Characterization of the Performance of Illuminance Meters and Luminance Meters

CIE Draft Standard DS 023/E:2012

Characterization of the Performance of Illuminance Meters and Luminance Meters

This Draft Standard defines quality indices characterizing the performance of illuminance and luminance meters in a general lighting measurement situation, and measurement procedures for the individual indices and standard calibration conditions.

Measurements of illuminance or luminance and their accuracy are influenced by various parameters, such as operational conditions, properties of light sources, as well as characteristics of the applied photometers. The characteristics of these photometers alone do not allow the estimation of the measurement uncertainty for a specific measurement task. Nevertheless, it is generally true that instruments with “better” characteristics in most cases allow smaller uncertainties than instruments with “worse” properties. This Draft Standard has been written to:
• give clear and unambiguous definitions for the individual quality indices;
• define measurement procedures and methods for numerical evaluation of these measurement results;
• define calibration conditions for illuminance meters and luminance meters.

The Draft Standard has been sent to CIE National Committees for comments and sales to interested parties. It is still subject to changes and may not yet be referred to as a CIE Standard. When approved by the CIE NCs, it will be published as a CIE Standard and later on as a joint ISO/CIE Standard. The Draft Standard is readily available at the National Committees of the CIE or via the CIE Webshop.

The following members of TC 2-40 “Characterizing the Performance of Illuminance and Luminance Meters” took part in the preparation of this (Draft) Standard:

- Austin, R. USA
- Bastie, J. France
- Blattner, P. Switzerland (Chair)
- Bergen, T. Australia
- Czibula, G. Germany
- Dezsi, G. Hungary
- Goodman, T. United Kingdom
- Khandelwal, K.C. India
- Khanh, T.Q. Germany
- Krüger, U. Germany
- Mahidharla, J. India
- Ohno, Y. USA
- Pan, J. China
- Pietrzykowski, J. Poland
- Rattunde, R. Germany (Chair)
- Saito, I. Japan
- Sauter, G. Germany
- Schanda, J. Hungary
- Shitomi, H. Japan
- Sperling, A. Germany
- Steudtner, W. Germany
- Stolyarevskaya, R. Russia
- Ulrich, H.G. Germany
- Vandermeersch, G. Belgium
- Vukadin, R. Serbia
- Gan, X. Singapore
- Young, R. United Kingdom