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2019 Building Energy Efficiency Standards

SUBCHAPTER 4

Section 130.0

NONRESIDENTIAL, HIGH-RISE RESIDENTIAL, AND
HOTEL/MOTEL OCCUPANCIES—MANDATORY
REQUIREMENTS FOR LIGHTING SYSTEMS AND
EQUIPMENT, AND ELECTRICAL POWER
DISTRIBUTION SYSTEMS

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Pre Rulemaking Workshop



§ 130.0 – LIGHTING SYSTEMS AND EQUIPMENT, AND ELECTRICAL POWER DISTRIBUTION SYSTEM

Changes to Section 130.0:

- **Rewrote §130.0 for clarity**
- **Allowed recognition of lamp wattage** in §130.0(c)2. Installing efficient lamps now counts towards compliance
- **Updated track lighting to modular lighting systems** in §130.0(c)5 to account for new modular lighting approaches such as LED tape lighting and remote ballast systems



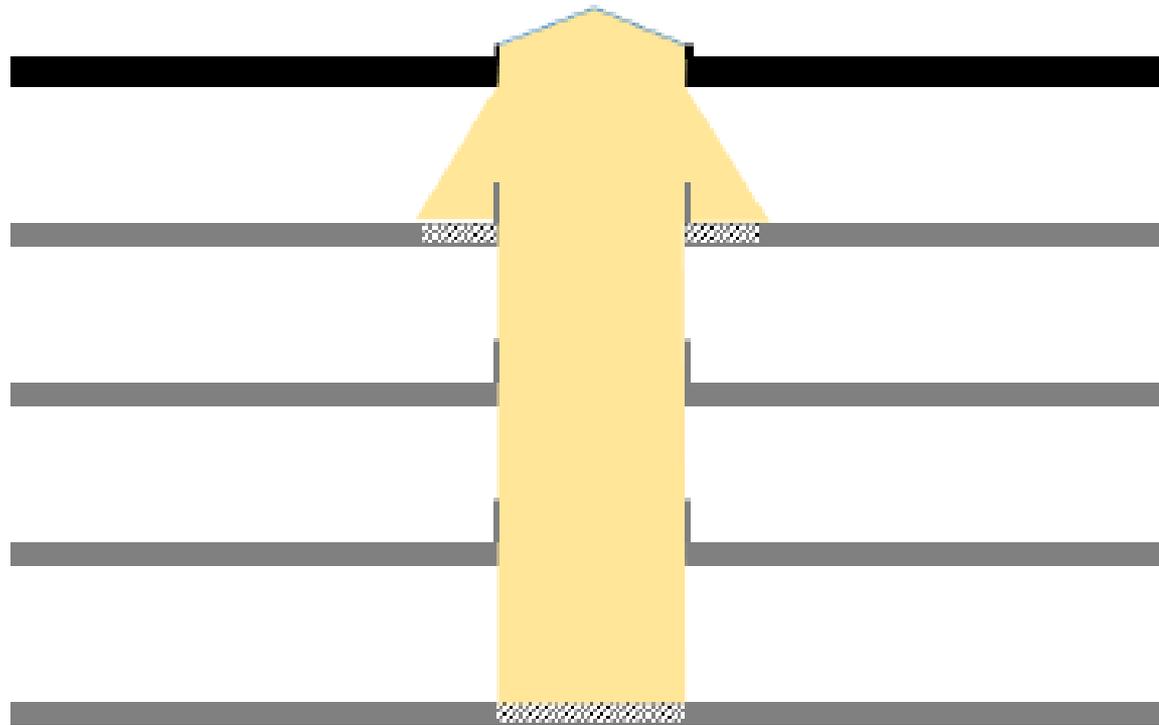
§ 130.1 –MANDATORY INDOOR LIGHTING CONTROLS

Changes to Section 130.1:

- **Rewrote §130.1(a) through (e) for clarity.**
- **Aligned Automatic Shutoff Requirements to Building Code §1008.**
This affects areas where partial-off behavior would be needed to satisfy both codes
- **Moved Demand Responsive (DR) Controls requirements to §110.12**
- **Added a new §130.1(f) to describe and clarify the expected interactions of lighting controls**
- **Added Occupancy Sensing for Restrooms in §130.1(c)3**
- **Clarified Daylighting requirements in §130.1(d) relating to overhangs and atrium spaces**



