



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

**Public Review Draft**

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

**First Public Review (March 2024)  
(Draft Shows Proposed Changes to Current Standard)**

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at [www.ashrae.org/standards-research--technology/public-review-drafts](http://www.ashrae.org/standards-research--technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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**(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 objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)**

## FOREWORD

*The addendum contains an editorial/format change and revised values.*

*Editorial/format changes:*

*This addendum splits the lighting power density (LPD) values and lighting control requirements from Table 9.5.1.2-1 into two new tables. The first table lists spaces with lighting controls and is placed in section 9.4. A second table lists LPD values for spaces and remain in section 9.5.2. This change makes clear that the lighting control requirements apply when using both the Building Area Method and the Space-by-Space Method.*

*LPD values:*

*In the new LPD table, values are revised. The modified LPD values result from refining the 90.1 Lighting Model and collaboration with IALD and IES. Since 2019, all fixture types in the model use LED sources.*

*Revised values result from three major changes: 1. Updated lamp lumen depreciation values; 2. Revised process for determining luminaire dirt depreciation; and 3. Updated luminaire efficacy values. Beyond these changes, room reflectance values were also reviewed and resulted in some changes.*

- 1. The 90.1-2022 Lighting Model used a static lamp lumen depreciation (LLD) of 0.85 for all LED fixtures. These revised values are based on shifting the LLD to 0.90 for all LED fixtures. This changed by a review of design practices by lighting practitioners within the lighting industry.*
- 2. The 2022 model used luminaire dirt depreciation (LDD) values pre-selected by fixture type. The average LDD value in the 2022 model was 0.82. These revised values are based on using the IES RP-36 methodology for determining LDD. RP-36 values are based on times between cleaning, the model assumes 60 months / 5 years between cleanings. The LDD values changed for individual spaces, but the average LDD in the 2025 model shifted to 0.79.*
- 3. The luminaire efficacy dataset of the 2022 model was updated. Efficacy of some luminaires in the dataset increased from the 2022 values, but the average increase in luminaire efficacy was only a 2% increase.*

*These combined changes result in a 6.5% average reduction in space-by-space LPD values. The space-by-space values are used to generate both the Building Area Method and Simplified Building Method LPD values. The changes are based on changes in efficiency improvements by industry, design practices, and revisions to lighting science, therefore there is no increase in cost.*

***[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (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 s to 90.1-2022

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*Modify the control requirements for interior exit stairway in Table 9.5.3.1 as follows:*

### 9.4 *Mandatory Provisions*

**9.4.1 Lighting Control.** Lighting controls shall be installed to meet the provisions of Section 9.4.1.1, 9.4.1.2, 9.4.1.3, and 9.4.1.4.

9.4.1.1 **Interior Lighting Controls.** For each *space* in the *building*, all of the lighting control functions indicated in Tables ~~9.5.2.1-1~~ 9.4.1-1 and ~~9.5.2.1-2~~ 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.

**REVIEW NOTE: Table 9.4.1-1 and 9.4.1-2 are a new title and location (shown below). The removal of the first two columns in these tables is an editorial cleanup because these requirements are still provided in 9.5.2.1-1 and 9.5.2.1-2. Any comments regarding the LPDs should be in reference to the proposed values within that set of tables, on pages 12-14 for IP and 15-17 for SI.**

**Table 9.4.1-1 Minimum Control Requirements Using Either 9.5.1 Building Area Method or 9.5.2 Space-by-Space Method (common spaces)**

**Table 9.5.2.1-1 Maximum Lighting Power Density Using the Space-by-Space Method and Minimum Control Requirements Using Either Method**

**Informative Note:** This table covers common *space* types typically found in multiple *building* types. Table 9.5.2.1-2 covers *building*-specific *space* types typically found in a single *building* type.

The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each *space* type:

- (1) All REQs shall be implemented.
- (2) At least one ADD1 (when present) shall be implemented.
- (3) At least one ADD2 (when present) shall be implemented.

Common Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR	Local Control	Manual ON	Partial Auto ON	Multilevel Lighting Control	Daylight Response Sidelight	Daylight Response Toplight	Auto Reduction (Full OFF complies)	Auto Full OFF	Scheduled Shutoff
			9.4.1.1(a)	9.4.1.1(b)	9.4.1.1(c)	9.4.1.1(d)	9.4.1.1(e) <sup>b</sup>	9.4.1.1(f) <sup>b</sup>	9.4.1.1(g)	9.4.1.1(h)	9.4.1.1(i)
<b>Atrium</b>											
<20 ft in height	0.32	NA	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
≥20 ft and ≤40 ft in height	0.41	NA	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
>40 ft in height	0.51	11	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Audience Seating Area</b>											
Auditorium	0.57	6	REQ	ADD1	ADD1	REQ	REQ			ADD2	ADD2
Gymnasium	0.23	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Motion picture theater				ADD1	ADD1	REQ				ADD2	ADD2
Performing arts theater				ADD1	ADD1	REQ				ADD2	ADD2
Sports arena				ADD1	ADD1	REQ		REQ		ADD2	ADD2
All other audience seating areas				ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Banking Activity Area</b>											
				ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Classroom/Lecture Hall/Training Room</b>											
Shop classroom				ADD1	ADD1		REQ	REQ			REQ
All other classrooms/lecture halls/training rooms	0.72	4	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
<b>Computer Room</b>											
	0.75	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Conference/Meeting/Multipurpose Rooms</b>											
	0.88	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
<b>Control/Editing Room or Booth</b>											
	0.73	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Copy/Print Room</b>											
	0.56	6	REQ	ADD1	ADD1		REQ	REQ		REQ	
<b>Corridor</b>											
	0.44	width <8 ft	REQ				REQ	REQ	REQ	ADD2	ADD2
<b>Courtroom</b>											
	1.08	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Dining Areas</b>											
Bar/lounge or leisure dining	0.76	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

LPD and RCR columns retained in Table 9.5.2.1-1 and 9.5.2.1-2  
 This table becomes Table 9.4.1-1 and 9.4.1-2 and will show the spaces and ONLY control requirements.

a. Where both a common *space* type and a *building*-specific *space* type are listed, the *building* specific *space* type shall apply (see Table 9.5.2.1-2 for *building*-specific *space* types).  
 b. *Automatic* daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.

