



International Commission on Illumination  
Commission Internationale de l'Eclairage  
Internationale Beleuchtungskommission



**CIE Tutorial and Practical Workshop on LED Lamp and Luminaire  
Testing to CIE S 025  
Nov 05 – 07, 2018, Moscow**

**Programme** (subject to change)

Monday, Nov 5, 2018 , Holiday Inn Moscow Sushevsky, Sushevsky Val 74 Moscow		
09:15 - 09:30	<i>Registration &amp; Coffee</i>	
09:30 – 09:40	Welcome by the host / CIE	
09:40 – 10:10	International Standardization of lighting and lighting - what is a standard? - International standard organizations, CIE, ISO, IEC, CEN,... - legal requirements (example Europe)	Peter Blattner
10:10 – 11:00	Basic Concepts of Photometry: - $v(\lambda)$ , - quality of photometric instruments - distance law - goniophotometry - flux integration	tbd
11:00 – 11:20	<i>Coffee break</i>	
11:20 – 11:40	Metrology - traceability, calibration,	
11:40 – 12:30	Introduction of CIE S025 –part 1	Tony Bergen
12:30 – 13:30	<i>Lunch break</i>	
13:30 – 14:30	Introduction of CIE S025 –part 2	Anders Thorseth
14:30 – 14:50	<i>Tea break</i>	
14:50 – 15:30	Spectroradiometry	Ralf Zuber/Peter Sperfeld
15:30 – 17:00	Introduction to measurement uncertainty	Nebjamin Ruggaber

Tuesday, Nov 6, 2018 , VNISI – Laboratories, 1-st Rizhskiy per, bld.6				
08:45 – 09:00	<i>Welcome at VNISI, a bus from the Holiday Inn Hotel</i>			
9:00 – 10:30	Lab 1: Group A	Lab 2: Group B	Lab 3: Group C	Lab 4: Group D
10:30 – 11:00	<i>Coffee break</i>			
11:00 – 12:30	Lab 1: Group B	Lab 2: Group C	Lab 3: Group D	Lab 4: Group A
12:30 – 13:30	<i>Lunch break</i>			
13:30 – 15:00	Lab 1: Group C	Lab 2: Group D	Lab 3: Group A	Lab 4: Group B
15:00 – 15:30	<i>Tea break</i>			
15:30 – 17:00	Lab 1: Group D	Lab 2: Group A	Lab 3: Group B	Lab 4: Group C

Lab 1: Goniophotometry: Andreas Thorsen/Tony Bergen

Lab 2: Integrating sphere: Nathalie Leise/Yoshi Ohno

Lab 3: Spectroradiometry: Ralf Zuber/Peter Sperfeld

Lab 4: Computer Simulations (using Excel): Benjamin Rugger/Peter Blattner

Wednesday, Nov 7, 2018 , Interlight Moscow powered by Light+Building, 14, Krasnopresnenskaya nab., Moscow		
09:00 – 10:00	A bus from the Holiday Inn Hotel	Julia Glorio
10:15 – 10:45	Electrical measurements	Tony Bergen/ Andreas Thorsen
10:45 – 11:15	Measurements of colour quality	Yoshi Ohno/Peter Blattner
11:15 – 11:45	Review, feedback, questions and answers	Tony Bergen
11:45 – 12:15	<i>Coffee break</i>	
12:15 – 13:15	Optical primary realization & Traceability	VNIIOFI
13:15 – 13:45	<i>CIE Activities, Closure &amp; Group picture</i>	Peter Blattner
13:45 – 14:15	Lunch Break	
Afternoon	Group tour on Interlight Moscow powered by Light+Building	