

# ADDENDA

**ANSI/ASHRAE/ASHE Addendum I to  
ANSI/ASHRAE/ASHE Standard 189.3-2021**

# Design, Construction, and Operation of Sustainable High-Performance Health Care Facilities

Approved by ASHRAE and the American National Standards Institute on October 31, 2024, and by the American Society for Healthcare Engineering on September 26, 2024.

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ISSN 1041-2336



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## **FOREWORD**

*Addendum 1 updates the lighting power densities with special consideration for health care areas. Table 7.4.6.1B and Table 7.4.6.1C are updated to reflect these changes along with updated footnotes for the user to follow the table. The values in the tables are provided by Mazzetti. Mazzetti's Lighting Design Studio undertook a comprehensive analysis aimed at developing a proactive strategy for realistic yet ambitious lighting power densities (LPDs) for ASHRAE Standard 189.3. The study encompassed ten distinct health care facilities, ranging from medical office buildings to acute care centers, children's hospitals, cancer centers and birthing centers, situated across California, Hawaii, Tennessee, Georgia, and Oregon. Projects varied in size from 20,000 square feet to several hundred thousand square feet, representing recent projects. By averaging LPDs across these facilities, the studio conducted comparisons against prevailing energy codes such as Title 24, IECC, and ASHRAE Standards 90.1 and 189.1. This evaluation yielded detailed insights into current industry standards, and the results informed the LPD values listed in this addendum.*

**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 I to Standard 189.3-2021

*Modify Tables to Section 7.4.6.1B and 7.4.6.1C as shown. Note that Table 7.4.6.1A does not exist in Standard 189.3. The tables shown here are taken from Standard 189.1 and modified to Standard 189.3 specifications for health care spaces for consistency across the standards.*

[ . . . ]

**7.4.6.1 Lighting Power Allowance.** The interior lighting power allowances shall be as determined in accordance with Standard 189.1, Section 7.4.6.1. Tables 7.4.6.1B and 7.4.6.1C of this standard shall be used in compliance with lighting power allowances in appropriate health care facilities where not listed in Standard 189.1.

**Table 7.4.6.1B Lighting Power Density (LPD) Allowances, Room Cavity Ratio (RCR) Thresholds, and Additional Lighting Power Allowances for Common Space Types Using the Space-by-Space Method**

**Informative Note:** This table covers common space types typically found in multiple building types. Table 7.4.6.1C covers building specific space types typically found in a single building type.

Common Space Types <sup>a</sup>	Additional Lighting Power					
	LPD, W/ft <sup>2</sup>	LPD, W/m <sup>2</sup>	RCR Threshold	Qualified Lighting System <sup>b</sup>	Additional Allowance (W/ft <sup>2</sup> )	Additional Allowance (W/m <sup>2</sup> )
<b>Health Care Facility</b>						
Hospital corridor (patient/public) <sup>c,d</sup>	0.55	5.9	width <8 ft (2.4 m)	Decorative/display	0.25	2.7
Hospital corridor (staff/back of house)	0.37	4.0	8	=	=	=
Residential health care and support facilities corridor (resident/public) <sup>c,d</sup>	0.55	5.9	width <8 ft (2.4 m)	Decorative/display	0.25	2.7
Residential health care and support facilities corridor (staff/back of house) <sup>c</sup>	0.37	4.0	8	=	=	=
Exam/treatment room	1.10	11.8	8	=	=	=
Imaging room	0.60	6.5	6	Decorative/display	0.20	2.3
Infusion/procedural room <sup>c</sup>	0.90	9.7	8	=	=	=
Lounge <sup>c</sup>	0.44	4.7	6	Decorative/display	0.25	2.7
Medical supply room	0.54	5.8	6	=	=	=
Medication prep room	0.54	5.8	6	=	=	=

a. In cases where a space type appears in both Table 7.4.6.1B and Table 7.4.6.1C, the building-specific space type in Table 7.4.6.1C shall apply.

b. See Section 7.4.6.1.1 of Standard 189.1 for criteria of qualified lighting systems.

c. For facilities for the visually impaired an additional lighting power allowance  $\leq 0.30$  W/ft<sup>2</sup> (5.4 W/m<sup>2</sup>) is permitted for this space type.

d. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft (2.4 m) and is not based on the RCR, see Section 7.4.6.1(c).

**Table 7.4.6.1C Lighting Power Density (LPD) Allowances, and Room Cavity Ratio (RCR) Thresholds, and Additional Lighting Power Allowances for Common Space Types Using the Space-by-Space Method**

**Informative Note:** This table covers common space types typically found in a single building type. Table 7.4.6.1B covers common space types typically found in multiple building types.

<b>Building-Specific Space Types<sup>a</sup></b>	<b>LPD, W/ft<sup>2</sup></b>	<b>LPD, W/m<sup>2</sup></b>	<b>RCR Threshold</b>	<b>Additional Lighting Power</b>		
				<b>Qualified Lighting System<sup>b</sup></b>	<b>Additional Allowance (W/ft<sup>2</sup>)</b>	<b>Additional Allowance (W/m<sup>2</sup>)</b>
<u>Nursery</u>	<u>0.80</u>	<u>8.6</u>	<u>6</u>	=	=	=
<u>Nurse's station</u>	<u>0.75</u>	<u>8.1</u>	<u>6</u>	<u>Specialized task</u>	<u>0.30</u>	<u>3.2</u>
<u>Operating room</u>	<u>1.87</u>	<u>20.1</u>	<u>6</u>	=	=	=
<u>Patient room – critical care</u>	<u>0.90</u>	<u>9.7</u>	<u>6</u>	<u>Decorative/display</u>	<u>0.25</u>	<u>2.7</u>
<u>Patient room – general<sup>c</sup></u>	<u>0.60</u>	<u>6.5</u>	<u>6</u>	<u>Decorative/display</u>	<u>0.25</u>	<u>2.7</u>
<u>Patient room – restroom<sup>c</sup></u>	<u>0.57</u>	<u>6.1</u>	<u>8</u>	=	=	=
<u>Physical therapy room</u>	<u>0.75</u>	<u>8.1</u>	<u>6</u>	<u>Decorative/display</u>	<u>0.25</u>	<u>2.7</u>
<u>Recovery room</u>	<u>0.89</u>	<u>9.6</u>	<u>6</u>	<u>Specialized task</u>	<u>0.30</u>	<u>3.2</u>
<u>Resident room<sup>c</sup></u>	<u>0.60</u>	<u>6.5</u>	<u>6</u>	<u>Decorative/display/specialized task</u>	<u>0.30</u>	<u>2.7</u>
<u>Resident room – restroom<sup>c</sup></u>	<u>0.60</u>	<u>6.1</u>	<u>8</u>	=	=	=
<u>Telemedicine<sup>d</sup></u>	<u>0.83</u>	<u>8.9</u>	<u>8</u>	<u>Videoconferencing</u>	<u>0.50</u>	<u>5.4</u>

a. In cases where a space type appears in both Table 7.4.6.1B and Table 7.4.6.1C, the building-specific space type in Table 7.4.6.1C shall apply.

b. See Section 7.4.6.1.1 for criteria of qualified lighting systems.

c. For facilities for the visually impaired an additional lighting power allowance  $\leq 0.30$  W/ft<sup>2</sup> (5.4 W/m<sup>2</sup>) is permitted for this space type.

d. To use additional lighting power allowance, space must be a videoconferencing space and have controls described in Section 7.4.6.1.1(f) of Standard 189.1.

## **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.

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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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