**Table 9.4.1-1 Minimum Control Requirements Using Either 9.5.1 Building Area Method or 9.5.2 Space-by-Space Method (common spaces)**

**Informative Note:** This table covers common *space* types typically found in multiple *building* types. Table 9.4.1-2 covers *building*-specific *space* types typically found in a single *building* type.

The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each *space* type:  
 (1) All REQs shall be implemented.  
 (2) At least one ADD1 (when present) shall be implemented.  
 (3) At least one ADD2 (when present) shall be implemented.

Common Space Types <sup>a</sup>	Local Control	Manual ON	Partial Auto ON	Multilevel Lighting Control	Daylight Response Sidelight	Daylight Response Toplight	Auto Reduction (Full OFF complies)	Auto Full OFF	Scheduled Shutoff
	9.4.1.1(a)	9.4.1.1(b)	9.4.1.1(c)	9.4.1.1(d)	9.4.1.1(e) <sup>b</sup>	9.4.1.1(f) <sup>b</sup>	9.4.1.1(g)	9.4.1.1(h)	9.4.1.1(i)
<b>Atrium</b>									
<20 ft in height	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
≥20 ft and ≤40 ft in height	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
>40 ft in height	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Audience Seating Area</b>									
Auditorium	REQ	ADD1	ADD1	REQ	REQ			ADD2	ADD2
Gymnasium	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Motion picture theater	REQ	ADD1	ADD1	REQ				ADD2	ADD2
Performing arts theater	REQ	ADD1	ADD1	REQ				ADD2	ADD2
Sports arena	REQ	ADD1	ADD1	REQ		REQ		ADD2	ADD2
All other audience seating areas	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Banking Activity Area</b>	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Classroom/Lecture Hall/Training Room</b>									
Shop classroom	REQ	ADD1	ADD1		REQ	REQ			REQ
All other classrooms/lecture halls/training rooms	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
<b>Computer Room</b>	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Conference/Meeting/Multipurpose Rooms</b>	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
<b>Control/Editing Room or Booth</b>	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Copy/Print Room</b>	REQ	ADD1	ADD1		REQ	REQ		REQ	
<b>Corridor</b>	REQ				REQ	REQ	REQ	ADD2	ADD2
<b>Courtroom</b>	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Dining Areas</b>									
Bar/lounge or <del>fine leisure</del> dining	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<del>Fast-food or cafeteria</del> <del>Cafeteria</del> or fast-food dining	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Casual <del>Family</del> dining	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
All other dining areas	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Electrical/Mechanical Room</b>	REQ								
<b>Emergency Vehicle Garage</b>	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Equipment Room</b>	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Food Preparation Area</b>	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2

a. Where both a common *space* type and a *building*-specific *space* type are listed, the *building* specific *space* type shall apply (see Table 9.4.1-2 for *building*-specific *space* types).

b. *Automatic* daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.

**Table 9.4.1-1 Minimum Control Requirements Using Either 9.5.1 Building Area Method or 9.5.2 Space-by-Space Method (common spaces) [continued]**

**Informative Note:** This table covers common *space* types typically found in multiple *building* types. Table 9.5.2.1-2 covers *building*-specific *space* types typically found in a single *building* type.

The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each *space* type:  
 (1) All REQs shall be implemented.  
 (2) At least one ADD1 (when present) shall be implemented.  
 (3) At least one ADD2 (when present) shall be implemented.

Common Space Types <sup>a</sup>	Local Control	Manual ON	Partial Auto ON	Multilevel Lighting Control	Daylight Response Sidelight	Daylight Response Toplight	Auto Reduction (Full OFF complies)	Auto Full OFF	Scheduled Shutoff
	9.4.1.1(a)	9.4.1.1(b)	9.4.1.1(c)	9.4.1.1(d)	9.4.1.1(e) <sup>b</sup>	9.4.1.1(f) <sup>b</sup>	9.4.1.1(g)	9.4.1.1(h)	9.4.1.1(i)
<b>Guestroom</b>	See Section 9.4.1.3(b).								
<b>Laboratory</b>									
In or as a classroom	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
All other laboratories	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Laundry / Washing Area</b>	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
<b>Loading Dock, Interior</b>	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Lobby</b>									
Elevator	REQ				REQ	REQ		ADD2	ADD2
<del>Hotel</del>	<del>REQ</del>				<del>REQ</del>	<del>REQ</del>		<del>ADD2</del>	<del>ADD2</del>
Motion picture theater	REQ				REQ	REQ		ADD2	ADD2
Performing arts theater	REQ				REQ	REQ		ADD2	ADD2
All other lobbies	REQ				REQ	REQ	REQ	ADD2	ADD2
<b>Locker Room</b>	REQ	ADD1	ADD1		REQ	REQ			
<b>Lounge/Breakroom</b>									
<del>Mother's</del> / Wellness Room	REQ	ADD1	ADD1	REQ				REQ	
All other lounges /breakrooms	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
<b>Offices</b>									
Office ≤150 ft <sup>2</sup>	REQ	ADD1	ADD1	REQ				REQ	
Office >150 and ≤300 ft <sup>2</sup>	REQ	ADD1	ADD1	REQ				REQ	
Offices >300 ft <sup>2</sup>	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	REQ	
<b>Parking Garage</b>									
Daylight transition zone	See Section 9.4.1.2.								
All other parking and drive areas	See Section 9.4.1.2.								
<b>Pharmacy Area</b>	REQ	ADD1	ADD1	REQ				ADD2	ADD2
<b>Restroom</b>								REQ	
<b>Sales Area</b> (For accent lighting, see Section 9.5.2.2[b].)	REQ	ADD1	ADD1	REQ		REQ		ADD2	ADD2
<b>Seating Area, General</b>	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2

a. Where both a common *space* type and a *building*-specific *space* type are listed, the *building* specific *space* type shall apply (see Table 9.4.1-2 for *building*-specific *space* types).

b. *Automatic* daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.

