

CIE Division 3: Interior Environment and Lighting Design



TEKNILLINEN KORKEAKOULU
Elekroniikan laitos
Valaistusyksikkö

Liisa Halonen/Marjukka Puolakka
19.8.2009

CIE Div3: Tavoitteet



Division 3: Interior Environment and Lighting Design

The division 3 of the CIE is concerned with factors which influence the satisfaction of the occupants of a building with their environment, including the effects of both daylighting and electric lighting.

Its objectives are to study and evaluate those factors to provide guidance on relevant design criteria, to study design techniques (including relevant calculations) for the interior lighting of buildings, to incorporate the findings and those of other CIE divisions into lighting guides for interiors in general or of particular types.

CIE Div 3



Division 3: Interior Environment and Lighting Design

Director: Jan Ejhed (Sweden)

Associate Director for Natural Lighting:
Dominique Dumortier (France)

Associate Director for Artificial Lighting:
Y Nakamura (Japan)

Secretary: Jennifer Veitch (Canada)

Editor: P Thorns (UK)

CIE Div3: Tekniset komiteat

| TC# | Title | Chairman | Start | End? | Product |
|--------------------------------|--|---------------------------------------|-------|------|------------------|
| <u>TC3-25</u> | Coordination and development of the IDMP and its data | <u>D. Dumortier</u> | 1991 | 20-- | Web Server |
| <u>TC3-34</u> | Protocols for Describing Lighting | <u>J. Veitch</u> | 1999 | 2009 | Guide |
| <u>TC3-36</u> | The Use of Satellite Images to Derive Daylight Data | <u>D. Dumortier</u> | 2000 | 2010 | Standard |
| <u>TC3-37</u> | Guide for the Application of the CIE General Sky | <u>D. Dumortier</u> | 2000 | 2007 | Guide |
| <u>TC 3-39</u> | Discomfort Glare from Daylight in Buildings | <u>W. Osterhaus</u> | 2002 | 2009 | Guide |
| <u>TC 3-43</u> | Determination of Discomfort Glare | <u>L. Bedocs</u> | 2006 | 2010 | Guide |
| <u>TC 3-44</u> | Lighting for Older People and People with Visual Impairment in Buildings | <u>G. Cook</u> | 2006 | 2010 | Guide |
| <u>TC 3-45</u> | Luminance Based Design Approach | <u>Y. Nakamura</u> | 2007 | 2010 | Guide |
| <u>TC 3-46</u> | Research Roadmap for Healthful Interior Lighting Applications | <u>J. Veitch</u> | 2007 | 2011 | Technical Report |
| <u>TC 3-47</u> | Climate-Based Daylight Modelling | <u>J. Mardaljevic</u> | New ! | 2011 | Technical Report |
| <u>TC 3-48</u> | CIE standard method of UF table calculation for indoor luminaires | <u>P. Thorns</u> | New ! | 2011 | Standard |

CIE Div3: Raportoinnit

| R# | Title | Reporter | Start | End? | Product |
|------------------------------|---|---------------------------------------|-------|------|---------|
| <u>R3-23</u> | Lighting Control and Energy Efficiency | <u>P. Dehoff</u> | 2004 | 200? | Review |
| <u>R3-24</u> | Overhead Glare | <u>I. Mc Gowan</u> | 2004 | 200? | Review |
| <u>R3-26</u> | Climate Based Daylight Analysis | <u>J. Mardaljevic</u> | 2005 | 2008 | Report |
| <u>R3-28</u> | The Lighting Requirements for Night-Shift Workers | <u>M. Knoop</u> | 2007 | 2009 | Report |

CIE DIV3: Julkaisut 2004-

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|-----|---|--------------------|
| 157 | Control of damage to museum objects by optical radiation | 2004 3 901 906 274 |
| 161 | Lighting design methods for obstructed interiors | 2004 3 901 906 320 |
| 164 | Hollow light guide technology and applications | 2005 3 901 906 38X |
| 171 | Test cases to assess the accuracy of lighting computer programs | 2006 3 901 906 479 |
| 173 | Tubular daylight guidance systems | 2006 3 901 906 495 |

CIE statement on Energy

ENERGY CONSERVATION REQUIRES SMART LIGHTING

A worldwide consensus is evolving to reduce electrical energy consumption because of concerns about global climate change.

Recognizing that lighting consumes substantial energy, the International Commission on Illumination (the CIE) which held its XXVIth Session in Beijing, China 4-11 July 2007, called for a *worldwide effort to reduce energy consumed for lighting*.

This is possible through intelligent use of new technology and a scientific understanding of the varied human needs for different types of lighting in different settings. A more efficient use of daylight augmented with the use of more efficient lamps and the latest lighting technology now enable us to *save energy without sacrificing good lighting*.

CIE Div3: Tavoitteet

Div3 kokous 1.6.2009 Budapest:

'We need to move in future more to address *energy-efficiency* and *lighting quality*, keeping this at general level rather than being technology-specific (i.e., not SSL or LEDs per se).
... promoting the integration of *lighting control systems* and *daylighting in buildings*, together with electric lighting.'

Div3: Seuraava kokous



Lighting Quality & Energy Efficiency

March 14–17, 2010
Vienna, Austria