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Description:	By: James Benya, PE, FIES, FIALD, Benya Burnett Consultancy, Consultant to Noresco and CEC Staff
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2019 Nonresidential Lighting General Issues

James Benya, PE, FIES, FIALD

BENYA BURNETT CONSULTANCY

Consultant to Noresco and CEC Staff

Pre-Rulemaking Workshop

Hearing Room A

June 22, 2017

Acknowledgments

The following topics were raised as a result of project work by a combination of Energy Commission staff, stakeholders including Statewide Utility Codes and Standards Team (CASE Team), the California Energy Alliance (CEA), and input from individual stakeholders and other contributors.

Modernizing and Simplifying the Standard – at the same time

Modernizing

- Impact of LEDs
- Smart lighting, controls and the world of IoT and big data
- New power systems
- Demand response and grid stability

Simplifying

- Straightforward language
- Reduced complexity such as exceptions and alternatives
- Clear formulas and calculations

Seeking Stakeholder Input

- Legacy lighting and socket issues. Is it about time to embrace all lighting as LED?
- Unique (and changing) IES Recommended Practices
- Extremely low lighting maintenance
- New configurations and luminaire types
- New power systems
  - Power Over Ethernet (POE)
  - Distributed DC power systems

Seeking Stakeholder Input

How to accommodate

- White Color Tuning
- Color Changing
- “Circadian”, “Human Centric” and the Well Standard for lighting
- All of the above indoors and/or outdoors

Seeking Stakeholder Input

How to accommodate

- Facilities for an aging population
- IES recommendations by age group
  - 0-25 years 250 lux
  - 25-65 years 500 lux
  - 65-older 1000 lux
- Health Care facilities of all kinds – no experience, very complex

Seeking Stakeholder Input

How to accommodate

- IES TM-30-15 (color system)
- Low CRI 70 min
- Avg CRI 80 min
- High CRI 90 min
- Very high CRI 95+ with R9>50
- Cyanosis Observation Index (COI) for health care facilities

Seeking Stakeholder Input

How to accommodate

- Network lighting controls
- Inherent real time energy and power measurement
- Demand response
- Net Stability
- Big Data

Seeking Stakeholder Input

How to accommodate

- The ready availability of very cost effective LED “lamps” with conventional sockets
- Wattage ratings of luminaires with medium Edison (E26/E27) screw bases
- And for that matter, legacy sockets of all kinds

Seeking Stakeholder Input

How to accommodate

- No standard wattage or lumen product "sizes" anymore.
- Rapid changes in efficacy cause constant change in product watts.

Submitting Comments

- By COB July 14, 2017

- Contact Information

James Benya
jbenya@benyaburnett.com

Questions?