

ADDENDA

**ANSI/ASHRAE/IES Addendum ba to
ANSI/ASHRAE/IES Standard 90.1-2019**

Energy Standard for Buildings Except Low-Rise Residential Buildings

Approved by the ASHRAE Standards Committee on July 20, 2022; by the ASHRAE Board of Directors on August 15, 2022; by the Illuminating Engineering Society on September 8, 2022; and by the American National Standards Institute on September 9, 2022

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FOREWORD

Addendum ba updates space-by-space lighting power density (LPD) values and interior control requirements in Section 9.4.1.1 and Table 9.5.2.1. Previously published Addendum ad renumbered Table 9.6.1 as Table 9.5.2.1. Addendum ba splits this table in two parts, Table 9.5.2.1-1 and Table 9.5.2.1-2, for common space types and building-specific space types, respectively, to simplify future updates.

Table G3.7 was modified to reflect changes to the space types and LPD values in Table 9.5.2.1. Addendum ba also splits this table in two parts, Table G3.7-1 and Table G3.7-2, for common space types and building-specific space types, respectively, to simplify future updates.

Control Changes

- *Some common space types have been moved and are now listed under building -specific space types, simplifying how they are organized in the table.*
- *Several new space types have been added to the table.*
- *Footnotes have been revised. Some are now incorporated into their related space types, and others are deleted where they no longer apply.*
- *Some space control requirements in Table 9.5.2 have been revised.*
- *Multilevel control with continuous dimming replaces the bilevel lighting control requirement (Section 9.4.1.1[d]). Similar provision for dimming has also been removed from Table 9.5.2.3, as it is no longer applicable.*
- *Office spaces larger than 300 ft² are now required to follow new restricted to automatic partial-ON requirements (Section 9.4.1.1[c]), new automatic reduction control requirements (renamed Section 9.4.1.1[g]), and “automatic full-OFF control requirements (Section 9.4.1.1[h]) within control zones limited to 600 ft².*

New requirements for multilevel control and for offices larger than 300 ft² have been determined to be cost effective in accordance with the ASHRAE SSPC 90.1 cost-effective scaler ratio methodology.

LPD Changes

- *Space-by-space LPD values have been updated based on improvements in efficacy (lumens per watt).*
- *The luminaire data set within the Standard 90.1 lighting model has been updated to account for changes in product specs and availability.*
- *On average, LPD values have been reduced by 4% to account for changes in technology.*

More than 150 data sheets from more than 10 lighting manufacturers data sheets were compiled. The 2021 data sheets indicate increased efficacy as compared to products from 2018 and 2019. At least 2/3 of the data sheets compared were the same fixture from 2019 and 2021. For most of the directly tracked products, the efficacy of these fixtures increased in this time. Lighting conditions were modeled for each of the spaces using these 2021 efficacy values, and the resultant lighting power density values were these proposed values. There is no cost increase associated with these changes. The reduced lighting power density values are based on manufacturer data sheets. Manufacturers have improved the performance of their products and these values are based on their improvements.

Other

Additional changes were made to the normative and informative references in Section 12 and Appendix E, respectively.

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 ba to Standard 90.1-2019

Modify Section 9.4.1 as shown (I-P and SI).

9.4.1 Lighting Control. *Building lighting controls* shall be installed to meet the provisions of Sections 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 Table 9.5.2.1, 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.

- a. Local control: There shall be one or more *manual lighting controls device* that provides ON and OFF control of all lighting in the *space* ~~that controls all of the lighting in the space~~. Each *control device* shall control an area (1) no larger than 2500 ft² (232 m²) if the *space* is ≤10,000 ft² (929 m²) and (2) no larger than 10,000 ft² (929 m²) otherwise. The device installed to comply with this provision shall be *readily accessible* and located so that the occupants can see the controlled lighting when using the *control device*.

Exception to 9.4.1.1(a): Remote location of this local *control device* or devices shall be permitted for reasons of safety or security when each remote *control device* has an indicator pilot light as part of or next to the *control device* and the *control device light* is clearly *labeled* to identify the controlled lighting.

- b. Restricted to *manual ON*: None of the lighting shall be automatically turned on.

Exception to 9.4.1.1(b): *Manual ON* is not required where *manual ON* operation of the *general lighting* would endanger the safety or security of the room or *building* occupants.

- c. Restricted to partial *automatic ON*: No more than 50% of the lighting power for the *general lighting* shall be allowed to be *automatically* turned on, and none of the remaining lighting shall be *automatically* turned on.

Offices greater than 300 ft² (28m²), shall have the following requirements:

1. Control zones for general lighting shall be limited to 600 ft² (56 m²).
2. Control zones for general lighting shall be permitted to automatically turn on, up to full power upon occupancy.
3. General lighting in other unoccupied control zones shall be permitted to automatically turn on to no more than 20 percent of full power.

~~**Exception to 9.4.1.1(c):** Lighting in open-plan office spaces shall be allowed to turn on automatically to more than 50%, provided the control zone is no larger than 600 ft² (56 m²).~~

- d. ~~Multilevel Bilevel~~ lighting control: The *general lighting* in the *space* shall be *manually controlled* ~~so as to provide with continuous dimming to 10% or less of full lighting power in addition to full ON and full OFF. at least one intermediate step in lighting power or continuous dimming in addition to full ON and full OFF. At least one intermediate step shall be between 30% and 70% (inclusive) of full lighting power.~~
- e. Automatic daylight responsive controls for sidelighting: In any space where the combined input power of all *general lighting* completely or partially within the primary sidelighted areas is 75 W or greater, the *general lighting* in the primary sidelighted areas shall be controlled by photocontrols.

In any space where the combined input power of all *general lighting* completely or partially within the primary sidelighted area and secondary sidelighted area is 150 W or greater, the *general lighting* in the primary sidelighted area and secondary sidelighted area shall be controlled by photocontrols. *General lighting* in the secondary sidelighted area shall be controlled independently of the *general lighting* in the primary sidelighted area.

The *control system* shall have the following characteristics:

- The calibration adjustment control shall be located no higher than 11 ft (3.4 m) above the finished *floor*. Calibration shall not require the physical presence of a person at the sensor while it is processing.
- The photocontrol shall reduce ~~electric~~ lighting power in response to available daylight using ~~continuous dimming~~ continuous daylight dimming to 20% or less and OFF.

3. When an automatic ~~reduction partial OFF~~ control has reduced the lighting power to the unoccupied set point in accordance with Section 9.4.1(g), the daylight responsive control shall adjust the electric light in response to available daylight, but it shall not allow the lighting power to be above the unoccupied set point.

