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Docket Number:	17-BSTD-02
Project Title:	2019 Title 24, Part 6, Building Energy Efficiency Standards Rulemaking
TN #:	223395
Document Title:	International Association of Lighting Designers Comments Concerns on JA8
Description:	N/A
Filer:	System
Organization:	International Association of Lighting Designers
Submitter Role:	Public
Submission Date:	5/8/2018 2:43:14 PM
Docketed Date:	5/7/2018

Comment Received From: International Association of Lighting Designers

Submitted On: 5/8/2018

Docket Number: 17-BSTD-02

Concerns on JA8

Additional submitted attachment is included below.

The International Association of Lighting Designers (IALD) is an internationally recognized organization dedicated to the concerns of independent, professional lighting designers. The association is comprised of 1,400 members and can be found in over 50 countries. While no region or group of members is prioritized more than others, the 152 lighting designers in California set a standard of exemplary dedication and engagement to the organization that helps make IALD hold a position of distinction and authority in the lighting design profession.

This excellence is in part due to support from groups like the California Energy Commission. The Commission's acknowledgement that electric energy is essential to the health, safety, and well-being of constituents operating in the built environment helps to support lighting designers, and mirrors IALD's belief in lighting quality. The IALD appreciates the leadership that the California Energy Commission extends throughout the state and acknowledges the careful consideration that each Commissioner takes while writing and enforcing policy that affects our members.

We write today to express concern over aspects of JA8 which concern lighting and light fixtures in residential applications. It has quite recently become apparent that some provisions of JA8 that were adopted for the 2016 version of Title 24 are not working well in practice. These issues include, but are not limited to, the following:

- In general, we observe that JA8 requirements are unnecessary for LED lighting because do not save energy they add cost for products and the use of non-complying color quality requirements continues to grow anyway. The original reason for color requirements was to avoid the consumer

rejection that occurred with CFL lamps, but no such consumer rejection has occurred.

- Inspecting authorities in several sampled municipalities admit that while they look for high efficacy lighting, checking the JA8 requirement in the field is time consuming and not cost effective for inspectors.
- The requirements for manufacturers to submit JA8 compliance data should be deleted. Only manufacturers with high volume products are currently submitting; it is expensive (about \$2500 per luminaire per test, and the test is specific to only one combination of luminaire, light source and driver), and time consuming. Manufacturers often conclude it is not worth the cost. This artificially limits the marketplace, prevents the use of evolving, high quality low volume products, and adds cost unnecessarily. Examples include color tuning lighting and dim-warm lighting, which are growing rapidly in popularity but will not be allowed per JA8. In other words, the code is not evolving as rapidly as energy-efficient products and methods are being made available, and California is therefore actually missing opportunities for greater energy efficiency accompanied by improved lighting quality. and given its long time between development and use in construction, this particular set of requirements (JA8) is doomed to be obsolete when it goes into effect.
- If color requirements remain, they can be field measured. Field measurement would eliminate the added costs of products, documentation requirements for permit applicants and the enforcement of the JA8 standards.
- If color requirements remain, they should be changed to allow standard 80+ CRI light sources to be used in all utility, non-living space locations including, but not limited to, garages, laundry rooms, closets, hallways, passageways, basements, attics, breezeways, storage rooms, etc. Requiring high CRI luminaires in these spaces adds cost and reduces energy efficiency.
- There is no need to require insulated ceiling luminaires where not required by California Title 24 Part 3. This part of the code is dated, no longer

consistent with the ratings of modern luminaires using LEDs for which an airtight non-IC luminaire meets the electrical code and provides the seal for which the IC luminaires were originally required. This adds unnecessary cost and negatively affects the ability to remodel lighting during renovations.

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- Requiring dimming for LED lighting is not cost effective. With typical indoor luminaires now operating at 15 watts or less, for the average residential application where the luminaire operates about 750 hours per year, the energy savings of a dimmer assuming 7.5 watts average power is about 5.6 kWh per luminaire per year. At PG&E's typical residential 2018 rate of \$0.22, the avoided energy cost per year is \$1.23. The cost of a switch at Home Depot is \$1.00 and an SSL7A compliant dimmer \$24.95 (not including tax or installation). This means that the dimmer will pay back in about 19.47 years.

The IALD recognizes that these concerns are being raised late in the process of consideration of the 2019 amendments. Nevertheless, we request that the commission recognize the importance of these issues and take immediate steps to implement these practical and energy efficient proposals.