Solid-state lighting, which uses light-emitting diodes (LEDs), is globally replacing traditional incandescent lighting, due to lower power consumption and greater durability. Photometers are used to measure the performance of lights, and are calibrated using standard lamps to ensure the accuracy and consistency of measurements. However, the standard lamps used for calibration are currently based on incandescent lights, not LEDs. This project will develop new standard lamps based on LEDs and new measurement techniques for defining the properties of solid-state lights. The results will be used by National Measurement Institutes and test laboratories to accurately calibrate solid-state light photometers and will give European industry an advantage in the development of new commercial standard lamps. These outputs will result in a more reliable classification of the energy efficiency of solid-state lighting, increasing consumer confidence in this new greener technology.

Thorseth, A., Project Participant, Department of Photonics Engineering, Diode Lasers and LED Systems
Lindén, J., Project Participant, Department of Photonics Engineering, Diode Lasers and LED Systems
Dam-Hansen, C., Project Participant, Department of Photonics Engineering, Diode Lasers and LED Systems
Corell, D. D., Project Participant, Department of Photonics Engineering, Diode Lasers and LED Systems

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