

Seminar

ASSESSING LIGHTING METRICS

Conveners: Boyce, P.R.¹ and Veitch, J.A.²

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Summary

A metric is a well-defined measure that a designer can use to evaluate a design and that a researcher can use to characterise light exposures. Metrics must:

- be quantitative;
- have established application criteria attached;
- be calculable during design.

In addition, they should ideally be measurable after installation.

For many years the most common metrics used for indoor lighting have been the illuminance on the task, illuminance uniformity, colour rendering index and unified glare rating. Today, there are other metrics being proposed, some evolutionary such as those related to colour fidelity and preference, and some revolutionary, like mean room surface exitance and the universal lumen. The purpose of this seminar is not to add to the list of proposed new metrics but rather to examine what is required for a new metric to be adopted. This question will be addressed by representatives of those who assess a metric's validity from the photometry and applied research perspective and those who are concerned with its utility, from the design and application perspective. The outcome will be a better understanding of what it takes to create a good metric for lighting practice.

The panellists will be:

- Peter Boyce, who will summarize the range of new metrics proposed.
- Peter Blattner, Division 2 Director, who will speak on how metrology supports lighting metrics.
- Jennifer Veitch, Chair of CIE TC 3-34, who will speak about how we use metrics to communicate about the lit environment.
- Naomi Miller, lighting designer and former Chair of the IES Quality of the Visual Environment committee, who will speak about how lighting metrics inform lighting design.
- Peter Dehoff, Director of Standards and Professional Associations at Zumtobel Lighting, who will speak about how lighting metrics are used in standards and their influence on the industry.

There will be ample time for questions and discussion.