



January 7, 2015

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California Energy Commission

**DOCKETED**

**14-BSTD-01**

TN 74256

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Re: **Docket Number 14-BSTD-01 - 2016 Building Standards Update**

The American Architectural Manufacturers Association (AAMA), representing the largest coalition of skylight, sloped glazing, and tubular daylighting device product manufacturers in the United States, is supportive of the proposed 2016 minimum skylight area code change proposals as submitted within the [CASE Report to the California Energy Commission by the California Utilities Statewide Codes and Standards Team](#).

Specifically, AAMA supports and respectfully requests CEC consideration of the needed revisions to **Section 140.3 – Prescriptive Requirements for Building Envelopes**, as outlined below:

(c) **Minimum Daylighting Requirement for Large Enclosed Spaces.** In climate zones 2 through 15, conditioned enclosed spaces, and unconditioned enclosed spaces, that are greater than 5,000 ft<sup>2</sup> and that are directly under a roof with ceiling heights greater than 15 feet, shall meet the following requirements:

1. ~~A combined total of at~~ At least 75 percent of the floor area, as determined in building floor plan (drawings) view, shall be within one or more of the following areas in the space:
  - A. Areas within a horizontal distance of 0.5 window head heights from windows in the direction parallel to the windows and within one window head height perpendicular to windows. Primary Sidelight Daylight Zone in accordance with Section 130.1(d)1B, or
  - B. Areas within a horizontal distance of 0.7 times the average ceiling height from the edge of rough opening of skylights Skylit Daylit Zone in accordance with Section 130.1(d)1A.
2. All Skylit Daylit Zones and Primary Sidelit Daylit Zones shall be shown on building plans.
3. General lighting in daylit zones shall be controlled in accordance with Section 130.1(d).
4. The total skylight area is at least 3% of the total floor area in the space within a horizontal distance of 0.7 times the average ceiling height from the edge of rough opening of skylights; or the product of the total skylight area and the average skylight visible transmittance is no less than 1.5% of the total floor area in the space within a horizontal distance of 0.7 times the average ceiling height from the edge of rough opening of skylights.
4. ~~Skylights shall~~  
~~\_\_\_\_\_A~~
5. All skylights have ~~Have~~ a glazing material or diffuser that has a measured haze value greater than 90 percent, tested according to ASTM D1003 (notwithstanding its scope) or another test method approved by the Commission; ~~and~~
6. ~~B. If the space is conditioned, meet the requirements in~~ Skylights for conditioned and unconditioned spaces have an area-weighted average Visible Transmittance (VT) no less than the applicable value required by Section 140.3(a)6D.

**EXCEPTION 1 to Section 140.3(c):** Auditoriums, churches, movie theaters, museums, and refrigerated warehouses.

**EXCEPTION 2 to Section 140.3(c):** In buildings with unfinished interiors, future enclosed spaces for which there are plans to have:

- A. A floor area of less than or equal to 5,000 square feet; or
- B. Ceiling heights of less than or equal to 15 feet. This exception shall not be used for S-1 or S-2 (storage), or for F-1 or F-2 (factory) occupancies.

**EXCEPTION 3 to Section 140.3(c):** Enclosed spaces having a designed general lighting system with a lighting power density less than 0.5 watts per square foot.

In addition to our support of the code revisions specified above, we further ask the Commission to approve the following additional changes (highlighted within the text below) which appropriately clarifies the use of skylight "assemblies" as directed in Section 140.3; (c) sub-sections 5 and 6.

The necessary use of "assemblies" and "maximum" modifiers within the Title 24 Standards will allow for dynamically operable skylight glazing layers to be used, providing for improved optical and thermal performance under appropriate ambient conditions, which can lead to enhanced overall energy efficiency as sought within California's Energy Codes.

Once combined with the revisions made within the CASE Report, the accurate sub-sections should read as follows:

5. All skylight assemblies have Have a translucent glazing material or diffuser layer(s) that has result in a maximum measured haze value greater than 90 percent, tested according to ASTM D1003 (notwithstanding its scope) or another test method approved by the Commission; and

6. ~~B. If the space is conditioned, meet the requirements in Skylights assemblies for in roofs~~ over conditioned and unconditioned spaces have an area-weighted average Visible Transmittance (VT) no less than the applicable value required by Section 140.3(a)6D.

We thank you in advance for consideration of the submitted revisions which will improve the energy saving value of the 2016 Title 24 Standards.

AAMA, along with our skylight, sloped glazing, and tubular daylighting device product manufacturers, is available to provide any additional information or assist the California Energy Commission in effecting these important language revisions.

Sincerely,

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