

6.2.1 For parking lamps with non-replaceable light source, it should measure at 6.75 V, 13.5 V, or 28.0 V.

6.2.2 For parking lamps with a single replaceable filament lamp source, in the absence of an electronic light source controller, it shall use the appropriate type of colorless or colored standard bulb to detect under reference luminous flux specified in GB 15766.1 or ECE R37.

6.2.3 For parking lamps that use electronic light source controller and of which the controller is used as one part of parking lamp, it shall measure at the input terminal of parking lamp at the voltage specified by the manufacturer. If the manufacturer does not specify the voltage, it shall measure at corresponding load voltage of 6.75 V, 13.5 V, 28.0 V.

6.2.4 For parking lamps that use electronic light source controller and of which the controller is NOT used as one part of parking lamp, it shall measure at the input terminal of parking lamp at the voltage specified by the manufacturer.

6.2.5 For parking lamps with multiple replaceable filament lamps, in the

mounted on the same side of the vehicle and/or just two of same forwards or backwards.

7.1.2 Each sample lamp shall comply with the provisions of 5.1.

7.1.3 When tested in accordance with the provisions of Clause 6, each sample lamp shall comply with the corresponding provisions of 5.2 and 5.3.

7.2 Production consistency test

7.2.1 For parking lamps with qualified type inspection, it shall extract sample lamps at random from products of batch production to carry out the production consistency test. The number of randomly selected sample lamps is two.

7.2.2 The randomly selected sample lamps shall meet the requirements of 5.1.

7.2.3 When the test is carried out in accordance with the provisions of Clause 6, the randomly selected sample lamps shall comply with the provisions of 5.2.

7.2.4 When the test is carried out in accordance with the provisions of Clause 6, the randomly selected sample lamps shall comply with the corresponding provisions of 5.3. Allowing:

- a) the minimum luminous intensity is not less than 80% of the value specified in 5.3;
- b) the maximum luminous intensity not more than 120% of the value specified in 5.3.

8 Transition period

8.1 Since the date of implementation of this Standard, the new application type test products should comply with this Standard.

8.2 The lamps which have passed the type inspection before the date of implementation of this Standard shall be given a transitional period of 24 months, if any is not consistent with the provisions of this Standard.

_____ **END** _____

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