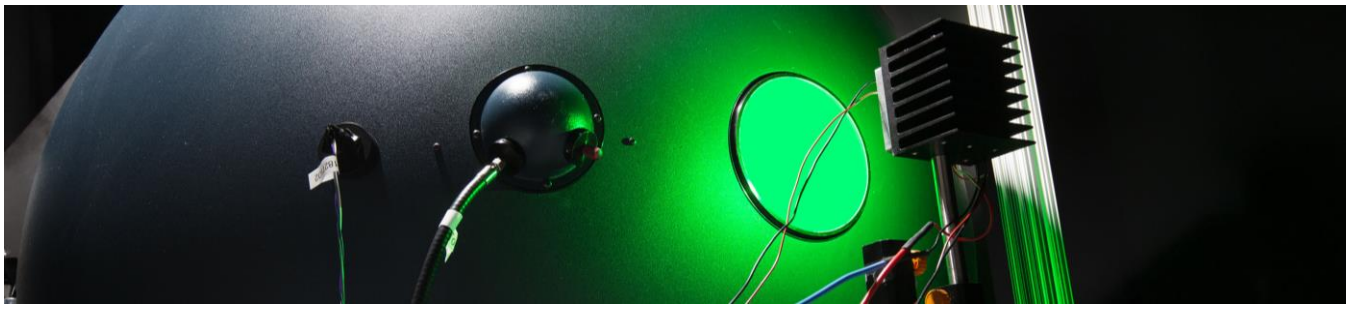
Future Photometry Based on Solid-State Lighting Products

INVITATION
EMPIR PhotoLED - Stakeholder training
28 August, 2019



The stakeholder training aims to improve the knowledge of laboratory staff working in photometric and radiometric laboratories in the field of calibration and testing devices that emit light primarily in the visible range. The training will include lectures concerning the newly developed calibration devices based on LEDs and demonstrations of their use in a testing laboratory, practical exercises in laboratories and estimation of measurement uncertainties. The training will comprise of one day with a combination of lectures and practical sessions.

Who should attend:
Laboratory staff dealing with calibration and testing of lighting devices.
Participants are expected to have basic knowledge in the field of lighting metrology.

Event location:
DTU Fotonik, Technical University of Denmark
Frederiksborgvej 399, Building 130, Room 153
4000 Roskilde, Denmark
Local organizer: Dr. Anders Thorseth (andt@fotonik.dtu.dk)

Notice: The maximum number of participants is limited to 20 due to the size and number of laboratory rooms available at DTU. Registration for the event is free of charge. However, a no-show fee of 200 € will be charged, if a person does not arrive to the training event.

8:45 – 12:30 Morning session (Tutorial)

8:45 – 9:15 Registration at DTU - Lobby

9:15 Welcome words (A. Thorseth, DTU & M. Smid, CMI)

9:30 – 9:45 Introduction round of participants

9:45 – 10:00 PhotoLED project presentation (T. Poikonen, VTT)

Technical presentations (20 min + 10 min for questions)

10:00 – 10:30 Luminous intensity LED standard lamps, LIS-A (T. Gerloff, PTB)

10:30 – 11:00 Luminous flux LED standard lamps, (P. Dekker, VSL & S. Källberg, RISE)

11:00 – 11:30 Coffee Break

11:30 – 12:00 Illuminance measurement of white LED sources using PQED (M. Smid, CMI)

12:00 – 12:30 Fishey camera method for angular intensity measurement (A. Kokka, Aalto)

12:30 – 13:30 Lunch Break

13:30 – 17:00 Afternoon session (Laboratory work)

13:30 – 13:45 Forming of groups for laboratory session:

Group 1: 'Luminous intensity'

-LED standard lamps for luminous intensity, operation and use in calibrations (T. Gerloff, PTB)
-Illuminance measurement with filtered and unfiltered detectors (M. Smid, CMI)

Group 2: 'Luminous flux'

-LED standard lamps for luminous flux, AC / DC operated (S. Källberg, RISE)
-Sphere calibration and fisheye camera method (A. Kokka, Aalto)

Group 3: 'Goniophotometer'

-Luminous flux LED transfer standard lamps, AC / DC (A. Thorseth, DTU & P. Dekker, VSL)

-Comparison of angular intensity distributions between goniophotometer and fisheye method

Groups rotate between rooms, 45 min per room.

13:45 – 14:30 Laboratory slot 1

14:30 – 15:15 Laboratory slot 2

15:15 – 15:45 Coffee Break

15:45 – 16:30 Laboratory slot 3

16:30 – 17:00 Final discussion and feedback (A. Thorseth, DTU & M. Smid, CMI)

17:00 End of the training day

Visit: http://photoled.aalto.fi