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**Lutron Electronics Co, Inc Comments on the 2022 Title 24 Part 6
Building Energy Efficiency Standards 45-Day Express Terms**

Additional submitted attachment is included below.

June 18, 2021

Submitted via : <https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=21-BSTD-01>

Mr. Andrew McAllister
Commissioner
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

Re: Docket No. 21-BSTD-01

Lutron Electronics Co., Inc. Comments on the 2022 Title 24 Part 6 Building Energy Efficiency Standards 45-Day Express Terms

Dear Commissioner McAllister,

Thank you for the opportunity to review and provide comments on the 2022 Title 24 Part 6 45-Day Express Terms. These comments are submitted on behalf of Lutron Electronics Co., Inc.

As you may know, Lutron was founded in 1961 and is headquartered in Coopersburg, Pennsylvania. From dimmers for the home, to lighting management systems for entire buildings, the company offers more than 17,000 energy-saving products, sold in more than 100 countries around the world. In the U.S. alone, Lutron products save an estimated 10 billion kWh of electricity, or approximately \$1 billion in utility costs per year. The company's early inventions— including the first solid-state dimmer invented by Lutron's founder, Joel Spira—are now at the Smithsonian's National Museum of American History in Washington, DC.

Please find our detailed comments below. We look forward to working with you further on this important project. Please contact Michael Jouaneh at 610-282-5350 or mjouaneh@lutron.com if you have questions or would like more information on these comments. Thanks again for your consideration.

Respectfully submitted,



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The comments and suggested edits to the proposed 2022 Title 24 Part 6 45-Day Express Terms are shown below. The changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) to the draft language.

Subchapter 2-110

1. Section 110.12(c) Demand Responsive Lighting Controls.

Lutron comments: Change “general lighting power” to “design lighting power” to align with the [CASE report](#) on this topic.

Changes:

(c) **Demand Responsive Lighting Controls.** Nonresidential general lighting systems subject to the requirements of Section 130.1(b) with a ~~general~~ design lighting power of 4,000 watts or greater, shall have controls that are...

Subchapter 4-130

2. Section 130.1(a) Manual Area Controls.

Lutron comments: We support the change made to Section 130.1(a)3. This change clarifies how a lighting scene controller (e.g. keypad) can be used for compliance with this requirement. Projects, especially in retail applications, would rather not have separate wall controls for each type of lighting but rather one scene control with buttons that can independently control the general lighting from other lighting types. Our request of the Commission to allow this new explanatory language to be retroactive to the current Title 24 2019 as has been done before with lighting control requirements for alterations. This change is needed now so that projects don’t have to incur the unnecessary costs of installing unneeded manual wall controls when one scene control provides the necessary functionality to separately control general lighting form other lighting types (i.e. general, floor, display lighting...).

3. Section 130.1(c)6D Partial OFF occupant sensing controls are required for aisle ways and open area in warehouses, library book stack aisles, corridors and stairwells, and specified offices.

Lutron comments: Thank you for adding the clarification to section 130.1(c)6Dii to make it clear that turning lighting OFF in unoccupied control zones is also compliant.

4. Section 130.1(c)8

Lutron comments: Captive card key controls should not be considered an equivalent compliance option to occupant sensing or automatic controls in hotel guestrooms. Captive card key controls are a manual control (not automatic) that are easily and often bypassed thereby negating any

potential energy savings. If they are to remain as an option, then only permit them to comply in the smaller hotels/motels. The larger hotels should be required to use automatic guestroom controls that will guarantee the energy savings and provide guests with a more satisfactory experience.

Changes:

8. Hotel motel guest rooms shall be controlled with one of the following such that, no longer than 20 minutes after the guest room has been vacated, lighting power is switched off.

- ~~i. captive card key controls; or~~
- ii. occupant sensing controls; or
- iii. automatic controls.

EXCEPTION 1 to Section 130.1(c)8: One high efficacy luminaire as defined in TABLE 150.0-A that is switched separately and where the switch is located within 6 feet of the entry door.

EXCEPTION 2 to Section 130.1(c)8: Hotels with fewer than 50 guestrooms, shall be permitted to use captive card key controls to comply with this requirement.

Subchapter 7-150

5. Section 150.0(k)1C Recessed Downlight Luminaires in Ceilings.

Lutron comments: Strike 150.0(k)1Ci which prohibits screw-based sockets in recessed ceiling downlight luminaires. This prohibition is not needed anymore as lighting has become substantially more energy efficient per JA8 and standards such as Title 20, so users can't easily swap screw-based lamps out with less efficacious models. What's more is that recessed ceiling downlight luminaires with screw-based sockets are already obligated to use high efficacy lamps per 150.0(k)B which requires all screw-based luminaires to use Table 150.0-A qualifying lamps.

Changes:

C. **Recessed Downlight Luminaires in Ceilings.** In addition to complying with 150.0(k)1A, luminaires recessed into ceilings shall meet all of the following requirements:

- ~~i. Shall not contain screw base lamp sockets. [renumber ii, iii, and iv]~~

TABLE 150.0-A CLASSIFICATION OF HIGH LUMINOUS EFFICACY LIGHT SOURCES

10. All light sources installed in ceiling recessed downlight luminaires other than those specified in items 3, 4, or 5. ~~Note that ceiling recessed downlight luminaires shall not have screw base sockets regardless of lamp type as specified in Section 150.0(k)1C.~~

6. Section 150.0(k)2E Automatic Off Controls.

Lutron comments: The requirement to initially setup occupancy sensors to operate like a vacancy sensor should be removed since either occupancy sensors or vacancy sensors are permitted for compliance. They both save energy by automatically turning lights off when spaces are vacant. The spaces in the requirement are the utility spaces that customers prefer to use occupancy sensors in instead of vacancy sensors as occupancy sensors provide them the convenience of automatic on/off functionality. Vacancy sensors are preferred more in habitable living spaces. We urge the Commission to not force projects to initially setup less desirable functionality for these spaces. Additionally, the phrase “using the manual control required under Section 150.0(k)2A” is not needed since Section 150.0(k)2C already requires a readily accessible wall-mounted manual on/off control, no need to restate it here. Restating this requirement in Section 150.0(k)2E causes confusion as some interpret the language to mean that the manual control must be used to configure the occupancy sensor to manual-on. Thus, striking the last sentence allows for more user satisfaction and reduces confusion.

Changes:

- i. In bathrooms, garages, laundry rooms, utility rooms, and walk-in closets, at least one installed luminaire shall be controlled by an occupant or vacancy sensor providing automatic-off functionality. ~~If an occupant sensor is installed, it shall be initially configured to manual-on operation using the manual control required under Section 150.0(k)2A.~~

7. Section 150.0(k)2F Dimming Controls.

Lutron comments: Thank you for reducing the circuit wattage threshold to 20 watts for dimming controls and excepting spaces that use occupancy or vacancy sensors. The previous threshold of 50 watts would have been a backslide in energy efficiency and would have essentially eliminated the requirement. While we would have preferred no wattage threshold as done with Title 24 2019 and in previous versions of the Standard, we accept the 20-watt threshold.