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Test methods for astronomical telescopes

天文望远镜试验方法

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the redrafted method reference ISO 14490-4:2005 "Optical and optical instruments telephoto system test method part 4.

Astronomical Telescope Test Method "prepared, and ISO 14490-4:2005 consistency is not equivalent.

This standard is proposed by the China Machinery Industry Federation.

This standard by the National Standardization Technical Committee of Optics and Photonics (SAC/TC103) centralized.

This standard was drafted unit. Ningbo Cham Beijing Optical Instrument Co., Ltd., Guangzhou, Guangdong Optical Instrument Co., Ltd., Shanghai University of Technology, on Sea Optical Instrument Institute, Han's Laser Technology Industry Group Co., Ltd., Chongqing Ott Optical Instrument Co., Ltd., Ningbo Yongxin Optical Co., Ltd., Nanjing Jiangnan Yongxin Optical Co., Ltd., Ningbo Sunny Optical Instrument Co., Ltd., Nanjing East Lee to photoelectric Industrial Co., Ltd.

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1 Scope

This standard specifies the terms and definitions of astronomical telescopes, test methods.

This standard applies to observation in natural light astronomical telescope, the objective lens of the aperture of 150mm and below the refractive days Binoculars and Objectives

Clear aperture of 250mm and below the reflective telescope.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 35126 Telescope terminology GB/T 13962 Optical instruments terminology GB/T 25480 Instrumentation transport, storage of the basic environmental conditions and test methods JB/T 9328-1999 resolution board

3 Terms and definitions

GB/T 35126, GB/T 13962 defined terms and definitions apply to this document.

4.1.1 Test Tools

Vernier caliper.

4.1.2 Test Procedure

Refractive. Use vernier caliper in the circumference of the uniform distribution of the four measurements of the inner diameter of the nosepiece.

Reflex. Use vernier caliper measurements in the four locations evenly distributed around the circumference of the mirror objective lens inscribed circle diameter or reflective objective without occlusion Department of the lens diameter.

Take the average value as the measured value, the measured value and the nominal aperture of the objective lens of the difference between the diameter of the objective lens is the aperture error.

4.2.1 Test Tools

Test tools are as follows.

- a) focal length meter or optical bench;
- b) reading microscope (for magnification method);
- c) Boluo board (for the magnification method);