

ICS 31.120
CCS L 53



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

GB/T 43787-2024

**Measuring methods of optical performance for curved organic
light emitting diode (OLED) lighting**

曲面有机发光二极管（OLED）光源光学性能测试方法

Issued on: March 15, 2024

Implemented on: July 1, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Preface	I
1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Test system layout	1
4.1 Overview	1
4.2 Test geometry layout	2
5 Test conditions	4
5.1 Test environment conditions	4
5.2 Darkroom test conditions	4
5.3 Setting conditions	4
6 Optical performance test methods	5
6.1 Fixed point brightness and brightness uniformity	5
6.2 Fixed-point chromaticity non-uniformity	6
6.3 Peak emission wavelength and spectral radiation bandwidth	6
6.4 Flicker	6
6.5 Viewing Angle Brightness and Viewing Angle	8

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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

This document is under the jurisdiction of the National Technical Committee for Standardization of Electronic Display Devices (SAC/TC547).

This document was drafted by: China Electronics Technology Standardization Institute, Kunshan Guoxian Optoelectronics Co., Ltd., Gu'an Yiguang Technology Co., Ltd., Shenzhen Shenzhen Huaxing Optoelectronics Technology Co., Ltd., Shanghai Weishirui

Optoelectronics Technology Co., Ltd., State Grid Jiangsu Electric Power Co., Ltd., Chengdu Libang System ENGINEERING TECHNOLOGY LIMITED.

The main drafters of this document are: Zhao Ying, Liu Yanling, Xie Jing, Huang Weidong, Dang Pengle, Wang Weisheng, Huo Guangfu, Bai Jingjing, Mao Yanfang, and Wang Junya.

Curved organic light emitting diode (OLED) light source Optical performance test methods

1 Scope

This document describes the optical performance test of curved organic light emitting diode (OLED) light sources for display (hereinafter referred to as "curved light sources"). method.

This document is applicable to the optical performance test of curved light sources bent around one axis.

2 Normative references

GB/T 20871.2-2007

3 Terms and definitions

The terms and definitions defined in GB/T 20871.2-2007 and the following apply to this document.

3.1 curvedlightsource

A light source with a fixed radius of curvature in a particular direction.

Note. The bending axis is usually horizontal or vertical, and the bending direction is concave or convex relative to the observation position.

3.2 fixed-pointtest

At the same observation point in front of the curved light source, test each test point on the curved light source.

Note. In this document, the fixed point of the test is located on the horizontal plane where the center of the curved light source is located and on the line connecting the curved axis of the curved light source.

3.3

The brightness at other test angles compared to the brightness at 0° in the normal direction.

3.4

The chromaticity at other test angles compared to the chromaticity at 0° in the normal direction.

4.1 Overview

The layout of the test system is shown in Figure 1. The axis of the test equipment is consistent with the center line of the test curved light source surface.

The test distance is 1M, 3V is recommended, and V is the effective height of the screen.