

ADDENDA

**ANSI/ASHRAE/IES Addendum cp 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>).

The latest edition of an ASHRAE Standard may be purchased from the ASHRAE website (www.ashrae.org) or from ASHRAE Customer Service, 180 Technology Parkway, Peachtree Corners, GA 30092. E-mail: orders@ashrae.org. Fax: 678-539-2129. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada). For reprint permission, go to www.ashrae.org/permissions.

© 2025 ASHRAE

ISSN 1041-2336



ASHRAE Standard Project Committee 90.1

Cognizant TC: 7.6 Systems Energy Utilization

SPLS Liaison: Jennifer Isenbeck · ASHRAE Staff Liaison: Emily Toto · IES Liaison: Mark Lien

Richard Lord,* <i>Chair</i>	Benjamin Edwards	Nathan Kahre	Robert Ross*
Thomas Culp,* <i>Co-Vice Chair</i>	Kurt Fester	Maria Karpman*	Marty Salzberg*
Leonard Sciarra,* <i>Co-Vice Chair</i>	Francisco Flores	Andrew Klein	Christopher Schaffner
Rahul Athalye*	D. Andrew Fouss	Vladimir Kochkin*	Greg Schluterman
William Babbington	Phillip Gentry*	Toby Lau	Kelly Seeger*
John Bade*	Jason Glazer*	Chonghui Liu	Wayne Stoppelmoor*
Sean Beilman*	Melissa Goren*	Emily Lorenz	Matthew Swenka*
Daniel Bersohn	Skye Gruen	Samuel Mason*	Christian Taber*
Paula Cino*	Charles Haack*	Benjamin Meyer*	Steven Taylor*
Glen Clapper	David Handwork*	Julian Mills-Beale	Kevin Teakell
Ernest Conrad*	Armin Hauer	Nazme Mohsina	Douglas Tucker
Shannon Corcoran*	Rick Heiden	Frank Morrison*	Jason Vandever
Jay Crandell*	Gary Heikkinen	Michael Myer	Martha VanGeem*
Kelly Cunningham	Mark Heizer*	Frank Myers*	Michael Waite*
Brandon Damas*	David Herron*	Michael Patterson*	McHenry Wallace*
Hayley Davis	Mike Houston*	Timothy Peglow*	Theresa Weston
Thomas Deary*	Harold Jepsen*	Christopher Perry*	Jerry White*
Darryl Dixon	Greg Johnson*	Laura Petrillo-Groh	Jeffrey Whitelaw
Julie Donovan*	Zac Johnson	Patrick Riley	Jeremiah Williams
Craig Drumheller*	Duane Jonlin*	Michael Rosenberg*	
James Earley	Michael Jouaneh*	Steven Rosenstock*	

* Denotes members of voting status when the document was approved for publication

ASHRAE STANDARDS COMMITTEE 2025–2026

Adrienne G. Thomle, <i>Chair</i>	Susanne Dormann	Paul A. Lindahl, Jr.	Paolo M. Tronville
Jennifer A. Isenbeck-Pille, <i>Vice Chair</i>	Drake H. Erbe	Kenneth A. Monroe	Douglas K. Tucker
Anthony M. Abate	Marcus Hassen	Philip J. Naughton	Thomas E. Watson
Omar A. Abdelaziz	William M. Healy	Kathleen Owen	David P. Yuill
Charles S. Barnaby	Jaap Hogeling	Michael P. Patton	Patrick C. Marks, <i>BOD ExO</i>
Hoy R. Bohanon	Satish N. Iyengar	Karl L. Peterman	Devin A. Abellon, <i>CO</i>
Kelley P. Cramm	Phillip A. Johnson	Christopher J. Seeton	
Abdel K. Darwich	Tatsuro Kobayashi	Russell C. Tharp	

Ryan Shanley, *Senior Manager of Standards*

SPECIAL NOTE

This American National Standard (ANS) is a national voluntary consensus Standard developed under the auspices of ASHRAE. *Consensus* is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this Standard as an ANS, as “substantial agreement reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution.” Compliance with this Standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Senior Manager of Standards of ASHRAE should be contacted for

- interpretation of the contents of this Standard,
- participation in the next review of the Standard,
- offering constructive criticism for improving the Standard, or
- permission to reprint portions of the Standard.

DISCLAIMER

ASHRAE uses its best efforts to promulgate Standards and Guidelines for the benefit of the public in light of available information and accepted industry practices. However, ASHRAE does not guarantee, certify, or assure the safety or performance of any products, components, or systems tested, installed, or operated in accordance with ASHRAE's Standards or Guidelines or that any tests conducted under its Standards or Guidelines will be nonhazardous or free from risk.

ASHRAE INDUSTRIAL ADVERTISING POLICY ON STANDARDS

ASHRAE Standards and Guidelines are established to assist industry and the public by offering a uniform method of testing for rating purposes, by suggesting safe practices in designing and installing equipment, by providing proper definitions of this equipment, and by providing other information that may serve to guide the industry. The creation of ASHRAE Standards and Guidelines is determined by the need for them, and conformance to them is completely voluntary.

In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objections on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

Addendum cp clarifies that the gross lighted floor area in multifamily buildings does not include the area dwelling spaces. This addresses an unofficial interpretation and is consistent with other codes.

This addendum also makes another unofficial interpretation related to power and energy recording and reporting. No cost-effectiveness analysis was needed, as this is a clarification of an existing requirement.

