

MEDIA RELEASE

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Global Lighting Association Publishes Extended Version of Colour Rendering Index

The Global Lighting Association (GLA) has recently published a method, based on the well-established Colour Rendering Index system, to more completely characterise differences in colour rendition between white-light sources.

The colour rendering index (CRI), as defined in CIE publication 13.3, is widely adopted and used by the lighting industry, in regulatory documents and in international and regional standards and specifications. The general CRI, R_a , represents an average shift in colour appearance for a set of eight test-colour samples under a test light source in comparison to a reference illuminant. However, R_a does not provide information on the direction of the colour shifts. Hence the appearance of object colours, illuminated under light sources with identical R_a -values, can vary.

The recent publication is related to GLA's Position Statement on Colour Rendering Index (18 September 2015) and describes the procedure for an accurate calculation of the colour rendering indices (CRI), R_a and R_i , as well as associated CRI-based colour rendition properties that can be used in conjunction with R_a and R_i . These properties, a colour gamut index (G_a), chroma indices (C_i), hue-angle changes (Dh_i), and a colour-shift graphic provide, together with CRI, a more complete description of the colour shifts for the test-colour samples used in CRI.

Two documents may be found at

<http://www.globallightingassociation.org/library>

- The document *Application of CIE 13.3-1995 with Associated CRI-based Colour Rendition Properties* describes the procedures for calculating the index values.
- The Excel tool *GLA Calculation Tool for CIE 13.3-1995 CRI and Associated CRI-based Colour Rendition Properties* may be downloaded to calculate the index values.

Disclaimer

In addition to the method described in this publication, other methods have been proposed to augment colour fidelity with gamut area, chroma and/or hue metrics, including IES TM-30. The GLA does not prescribe mandatory use of any method. The properties described in this document are provided for evaluation and voluntary usage by members of the lighting industry and other interested parties. This publication can serve as input for a future global colour rendition standard.