

Tuning the Spectrum for Health and Productivity



DOE SSL Workshop – Portland OR

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Moderator, Naomi J Miller, Senior Scientist, PNNL

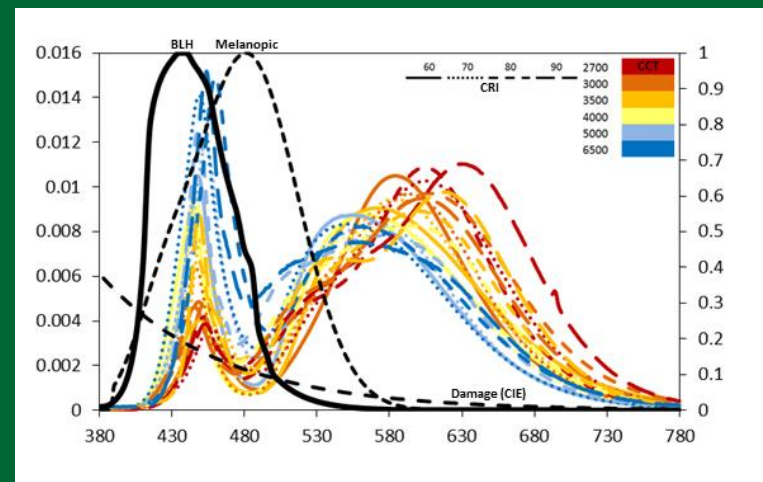
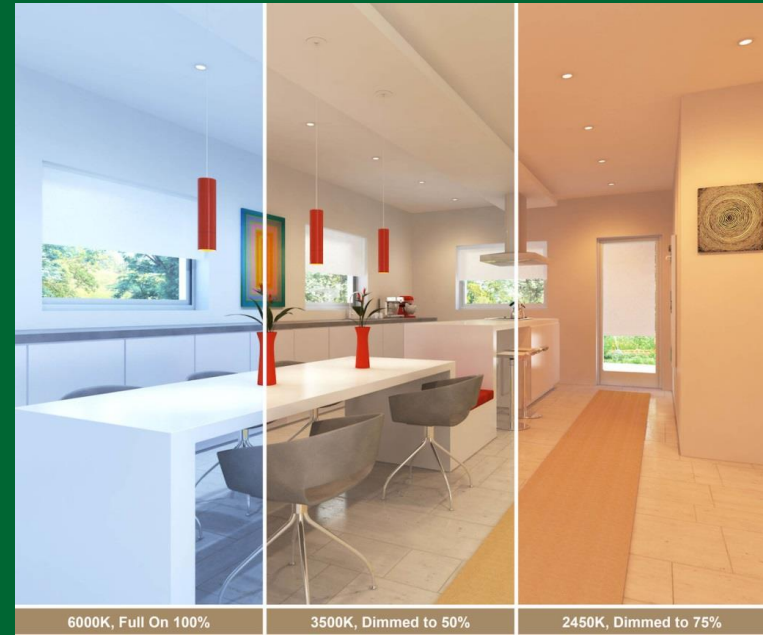
Dr. George Brainard
Jefferson Medical College
Philadelphia PA, USA

Dr. Stephan Völker
Berlin Institute of Technology
Berlin, Germany

Tuning the spectrum

LEDs offer an opportunity to customize the spectrum

- Proliferation of information on human circadian systems and the sensitivity of the photoreceptors that send signals to the central brain
- Color tunable luminaires are being promoted for health, productivity, mood, and fun
- Claims of increased alertness, improved sleep, slowing of dementia symptoms...
- Factors in circadian health include light spectrum, intensity at the eye, timing and duration of light exposure and its spatial distribution, and individual characteristics.



Our speakers

- Dr. George Brainard
- Dr. Stephan Völker



Image courtesy Finelite Lighting

Time for questions!

Dr. George Brainard, Director of Light Research
Program, Jefferson Medical College,
Philadelphia PA, USA

Dr. Stephan Völker, Chair of Lighting Technology,
Berlin Institute of Technology, Berlin, Germany