

ICS 43.040.20

T 38



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

中华人民共和国国家标准

GB 4599-2007

Replace GB 4599-1994

**Motor vehicle headlamps equipped with filament
lamps**

汽车用灯丝灯泡前照灯

Issued on November 01, 2007

Implemented on June 01, 2008

Issued by General Administration of Quality Supervision, Inspection
and Quarantine of the People's Republic of China

Standardization Administration of the People's Republic of
China

Contents

Foreword	1
1 Scope	4
2 Normative References	4
3 Terms and definitions	4
4 Different types of the headlamps	7
5 Technical requirements	8
6 Test methods	14
7 Inspection rules	17
Annex A (Normative) The stability test for the light distribution characteristics of the headlamp	20
Annex B (Normative) The plastic lens headlamp requirements – the lens or material samples and the test of the complete headlamp	25
Annex C (Normative) The test sequence	30
Annex D (Normative) The measurement methods for the diffused light and the transmitted light	32
Annex E (Normative) The test method for mechanical abrasion	34
Annex F (Normative) The adhesion test for adhesive tape	35
Annex G (Informative) Examples of the lighting methods of the stability tests for the light distribution characteristics	36

Foreword

All the technical contents in this Standard are mandatory.

This standard corresponds to UNECE ECER1-1998 *Uniform Provisions on the Certification of Motor Vehicle Headlamps Equipped with R2 and / or HS1 Class Filament Lamps, Emitting Asymmetric Passing beam and/or Driving beam*, ECER5-1998 *Uniform Provisions on the Certification of Motor Vehicle Sealed Beam Headlamps (SB) Emitting European Asymmetric Passing beam and/or Driving beam*, ECER8-1999 *Uniform Provisions on the Certification of Motor Vehicle Headlamps Equipped with (H1, H2, H3, HB3, HB4, H7, H8, H9, HIR1 , HIR2 and/or H11 Classes) Tungsten Halogen Filament lamps, Emitting Asymmetric Passing beam and / or Driving beam*, ECER20-1998 *Uniform Provisions on the Certification of Motor Vehicle Headlamps Equipped with (H4 class) Tungsten Halogen Filament Lamps, Emitting Asymmetric Passing beam and/or Driving beam*, ECER31-1998 *Uniform Provisions on the Certification of Motor Vehicle Tungsten Halogen Enclosed Unit (HSB) Emitting Asymmetric Passing beam and/or Driving beam* and ECER112-2001 *Uniform Provisions on the Certification of Motor Vehicle Headlamps Equipped with Filament Lamps, Emitting Asymmetric Passing beam and/or Driving beam*, the consistency is non-equivalent and the main differences are as follows:

- Deleted the management provisions;
- Deleted the Annex of the "Headlamps for the agricultural or forestry tractors and other slow vehicle (or SB beam unit)";
- Deleted the Annex of the "HSB beam unit electrical connections (inserts);
- Deleted the Annex of the "The minimum requirements for the samplings by the inspectors";
- Added the optical and electrical performance table and the electrical property table of the associated filament lamps and the sealed beam unit;
- Added the inspection rules, and modified the test methods.

However, the main technical requirements, such as: the general requirements, light distribution characteristics, light color, testing screen (keep right), the stability test for the light distribution characteristics of the headlamp, plastic lens headlamp requirements – the lens or material samples and the test of the complete headlamp, test procedure, the

measurement methods for the diffused light and the transmitted light and transmitted light, the test method for mechanical abrasion, adhesion test of adhesive tape and the minimum requirements for the manufacturer's consistency test are consistent with the above regulations.

This Standard takes the place of GB4599-1994 *The Light distribution characteristics of the Motor Vehicle Headlamp*, compared with the previous versions, the main changes are as follows:

- The standard name was changed from the former version of *The Light distribution characteristics of the Motor Vehicle Headlamp* to this version of *Motor Vehicle Headlamp Equipped with Filament Lamps*;
- Modified the contents of the Chapter 3 "The Terms" in the former version to the Chapter 3 "Terms and Definitions" in this version;
- Modified the contents of "The Same Type Provisions of Headlamp" of Chapter 4 in the former version to "Different Types of Headlamps" of Chapter 4 in this version;
- Modified the former version 6.2, added HS1, HB3, HB4, H7, H8, H9, H11, HIR1 and HIR2 types of filament lamp and broadened the use range of filament lamps;
- Modified the Chapter 7 of the former version, deleted the section of 7.6 and adds eight test points in the headlamp with replaceable filament lamp passing beam Area III;
- Modified the Chapter 8 "The Test Methods" and Chapter 9 "The Inspection Rules" in the former version;
- Added the test methods for the light distribution characteristics of the headlamp with replaceable filament lamp with adjustable reflector;
- Considering the requirements of rapidly developed transportation on automotive lighting, this standard added the contents relating to curve illumination according to relevant regulations of ECE;
- Added the Annex A of "The stability test for the light distribution characteristics of the headlamp";
- Added the Annex B of "The plastic lens headlamp requirements – the lens or material samples and the test of the complete headlamp";
- Added the Annex C of "The test sequence";

—Added the Annex D of "The measurement methods for the diffused light and the transmitted light";

—Added the Annex E of "The test method for mechanical abrasion";

—Added the Annex F of "The adhesive tape adhesion test";

—Added the Annex G of "The Examples of the lighting methods of the stability tests for the light distribution characteristics"

Annexes A, B, C, D, E and F of this Standard are normative annex.

Annex G of this Standard is informative annex.

Since the date of the implementation of this Standard, DB4599-1994 shall be abolished.

The motor vehicle headlamps equipped with filament lamps which newly apply for the type inspection shall comply with this Standard.

The transition requirements implemented in this Standard: for the filament lamps headlamp which has passed the type inspection before implementation of this Standard, 60 months of the transitional period shall be given.

This Standard is proposed by National Development and Reform Commission.

This Standard is under the jurisdiction of National Technical Committee of Auto Standardization.

This Standard is drafted by the Shanghai Automotive Lamps Institute.

The main drafters of this Standard are: Xu Mouhe, Fei Yin, Wang Hua, and Sun Guoxiong.

The issuances of previous versions of the standards replaced by this Standard are as follows:

—GB4599—1984, GB4599—1994.

Motor vehicle headlamps equipped with filament lamps

1 Scope

This Standard specifies the light distribution characteristics, test method and inspection rules of the motor vehicle headlamps equipped with filament lamps and the sealed beam headlamp.

This Standard applies to various headlamps (excluding the headlamps equipped with gas-discharge source) for Class M and N motor vehicles.

2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

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

GB 15766.1 Lamps for road vehicles - Dimensional electrical and luminous requirements (GB 15766.1-2000, idt IEC 60809: 1995)

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

Those established in GB/T 4785 and the following terms and definitions are applicable to this Standard.

3.1

Light distribution

It refers to distribution of the luminosity (illumination or luminous intensity, etc) of the visible light emitted by the lamps.

3.2

完整版本请在线下单

或咨询：

TEL: 400-678-1309

QQ: 19315219

Email: info@lancarver.com

<http://www.lancarver.com>

线下付款方式：

1. 对公账户：

单位名称：北京文心雕语翻译有限公司

开户行：中国工商银行北京清河镇支行

账 号：0200 1486 0900 0006 131

2. 支付宝账户：info@lancarver.com

注：付款成功后，请预留电邮，完整版本将在一个工作日内通过电子 PDF 或 Word 形式发送至您的预留邮箱，如需索取发票，下单成功后的三个工作日内安排开具并寄出，预祝合作愉快！



银联特约商户