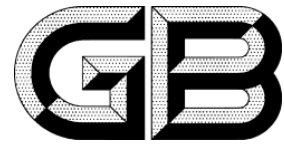


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**Digital cameras - Measuring low-light performance**

数码照相机 弱光性能的测量

**(English Translation)**

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## Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting.

This document is equivalent to ISO 19093:2018 "Measurement of Low-Light Performance of Photographic Digital Cameras".

This document has made the following minimal editorial changes.

---Change the name of the standard to "Measurement of Low Light Performance of Digital Cameras";

---Incorporates the contents of the amendment ISO 19093:2018/Amd.1.2020.

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

## 1 Scope

This document describes a method of measuring the low-light performance of digital cameras.

This document is suitable for low-light performance measurement of digital cameras, mobile phones with camera functions and other mobile devices that can take pictures.

## 2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

ISO 7589 Specification for light sources daylight, incandescent lamps and printers for photographic photosensitivity measurements (Photography-Illuminants for Note. GB/T 15061-1994 General principles for photosensitivity measurement of silver salt photosensitive materials Part 1: Sample exposure strip suitable for incandescent tungsten light and simulated sunlight exposure Parts (ISO 7589:1984, NEQ) ISO 14524 Method of measurement of optical-to-electrical conversion functions (OECFs) of photographic digital still cameras [Photography- Elec-Note. GB/T 19894-2005 Measurement method of optical-electrical conversion functions (OECFs) of digital cameras (ISO 14524:1999, IDT) ISO 15739 Measurement of noise (points) in photographic digital still images (Photography-Electronic still-picture image-noise measurements) Note. GB/T 34074-2017 Measurement of noise in digital cameras (ISO 15739:2013, IDT) ISO/T S19567-1 Texture reproduction measurement on photographic digital cameras Part 1: Frequency

characteristic measurement using loop mode IEC 61966-2-1 Color measurement and management in multimedia systems and equipment Part 2-1. Color management Default RGB color empty our management-Default RGB colour space-sRGB)

### 3 Terms and definitions

The following terms and definitions apply to this document.

Use the longest exposure time for a sharper image when shooting handheld.

**Note 1:** The exposure time (s) is  $1/f$ , and the  $f$  value is the focal length value of the equivalent lens of the 35mm sensor.

**Note 2:** If the camera has an image stabilization structure, handheld shooting with exposure times longer than  $1/f_s$  can still produce reasonably sharp images.

The focal length of the lens attached to a camera with a sensor size of 24mm x 36mm (derived from 35mm film) is equivalent to the focal length of the lens attached.

Connected to the focal length of a 35mm film camera.