



**BSR/ASHRAE/IES Addendum co
to ANSI/ASHRAE/IES Standard 90.1-2022**

Public Review Draft

Proposed Addendum co to Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low- Rise Residential Buildings

**First Public Review (April 2025)
(Draft Shows Proposed Changes to Current Standard)**

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FOREWORD

This proposed revision to the wattage threshold to the automatic daylight responsive controls for sidelighted areas in in Section 9.4.1.1(e) will simplify the enforcement of the standard and avoid requiring an additional sidelighted control areas for situations where there is not much power. Currently in addition to a requirement for daylighting controls in the primary sidelighting which have a threshold of 75 watts the general lighting power threshold for daylighting controls in both secondary and primary sidelighted daylight areas is 150 watts regardless of the wattage split between the two areas. Under the current requirements, a daylight responsive control could be required for a few watts in the primary sidelighted daylight areas as long as there is 150 watts in the secondary sidelighted daylight areas or vice versa. This proposal removes the combined primary and secondary sidelighted daylight areas wattage threshold and replaces this with a simplified requirement of a 75-watt controls threshold for the primary sidelighted daylight areas, and a 75-watt controls threshold for the secondary sidelighted daylight areas.

This does not add cost in material and labor and therefore no cost effectiveness calculation is performed.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum co to 90.1-2022

[...]

9.4.1.1 Interior Lighting Controls. For each *space* in the *building*, all of the lighting control functions indicated in Tables 9.4.1-1 and 9.4.1-2, for the appropriate *space* type in the first column, and as described below, shall be implemented. All control functions indicated as “REQ” are mandatory and shall be implemented. If a *space* type has control functions indicated as “ADD1,” then at least one of those functions shall be implemented. If a *space* type has control functions indicated as “ADD2,” then at least one of those functions shall be implemented. For *space* types not listed, select a reasonably equivalent type.

If using the Space-by-Space Method, the *space* type used for determining control requirements shall be the same *space* type that is used for determining the *LPD* allowance.

[...]

e. Automatic daylight responsive controls for sidelighting: In any *space* where the combined input power of all *general lighting* completely or partially within the *primary sidelighted areas* is 75 W or greater, the *general lighting* in the *primary sidelighted areas* shall be controlled by photocontrols.

In any *space* where the combined input power of all *general lighting* completely or partially within the ~~primary sidelighted area and secondary sidelighted area~~ areas is ~~150~~ 75 W or greater, the *general lighting* in the ~~primary sidelighted area and secondary sidelighted area~~ areas shall be

controlled by photocontrols. *General lighting* in the *secondary sidelighted ~~area~~ areas* shall be controlled independently of the *general lighting* in the *primary sidelighted ~~area~~ areas*. The control *system* shall have the following characteristics:

1. The calibration adjustment control shall be located no higher than 11 ft above the finished floor. Calibration shall not require the physical presence of a person at the sensor while it is processing.
2. The photocontrol shall reduce electric lighting power in response to available daylight using *continuous daylight dimming* to ~~20%~~ 10% or less and off.
3. When an *automatic* reduction control has reduced the lighting power to the unoccupied *set point* in accordance with Section 9.4.1.1(g), the daylight responsive control shall adjust the electric light in response to available daylight, but it shall not allow the lighting power to be above the unoccupied *set point*.

Exceptions to 9.4.1.1(e): The following areas are exempted from Section 9.4.1.1(e):

1. *Primary sidelighted areas* where the top of any existing adjacent *structure* or natural object is at least twice as high above the windows as its horizontal distance away from the windows.
2. Sidelighted areas where the total glazing area is less than 20 ft².
3. *Primary sidelighted areas* adjacent to *vertical fenestration* that have external projections and no *vertical fenestration* above the external projection, where the external projection has a *projection factor* greater than 1.0 for *north-oriented* projections or where the external projection has a *projection factor* greater than 1.5 for all other *orientations* (see Figure 3.2-6).