Exception to 9.4.1.1(e): The following areas are exempted from Section 9.4.1.1(e):

1. *Primary sidelighted areas* where the top of any existing adjacent structure or natural object is at least twice as high above the windows as its horizontal distance away from the windows.
 2. Sidelighted areas where the total glazing area is less than 20 ft² (1.9 m²).
 - ~~3. Retail spaces.~~
 4. *Primary sidelighted areas* adjacent to *vertical fenestration* that have external projections and no *vertical fenestration* above the external projection, where the external projection has a *projection factor* greater than 1.0 for *north-oriented* projections or where the external projection has a *projection factor* greater than 1.5 for all other orientations (see Figure 3.2-6).
- f. Automatic daylight responsive controls for toplighting: In any space where the combined input power for all *general lighting* completely or partially within daylight area under skylights and daylight area under roof monitors is 75 W or greater, *general lighting* in the daylight area shall be controlled by photo-controls. The control system shall have the following characteristics:
1. The calibration adjustment control shall be located no higher than 11 ft (3.4 m) above the finished floor. Calibration shall not require the physical presence of a person at the sensor while it is processing.
 2. The photocontrol shall reduce ~~electric~~ lighting power in response to available daylight using ~~continuous dimming~~ continuous daylight dimming to 20% or less and OFF.
 3. When an *automatic reduction partial OFF control* has reduced the lighting power to the unoccupied set point in accordance with Section 9.4.1(g), the daylight responsive control shall adjust the electric light in response to available daylight, but it shall not allow the lighting power to be above the unoccupied set point.
 4. General lighting in overlapping toplighted and sidelighted daylight areas shall be controlled together with general lighting in the daylight area *under skylights* or *daylight area under roof monitors*.

Exception to 9.4.1.1(f): The following areas are exempted from Section 9.4.1.1(f):

1. *Daylight area under skylights* where it is documented that existing adjacent structures or natural objects block direct sunlight for more than 1500 daytime hours per year between 8 a.m. and 4 p.m.
 2. *Daylight area under skylights* where the overall *skylight effective aperture* for the *enclosed space* is less than 0.006.
 3. In each *space* within *buildings* in Climate Zone 8 where the input power of the *general lighting* within *daylight areas* is less than 200 W.
- g. Automatic ~~partial OFF~~ reduction control (full OFF complies): The *general lighting* power in the *space* shall be *automatically* reduced by at least 50% within 20 minutes of all occupants leaving the *space*.
In offices greater than 300 ft² (28m²), control zones for general lighting shall:
1. be limited to 600 ft² (56 m²).
 2. automatically reduce general lighting by at least 80% of full power within 20 minutes of all occupants leaving a control zone.

~~**Exception to 9.4.1.1(g):** This requirement does not have to be complied with in *spaces* that meet all four of the following requirements:~~

- ~~1. The *space* has an installed LPD of no more than 0.80 W/ft² (8.6 W/m²).~~
 - ~~2. The *space* is lighted by *HID lamp*.~~
 - ~~3. The *general lighting* power in the *space* is *automatically* reduced by at least 30% within 20 minutes of all occupants leaving the *space*.~~
 - ~~4. Lighting load does not exceed 0.02 W/ft² (0.22 W/m²) multiplied by the *gross lighted floor area* of the *building*.~~
- h. Automatic full OFF control: All lighting in the *space*, including lighting connected to emergency circuits, shall be *automatically* shut off within 20 minutes of all occupants leaving the *space*. A *control device* meeting this requirement shall *control* no more than 5000 ft² (465 m²).

Exception to 9.4.1.1(h): The following lighting is not required to be *automatically* shut off:

- ~~1. *General lighting* and *task lighting* in *shop* and *laboratory classrooms*.~~
1. Lighting required for 24/7 continuous operation.
2. Lighting in spaces where patient care is rendered.

~~2.3. General lighting and task lighting in spaces where automatic shutoff would endanger the safety or security of the room or building occupants.~~

~~3. Lighting required for 24/7 operation.~~

4. Lighting load not exceeding 0.02 W/ft^2 (0.22 W/m^2) multiplied by the *gross lighted floor area* of the building.

- i. Scheduled shutoff: All lighting in the *space*, including lighting connected to emergency circuits, shall be *automatically* shut off during periods when the *space* is scheduled to be unoccupied using either (1) a time-of-day operated *control device* that *automatically* turns the lighting off at specific programmed times or (2) a signal from another *automatic control device* or alarm/security *system*. The *control device* or *system* shall provide independent *control* sequences that (1) *control* the lighting for an area of no more than $25,000 \text{ ft}^2$ (2323 m^2), (2) include no more than one *floor*, and (3) shall be programmed to account for weekends and holidays. Any *manual control* installed to provide override of the scheduled shutoff *control* shall not turn the lighting on for more than two hours per activation during scheduled off periods and shall not *control* more than 5000 ft^2 (465 m^2).

Exception to 9.4.1.1(i): The following lighting is not required to be on scheduled shutoff:

1. Lighting ~~in spaces where lighting is required for 24/7 continuous operation.~~
 2. Lighting in *spaces* where patient care is rendered.
 3. ~~General lighting and task lighting~~ Lighting in *spaces* where *automatic* shutoff would endanger the safety or security of the room or *building* occupants.
 4. Lighting load not exceeding 0.02 W/ft^2 (0.22 W/m^2) multiplied by the *gross lighted floor area* of the building.
- j. Scheduled OFF during nonbusiness hours: Lighting shall be scheduled to provide automatic OFF control so that lights are turned off at the end of business hours, using either (1) a time-of-day operated *control device* that *automatically* turns the lighting off at specific programmed times or (2) a signal from another *automatic control device* or alarm/security system. Any manual control installed to provide override of the scheduled control shall not turn the lighting on for more than two hours per activation during scheduled off periods.

Modify Table 9.5.2.1 as shown (I-P and SI).

Table 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<p><i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are typically found in a single building type.</p>			<p>The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each space type:</p> <p>(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.</p>								
Common Space Types ^a	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g]) †Full OFF complies†	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^c	9.4.1.1(d) ^d	9.4.1.1(e) ^{de}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Atrium											
<20 ft in height	0.39 0.32	NA	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
≥20 ft and ≤40 ft in height	0.48 0.41	NA	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
>40 ft in height	0.60 0.51	11	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Audience Seating Area											
Auditorium	0.61 0.57	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Gymnasium	0.23	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Motion picture theater	0.27	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Penitentiary	0.67	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Performing arts theater	1.16 1.10	8	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Religious facility	0.72	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Sports arena	0.33 0.27	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
All other audience seating areas	0.23	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<p><i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are typically found in a single building type.</p>			<p>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.</p>								
Common Space Types ^{a,b}	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g]) Full OFF complies	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{6e}	9.4.1.1(f) ^{6f}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Banking Activity Area	0.61 0.56	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Classroom/Lecture Hall/Training Room											
Penitentiary	0.89	4	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Shop classroom	1.17	6	REQ	ADD1	ADD1		REQ	REQ			REQ
All other classrooms/lecture halls/training rooms	0.71 0.72	4	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Computer Room	0.94 0.75	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Conference/Meeting/Multipurpose Rooms	0.97 0.88	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Confinement Cells	0.70	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Control/Editing Room or Booth	0.73	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Copy/Print Room	0.31 0.56	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Corridor ²	0.44	width ≤8 ft	REQ				REQ	REQ	REQ	ADD2	ADD2
Facility for the visually impaired (and not used primarily by the staff) ³	0.71	width ≤8 ft	REQ				REQ	REQ	REQ	ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<p><i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are typically found in a single building type.</p>			<p>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.</p>								
Common Space Types ^{1,2}	LPD, W/ft ²	RCR	Local Control (See Section 9.4.1.1(a)) ³	Restricted to Manual ON (See Section 9.4.1.1(b)) ⁴	Restricted to Partial Automatic ON (See Section 9.4.1.1(c)) ⁵	Bilevel Multilevel Lighting Control (See Section 9.4.1.1(d)) ⁶	Automatic Daylight Responsive Controls for Sidelighting (See Section 9.4.1.1(e)) ⁶	Automatic Daylight Responsive Controls for Toplighting (See Section 9.4.1.1(f)) ⁶	Automatic Reduction Partial OFF (See Section 9.4.1.1(g)) ⁷ {Full OFF complies}	Automatic Full OFF (See Section 9.4.1.1(h)) ⁸	Scheduled Shutoff (See Section 9.4.1.1(i)) ⁸
			9.4.1.1(a) ³	9.4.1.1(b) ⁴	9.4.1.1(c) ⁵	9.4.1.1(d) ⁶	9.4.1.1(e) ⁶	9.4.1.1(f) ⁶	9.4.1.1(g) ⁷	9.4.1.1(h) ⁸	9.4.1.1(i) ⁸
Hospital	0.71	width <8 ft	REQ				REQ	REQ	ADD2	ADD2	ADD2
All other corridors	0.41	width <8 ft	REQ				REQ	REQ	REQ	ADD2	ADD2
Courtroom	1.20 1.08	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Dining Areas											
Penitentiary	0.42	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Facility for the visually impaired (and not used primarily by staff) ³	1.27	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Bar/lounge or leisure dining	0.86 0.76	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Cafeteria or fast-food dining	0.40 0.36	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Family dining	0.60 0.52	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
All other dining areas	0.43 0.42	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Electrical/Mechanical Room ⁷	0.43 0.71	6	REQ				REQ	REQ			