**Table 9.4.1-1 Minimum Control Requirements Using Either 9.5.1 Building Area Method or 9.5.2 Space-by-Space Method (common spaces) [continue]**

**Informative Note:** This table covers common *space* types typically found in multiple *building* types. Table 9.5.2.1-2 covers *building*-specific *space* types typically found in a single *building* type.

The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each *space* type:  
 (1) All REQs shall be implemented.  
 (2) At least one ADD1 (when present) shall be implemented.  
 (3) At least one ADD2 (when present) shall be implemented.

Common Space Types <sup>a</sup>	Local Control	Manual ON	Partial Auto ON	Multilevel Lighting Control	Daylight Response Sidelight	Daylight Response Toplight	Auto Reduction (Full OFF complies)	Auto Full OFF	Scheduled Shutoff
	9.4.1.1(a)	9.4.1.1(b)	9.4.1.1(c)	9.4.1.1(d)	9.4.1.1(e) <sup>b</sup>	9.4.1.1(f) <sup>b</sup>	9.4.1.1(g)	9.4.1.1(h)	9.4.1.1(i)
<b>Security Screening</b>									
Airport/bus/ship/train/transportation screening	REQ				REQ	REQ		ADD2	ADD2
Airport/bus/ship/train/transportation screening queue	REQ				REQ	REQ		ADD2	ADD2
General security screening	REQ				REQ	REQ		ADD2	ADD2
<b>Stairway</b>	The <i>space</i> containing the stairway shall determine the <i>LPD</i> and control requirements for the stairway.								
<b>Stairwell</b>					REQ	REQ	REQ	ADD2	ADD2
<b>Storage Room</b>									
<50 ft <sup>2</sup>	REQ	REQ						REQ	
≥50 ft <sup>2</sup>	REQ							REQ	
<b>Vehicular Maintenance Area</b>	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Workshop (including workshop classrooms)</b>	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2

a. Where both a common *space* type and a *building*-specific *space* type are listed, the *building* specific *space* type shall apply (see Table 9.4.1-2 for *building*-specific *space* types).  
 b. *Automatic* daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.

**Table 9.4.1-2 Minimum Control Requirements Using Either 9.5.1 Building Area Method or 9.5.2 Space-by-Space Method (building-specific spaces)**

**Informative** This table covers *building-specific space* types typically found in a single *building* type. Table 9.4.1-1 covers common *space* types typically found in multiple *building* types.

The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each *space* type:  
 (1) All REQs shall be implemented.  
 (2) At least one ADD1 (when present) shall be implemented.  
 (3) At least one ADD2 (when present) shall be implemented.

Common Space Types <sup>a</sup>	Local Control	Manual ON	Partial Auto ON	Multilevel Lighting Control	Daylight Response Sidelight	Daylight Response Toplight	Auto Reduction (Full OFF complies)	Auto Full OFF	Scheduled Shutoff
	9.4.1.1(a)	9.4.1.1(b)	9.4.1.1(c)	9.4.1.1(d)	9.4.1.1(e) <sup>b</sup>	9.4.1.1(f) <sup>b</sup>	9.4.1.1(g)	9.4.1.1(h)	9.4.1.1(i)
<b>Atrium</b>									
Betting/sportsbook/keno/bingo area				REQ				ADD2	ADD2
High-limit game area				REQ				ADD2	ADD2
Slot machine/digital gaming area				REQ				ADD2	ADD2
Table games area				REQ				ADD2	ADD2
<b>Convention Center—Exhibit Space</b>	REQ	ADD1	ADD1	REQ	REQ	REQ			REQ
<b>Correctional Facilities</b>									
Audience seating area	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Classroom/lecture hall/training room	REQ	ADD1	ADD1	REQ	REQ	REQ			
Confinement cells	REQ								REQ
Dining area	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Dormitory—Living Quarters</b>	REQ								
<b>Facility for the Visually Impaired</b>									
(A facility for the visually impaired is a facility that can be documented as being designed to comply with the light levels in ANSI/IES RP-28 and that is or will be licensed by local/state authorities for senior long-term care, adult daycare, senior support, and/or people with special visual needs.)									
Chapel (used primarily by residents)	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Corridor (used primarily by residents)	REQ				REQ	REQ	REQ	ADD2	ADD2
Dining (used primarily by residents)	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Lobby	REQ				REQ	REQ	REQ	ADD2	ADD2
Recreation room/common living room (used primarily by residents)	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Restroom (used primarily by residents)					REQ	REQ		REQ	
<b>Fire Station—Sleeping Quarters</b>	REQ								
<b>Gymnasium/Fitness Center</b>									
Exercise area	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Playing area	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

a. Where both a common *space* type and a *building-specific space* type are listed, the *building specific space* type shall apply (see Table 9.4.1-2 for common *space* types).

b. *Automatic* daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.



**Table 9.4.1-2 Minimum Control Requirements Using Either 9.5.1 Building Area Method or 9.5.2 Space-by-Space Method (building-specific spaces) [continued]**

**Informative Note:** This table covers *building-specific space* types typically found in a single *building* type. Table 9.4.1-1 covers common *space* types typically found in multiple *building* types.

The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each *space* type:  
 (1) All REQs shall be implemented.  
 (2) At least one ADD1 (when present) shall be implemented.  
 (3) At least one ADD2 (when present) shall be implemented.

