

STANDARD

**ANSI/ASHRAE/IES Addendum cw to
ANSI/ASHRAE/IES Standard 90.1-2022**

Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings

Approved by the ASHRAE Standards Committee on July 26, 2023; by the Illuminating Engineering Society on July 25, 2023; and by the American National Standards Institute on August 30, 2023.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (<https://www.ashrae.org/continuous-maintenance>).

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FOREWORD

Addendum cw was composed in response to a change in the IBC 2021 identified by the IALD. The IBC 2021 added a requirement that along exit access stairways, the illumination level must be a minimum of 10 fc (108 lux) at the walking surface when the stairway is in use. Prior to this, the illumination level for means of egress was required to be at least 1 fc (11 lux) at the walking surface. This is a potential ten-fold increase in lighting in exit stairways.

To maintain current energy efficiency levels and limit trading of this power to nonstair spaces, Addendum cw creates a new additional lighting power allowance for exit access stairways. The additional power is limited to this space only and prevents the trading of power to other spaces.

No cost-effectiveness analysis was completed because this addendum contains an additional, optional lighting power allowance. In addition, the addendum is in response to a change in the model building code. It is anticipated that this will increase cost in exit stairways.

Informative Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum cw to Standard 90.1-2022

Modify the standard as shown (I-P and SI).

9.5.2.2 Additional Lighting Power.

[. . .]

- d. For interior exit stairways in which lighting is designed for egress and to provide 10 fc (108 lux) minimum at the walking surface when the stairway is in use, additional lighting power shall be allowed per Table 9.5.3.1.

Table 9.5.2.2 Additional Lighting Power

| Section | Description | Additional Lighting Power | Required Controls |
|-------------------|-------------------------------|---|---|
| 9.5.2.2(a) | Decorative | 0.70 W/ft ² | Section 9.4.1.1(j) |
| 9.5.2.2(b) | Retail sales | 750 W + (Retail Area 1 × 0.40 W/ft ²) + (Retail Area 2 × 0.40 W/ft ²) + (Retail Area 3 × 0.70 W/ft ²) + (Retail Area 4 × 1.00 W/ft ²) | Section 9.4.1.1(j) |
| 9.5.2.2(c) | Video conferencing | 0.50 W/ft ² | See Tables 9.5.2.1-1 and 9.5.2.1-2 space types for required controls. |
| <u>9.5.2.2(d)</u> | <u>Interior exit stairway</u> | <u>1.0 W/ft² (10.76 W/m²)</u> | <u>Section 9.4.1.1(g) and either 9.4.1.1(h) or 9.4.1.1(i)</u> |

Notes:

- Retail Area 1 = the floor area for all products not listed in Retail Areas 2, 3, or 4
- Retail Area 2 = the floor area used for the sale of vehicles, sporting goods, and small electronics
- Retail Area 3 = the floor area used for the sale of furniture, clothing, cosmetics, and artwork
- Retail Area 4 = the floor area used for the sale of jewelry, crystal, and china

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ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

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