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult daycare, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Picking Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

Common Space Types ^{a,2}			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.								
			Local Control (See Section[a]) 9.4.1.1(a) ^a	Restricted to Manual ON (See Section[b]) 9.4.1.1(b) ^b	Restricted to Partial Automatic ON (See Section[c]) 9.4.1.1(c) ^e	Bilevel Multilevel Lighting Control (See Section[d]) 9.4.1.1(d) ^d	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶) 9.4.1.1(e) ^{de}	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶) 9.4.1.1(f) ^{df}	Automatic Reduction Partial OFF (See Section[g]) Full OFF complies) 9.4.1.1(g) ^e	Automatic Full OFF (See Section[h]) 9.4.1.1(h) ^h	Scheduled Shutoff (See Section[i]) 9.4.1.1(i) ⁱ
Emergency Vehicle Garage	0.52 0.51	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
<u>Equipment Room</u>	0.73	6	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Food Preparation Area	1.09 1.19	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Guest Room	0.41	6	See Section 9.4.1.3(b).								
Laboratory											
In or as a classroom	1.11 1.05	6	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
All other laboratories	1.33 1.21	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Laundry/Washing Area	0.53 0.51	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2 REQ	ADD2
Loading Dock, Interior	0.88 0.87	6	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Lobby											
Facility for the visually impaired (and not used primarily by the staff) ³	1.69	4	REQ				REQ	REQ	REQ	ADD2	ADD2
Elevator	0.65 0.64	6	REQ				REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Picking Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

Common Space Types ^a			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.									
			LPD, W/ft ²	RCR	Local Control (See Section[a]) 9.4.1.1(a) ^a	Restricted to Manual ON (See Section[b]) 9.4.1.1(b) ^b	Restricted to Partial Automatic ON (See Section[c]) 9.4.1.1(c) ^c	Bilevel Multilevel Lighting Control (See Section[d]) 9.4.1.1(d) ^d	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ^e) 9.4.1.1(e) ^e	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ^f) 9.4.1.1(f) ^f	Automatic Reduction Partial OFF (See Section[g]) Full OFF complies) 9.4.1.1(g) ^g	Automatic Full OFF (See Section[h]) 9.4.1.1(h) ^h
Hotel	0.51 0.48	4	REQ					REQ	REQ		ADD2	ADD2
Motion picture theater	0.23 0.20	4	REQ					REQ	REQ		ADD2	ADD2
Performing arts theater	1.25 1.21	6	REQ					REQ	REQ	REQ	ADD2	ADD2
All other lobbies	0.84 0.80	4	REQ					REQ	REQ	REQ	ADD2	ADD2
Locker Room	0.52 0.43	6	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ		REQ	
Lounge/Breakroom												
Healthcare facility	0.42	6	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ		REQ	
Mother's/wellness room	0.68	6	REQ	ADD1	ADD1	REQ					REQ	
All other lounges/breakrooms	0.59 0.55	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ		REQ	
Office												
Enclosed and ≤250-Office ≤150 ft ²	0.74 0.73	8	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ		REQ	
Enclosed and Office >150 and ≤300-250 ft ²	0.66	8	REQ	ADD1	ADD1	REQ					ADD2 REQ	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
4. For accent lighting, see Section 9.6.2(b).
5. Sometimes referred to as a "Picking Area."
6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
8. Class of play as defined by IES RP-6.
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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<p><i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are typically found in a single building type.</p>			<p>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.</p>									
Common Space Types ^{1,2}	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g]) Full OFF complies	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])	
			9.4.1.1(a) ³	9.4.1.1(b) ³	9.4.1.1(c) ³	9.4.1.1(d) ⁴	9.4.1.1(e) ^{4,5}	9.4.1.1(f) ^{4,5}	9.4.1.1(g) ⁵	9.4.1.1(h) ⁵	9.4.1.1(i) ⁵	
Open-plan Offices >300 ft ²	0.61 0.56	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2 REQ	ADD2	
Parking Garage												
Daylight transition zone	1.06	4	See Section 9.4.1.2									
All other parking and drive areas Parking-Area, Interior	0.11	4	See Section 9.4.1.2									
Pharmacy Area	1.66 1.59	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
Restroom	0.74	8								REQ		
Facility for the visually impaired (and not used primarily by the staff) ³	1.26	8					REQ	REQ		REQ		
All other restrooms	0.63	8					REQ	REQ		REQ		
Sales Area ⁴ (For accent lighting, see Section 9.6.2[b].)	1.05 0.85	6	REQ	ADD1	ADD1	REQ		REQ		ADD2	ADD2	
Seating Area, General	0.23 0.21	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2	
Security Screening												
Airport/bus/ship/train/transportation screening	0.93	6	REQ				REQ	REQ		ADD2	ADD2	