Common Space Types <sup>a</sup>	Local Control	Manual ON	Partial Auto ON	Multilevel Lighting Control	Daylight Response Sidelight	Daylight Response Toplight	Auto Reduction (Full OFF complies)	Auto Full OFF	Scheduled Shutoff
	9.4.1.1(a)	9.4.1.1(b)	9.4.1.1(c)	9.4.1.1(d)	9.4.1.1(e) <sup>b</sup>	9.4.1.1(f) <sup>b</sup>	9.4.1.1(g)	9.4.1.1(h)	9.4.1.1(i)
<b>Health Care Facility</b>									
Control room (MRI/CT/radiology/PET)	REQ	REQ		REQ				REQ	
Exam/treatment room	REQ			REQ	REQ	REQ		ADD2	ADD2
Hospital corridor	REQ				REQ	REQ	ADD2	ADD2	ADD2
Imaging room	REQ			REQ				ADD2	ADD2
Lounge	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Medical supply room	REQ	ADD1	ADD1					REQ	
Nursery	REQ			REQ	REQ	REQ		ADD2	ADD2
Nurse's station	REQ			REQ	REQ	REQ		ADD2	ADD2
Operating room	REQ			REQ					
Patient room	REQ			REQ					
Physical therapy room	REQ			REQ	REQ	REQ		ADD2	ADD2
Recovery room	REQ			REQ				ADD2	ADD2
Telemedicine	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
<b>Library</b>									
Reading area	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Stacks	REQ	ADD1	ADD1				REQ	ADD2	ADD2
<b>Offices</b>									
Detailed manufacturing area	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Extra-high bay area (>50 ft floor-to-ceiling height)	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
High bay area (25 - 50 ft floor-to-ceiling height)	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Low bay area (<25 ft floor-to-ceiling height)	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Museum</b>									
General exhibition area	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Restoration area	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Performing Arts Theater—Dressing Room</b>	REQ	ADD1	ADD1	REQ				REQ	
<b>Post Office—Sorting Area</b>	REQ	ADD1	ADD1		REQ	REQ	REQ	ADD2	ADD2

a. Where both a common *space* type and a *building-specific space* type are listed, the *building specific space* type shall apply (see Table 9.4.1-2 for common *space* types).

b. Automatic daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.

**Table 9.4.1-2 Minimum Control Requirements Using Either 9.5.1 Building Area Method or 9.5.2 Space-by-Space Method (building-specific spaces) [continued]**

**Informative Note:** This table covers *building-specific space* types typically found in a single *building* type. Table 9.4.1-1 covers common *space* types typically found in multiple *building* types.

The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each *space* type:

- (1) All REQs shall be implemented.
- (2) At least one ADD1 (when present) shall be implemented.
- (3) At least one ADD2 (when present) shall be implemented.

Common Space Types <sup>a</sup>	Local Control	Manual ON	Partial Auto ON	Multilevel Lighting Control	Daylight Response Sidelight	Daylight Response Toplight	Auto Reduction (Full OFF complies)	Auto Full OFF	Scheduled Shutoff
	9.4.1.1(a)	9.4.1.1(b)	9.4.1.1(c)	9.4.1.1(d)	9.4.1.1(e) <sup>b</sup>	9.4.1.1(f) <sup>b</sup>	9.4.1.1(g)	9.4.1.1(h)	9.4.1.1(i)
<b>Religious Facility</b>									
Audience seating area	REQ			REQ	REQ	REQ		ADD2	ADD2
Fellowship hall	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Worship/pulpit/choir area	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
<b>Retail Facilities</b>									
Dressing/fitting room								ADD2	ADD2
Hair care	REQ	ADD1	ADD1					ADD2	ADD2
Mall concourse	REQ	ADD1	ADD1	REQ		REQ		ADD2	ADD2
Massage	REQ	ADD1	ADD1	REQ				ADD2	ADD2
Nail care	REQ	ADD1	ADD1					ADD2	ADD2
<b>Sports Arena—Playing Area (Class of play as defined by ANSI/IES RP-6)</b>									
Class I facility	REQ	REQ			REQ	REQ			REQ
Class II facility	REQ	REQ			REQ	REQ			REQ
Class III facility	REQ	REQ			REQ	REQ			REQ
Class IV facility	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Natorium (Class of play as defined by IES RP-6)</b>									
Class I facility	REQ	REQ			REQ	REQ			REQ
Class II facility	REQ	REQ			REQ	REQ			REQ
Class III facility	REQ	REQ			REQ	REQ			REQ
Class IV facility	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Transportation Facility</b>									
Airport hanger	REQ	REQ			REQ	REQ			REQ
Baggage/carousel area					REQ	REQ		ADD2	ADD2
Concourse					REQ	REQ		ADD2	ADD2
Passenger boarding/loading area	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Ticket counter	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<b>Warehouse—Storage Area</b>									
Medium-to-bulky, palletized items	REQ	ADD1	ADD1		REQ	REQ	REQ	ADD2	ADD2
Smaller items, picking areas	REQ	ADD1	ADD1		REQ	REQ	REQ	ADD2	ADD2

a. Where both a common *space* type and a *building-specific space* type are listed, the *building specific space* type shall apply (see Table 9.4.1-2 for common space types).

b. Automatic daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.

- a. Local control: There shall be one or more *manual lighting control device* that provides ON and OFF control of all lighting in the *space*. Each *control device* shall control an area (1) no larger than 2500 ft<sup>2</sup> if the *space* is...

[...]

**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~~ ~~9.5.2.1-1~~ and ~~9.4.1-2~~ ~~9.5.2.1-2~~.

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.

[...]

### **9.5.2 Space-by-Space Method Compliance Path**

9.5.2.1 **Space-by-Space Method of Calculating Interior Lighting Power Allowance.** Use the following steps to determine the *interior lighting power allowance* by the Space-by-Space Method:

- a. For each *space* enclosed by partitions that are 80% of the ceiling height or taller, determine the appropriate *space* type and the corresponding *LPD* value from Tables 9.5.2.1-1 and 9.5.2.1-2. If a *space* has multiple functions, where more than one *space* type is applicable, that *space* shall be broken up into smaller subspaces, each using its own *space* type from Tables 9.5.2.1-1 and 9.5.2.1-2. Any of these sub-spaces that are smaller in *floor* area than 20% of the original *space* and less than 1000 ft<sup>2</sup> need not be broken out. Include the *floor* area of balconies and other projections in this calculation.
- b. In calculating the area of each *space* and subspace, the limits of the area are defined by the centerline of interior walls, the dividing line between subspaces, and the outside surface of *exterior walls* or *semiexterior walls*. For the purposes of this section, *semiexterior walls* that separate *semiheated space* from *conditioned space* shall be considered interior walls.
- c. Based on the *space* type selected for each *space* or subspace, determine the *lighting power allowance* of each *space* or subspace by multiplying the calculated area of the *space* or subspace by the appropriate *LPD* value determined in Section 9.5.2.1(a). For *space* types not listed, selection of a reasonable equivalent category shall be permitted.
- d. The *interior lighting power allowance* is the sum of *lighting power allowances* of all *spaces* and sub-spaces. Trade-offs among *spaces* and subspaces are permitted, provided that the total *installed interior lighting power* does not exceed the *interior lighting power allowance*.

