

DOCKETED

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Philips Lighting Comments on 15-day Express Terms for 2019 Title 24

Additional submitted attachment is included below.



May 1, 2018

Submitted via website: <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=17-BSTD-02>

Mr. Andrew McAllister
Commissioner
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Docket No.: 17BSTD-02

Philips Lighting Comments on the 15-day Express Terms for the 2019 California Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6

Dear Commissioner McAllister,

Philips Lighting appreciates the opportunity to provide the attached comments on the 15-day Express Terms for the lighting provisions of the 2019 California Building Energy Efficiency Standards California Code of Regulations, Title 24, Part 6.

Philips Lighting is a global leader in lighting products, systems, and services. Our understanding of how lighting positively affects people coupled with our deep technological know-how enable us to deliver digital lighting innovations that unlock new business value, deliver rich user experiences, and help to improve lives. Serving professional and consumer markets, we sell more energy efficient LED lighting than any other company. We lead the industry in connected lighting systems and services, leveraging the Internet of Things to take light beyond illumination and transform homes, buildings, and urban spaces.

Please contact me if you have any questions about these comments.

Sincerely,

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Philips Lighting Comments on the 15-day Express Terms for the 2019 California Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6

General Comments

We thank the Energy Commission for improving the way of working with industry during the 2019 code cycle. We sincerely appreciate the willingness of Staff to dialogue with us on topics and concerns, and work through proposals. We are glad to be part of the process and to assist the Commission by sharing our insights and providing clarification on various lighting topics.

Section 100.0 Scope

We applaud the Energy Commission's decision to add clarifying language to 100.0(h) clearly stating that requirements for manufactured equipment, products, and devices, when not specified in Title 24 Part 6, may be found in Title 20, Sections 1601 – 1609. We believe that this language will be helpful for users who may be familiar with either the California Appliance Efficiency standards (Title 20) or the California Building Energy Efficiency Standards (Title 24) and not be familiar with both or the relationship between the two Standards.

Section 100.1 Definitions and Rules of Construction

We applaud the Energy Commission's efforts to align the language in Title 24 Part 6 to national Standards which improves ease of use and clarity for all users of the code. We thank the Commission for its recognition of the ANSI definition for 'driver' and incorporation into the Building Energy Efficiency Standards definition for 'driver'.

Section 110.9

We support the proposed changes in Section 110.9 that remove lighting control device references and requirements from the Building Energy Efficiency Standards. This content distinction clarifies the applicability of the Standards and improves usability. We applaud the inclusion of the URL to the Title 20 certification database in Section 110.1(b)1. as it will provide further help for users of the code.

Section 110.9(b)5

We'd like to bring the requirements for Part-Night Outdoor Lighting Controls in Sec 110.9(b)5 to the attention of Staff as we are concerned that there is some ambiguity in the language. The section reads such that part night outdoor lighting controls must have sunrise/sunset accuracy of +/- 15 min. using both light sensing and time measurement in 100.9(b)5A.

5. **Part-Night Outdoor Lighting Controls**, as defined in Section 100.1, shall meet all of the following requirements:
- A. Have sunrise and sunset prediction accuracy within +/- 15 minutes, ~~and timekeeping accuracy within five minutes per year~~ using both light sensing and time measurement; and
 - B. Have the ability to ~~setback~~ reduce or turn off lighting outdoor luminaire power at night as required in Section 130.2(c), ~~by means of a programmable timeclock or motion sensing device~~; and
 - C. ~~When controlled with a timeclock, shall be capable of being programmed~~ programmable to allow the setback ~~reduce or turning turn off of the lighting outdoor luminaire power to occur from~~ any time at night until any time in the morning, as determined by the user. Time-based scheduling control is allowed to be relative to both sunset and sunrise, and to the midpoint between sunset and sunrise.

Our understanding of the intent of the 'light sensing' requirement is for a photocell and timer to be wired with an automatic time switch so there is there is a way to turn on the lights in the case of darkness caused by a severe storm etc.