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are 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 ^a	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Airport/bus/ship/train/transportation screening queue	0.56	6	REQ				REQ	REQ		ADD2	ADD2
General security screening	0.64	6	REQ				REQ	REQ		ADD2	ADD2
Stairway	The space containing the stairway shall determine the LPD and control requirements for the stairway.										
Stairwell	0.49 0.47	10				REQ	REQ	REQ	REQ	ADD2	ADD2
Storage Room											
<50 ft ²	0.51 0.49	9	REQ	REQ						ADD2 REQ	ADD2
≥50 ft ²	0.38 0.35	6	REQ	ADD1	ADD1		REQ	REQ		REQ	
Vehicular Maintenance Area	0.60 0.59	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Workshop (including workshop classrooms)	1.26 1.17	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickup Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type-Specific Space Types ^{1a}	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Casino—Gaming Area											
Betting/sportsbook/keno/bingo area	0.82	5				REQ				ADD2	ADD2
High-limit game area	1.68	4				REQ				ADD2	ADD2
Slot machine/digital gaming area	0.54	5				REQ				ADD2	ADD2
Table games area	1.09	5				REQ				ADD2	ADD2
Convention Center—Exhibit Space	0.61 0.50	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2 REQ
Correctional Facilities											
Audience seating area	0.56	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Classroom/lecture hall/training room	0.74	4	REQ	ADD1	ADD1	REQ	REQ	REQ			
Confinement cells	0.60	6	REQ								REQ
Dining area	0.35	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Dormitory—living quarters	0.50 0.48	8	REQ								
Facility for the Visually Impaired (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)	0.70 0.58	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult daycare, senior support and/or people with special visual needs.
4. For accent lighting, see Section 9.6.2(b).
5. Sometimes referred to as a "Pickling Area."
6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
8. Class of play as defined by IES RP-6.
a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type/Specific Space Types ^a	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Corridor (used primarily by residents)	0.71	width <8 ft	REQ				REQ	REQ	REQ	ADD2	ADD2
Dining (used primarily by residents)	1.22	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Lobby	1.44	4	REQ				REQ	REQ	REQ	ADD2	ADD2
Recreation room/common living room (used primarily by residents)	1.77 1.20	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Restroom (used primarily by residents)	0.96	8					REQ	REQ		REQ	
Fire Station—Sleeping Quarters	0.23 0.22	6	REQ								
Gymnasium/Fitness Center											
Exercise area	0.90 0.82	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Playing area	0.85 0.82	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Health Care Facility											
Control room (MRI/CT/radiology/PET)	0.78	8	REQ	REQ		REQ				REQ	
Exam/treatment room	1.40 1.33	8	REQ			REQ	REQ	REQ		ADD2	ADD2
Hospital corridor	0.61	width <8 ft	REQ				REQ	REQ	ADD2	ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<i>Informative Note:</i> This table is divided into two sections; this first section covers <i>building-specific space types typically found in a single building type</i> . The second part of this table Table 9.5.2.1-1 covers <i>common space types that are typically found in multiple building types, typically found in a single building type</i> .			The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each <i>space type</i> : (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.								
<i>Building Type-Specific Space Types</i> ^a	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] {Full OFF complies})	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Imaging room	0.94	6	REQ			REQ				ADD2	ADD2
Lounge	0.77	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Medical supply room	0.62	6	(See "Storage Room" under "Common Space Types" for control requirements.)								
Medical supply room	0.56	6	REQ	ADD1	ADD1		REQ	REQ		REQ	
Nursery	0.92 0.87	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Nurse's station	1.17 1.07	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Operating room	2.26 2.31	6	REQ			REQ				ADD2	ADD2
Patient room	0.68 0.78	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Physical therapy room	0.91 0.82	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Recovery room	1.25 1.18	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Telemedicine	1.44	8	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Library											
Reading area	0.96 0.86	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common *space type* and a *building area specific space type* are listed, the *building area specific space type* shall apply.
 2. In corridors, the extra *lighting power density* allowance is permitted when the width of the corridor is less than 8 ft and is not based on the *RCR*.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. *Automatic* daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common *space type* and a *building specific space type* are listed, the *building specific space type* shall apply (see Table 9.5.2.1-1 for common *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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type-Specific Space Types ^a	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{6e}	9.4.1.1(f) ^{6f}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Stacks	1.18	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
Manufacturing Facility											
Detailed manufacturing area	0.80 0.75	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Equipment room	0.76	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Low bay area (<25 ft floor-to-ceiling height)	0.86 0.85	3	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
High bay area (25 to 50 ft floor-to-ceiling height)	1.24	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Extra-high bay area (>50 ft floor-to-ceiling height)	1.42 1.36	8	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Museum											
General exhibition area	0.31	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Restoration area	1.10 1.24	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Performing Arts Theater—Dressing Room	0.41 0.39	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Post Office—Sorting Area	0.76 0.71	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
Religious Facility											
Audience seating area	0.72	4	REQ			REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type/Specific Space Types ^a	LPD, W/ft ²	RCR	Local Control (See Section{a})	Restricted to Manual ON (See Section{b})	Restricted to Partial Automatic ON (See Section{c})	Bilevel Multilevel Lighting Control (See Section{d})	Automatic Daylight Responsive Controls for Sidelighting (See Section{e}) ⁶	Automatic Daylight Responsive Controls for Toplighting (See Section{f}) ⁶	Automatic Reduction Partial OFF (See Section{g}) {Full OFF complies}	Automatic Full OFF (See Section{h})	Scheduled Shutoff (See Section{i})
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{6e}	9.4.1.1(f) ^{6f}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Retail Facilities											
Fellowship hall	0.54 0.50	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Worship/pulpit/choir area	0.85 0.75	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Dressing/fitting room	0.51 0.45	8	REQ	ADD1	ADD1	REQ		REQ		REQ ADD2	ADD2
Hair care	0.65	6	REQ	ADD1	ADD1					ADD2	ADD2
Nail care	0.75	6	REQ	ADD1	ADD1					ADD2	ADD2
Mall concourse	0.82 0.57	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Massage	0.81	8	REQ	ADD1	ADD1	REQ				ADD2	ADD2
Sports Arena—Playing Area⁸ (Class of play as defined by ANSI/IES RP-6)											
Class I facility	2.94 2.86	4	REQ	ADD1 REQ	ADD1	REQ	REQ	REQ		ADD2	ADD2 REQ
Class II facility	2.01 1.98	4	REQ	ADD1 REQ	ADD1	REQ	REQ	REQ		ADD2	ADD2 REQ
Class III facility	1.30 1.29	4	REQ	ADD1 REQ	ADD1	REQ	REQ	REQ		ADD2	ADD2 REQ
Class IV facility	0.86 0.85	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (I-P)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type/Specific Space Types ^a	LPD, W/ft ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^c	9.4.1.1(d) ^d	9.4.1.1(e) ^{6e}	9.4.1.1(f) ^{6f}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Natorium (Class of play as defined by IES RP-6)											
Class I facility	2.20	4	REQ	REQ			REQ	REQ			REQ
Class II facility	1.47	4	REQ	REQ			REQ	REQ			REQ
Class III facility	0.99	4	REQ	REQ			REQ	REQ			REQ
Class IV facility	0.59	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Transportation Facility											
Airport hanger	1.36	4	REQ	REQ			REQ	REQ			REQ
Baggage/carousel area	0.39 0.28	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Airport concourse	0.25 0.49	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Passenger loading area	0.71	6	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Ticket counter	0.51 0.40	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Warehouse—Storage Area											
Medium-to-bulky, palletized items	0.33	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
Smaller, hand-carried items, picking areas ⁵	0.69	6	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 8 ft and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Picking Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 0.52 W/ft² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.43 W/ft². The additional 0.52 W/ft² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common space types).
 b. Automatic daylight responsive controls are mandatory only if the space meets the requirements of the specified sections.

