



IEA 4E SSLC Platform International Lighting Seminar: Metrology, Lifetime, Health and Smart Sustainable Lighting

Tuesday, 14th May 2024

Arrival from 13:30 for 14:00 start

Programme ends 17:30, networking reception until 18:30

Online participation also offered

*Senate Room, Senate House, University College London,
Malet Street, London, WC1E 7HU*

LED lighting continues to expand its market share, taking over conventional technologies in all end-use applications, yet challenges and opportunities relating to lighting remain. This International Lighting Seminar brings together Experts from the IEA 4E SSLC Platform to present their latest work on a range of topics including a new Interlaboratory Comparison on Temporal Light Modulation (commonly known as flicker); research into new test methods and metrics; a literature review of health effects associated with lighting; the opportunity and impact on energy consumption of smart lighting; and a recent life-cycle assessment comparing linear fluorescent lamps and LED tubes. The SSLC Platform is offering this free half-day seminar – both on-line and in-person at the University College London campus – to anyone interested. Please [register here](#).

*Moderators: Prof Georges Zissis, Chair, IEA 4E SSLC Platform, La Place University Toulouse
Nils Borg, Manager, IEA 4E SSLC Platform, Stockholm, Sweden*

Note: There will be a short Q&A after each presentation.

13h30 *Arrival and coffee / tea / soft drink*

14h00 **Welcome and IEA 4E SSLC Platform Overview**
Nils Borg, Manager, IEA 4E SSLC Platform, Sweden

- *Welcome and introduction to the SSLC Platform*
- *A link between policy standards, testing and requirements*
- *Overview of work and activities*
- *Energy Savings Potential of Lighting Systems and Controls*

14h15 **Interlaboratory Comparison 2023**
Dr Yoshi Ohno, NIST Fellow, National Institute of Standards and Technology, USA

- *Purpose of IC 2023*
- *Findings of Nucleus Lab Comparison*
- *Progress on Participant Testing and Reporting*
- *Issues Identified and Data Being Prepared for Standardisation Community*

- 14h45** **Improvements in Test Methods and Metrics**
Carsten Dam-Hansen, DTU, Denmark; Steve Coyne, Light Naturally, Australia
- Test of Temporal Light Modulation (TLM)
 - Influence of power supply selection on flicker metric P_{st}^{LM}
 - Stroboscopic effect SVM calculation: current approach and potential improvements
 - Standard test options for determining lifetime
 - Impact of long-duration switching
 - Research involving accelerated aging and pulse/soak testing at elevated temperatures and comparison to standard test method
- 15h40 Coffee / tea / soft drink break with light snacks
- 16h00** **Solid-State Lighting: Review of Health Effects**
Christophe Martinsons, CSTB, France
- Overview of new Lighting and Health report
 - Photobiological safety, glare, circadian effects, acute neuro-behavioural effects, temporal light modulation and long-term effects
 - Conclusions and recommendations
- 16h30** **Advanced Smart Lighting must also be Energy Smart**
Casper Kofod, Director, Energy Piano, Denmark
- Smart Lighting trends, barriers and potential
 - SSL Annex Second Report on Smart Lighting – findings
 - Performance when dimming and/or changing colour temperature
 - Regulation and Standards from IEC/CIE – need for characterisation
 - Recommendations for the future including integrating with controls
- 17h00** **LED Linear Lamp Life-Cycle Assessment**
Michael Scholand, Deputy Manager, SSLC Platform, UK
- Life-Cycle Assessment overview
 - Key findings and comparison with baseline fluorescent lamps
 - Conclusions and recommendations
- 17h25** **Thanks and closing remarks**
Prof Georges Zissis, Chair, IEA 4E SSLC Platform, La Place University Toulouse
- 17h30** **Evening networking reception – wine and light snacks**
All participants are invited to stay and meet the speakers / network with colleagues
- 18h30 *End of evening reception*