**IP Tables**

**Table 9.5.2.1-1 Maximum Lighting Power Density Using the Space-by-Space Method and Minimum Control Requirements Using Either Method (Common space types)**

*Informative Note:* This table covers common *space* types typically found in multiple *building* types. Table 9.5.2.1-2 covers *building*-specific *space* types typically found in a single *building* type

Common Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR	Common Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR
<b>Atrium</b>			<b>Loading Dock, Interior</b>	0.82-0.87	6
<20 ft in height	0.29-0.32	NA	<b>Lobby</b>		
≥20 ft and <40 ft in height	0.37-0.41	NA	Elevator	0.56-0.64	6
>40 ft in height	0.49-0.51	11	Hotel	0.48	4
<b>Audience Seating Area</b>			Motion picture theater	0.18-0.20	4
Auditorium	0.56-0.57	6	Performing arts theater	1.13-1.21	6
Gymnasium	0.19-0.23	6	All other lobbies	0.74-0.80	4
Motion picture theater	0.20-0.27	4	<b>Locker Room</b>	0.40-0.43	6
Performing arts theater	0.97-1.10	8	<b>Lounge/Breakroom</b>		
Sports arena	0.27	4	Mother's/wellness Wellness room	0.58-0.68	6
All other audience seating areas	0.23	4	All other lounges/breakrooms	0.50-0.55	4
<b>Banking Activity Area</b>	0.53-0.56	6	<b>Office</b>		
<b>Classroom/Lecture Hall/Training Room</b>			Office ≤150 ft <sup>2</sup>	0.69-0.73	8
Shop classroom	1.10-1.17	6	Office >150 and ≤300 ft <sup>2</sup>	0.62-0.66	8
All other classrooms/lecture halls/training rooms	0.68-0.72	4	Offices >300 ft <sup>2</sup>	0.52-0.56	4
<b>Computer Room</b>	0.70-0.75	4	<b>Parking Garage</b>		
<b>Conference/Meeting/Multipurpose Rooms</b>	0.83-0.88	6	Daylight transition zone	0.79-1.06	4
<b>Control/Editing Room or Booth</b>	0.65-0.73	6	All other parking and drive areas	0.08-0.11	4
<b>Copy/Print Room</b>	0.52-0.56	6	<b>Pharmacy Area</b>	1.49-1.59	6
<b>Corridor</b>	0.43-0.44	width <8 ft	<b>Restroom</b>	0.73-0.74	8
<b>Courtroom</b>	0.96-1.08	6	<b>Sales Area</b> (For accent lighting, see Section 9.5.2.2[b].)	0.79-0.85	6
<b>Dining Areas</b>			<b>Seating Area, General</b>	0.19-0.21	4
Bar/lounge or leisure fine dining	0.69-0.76	4	<b>Security Screening</b>		
Fast-food or cafeteria Cafeteria or fast-food dining	0.35-0.36	4	Airport/bus/ship/train/transportation screening	0.88-0.93	6
Casual Family dining	0.50-0.52	4	Airport/bus/ship/train/transportation screening queue	0.53-0.56	6
All other dining areas	0.40-0.42	4	General security screening	0.60-0.64	6
<b>Electrical/Mechanical Room</b>	0.67-0.71	6	<b>Stairway</b>		
<b>Emergency Vehicle Garage</b>	0.49-0.51	4	<b>Stairwell</b>	0.44-0.47	10
<b>Equipment Room</b>	0.69-0.73	6	<b>Storage Room</b>		
<b>Food Preparation</b>	0.93-0.96	6	<50 ft <sup>2</sup>	0.46-0.49	9
<b>Guest Room</b>	0.35-0.41	6	≥50 ft <sup>2</sup>	0.33-0.35	6
<b>Laboratory</b>			<b>Vehicular Maintenance Area</b>	0.56-0.59	4
In or as a classroom	1.00-1.05	6	<b>Workshop (including workshop classrooms)</b>	1.10-1.17	6
All other laboratories	1.18-1.21	6			
<b>Laundry/Washing Area</b>	0.48-0.51	4			

a. Where both a common *space* type and a *building*-specific *space* type are listed, the *building* specific *space* type shall apply (see Table 9.5.2.1-2 for *building*-specific *space* types).  
 b. Automatic daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.

**Table 9.5.2.1-2 Maximum Lighting Power Density Using the Space-by-Space Method and Minimum Control Requirements Using Either Method (building-specific spaces)**

*Informative Note:* This table covers *building-specific space* types typically found in a single *building* type. Table 9.5.2.1-1 covers common *space* types typically found in multiple *building* types.

