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Methods of colour measurement—Light-source colour

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Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Color Science Association of Japan (CSAJ)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS Z 8724**:1997 is replaced with this Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

Methods of colour measurement—Light-source colour

Introduction

This Japanese Industrial Standard was established in 1962 and has gone through four revisions up to the present. The last revision was made in 1997, and the revision at this time is to conform to the requirements for the wavelengths 360 nm to 830 nm specified in **JIS Z 8781-1**:2012 (corresponding International Standard: **ISO 11664-1**), and the requirements for the accuracy and incident optical system of spectrophotometer in the photometry and colorimetry of LED lighting specified in **JIS C 7801**:2014, **JIS C 8152-1**: 2014, etc., associated with the standardization of the spectrometry of light-source colour corresponding to the radiation to total space (total luminous flux) that has not been specified so far, and the prevalence of the white light-emitting diode (LED) for lighting.

No corresponding International Standard has been established at this point.

1 Scope

This Standard specifies the methods of measurement for light source colour for general lighting service by the *XYZ* colorimetric system based on 2-degree field of view[1)] (hereafter referred to as *XYZ* colorimetric system), and the $X_{10}Y_{10}Z_{10}$ colorimetric system based on 10-degree field of view[2)] (hereafter referred to as $X_{10}Y_{10}Z_{10}$ colorimetric system).

The *XYZ* colorimetric system and $X_{10}Y_{10}Z_{10}$ colorimetric system are applicable, respectively when correlation with visual colour matching of fields of angular subtense 1° to 4° or greater than 4° at the eye of the observer is desired.

Notes 1) The colorimetric system recommended by the Commission International de l'Éclairage (CIE) in 1931. It is also called CIE 1931.

2) The colorimetric system recommended by CIE in 1964. It is also called CIE 1964.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) listed below shall be applied.

JIS C 7501 *Tungsten filament lamps for domestic and similar general lighting purposes*

JIS C 7604 *High-pressure mercury vapour lamps—Performance specifications*

JIS C 7607 *Total luminous flux measurements on discharge lamps used for photometric standards*

JIS C 7613 *Photometric measurements on incandescent lamps used for photometric standards*