Table 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI)

<p><i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are typically found in a single building type.</p>			<p>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.</p>									
Common Space Types ^{1a}	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])	
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ	
Atrium												
<6.1 m in height	4.6 3.5	NA	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2	
≥6.1 m and ≤12.2 m in height	5.2 4.4	NA	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
>12.2 m in height	6.5 5.5	11	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
Audience Seating Area												
Auditorium	6.5 6.1	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
Gymnasium	2.5	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
Motion picture theater	2.9	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
Penitentiary	7.2	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2	
Performing arts theater	12.5 11.8	8	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
Religious building	7.8	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
Sports arena	3.5 2.9	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2	
All other audience seating areas	2.5	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2	

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Picking Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are 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.								
	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
Common Space Types ^{4a}			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Banking Activity Area	6.5 6.0	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Classroom/Lecture Hall/Training Room											
Penitentiary	9.5	4	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Shop classroom	12.6	6	REQ	ADD1	ADD1		REQ	REQ			REQ
All other classrooms/lecture halls/training rooms	7.6 7.7	4	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Computer Room	10.1 8.0	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Conference/Meeting/Multipurpose Rooms	10.5 9.5	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Confinement Cells	7.5	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Control/Editing Room or Booth	7.9	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Copy/Print Room	3.3 6.0	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Corridor ²	4.8	width <2.4 m	REQ				REQ	REQ	REQ	ADD2	ADD2
Facility for the visually impaired (and not used primarily by the staff) ³	7.7	width <2.4 m	REQ				REQ	REQ	REQ	ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Picking Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<p><i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are typically found in a single building type.</p>			<p>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.</p>								
Common Space Types ^{1a}	LPD, W/m ²	RCR	Local Control (See Section{a})	Restricted to Manual ON (See Section{b})	Restricted to Partial Automatic ON (See Section{c})	Bilevel-Multilevel Lighting Control (See Section{d})	Automatic Daylight Responsive Controls for Sidelighting (See Section{e}) ⁶	Automatic Daylight Responsive Controls for Toplighting (See Section{f}) ⁶	Automatic Reduction Partial OFF (See Section{g}) {Full OFF complies}	Automatic Full OFF (See Section{h})	Scheduled Shutoff (See Section{i})
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Hospital	7.7	width <2.4 m	REQ				REQ	REQ	ADD2	ADD2	ADD2
All other corridors	4.4	width <2.4 m	REQ				REQ	REQ	REQ	ADD2	ADD2
Courtroom	12.9 11.6	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Dining Areas											
Penitentiary	4.5	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Facility for the visually impaired (and not used primarily by staff) ³	13.7	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Bar/lounge or leisure dining	9.3 8.2	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Cafeteria or fast-food dining	4.3 3.9	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Family dining	6.5 5.6	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
All other dining areas	4.7 4.5	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Electrical/Mechanical Room ⁷	4.6 7.6	6	REQ				REQ	REQ			