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

Addendum cp to Standard 90.1-2022

Modify the Section 8.4 as shown (I-P and SI).

8.4.3.2 Recording and Reporting. The electrical *energy* use for all loads specified in Section 8.4.3.1 shall be recorded ~~a minimum of every~~ in not more than 15-minute intervals and reported ~~at least~~ hourly, daily, monthly, and annually. The data for each tenant space shall be made available to that tenant. In *buildings* with a digital control *system* installed to comply with Section 6.4.3.10, the *energy* use data shall be transmitted to the digital control *system* and graphically displayed. The *system* shall be capable of maintaining all data collected for ~~a minimum of~~ not less than 36 months.

Exceptions to 8.4.3.1 and 8.4.3.2:

1. *Building less than 25,000 ft².*
2. *Individual tenant spaces less than 10,000 ft².*
3. *Dwelling units.*
4. ~~*Residential Multifamily buildings*~~ with less than 10,000 ft² of ~~common area~~. *gross floor area excluding dwelling units.*
5. *Critical equipment and life-safety branches of NFPA 70, Article 517.*

[...]

Modify Section 9.5 as shown (I-P and SI).

9.5 Prescriptive Compliance Path. Interior lighting power shall comply with either Section 9.5.1 or 9.5.2. Lighting control requirements shall comply with Section 9.4.1 and Tables 9.4.1-1 and 9.4.1-2.

Exterior lighting power shall comply with Section 9.5.3. Trade-offs between the *installed interior lighting power* and *installed exterior lighting power* are not allowed.

9.5.1 Building Area Method Compliance Path. Use the following steps to determine the *interior lighting power allowance* by the Building Area Method:

- a. Determine the appropriate *building area type* from Table 9.5.1 and the corresponding *LPD* value. For *building area types* not listed, selection of a reasonably equivalent type shall be permitted.
- b. Determine the *gross lighted floor area* in ft² of the *building area type*. For multifamily buildings, the gross lighted floor area does not include the area of the dwelling units.
- c. Multiply the *gross lighted floor areas* of the *building area types* times the *LPD* value.

[...]

Modify Table 9.5.1 as shown (I-P and SI).

Table 9.5.1 Lighting Power Density Using the Building Area Method

Building Area Type ^a	LPD, W/ft ²
[. . .]	[. . .]
Manufacturing facility	0.77
Motion picture theater	0.39
Multifamily ^b	0.44
Museum	0.52
[. . .]	[. . .]

a. In cases where both a general *building* area type and a specific *building* area type are listed, the specific *building* area type shall apply.

b. Do not include the area of the *dwelling units* in the *gross lighted floor area*.

Modify Table 10.4 as shown (I-P and SI).

10.4.7.2 Recording and Reporting. The energy use of each *building* on the *building site* shall be recorded ~~at a minimum of~~ in not more than every 60-minutes intervals and reported ~~at least~~ hourly, daily, monthly, and annually. The recording system shall be capable of maintaining all data collected for ~~a minimum of not less than~~ 36 months and creating user reports showing ~~at least~~ hourly, daily, monthly, and annual intervals *energy consumption and demand*.

Exceptions to 10.4.7.1 and 10.4.7.2:

1. *Buildings* or additions less than 25,000 ft².
2. Individual tenant *spaces* less than 10,000 ft².
3. *Dwelling units*.
4. ~~Residential~~ *Multifamily buildings* with less than 10,000 ft² ~~of common area.~~ gross floor area excluding dwelling units.
5. Fuel used for on-site emergency equipment.

[. . .]

Modify Table 9.5.1 as follows (I-P and SI):

9.5.1 Building Area Method Compliance Path. Use the following steps to determine the *interior lighting power allowance* by the Building Area Method:

Table 9.5.1 Lighting Power Density Using the Building Area Method

Building Area Type ^a	LPD, W/m ²
[. . .]	[. . .]
Manufacturing facility	8.3
Motion picture theater	4.2
Multifamily ^b	4.7
Museum	5.6
[. . .]	[. . .]

a. In cases where both a general *building* area type and a specific *building* area type are listed, the specific *building* area type shall apply.

b. Do not include the area of the *dwelling spaces* in the *gross lighted floor area*.

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.

ASHRAE · 180 Technology Parkway · Peachtree Corners, GA 30092 · www.ashrae.org

About ASHRAE

Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

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.

To stay current with this and other ASHRAE Standards and Guidelines, visit www.ashrae.org/standards, and connect on LinkedIn, Facebook, Twitter, and YouTube.

Visit the ASHRAE Bookstore

ASHRAE offers its Standards and Guidelines in print, as immediately downloadable PDFs, and via ASHRAE Digital Collections, which provides online access with automatic updates as well as historical versions of publications. Selected Standards and Guidelines are also offered in redline versions that indicate the changes made between the active Standard or Guideline and its previous edition. For more information, visit the Standards and Guidelines section of the ASHRAE Bookstore at www.ashrae.org/bookstore.

IMPORTANT NOTICES ABOUT THIS STANDARD

To ensure that you have all of the approved addenda, errata, and interpretations for this Standard, visit www.ashrae.org/standards to download them free of charge.

Addenda, errata, and interpretations for ASHRAE Standards and Guidelines are no longer distributed with copies of the Standards and Guidelines. ASHRAE provides these addenda, errata, and interpretations only in electronic form to promote more sustainable use of resources.