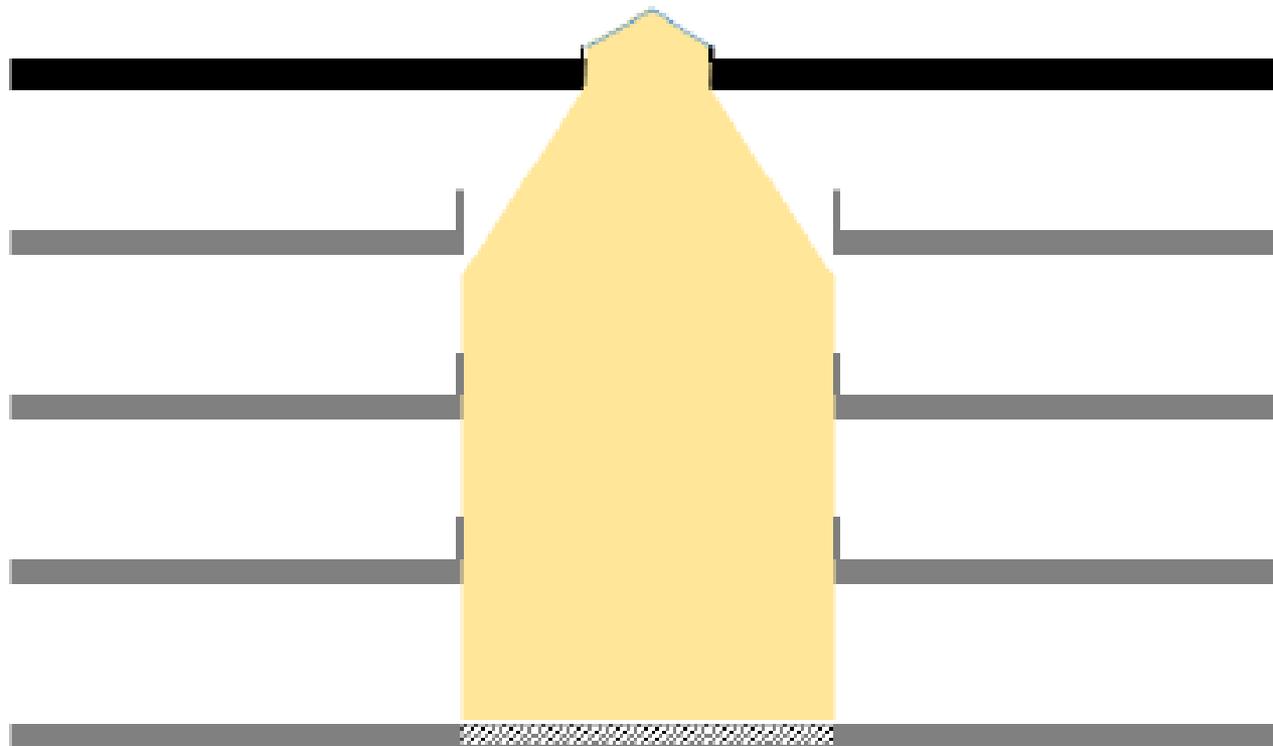
§ 130.1 –MANDATORY INDOOR LIGHTING CONTROLS



Skylit Daylit Zone



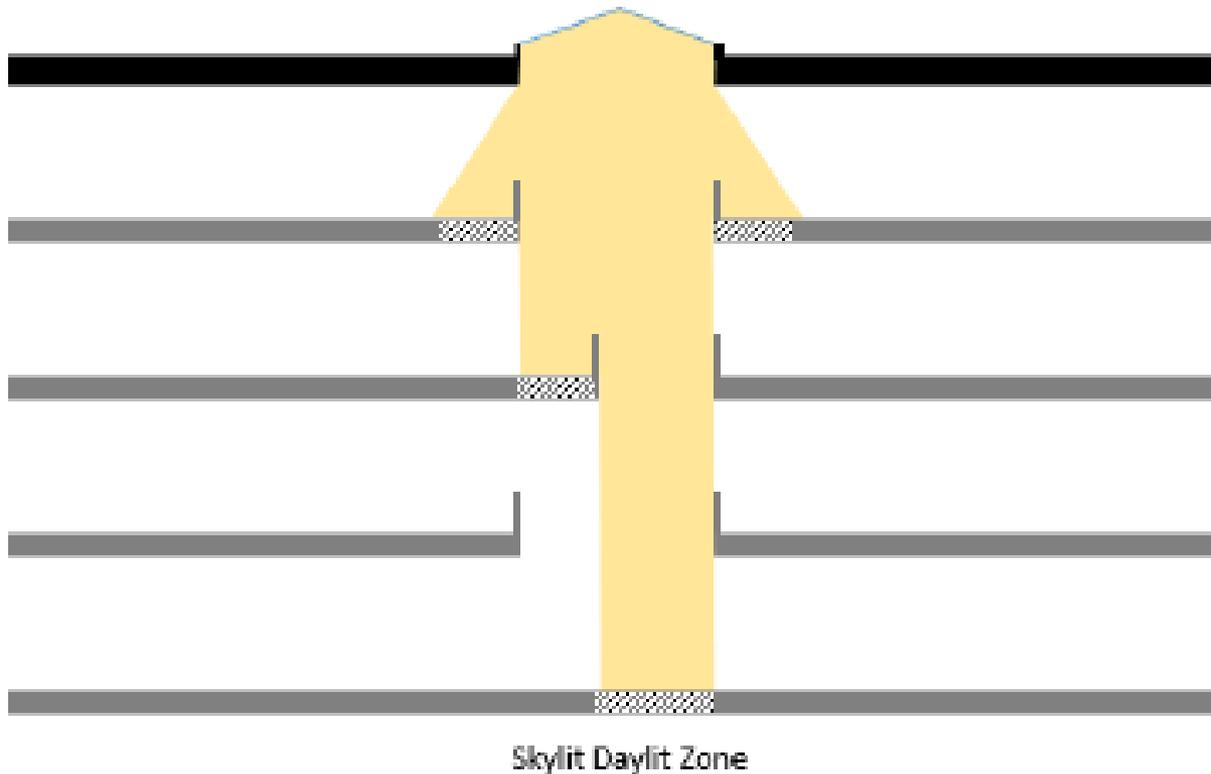
§ 130.1 –MANDATORY INDOOR LIGHTING CONTROLS