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are 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.								
			Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
Common Space Types ^{1a}	LPD, W/m ²	RCR	9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Emergency Vehicle Garage	5.6 5.5	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Equipment Room	7.9	6	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Food Preparation Area	11.7 10.4	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Guest Room	4.4	6	See Section 9.4.1.3(b).								
Laboratory											
In or as a classroom	11.9 11.3	6	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
All other laboratories	14.3 13.0	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Laundry/Washing Area	5.7 5.5	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2 REQ	ADD2
Loading Dock, Interior	9.5 9.4	6	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Lobby											
Facility for the visually impaired (and not used primarily by the staff) ³	18.2	4	REQ				REQ	REQ	REQ	ADD2	ADD2
Elevator	7.0 6.3	6	REQ				REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Picking Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<p><i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are typically found in a single building type.</p>			<p>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.</p>								
Common Space Types ^{4a}	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Hotel	5.4 5.2	4	REQ				REQ	REQ		ADD2	ADD2
Motion picture theater	2.5 2.1	4	REQ				REQ	REQ		ADD2	ADD2
Performing arts theater	13.5 13.0	6	REQ				REQ	REQ	REQ	ADD2	ADD2
All other lobbies	9.0 8.6	4	REQ				REQ	REQ	REQ	ADD2	ADD2
Locker Room	5.6 4.6	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Lounge/Breakroom											
Healthcare facility	4.5	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Mother's/wellness room	7.3	6	REQ	ADD1	ADD1	REQ				REQ	
All other lounges/breakrooms	6.3 5.4	4	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Office											
Enclosed and ≤ 23.2 Office ≤ 13.9 m ²	8.0 7.9	8	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Enclosed and >math>\geq 23.2</math> Office >math>> 13.9</math> and ≤ 27.9 m ²	7.1	8	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2 REQ	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are 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.								
	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
Common Space Types ^{1a}			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Open-plan Offices >27.9 m ²	6-6 6.0	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2 REQ	ADD2
Parking Garage											
Daylight transition zone	11.4	4	See Section 9.4.1.2								
All other parking and drive areas Parking Area-Interior	4-6 1.2	4	See Section 9.4.1.2								
Pharmacy Area	17-1 17.9	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Restroom	8.0	8								REQ	
Facility for the visually impaired (and not used primarily by the staff) ³	13.5	8					REQ	REQ		REQ	
All other restrooms	6-8	8					REQ	REQ		REQ	
Sales Area ⁴ (For accent lighting, see Section 9.6.2(b).)	11-3 9.1	6	REQ	ADD1	ADD1	REQ		REQ		ADD2	ADD2
Seating Area, General	2-5 2.2	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Security Screening											
Airport/bus/ship/train/transportation screening	10.0	6	REQ				REQ	REQ		ADD2	ADD2
Airport/bus/ship/train/transportation screening queue	6.0	6	REQ				REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Picking Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 9.5.2.1-1 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note:</i> This table is divided into two sections; this first section covers common space types that can be commonly typically found in multiple building types. The second Table 9.5.2.1-2 part of this table covers building-specific space types space types that are 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.								
	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel-Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
Common Space Types ^a			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{be}	9.4.1.1(f) ^{bf}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
General security screening	6.9	6	REQ				REQ	REQ		ADD2	ADD2
Stairway	The space containing the stairway shall determine the LPD and control requirements for the stairway.										
Stairwell	5.3 5.0	10				REQ	REQ	REQ	REQ	ADD2	ADD2
Storage Room											
<4.6 m ²	5.5 5.2	9	REQ	REQ						ADD2 REQ	ADD2
≥4.6 m ²	4.4 3.8	6	REQ	ADD1	ADD1		REQ	REQ		REQ	
Vehicular Maintenance Area	6.5 6.4	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Workshop (including workshop classrooms)	13.5 12.6	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type-Specific Space Types ^a	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^g	9.4.1.1(b) ^h	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{h,e}	9.4.1.1(f) ^{h,f}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Casino—Gaming Area											
Betting/sportsbook/keno/bingo area	8.8	5				REQ				ADD2	ADD2
High-limit game area	18.0	4				REQ				ADD2	ADD2
Slot machine/digital gaming area	5.9	5				REQ				ADD2	ADD2
Table games area	11.7	5				REQ				ADD2	ADD2
Convention Center—Exhibit Space	6-6 5.4	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2 REQ
Correctional Facilities											
Audience seating area	6.1	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Classroom/lecture hall/training room	8.0	4	REQ	ADD1	ADD1	REQ	REQ	REQ			
Confinement cells	6.5	6	REQ								REQ
Dining area	3.8	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Dormitory—living quarters	5.4 5.2	8	REQ								
Facility for the Visually Impaired (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 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)	7.5 7.1	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult daycare, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Picking Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type-Specific Space Types ^{1a}	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ²	9.4.1.1(b) ²	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{b,c}	9.4.1.1(f) ^{b,f}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Corridor (used primarily by residents)	6.5	width <8 ft	REQ				REQ	REQ	REQ	ADD2	ADD2
Dining (used primarily by residents)	13.1	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Lobby	15.5	4	REQ				REQ	REQ	REQ	ADD2	ADD2
Recreation room/common living room (used primarily by residents)	19.0 12.9	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Restroom (used primarily by residents)	10.3	8					REQ	REQ		REQ	
Fire Station—Sleeping Quarters	2.5 2.4	6	REQ								
Gymnasium/Fitness Center											
Exercise area	9.6 8.8	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Playing area	9.2 8.8	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Health Care Facility											
Control room (MRI/CT/radiology/PET)	8.4	10	REQ	REQ		REQ				REQ	
Exam/treatment room	15.1 14.3	8	REQ			REQ	REQ	REQ		ADD2	ADD2
Hospital corridor	6.5	width <8 ft	REQ				REQ	REQ	ADD2	ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note:</i> This table is divided into two sections; this first section covers <i>building-specific space types typically found in a single building type</i> . The second part of this table Table 9.5.2.1-1 covers <i>common space types that are typically found in multiple building types, typically found in a single building type</i> .			The control functions below shall be implemented in accordance with the descriptions found within Section 9.4.1.1. For each <i>space type</i> :								
			(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.								
<i>Building Type-Specific Space Types</i> ^{1a}	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ²	9.4.1.1(b) ³	9.4.1.1(c) ⁵	9.4.1.1(d) ⁴	9.4.1.1(e) ^{6e}	9.4.1.1(f) ^{6f}	9.4.1.1(g) ⁵	9.4.1.1(h) ⁴	9.4.1.1(i) ¹
Imaging room	10.1	6	REQ			REQ				ADD2	ADD2
Lounge	8.3	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Medical supply room	6.7	6	(See "Storage Room" under "Common Space Types" for control requirements.)								
Medical supply room	6.0	6	REQ	ADD1	ADD1		REQ	REQ		REQ	
Nursery	9.9 9.4	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Nurse's station	12.6 11.5	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Operating room	24.3 24.9	6	REQ			REQ				ADD2	ADD2
Patient room	7.3 8.4	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Physical therapy room	9.8 8.8	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Recovery room	13.5 12.7	6	REQ			REQ	REQ	REQ		ADD2	ADD2
Telemedicine	15.4	8	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Library											
Reading area	10.3 9.3	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Stacks	12.7	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult daycare, senior support and/or people with special visual needs.
4. For accent lighting, see Section 9.6.2(b).
5. Sometimes referred to as a "Picking Area."
6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
8. Class of play as defined by IES RP-6.
a. Where both a common *space type* and a *building specific space type* are listed, the *building specific space type* shall apply (see Table 9.5.2.1-1 for common *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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type-Specific Space Types ^a	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ^a	9.4.1.1(b) ^b	9.4.1.1(c) ^e	9.4.1.1(d) ^d	9.4.1.1(e) ^{b,e}	9.4.1.1(f) ^{b,f}	9.4.1.1(g) ^g	9.4.1.1(h) ^h	9.4.1.1(i) ⁱ
Manufacturing Facility											
Detailed manufacturing area	8.6 8.1	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Equipment room	8.2	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Low bay area (<7.6 m floor-to-ceiling height)	9.3 9.2	3	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
High bay area (7.6 to 15.2 m floor-to-ceiling height)	13.4 13.3	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Extra-high bay area (>15.2 m floor-to-ceiling height)	15.3 14.6	8	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Museum											
General exhibition area	3.3	6	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Restoration area	11.9 13.4	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Performing Arts Theater—Dressing Room	4.4 4.2	6	REQ	ADD1	ADD1	REQ	REQ	REQ		REQ	
Post Office—Sorting Area	8.1 7.6	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
Religious Facility											
Audience seating area	7.8	4	REQ			REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note:</i> This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building 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.								
			Local Control (See Section[a]) 9.4.1.1(a) ^a	Restricted to Manual ON (See Section[b]) 9.4.1.1(b) ^b	Restricted to Partial Automatic ON (See Section[c]) 9.4.1.1(c) ^c	Bilevel Multilevel Lighting Control (See Section[d]) 9.4.1.1(d) ^d	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶) 9.4.1.1(e) ^{be}	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶) 9.4.1.1(f) ^{bf}	Automatic Reduction Partial OFF (See Section[g]) {Full OFF complies} 9.4.1.1(g) ^g	Automatic Full OFF (See Section[h]) 9.4.1.1(h) ^h	Scheduled Shutoff (See Section[i]) 9.4.1.1(i) ⁱ
Building Type-Specific Space Types ^{1a}	LPD, W/m ²	RCR									
Fellowship hall	5-8 5.4	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Worship/pulpit/choir area	9-2 8.1	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Retail Facilities											
Dressing/fitting room	5-4 4.9	8	REQ	ADD1	ADD1	REQ		REQ		REQ ADD2	ADD2
Hair care	7.0	6	REQ	ADD1	ADD1					ADD2	ADD2
Nail care	8.1	6	REQ	ADD1	ADD1					ADD2	ADD2
Mall concourse	8-8 6.1	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Massage	8.7	8	REQ	ADD1	ADD1	REQ				ADD2	ADD2
Sports Arena—Playing Area⁸ (Class of play as defined by ANSI/IES RP-6)											
Class I facility	31-6 30.8	4	REQ	ADD1 REQ	ADD1	REQ	REQ	REQ		ADD2	ADD2 REQ
Class II facility	21-6 21.3	4	REQ	ADD1 REQ	ADD1	REQ	REQ	REQ		ADD2	ADD2 REQ
Class III facility	13-9 13.8	4	REQ	ADD1 REQ	ADD1	REQ	REQ	REQ		ADD2	ADD2 REQ
Class IV facility	9-3 9.2	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
 2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
 3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
 4. For accent lighting, see Section 9.6.2(b).
 5. Sometimes referred to as a "Pickling Area."
 6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
 7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
 8. Class of play as defined by IES RP-6.
 a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common 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 Space-by-Space Lighting Power Density Allowances and Minimum Control Requirements Using Either Method (SI) (Continued)