Building-Specific Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR	Building-Specific Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR
<b>Casino—Gaming Area</b>			<b>Health Care Facility (continued)</b>		
Betting/sportsbook/keno/bingo area	<u>0.79</u> <del>0.82</del>	5	Nursery	<u>0.84</u> <del>0.87</del>	6
High-limit game area	<u>1.62</u> <del>1.68</del>	4	Nurse’s station	<u>0.93</u> <del>1.07</del>	6
Slot machine/digital gaming area	<u>0.53</u> <del>0.54</del>	5	Operating room	<u>1.99</u> <del>2.31</del>	6
Table games area	<u>1.06</u> <del>1.09</del>	5	Patient room	<u>0.73</u> <del>0.78</del>	6
<b>Convention Center—Exhibit Space</b>	<u>0.46</u> <del>0.50</del>	4	Physical therapy room	<u>0.86</u> <del>0.82</del>	6
<b>Correctional Facilities</b>			Recovery room	<u>1.13</u> <del>1.18</del>	6
Audience seating area	<u>0.53</u> <del>0.56</del>	4	Telemedicine	<u>1.11</u> <del>1.44</del>	8
Classroom/lecture hall/training room	<u>0.71</u> <del>0.74</del>	4	<b>Library</b>		
Confinement cells	<u>0.59</u> <del>0.60</del>	6	Reading area	<u>0.80</u> <del>0.86</del>	4
Dining area	<u>0.33</u> <del>0.35</del>	6	Stacks	<u>1.15</u> <del>1.18</del>	4
<b>Dormitory—Living Quarters</b>	<u>0.43</u> <del>0.48</del>	8	<b>Manufacturing Facility</b>		
<b>Facility for the Visually Impaired<sup>b</sup></b>			Detailed manufacturing area	<u>0.71</u> <del>0.75</del>	4
Chapel (used primarily by residents)	<u>0.62</u> <del>0.58</del>	4	Extra-high bay area (>50 ft <i>floor-to-ceiling</i> height)	<u>1.27</u> <del>1.36</del>	8
Corridor (used primarily by residents)	<u>0.60</u> <del>0.71</del>	width <8 ft	High bay area (25 to 50 ft <i>floor-to-ceiling</i> height)	<u>1.15</u> <del>1.24</del>	6
Dining (used primarily by residents)	<u>1.08</u> <del>1.22</del>	4	Low bay area (<25 ft <i>floor-to-ceiling</i> height)	<u>0.81</u> <del>0.85</del>	3
Lobby	<u>1.27</u> <del>1.44</del>	4	<b>Museum</b>		
Recreation room/common living room (used primarily by residents)	<u>1.06</u> <del>1.20</del>	6	General exhibition area	<u>0.27</u> <del>0.31</del>	6
Restroom (used primarily by residents)	<u>0.90</u> <del>0.96</del>	8	Restoration area	<u>1.17</u> <del>1.24</del>	4
<b>Fire Station—Sleeping Quarters</b>	<u>0.19</u> <del>0.22</del>	6	<b>Performing Arts Theater—Dressing Room</b>	<u>0.37</u> <del>0.39</del>	6
<b>Gymnasium/Fitness Center</b>			<b>Post Office—Sorting Area</b>	<u>0.67</u> <del>0.71</del>	4
Exercise area	<u>0.78</u> <del>0.82</del>	4	<b>Religious Facility</b>		
Playing area	<u>0.78</u> <del>0.82</del>	4	Audience seating area	<u>0.61</u> <del>0.72</del>	4
<b>Health Care Facility</b>			Fellowship hall	<u>0.44</u> <del>0.50</del>	4
Control room (MRI/CT/radiology/PET)	<u>0.73</u> <del>0.78</del>	8	Worship/pulpit/choir area	<u>0.64</u> <del>0.75</del>	4
Exam/treatment room	<u>1.26</u> <del>1.33</del>	8	<b>Retail Facilities</b>		
Hospital corridor	<u>0.60</u> <del>0.61</del>	Width <8 ft	Dressing/fitting room	<u>0.42</u> <del>0.45</del>	8
Imaging room	<u>0.88</u> <del>0.94</del>	6	Hair care	<u>0.61</u> <del>0.65</del>	6
Lounge	<u>0.75</u> <del>0.77</del>	6	Mall concourse	<u>0.51</u> <del>0.57</del>	4
Medical supply room	<u>0.52</u> <del>0.56</del>	6	Massage	<u>0.71</u> <del>0.81</del>	8
			Nail care	<u>0.72</u> <del>0.75</del>	6

- Where both a common *space* type and a *building-specific space* type are listed, the *building specific space* type shall apply (see Table 9.5.2.1-1 for common *space* types).
- ~~Automatic daylight responsive controls are mandatory only if the space meets the requirements of the specified sections.~~ A facility for the visually impaired is a facility that can be documented as being designed to comply with the light levels in ANSI/IES RP-28 and that is or will be licensed by local/state authorities for senior long-term care, adult daycare, senior support, and/or people with special visual needs.
- Class of play as defined by ANSI/IES RP-6

**Informative Note:** This table covers *building-specific space* types typically found in a single *building* type. Table 9.5.2.1-1 covers common *space* types typically found in multiple *building* types.

Common Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR	Common Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR
<b>Sports Arena—Playing Area<sup>c</sup></b>			<b>Transportation Facility</b>		
Class I facility	<u>2.65</u> <del>2.86</del>	4	Airport hanger	<u>1.27</u> <del>1.36</del>	4
Class II facility	<u>1.87</u> <del>1.98</del>	4	Baggage/carousel area	<u>0.29</u> <del>0.28</del>	4
Class III facility	<u>1.21</u> <del>1.29</del>	4	Concourse	<u>0.46</u> <del>0.49</del>	4
Class IV facility	<u>0.81</u> <del>0.85</del>	4	Passenger <del>boarding</del> <u>loading</u> area	0.71	6
<b>Natorium<sup>c</sup></b>			Ticket counter	<u>0.37</u> <del>0.40</del>	4
Class I facility	<u>2.09</u> <del>2.20</del>	4	<b>Warehouse—Storage Area</b>		
Class II facility	<u>1.39</u> <del>1.47</del>	4	Medium-to-bulky, palletized items	<u>0.41</u> <del>0.33</del>	4
Class III facility	<u>0.93</u> <del>0.99</del>	4	Smaller items, picking areas	<u>0.83</u> <del>0.69</del>	6
Class IV facility	<u>0.56</u> <del>0.59</del>	4			

- Where both a common *space* type and a *building-specific space* type are listed, the *building specific space* type shall apply (see Table 9.5.2.1-2 for *building-specific space* types).
- ~~Automatic daylight responsive controls are mandatory only if the space meets the requirements of the specified sections.~~  
 A facility for the visually impaired is a facility that can be documented as being designed to comply with the light levels in ANSI/IES RP-28 and that is or will be licensed by local/state authorities for senior long-term care, adult daycare, senior support, and/or people with special visual needs.
- Class of play as defined by ANSI/IES RP-6

[...]