Skylit Daylit Zone



§ 130.1 –MANDATORY INDOOR LIGHTING CONTROLS





§130.2(c) Outdoor Lighting Controls

- **Delete subsection 130.2(a):** Motion sensor controls for legacy light source (incandescent)
- **Modify subsection 130.2(b):** Use reference to Part 11 for the outdoor luminaire BUG requirements – no substantive change
- **Modify subsection 130.2(c):** Consolidate and revise outdoor lighting requirements. Outdoor controls shall be capable of:
 - Turning OFF outdoor lighting when daylight is available
 - Dimming and/or turning OFF outdoor lighting during nighttime when the area is unoccupied (formerly “part-night” behavior), using automatic scheduling controls and/or motion sensor controls
 - Allowing override of automatic scheduling controls for up to two hours (consistent with indoor control requirements)



§130.2(c) Outdoor Lighting Controls

(c) **Controls for Outdoor Lighting.** Outdoor lighting controls shall be installed that meet the following requirements for reducing lighting when daylight is available and during normally scheduled unoccupied periods:

EXCEPTION 1 to Section 130.2(c): Outdoor lighting not permitted by a health or life safety statute, ordinance, or regulation to be turned OFF or dimmed.

EXCEPTION 2 to Section 130.2(c): Lighting in tunnels required to be illuminated 24 hours per day and 365 days per year.

1. **Daylight Availability.** All installed outdoor lighting shall be controlled by a photo control, astronomical time-switch control, automatic scheduling control, or other control capable of automatically shutting OFF the outdoor lighting when daylight is available.
2. **Unoccupied Periods.** All installed outdoor lighting shall be controlled by a control capable of reducing the outdoor lighting by at least 50 percent, or turning the lighting OFF, during normally scheduled unoccupied periods. This control shall be either an automatic scheduling control or an occupant sensing control, and shall include the following features:
 - A. For automatic scheduling controls, the control shall provide an override function that turns the lighting ON during its scheduled dim or OFF period for no more than 2 hours when an override is initiated.
 - B. For occupant sensing controls, no more than 800 watts of lighting shall be controlled by any single sensor, and the control shall return the lighting to its dim or OFF state no later than 15 minutes after the area has been vacated.



§130.4 Lighting Installation and Test

§130.4(b) Lighting Control Installation Certificate Requirements

- Removed §130.4(b)3 and 4 relating to certification requirements of line-voltage track lighting integral current limiters and supplementary overcurrent protection panels. Example products no longer need to be submitted to the Energy Commission, and manufacturers no longer have to certify product information, making the Sections redundant
- Acceptance testing is still required for systems using these components under §130.4(b)1
- We are interested in feedback on acceptance testing protocols for modular lighting systems that can be added to NA 7.7



§130.5 Electrical Power System

**Moved §130.5(e) Demand Responsive Controls and Equipment to
Section 110.12**



KEY WEB-LINK

2019 Title 24 Utility-Sponsored Stakeholder

<http://title24stakeholders.com/>

Building Energy Efficiency Program

<http://www.energy.ca.gov/title24/>

Comments to be submitted to

<https://efiling.energy.ca.gov/EComment/EComment.aspx?docketnumber=17-BSTD-01>



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