<i>Informative Note: This table is divided into two sections; this first section covers building-specific space types typically found in a single building type. The second part of this table Table 9.5.2.1-1 covers common space types that are typically found in multiple building types, typically found in a single building type.</i>			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.								
Building Type-Specific Space Types ^{1a}	LPD, W/m ²	RCR	Local Control (See Section[a])	Restricted to Manual ON (See Section[b])	Restricted to Partial Automatic ON (See Section[c])	Bilevel Multilevel Lighting Control (See Section[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section[e] ⁶)	Automatic Daylight Responsive Controls for Toplighting (See Section[f] ⁶)	Automatic Reduction Partial OFF (See Section[g] Full OFF complies)	Automatic Full OFF (See Section[h])	Scheduled Shutoff (See Section[i])
			9.4.1.1(a) ²	9.4.1.1(b) ³	9.4.1.1(c) ⁴	9.4.1.1(d) ⁴	9.4.1.1(e) ^{5e}	9.4.1.1(f) ^{5f}	9.4.1.1(g) ⁵	9.4.1.1(h) ⁵	9.4.1.1(i) ⁵
Natorium (Class of play as defined by IES RP-6)											
Class I facility	23.7	4	REQ	REQ			REQ	REQ			REQ
Class II facility	15.8	4	REQ	REQ			REQ	REQ			REQ
Class III facility	10.7	4	REQ	REQ			REQ	REQ			REQ
Class IV facility	6.4	4	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Transportation Facility											
Airport hanger	14.6	4	REQ	REQ			REQ	REQ			REQ
Baggage/carousel area	4.2 3.0	4	REQ	ADD2	ADD2		REQ	REQ		ADD2	ADD2
Airport concourse	2.7 5.3	4	REQ	ADD2	ADD2		REQ	REQ		ADD2	ADD2
Passenger loading area	7.7	6	REQ	ADD1	ADD1		REQ	REQ		ADD2	ADD2
Ticket counter	5.5 4.3	4	REQ	ADD1	ADD1	REQ	REQ	REQ		ADD2	ADD2
Warehouse—Storage Area											
Medium-to-bulky, palletized items	3.6	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
Smaller, hand-carried items, picking areas ⁵	7.4	6	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2

1. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
2. In corridors, the extra lighting power density allowance is permitted when the width of the corridor is less than 2.4 m and is not based on the RCR.
3. 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 is licensed or will be licensed by local/state authorities for either senior long-term care, adult day care, senior support and/or people with special visual needs.
4. For accent lighting, see Section 9.6.2(b).
5. Sometimes referred to as a "Picking Area."
6. Automatic daylight responsive controls are mandatory only if the requirements of the specified sections are present.
7. An additional 5.6 W/m² shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 4.6 W/m². The additional 5.6 W/m² allowance shall not be used for any other purpose.
8. Class of play as defined by IES RP-6.
a. Where both a common space type and a building specific space type are listed, the building specific space type shall apply (see Table 9.5.2.1-1 for common space types).
b. Automatic daylight responsive controls are mandatory only if the space meets the requirements of the specified sections.

Modify Table 9.5.2.3 as shown (I-P and SI).

Table 9.5.2.3 Control Factors Used in Calculating Additional Interior Lighting Power Allowance

Additional Control Method (in Addition to Mandatory Requirements)	Space Type				
	Open Office	Private Office	Conference Room, Meeting Room, Classroom (Lecture/ Training)	Retail Sales Area	Lobby, Atrium, Dining Area, Corridors/ Stairways, Gym/ Pool, Mall Concourse, Parking Garage
Manual, continuous dimming control or programmable-multilevel dimming control	0.05	0.05	0.10	0.10	0
Programmable multilevel dimming control using programmable time scheduling	0.05	0.05	0.10	0.10	0.10
Occupancy sensors controlling the downlight component of workstation specific luminaires with continuous dimming to off capabilities	0.25 ^a	0	0	0	0
Occupancy sensors controlling the downlight component of workstation specific luminaires with continuous dimming to off operation, in combination with personal continuous dimming control of downlight illumination by workstation occupant	0.30 ^{a,b}	0	0	0	0

- a. Control factor is limited to workstation-specific luminaires in partitioned single occupant work spaces contained within an open office environment (i.e. direct- indirect luminaires with separately controlled downlight and uplight components, with the downward component providing illumination to a single occupant in an open plan workstation). Within 30 minutes of the occupant leaving the space, the downward component shall continuously dim to off over a minimum of two minutes. Upon the occupant entering the space, the downward component shall turn on at the minimum level and continuously raise the illumination to a preset level over a minimum of 30 seconds. The uplight component of workstation specific luminaire shall comply with Section 9.4.1.1(h) (automatic full off).
- b. In addition to the requirements described in footnote (a), the control shall allow the occupant to select their preferred light level via a personal computer, handheld device, or similarly accessible device located within the workstation.

[. . .]

Relocate the following reference from Section 12 to Appendix E (I-P and SI).

Reference	Title
[...]	
illuminating Engineering Society (IES) 120 Wall street, Floor 17, New York, NY 10005-4001	
ANSI/IES RP-28-2016	Lighting and the Visual Environment for Senior Living
[...]	

[...]
illuminating Engineering Society (IES)
120 Wall Street, Floor 17
New York, NY 10005-4001

Subsection No.	Reference	Title/Source
[...]		
9.6.19.5.2	IES RP-6-1520	Recommended Practice for Sports and Recreational Area Lighting
9.5.2	ANSI/IES RP-28-16	Lighting and the Visual Environment for Senior Living
9.5.2	ANSI/IES RP-38-17	Recommended Practice: Lighting Performance for Small to Medium Sized Videoconferencing Rooms
[...]		

[...]

Modify Normative Appendix G as shown (I-P).

Table G3.7-1 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (I-P)

Common Space Types^a	Lighting Power Density, W/ft²	Occupancy Sensor Reduction^b
Atrium		
<20 ft in height	0.0375 per foot in total height	10%
20 ft and 40 ft in height		
>40 ft in height	0.50 + 0.025 per foot in total height	10%
Audience Seating Area		
Auditorium	0.90	10%
Convention center	0.70	10%
Exercise center	0.30	10%
Gymnasium	0.40	10%
Motion picture theater	1.20	10%
Penitentiary	0.70	10%
Performing arts theater	2.60	10%
Religious facility	1.70	10%
In a sports arena	0.40	10%
Transportation facility	0.50	10%
All other audience seating area	0.90	10%
Atrium		
<40 ft in height	0.0375 per foot in total height	10%
>40 ft in height	0.50 + 0.025 per foot in total height	10%
Banking Activity Area		
	1.50	10%
Classroom/Lecture Hall/Training Room		
Penitentiary	1.30	None
Preschool through 12th grade, laboratory, and shop classrooms	1.40	30%
All other classroom/lecture hall/training room	1.40	None
Computer Room		
	2.14	35%
Conference/Meeting/Multipurpose Room		
	1.30	None
Confinement Cells		
	0.90	10%
Copy/Print Room		
	0.90	10%
Corridor		
	0.50	25%
Facility for the visually impaired (and used primarily by residents)		
	1.15	25%

a. In cases where both a common space type and a building-specific space type (see Table G3.7-2) are listed, the building-specific space type shall apply.
 b. For manual-ON or partial-auto-ON occupancy sensors, the occupancy sensor reduction factor shall be multiplied by 1.25.
 c. For occupancy sensors controlling individual workstation lighting, occupancy sensor reduction factor shall be 30%.