**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 <sup>2</sup>	Section 9.4.1.1(j)
9.5.2.2(b)	Retail sales	750 W + (Retail Area 1 × 0.40 W/ft <sup>2</sup> ) + (Retail Area 2 × 0.40 W/ft <sup>2</sup> ) + (Retail Area 3 × 0.70 W/ft <sup>2</sup> ) + (Retail Area 4 × 1.00 W/ft <sup>2</sup> )	Section 9.4.1.1(j)
9.5.2.2(c)	Video conferencing	0.50 W/ft <sup>2</sup>	See Tables <del>9.5.2.1-1</del> <u>9.4.1-1</u> and <del>9.5.2.1-2</del> <u>9.4.1-2</u> space types for required controls.
9.5.2.2(d)	Interior exit stairway	1.0 W/ft <sup>2</sup> (10.76 W/m <sup>2</sup> )	Section 9.4.1.1(g) and either 9.4.1.1(h) or 9.4.1.1(i)

**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

**SI Tables**

**Table 9.5.2.1-1 Maximum Lighting Power Density Using the Space-by-Space Method and Minimum Control Requirements Using Either Method (Common space types)**

*Informative Note:* This table covers common *space* types typically found in multiple *building* types. Table 9.5.2.1-2 covers *building*-specific *space* types typically found in a single *building* type

Common Space Types <sup>a</sup>	LPD, W/m <sup>2</sup>	RCR	Common Space Types <sup>a</sup>	LPD, W/m <sup>2</sup>	RCR
<b>Atrium</b>			<b>Loading Dock, Interior</b>	<u>8.8</u> 9.4	6
<20 ft in height	<u>3.1</u> 3.4	NA	<b>Lobby</b>		
≥20 ft and <40 ft in height	<u>4.0</u> 4.4	NA	Elevator	<u>6.0</u> 6.3	6
>40 ft in height	<u>5.3</u> 5.5	11	<b>Hotel</b>	<u>5.1</u>	4
<b>Audience Seating Area</b>			Motion picture theater	<u>1.9</u> 2.1	4
Auditorium	<u>6.0</u> 6.1	6	Performing arts theater	<u>12.2</u> 13.0	6
Gymnasium	<u>2.0</u> 2.5	6	All other lobbies	<u>8.0</u> 8.6	4
Motion picture theater	<u>2.2</u> 2.9	4	<b>Locker Room</b>	<u>4.3</u> 4.6	6
Performing arts theater	<u>10.4</u> 11.8	8	<b>Lounge/Breakroom</b>		
Sports arena	2.9	4	Mother's/wellness Wellness room	<u>6.2</u> 7.3	6
All other audience seating areas	2.5	4	All other lounges/breakrooms	5.4	4
<b>Banking Activity Area</b>	<u>5.7</u> 6.0	6	<b>Office</b>		
<b>Classroom/Lecture Hall/Training Room</b>			Office ≤150 ft <sup>2</sup>	<u>7.4</u> 7.9	8
Shop classroom	<u>11.8</u> 12.6	6	Office >150 and ≤300 ft <sup>2</sup>	<u>6.7</u> 7.1	8
All other classrooms/lecture halls/training rooms	<u>7.3</u> 7.7	4	Offices >300 ft <sup>2</sup>	<u>5.6</u> 5.9	4
<b>Computer Room</b>	<u>7.5</u> 8.0	4	<b>Parking Garage</b>		
<b>Conference/Meeting/Multipurpose Rooms</b>	<u>8.9</u> 9.5	6	Daylight transition zone	<u>8.5</u> 11.4	4
<b>Control/Editing Room or Booth</b>	<u>7.0</u> 7.9	6	All other parking and drive areas	<u>0.9</u> 1.1	4
<b>Copy/Print Room</b>	<u>5.6</u> 6.0	6	<b>Pharmacy Area</b>	<u>16.0</u> 17.1	6
<b>Corridor</b>	<u>4.6</u> 4.8	width <8 ft	<b>Restroom</b>	7.9	8
<b>Courtroom</b>	<u>10.3</u> 11.6	6	<b>Sales Area</b> (For accent lighting, see Section 9.5.2.2[b].)	<u>8.5</u> 9.1	6
<b>Dining Areas</b>			<b>Seating Area, General</b>	<u>2.0</u> 2.2	4
Bar/lounge or <del>leisure</del> fine dining	<u>7.4</u> 8.2	4	<b>Security Screening</b>		
Fast-food or cafeteria <del>Cafeteria or fast food</del> dining	<u>3.8</u> 3.9	4	Airport/bus/ship/train/transportation screening	<u>9.5</u> 10.0	6
Casual <del>Family</del> dining	<u>5.4</u> 5.6	4	Airport/bus/ship/train/transportation screening queue	<u>5.7</u> 6.0	6
All other dining areas	<u>4.3</u> 4.5	4	General security screening	<u>6.5</u> 6.9	6
<b>Electrical/Mechanical Room</b>	<u>7.2</u> 7.6	6	<b>Stairway</b>		
<b>Emergency Vehicle Garage</b>	<u>5.3</u> 5.5	4	<b>Stairwell</b>	<u>4.7</u> 5.0	10
<b>Equipment Room</b>	<u>0.69</u> 0.73	6	<b>Storage Room</b>		
<b>Food Preparation</b>	<u>10.0</u> 10.4		<50 ft <sup>2</sup>	<u>4.9</u> 5.2	9
<b>Guest Room</b>	<u>3.8</u> 4.3	6	≥50 ft <sup>2</sup>	<u>3.6</u> 3.8	6
<b>Laboratory</b>			<b>Vehicular Maintenance Area</b>	<u>6.0</u> 6.4	4
In or as a classroom	<u>10.8</u> 11.3	6	<b>Workshop (including workshop classrooms)</b>	<u>11.8</u> 12.6	6
All other laboratories	<u>12.7</u> 13.0	6			
<b>Laundry/Washing Area</b>	<u>5.2</u> 5.5	4			

a. Where both a common *space* type and a *building*-specific *space* type are listed, the *building* specific *space* type shall apply (see Table 9.5.2.1-2 for *building*-specific *space* types).

b. Automatic daylight responsive controls are mandatory only if the *space* meets the requirements of the specified sections.

**Table 9.5.2.1-2 Maximum Lighting Power Density Using the Space-by-Space Method and Minimum Control Requirements Using Either Method (building-specific spaces)**

*Informative Note:* This table covers *building-specific space* types typically found in a single *building* type. Table 9.5.2.1-1 covers common *space* types typically found in multiple *building* types.

