

# ADDENDA

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

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

Approved by ASHRAE and by the American National Standards Institute on August 29, 2025; and by the Illuminating Engineering Society on July 29, 2025.

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 cq adds the Cool Roof Rating Council (CRRC) S100 standard as an alternative compliance path for determining the solar reflectance and thermal emittance of walls. The addendum also updates the reference for CRRC S100 to the latest edition and makes a few general editorial updates.*

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

### Addendum cq to Standard 90.1-2022

**Modify Section 5.5.3.2.2 as shown (I-P and SI).**

**5.5.3.2.2 Wall Solar Reflectance, ~~and Thermal Emittance, and Shading~~.** For Climate Zone 0, above-grade east-, south-, and west-oriented walls, shall comply with ~~subparagraph~~ (a) or (b):

- a. ~~A minimum of~~ Not less than 75% of the *opaque wall* area shall have ~~an a minimum~~ area-weighted initial solar reflectance of not less than 0.30 ~~and an emittance or emissivity of not less than 0.75. Initial solar reflectance shall be determined using one of the following: when where~~ tested in accordance with ASTM C1549 with AM1.5GV output; ~~or ASTM E903 with the AM1.5GV output; CRRC S100; or determined in accordance with generally accepted engineering standards, and a minimum emittance or emissivity of 0.75.~~ Emittance or emissivity shall be determined by testing in accordance with one of the following: when ASTM C835, C1371, E408, CRRC S100, or a generally accepted engineering standard. For the portion of the *opaque wall* that is glass spandrel area, a solar reflectance of 0.29 or greater, determined in accordance with NFRC 300 or ISO 9050, shall be permitted. Area-weighting is permitted only between the south-, east-, and west-oriented walls and only between walls ~~of enclosing~~ the same *space conditioning category*.
- b. ~~A minimum of~~ Not less than 30% of the *above-grade wall* area shall be shaded ~~by through the use of human-made structures, existing buildings, hillsides, permanent building projections, on-site renewable energy systems, or a combination of these.~~ Shade coverage shall be calculated by projecting the shading surface downward on the *wall* at an angle of 45 degrees

**Exception to 5.5.3.2.2:** *Exterior walls of semiheated spaces.*

[ ... ]

**Modify Section 13 as shown (I-P and SI).**

## 13. NORMATIVE REFERENCES

Reference	Section
[ ... ]	
Cool Roof Rating Council (CRRC) 2435 N. Lombard St., Portland, OR 97217, United States	
ANSI/CRRC S100 (2024 <del>2025</del> )	Standard Test Methods for Determining Radiative Properties of Materials 5.5.3.1.4, 5.5.3.2.2
[ ... ]	

## **POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES**

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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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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