However, the phrasing "having sunrise and sunset prediction accuracy within +/- 15 minutes using both light sensing and time measurement" is confusing and inaccurate. It is not possible for a light sensor to have such accuracy due to factors such as location and shading by geographical features. Because of this, we highly recommend this language be reworded to indicate that only the time capability requirement includes prediction accuracy of +/- 15 min.

We propose the following language to replace 110.9(b)5A:

- A. In addition to light sensing, shall have time scheduling capability having sunrise and sunset prediction accuracy within +/- 15 minutes.

This is also directly relevant for 130.2(c)2 Automatic Scheduling Controls as (B.) describes the override function that would turn the lighting ON during its scheduled dim and off after no more than 2 hours in the override state.

Section 130.0(c)6 - PoE Lighting

We thank the Energy Commission for its consideration of power over ethernet (PoE) lighting systems and recognition of the growing usage of this new lighting innovation. We applaud the subsequent modification to the language of 130.0(c)6 which provides an exception for PoE lighting systems to subtract out the wattage of non-lighting equipment in calculating the lighting power.

Section 130.1(f) Controls interaction

We support the modifications made to this section in the 15-day language and believe these changes further clarify the interaction of lighting control functionalities in the code which will benefit all users.

130.2(b) Luminaire Cutoff Requirements



We thank the Commission for considering industry's comments on the luminaire cutoff requirements and increasing the threshold from 5,500 lumens to 6,200 lumens as a result.

However, we don't see a compelling reason to change the metric from power to luminous flux. Instead, we recommend that the use of power be reinstated as the metric for the threshold for BUG rating requirements and propose 75 W be set as the new threshold in the 2019 Standard. Moving the threshold from 150 W to 75 W will have the desired effect of increasing the stringency of the requirement and encouraging the use of fully shielded luminaires at lower wattages. Keeping the same metric will maintain simplicity and broad understandability of the code.

Section 140.6(a)4. Luminaire Classification and Power Adjustment

We continue to encourage the Energy Commission to broaden the space types in which the additional power allowance for tunable-white and dim-to-warm luminaires can be claimed even though these additional space types were not investigated in the CASE report on this topic. At a minimum, the additional power allowance should be available to designers of lighting for Patient Rooms, Office Areas, Classrooms, and Aging Eye/Low Vision spaces.

Creating engaging healthy spaces that increase occupant comfort and wellbeing is not limited to a few select healthcare space types and is not dependent or related to the aperture size of the luminaire. It is relevant to many applications and will be even more so when the 2019 Building Energy Efficiency Standards go into force in 2020.

Section 141.0 – Nonresidential, High-Rise Residential, and Hotel/Motel Occupancies – Additions, Alterations, and Repairs, Section 141.0(b)2I and Table 141.0-E

We commend the Energy Commission's decision to rewrite the code language for lighting alterations during this code cycle. We commend the adoption of the California Energy Alliance (CEA) CASE proposal on alterations including the exception for one-for-one luminaire alterations of up to 50 luminaires either per complete floor of the building or per complete tenant space, per annum.

Joint Appendix JA8

JA 8.4.2 Power Factor

We continue to urge the Energy Commission to align the power factor requirements in JA 8 with those of ENERGY STAR for clarity and consistency. ENERGY STAR allows a power factor of 0.70 for most lamps. Some lamps <10W may have a power factor of 0.6.

JA 8.4.4 Color Characteristics

We continue to oppose the mandate of CRI 90 and R9 of 50 for all low-rise residential applications. We seek to continue and revisit this dialogue in order to provide a more practical code which offers consumers additional choices based on preference.



JA 8.4. 6 Dimming, Reduced Flicker Operation and Audible Noise

We urge the Commission to reconsider its decision on NEMA 77 as a method for qualifying products to Title 24 JA8 alongside the JA10 test method. We think it would be more beneficial for Californians if the 2019 Building Energy Efficiency Standards acknowledged the important work done on TLA and allowed the option to use NEMA 77 now rather than to wait an entire code cycle. NEMA 77 is the most robust method we have to date, and it should be allowed in 2020. The dialogue on TLA will continue to evolve and grow over the coming years and can be revisited again in the 2022 code cycle.

Thank you for your consideration of Philips Lighting comments on the 15-day Express Terms for the 2019 California Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6.