

ICS 13.220.10
CCS C85



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

GB 27899-2011

Firemen's directional light

消防员方位灯

Issued on: December 30, 2011

Implemented on: June 1, 2012

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

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Models and basic parameters
- 5 Quality sqrt sqrt sqrt
- 5.1 Appearance and assembly quality
- 6 Test methods
- 7 Inspection rules
- 7.1 Type inspection
- 8.2 Packaging

Foreword

The standard Chapter 5, Chapters 7 and

8.1 are mandatory, the rest are recommended. This standard is prepared in accordance with GB/T 1.1-2009 given rules. The standard proposed by the People's Republic of China Ministry of Public Security. This standard by the National Standardization Technical Committee firefighters Fire Protection Equipment Technical Committee (SAC/TC113/SC12) centralized. This standard was drafted. Shanghai Fire Research Institute of Ministry of Public Security. Drafters of this standard. Shen Jian Min, Shixing Tang, Wu Yun, Rui Kun, Zhang Yan, Zhou Zhizhong. This standard is the first release. Fireman position lights

1 Scope

GB 27899-2011 is the Chinese national standard on firemen's directional light, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 30 December 2011 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2012. Classification: ICS 13.220.10, CCS C85. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the terms and definitions firefighter position lights, model and basic parameters, technical requirements, test methods, inspection rules, marks, Packaging, transport and storage. This standard applies to the use of firefighters orientation light (hereinafter referred to as position lights).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191 Packaging - Pictorial signs

GB/T 2423.1 Environmental testing for electric and electronic products Part 2. Test methods Test A. Cold

GB/T 2423.2 Environmental testing for electric and electronic products Part 2. Test methods Test B. Dry heat

GB/T 2423.3 Environmental testing for electric and electronic products Part 2. Test methods - Test Cab. Damp heat test

GB/T 2423.5 Environmental testing for electric and electronic products Part 2. Test methods Test Ea and guidance. Shock

GB/T 2423.10 Environmental testing for electric and electronic products Part 2. Test methods Test Fc. Vibration (sinusoidal)

GB 3836.1 explosive atmospheres - Part 1. General requirements for equipment

GB 4208-2008 shell protection (IP code)

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Firemen position lights firemen'sdirectionallight Firefighters fire and rescue mission in the implementation of wear, with the light-emitting device signal indicating the orientation function.

3.2 Flash frequency flashfrequency The light emitting device in the position lights flashing times per unit time.

3.3 Continuous working time continuousworkingtime Maximum working time position lights lit or flashing state.

4 Models and basic parameters

4.1 Model Position lights Model preparation should meet the following requirements. R fireman personal equipment FWD Position lights - - Category Code / - Enterprises modified code (A, B)

4.2 position lights category code Position lights type code shown in Table 1. Table 1 position lamp category code Name Category Code Position lights flash type S Always position lights type C Always position lights flash type SC Example. RFWD-S/A represents A-type flash-based firefighters and position lights.

4.3 Basic parameters The basic parameters of position lights as follows:

- a) working environment temperature -25 °C ~ 70 °C;
- b) Relative humidity 30% to 85%;
- c) Power supply rechargeable batteries should be used and should be set battery charge and discharge protection circuit.

5 Quality sqrt sqrt sqrt

6 Insulation Resistance sqrt sqrt sqrt 7 pressure resistance sqrt sqrt 8 protective properties sqrt sqrt Weather Environmental performance High temperature sqrt Low sqrt Damp sqrt 10 vibration resistance sqrt 11 impact resistance sqrt 12 anti-drop performance sqrt sqrt sqrt 13 explosion-proof performance sqrt 14 simulated smoke environment azimuth indicating performance sqrt 15 flag sqrt sqrt sqrt

Note. "sqrt" This sample represented by this test.

7.2 factory inspection

7.2.1 Each position lights shall be subject to factory inspection.

7.2.2 factory inspection of the project according to the provisions 5.1,5.2,5.3,

7.2.3 factory inspection results of the seized items all meet the requirements of this standard, in order to pass. 8 signs, packaging, transportation and storage

8.1 mark Position lights should be clear and durable signs include the following.

- a) the product type and name;
- b) production plant name;
- c) the date of manufacture;

5.1 Appearance and assembly quality

5.1.1 position lamp surface should be no scratches, contamination, cracks, burrs and other defects. Signs should be clear, accurate, and complete.

5.1.2 orientation lamp assembly should be complete fastening parts should be no loose, injury, misalignment, burrs and other defects. Wearing the device should be flexible and reliable.

5.2 emission luminance Position lights brightness not less than 300cd/m².

5.3 flash frequency Flash type position lights flash frequency should be 1Hz ~ 2Hz.

5.4 Continuous working time Position lights flash type continuous working time should not be less than 100h, position lights lit type continuous working time should not be less than 20h.

5.5 Quality Quality position lights should not exceed 150g.

5.6 Insulation resistance Position lights insulation resistance between the housing and the charging terminals shall not be less than 50MΩ, after the damp heat test the insulation resistance shall be not less than 10MΩ.

5.7 pressure resistance Position lights should be able to withstand a frequency of 50Hz ± 0.5Hz, voltage 500V ± 50V, pressure resistance test lasted for 60s ± 5s. test During surface arcing and breakdown should not occur. After the test, position lights should be able to work properly.

5.8 Housing protection performance Shell protection performance orientation of the lamp shall comply with the requirements specified in GB 4208-2008 of IP65.

5.9 weatherability environmental performance Position lights should be able to withstand the test under Table 2 under the climate conditions. After each test, position lights should be able to work properly. Table 2 weathering test environment Name of Test Test Parameters Test Conditions Operating status Hot test Temperature of 70 °C ± 2 °C Duration 2h Energized state Low temperature test Temperature -25 °C ± 2 °C Duration 2h Energized state Damp heat test Relative humidity of 82% to 85% Temperature of 40 °C ± 2 °C Duration 2h Energized state

5.10 Mechanical resistance to environmental performance Position lights should be able to withstand the test in Table 3 under specified mechanical environmental conditions. After each test, position lights should not have mechanical damage and tight Firmware loosening, and it can work normally. Table 3 resistance to mechanical environmental tests Name of Test Test Parameters Test Conditions Operating status Vibration (sinusoidal) test Frequency range of 10Hz ~ 55Hz 1g acceleration amplitude Sweep rate 1 octave/min Each axis scanning cycles

20 The vibration direction X, Y, Z Energized state Impact test Peak acceleration 5g 11ms pulse duration Half-sine pulse waveform Axial number

6 Test methods