Building-Specific Space Types <sup>a</sup>	LPD, W/m <sup>2</sup>	RCR	Building-Specific Space Types <sup>a</sup>	LPD, W/m <sup>2</sup>	RCR
<b>Casino—Gaming Area</b>			<b>Health Care Facility (continued)</b>		
Betting/sportsbook/keno/bingo area	<del>8.6</del> 8.8	5	Nursery	<del>9.1</del> 9.4	6
High-limit game area	<del>17.4</del> 18.0	4	Nurse’s station	<del>10.0</del> 11.5	6
Slot machine/digital gaming area	<del>5.7</del> 5.9	5	Operating room	<del>21.4</del> 24.9	6
Table games area	<del>7.6</del> 8.0	5	Patient room	<del>7.8</del> 8.4	6
<b>Convention Center—Exhibit Space</b>	<del>5.0</del> 5.4	4	Physical therapy room	<del>8.8</del> 9.2	6
<b>Correctional Facilities</b>			Recovery room	<del>12.1</del> 12.7	6
Audience seating area	<del>5.7</del> 6.1	4	Telemedicine	<del>12.0</del> 15.4	8
Classroom/lecture hall/training room	<del>7.6</del> 8.0	4	<b>Library</b>		
Confinement cells	<del>6.3</del> 6.5	6	Reading area	<del>8.6</del> 9.3	4
Dining area	<del>3.6</del> 3.8	6	Stacks	<del>12.4</del> 12.7	4
<b>Dormitory—Living Quarters</b>	<del>4.7</del> 5.2	8	<b>Manufacturing Facility</b>		
<b>Facility for the Visually Impaired<sup>b</sup></b>			Detailed manufacturing area	<del>7.7</del> 8.1	4
Chapel (used primarily by residents)	<del>6.7</del> 7.1	4	Extra-high bay area (>50 ft <i>floor-to-ceiling</i> height)	<del>13.7</del> 14.6	8
Corridor (used primarily by residents)	<del>6.4</del> 6.5	width <8 ft	High bay area (25 to 50 ft <i>floor-to-ceiling</i> height)	<del>12.4</del> 13.3	6
Dining (used primarily by residents)	<del>11.6</del> 13.1	4	Low bay area (<25 ft <i>floor-to-ceiling</i> height)	<del>8.7</del> 9.2	3
Lobby	<del>13.7</del> 15.5	4	<b>Museum</b>		
Recreation room/common living room (used primarily by residents)	<del>11.5</del> 12.9	6	General exhibition area	<del>2.9</del> 3.3	6
Restroom (used primarily by residents)	<del>9.7</del> 10.3	8	Restoration area	<del>12.6</del> 13.4	4
<b>Fire Station—Sleeping Quarters</b>	<del>2.1</del> 2.4	6	<b>Performing Arts Theater—Dressing Room</b>	<del>4.0</del> 4.2	6
<b>Gymnasium/Fitness Center</b>			<b>Post Office—Sorting Area</b>	<del>7.2</del> 7.6	4
Exercise area	<del>8.4</del> 8.8	4	<b>Religious Facility</b>		
Playing area	<del>8.4</del> 8.8	4	Audience seating area	<del>6.5</del> 7.8	4
<b>Health Care Facility</b>			Fellowship hall	<del>4.7</del> 5.4	4
Control room (MRI/CT/radiology/PET)	<del>7.8</del> 8.4	8	Worship/pulpit/choir area	<del>6.9</del> 8.1	4
Exam/treatment room	<del>13.5</del> 14.3	8	<b>Retail Facilities</b>		
Hospital corridor	<del>6.4</del> 6.5	Width <8 ft	Dressing/fitting room	<del>4.5</del> 4.9	8
Imaging room	<del>9.5</del> 10.1	6	Hair care	<del>6.6</del> 7.0	6
Lounge	<del>8.1</del> 8.3	6	Mall concourse	<del>5.5</del> 6.1	4
Medical supply room	<del>5.6</del> 6.0	6	Massage	<del>7.6</del> 8.7	8
			Nail care	a.1 <del>7.7</del>	6

- Where both a common *space* type and a *building-specific space* type are listed, the *building specific space* type shall apply (see Table 9.5.2.1-1 for common *space* types).
- ~~Automatic daylight responsive controls are mandatory only if the space meets the requirements of the specified sections.~~ A facility for the visually impaired is a facility that can be documented as being designed to comply with the light levels in ANSI/IES RP-28 and that is or will be licensed by local/state authorities for senior long-term care, adult daycare, senior support, and/or people with special visual needs.
- Class of play as defined by ANSI/IES RP-6



**Informative Note:** This table covers *building-specific space* types typically found in a single *building* type. Table 9.5.2.1-1 covers common *space* types typically found in multiple *building* types.

Common Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR	Common Space Types <sup>a</sup>	LPD, W/ft <sup>2</sup>	RCR
<b>Sports Arena—Playing Area<sup>c</sup></b>			<b>Transportation Facility</b>		
Class I facility	<del>28.5</del> 30.8	4	Airport hanger	<del>13.7</del> 14.6	4
Class II facility	<del>20.1</del> 21.3	4	Baggage/carousel area	<del>3.1</del> 3.0	4
Class III facility	<del>13.1</del> 13.8	4	Concourse	<del>4.9</del> 5.3	4
Class IV facility	<del>8.7</del> 9.2	4	Passenger boarding/loading area	7.7	6
<b>Natorium<sup>c</sup></b>			Ticket counter		
Class I facility	<del>22.5</del> 23.7	4	<b>Warehouse—Storage Area</b>		
Class II facility	<del>15.0</del> 15.8	4	Medium-to-bulky, palletized items	<del>4.4</del> 3.6	4
Class III facility	<del>10.0</del> 10.7	4	Smaller items, picking areas	<del>8.9</del> 7.4	6
Class IV facility	<del>6.0</del> 6.4	4			

- a. Where both a common *space* type and a *building-specific space* type are listed, the *building specific space* type shall apply (see Table 9.5.2.1-2 for *building-specific space* types).
- b. ~~Automatic daylight responsive controls are mandatory only if the space meets the requirements of the specified sections.~~ A facility for the visually impaired is a facility that can be documented as being designed to comply with the light levels in ANSI/IES RP-28 and that is or will be licensed by local/state authorities for senior long-term care, adult daycare, senior support, and/or people with special visual needs.
- c. Class of play as defined by ANSI/IES RP-6