Table G3.7-1 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (I-P) (Continued)

Common Space Types^a	Lighting Power Density, W/ft²	Occupancy Sensor Reduction^b
Hospital	1.00	25%
Manufacturing facility	0.50	25%
All other corridor	0.50	25%
Courtroom	1.90	10%
Computer Room	2.14	35%
Dining Area		
Penitentiary	1.30	35%
Facility for the visually impaired (and used primarily by residents)	3.32	35%
Bar/lounge or leisure dining	1.40	35%
Cafeteria or fast food dining	0.90	35%
Family dining	2.10	35%
All other dining area	0.90	35%
Electrical/Mechanical Room	1.50	30%
Emergency Vehicle Garage	0.80	10%
<u>Equipment Room</u>	<u>1.20</u>	<u>10%</u>
Food Preparation Area	1.20	30%
Guest Room	1.14	45%
Judges Chambers	1.30	30%
Dwelling Unit	1.07	None
Laboratory		
In or as a classroom <u>Preschool through 12th grade, laboratory, and shop classrooms</u>	1.40	30%
All other laboratory <u>except in or as a classroom</u>	1.40	10%
Laundry/Washing Area	0.60	10%
Loading Dock, Interior	0.59	10%
Lobby		
Facility for the visually impaired (and used primarily by residents)	2.26	25%
Elevator	0.80	25%
Hotel	1.10	25%
Motion picture theater	1.10	25%
Performing arts theater	3.30	25%
All other lobby	1.30	25%
Locker Room	0.60	25%
Lounge/Breakroom		
Healthcare facility	0.80	None

a. In cases where both a common *space* type and a *building-specific space* type (see Table G3.7-2) are listed, the *building-specific space* type shall apply.

b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.

c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Table G3.7-1 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (I-P) (Continued)

Common Space Types^a	Lighting Power Density, W/ft²	Occupancy Sensor Reduction^b
<u>Mother's/wellness room</u>	<u>1.13</u>	<u>24%</u>
All other lounge/breakroom	1.20	None
Office		
Enclosed and <250 ft ²	1.10	30%
Enclosed and >250 ft ²	1.10	30%
Open plan	1.10	15% ^c
Parking Area, Interior		
Parking Area, Interior	0.20	45%
<u>Daylight transition zone</u>	<u>1.75</u>	<u>30%</u>
<u>All other parking areas and drive</u>	<u>0.18</u>	<u>30%</u>
Pharmacy Area	1.20	10%
Restroom	0.90	45%
Facility for the visually impaired (and used primarily by residents)	1.52	45%
All other restroom	0.90	45%
Sales Area	1.70	15%
Seating Area, General	0.68	10%
Security Screening		
<u>Airport/bus/ship/train/transportation screening</u>	<u>1.53</u>	<u>0%</u>
<u>Airport/bus/ship/train/transportation screening queue</u>	<u>0.92</u>	<u>0%</u>
<u>General security screening</u>	<u>1.06</u>	<u>0%</u>
Stairwell	0.60	75%
Storage Room		
Hospital	0.90	45%
≥50 ft ²	0.80	45%
<50 ft ²	0.80	45%
Vehicular Maintenance Area	0.70	10%
Workshop		
Workshop	1.90	40%
<u>Preschool through 12th grade, laboratory, and shop classrooms</u>	<u>1.40</u>	<u>30%</u>
<u>All other workshops</u>	<u>1.90</u>	<u>10%</u>

- a. In cases where both a common *space* type and a *building-specific space* type (see Table G3.7-2) are listed, the *building-specific space* type shall apply.
b. For *manual-ON* or *partial-auto-ON* occupancy sensors, the *occupancy sensor* reduction factor shall be multiplied by 1.25.
c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Table G3.7-2 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (I-P)

<i>Building-Specific Space Types^a</i>	Lighting Power Density, W/ft²	Occupancy Sensor Reduction^b
Assisted Living Facility		
Chapel (used primarily by residents)	2.77	40%
Recreation room (used primarily by residents)	3.02	40%
Casino—Gaming Area		
Betting/sportsbook/keno bingo area	1.34	0%
High-limit game area	2.78	0%
Slot machine/digital gaming area	0.90	0%
Table games area	1.80	0%
Convention Center—Exhibit Space	1.30	35%
Correctional Facilities		
Audience seating area	0.70	10%
Classroom	1.30	None
Confinement cells	0.90	10%
Dining	1.30	35%
Dormitory—Living Quarters	1.11	10%
Facility for the Visually Impaired		
Chapel (used primarily by residents)	2.77	10%
Corridor (and used primarily by residents)	1.15	25%
Dining (and used primarily by residents)	3.32	35%
Lobby (and used primarily by residents)	2.26	25%
Recreation room (used primarily by residents)	3.02	10%
Restroom (and used primarily by residents)	1.52	45%
Fire Station—Sleeping Quarters	0.30	10%
Gymnasium/Fitness Center		
Exercise area	0.90	35%
Playing area	1.40	35%
Health Care Facility		
Control room (MRI/CT/Radiology/PET)	2.14	10%
Emergency room	2.70	40%
Exam/treatment room	1.50	10%
Hospital corridor	1.00	25%
Lounge	0.80	None
Medical supply room	1.40	45%
Nursery	0.60	10%

a. In cases where both a common *space* type (see Table G3.7-1) and a *building-specific space* type are listed, the *building-specific space* type shall apply.

b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.

c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Table G3.7-2 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (I-P) (Continued)

<i>Building-Specific Space Types^a</i>	Lighting Power Density, W/ft²	Occupancy Sensor Reduction^b
Nurse's station	1.00	10%
Operating room	2.20	10%
Patient room	0.70	10%
Physical therapy room	0.90	10%
Recovery room	0.80	10%
<u>Telemedicine</u>	<u>2.21</u>	<u>10%</u>
Library		
Reading area	1.20	15%
Stacks	1.70	15%
Manufacturing Facility		
Detailed manufacturing area	2.10	10%
Equipment room	1.20	10%
<u>Low bay area (<25 ft floor-to-ceiling height)</u>	<u>1.20</u>	<u>10%</u>
Extra-high bay area (>50 ft floor-to-ceiling height)	1.32	10%
High bay area (25 to 50 ft floor-to-ceiling height)	1.70	10%
Low bay area (<25 ft floor-to-ceiling height)	1.20	10%
<u>Extra-high bay area (>50 ft floor-to-ceiling height)</u>	<u>1.32</u>	<u>10%</u>
Museum		
General exhibition area	1.00	10%
Restoration room	1.70	10%
<u>Performing Arts Theater—Dressing Room</u>	<u>0.64</u>	<u>0%</u>
Post Office—Sorting Area	1.20	10%
Religious Facility		
<u>Audience seating area</u>	<u>1.70</u>	<u>10%</u>
Fellowship hall	0.90	10%
Worship/pulpit/choir area	2.40	10%
Retail Facilities		
Dressing/fitting room	0.89	10%
<u>Hair care</u>	<u>1.04</u>	<u>10%</u>
<u>Manicure/pedicure</u>	<u>0.70</u>	<u>10%</u>
Mall concourse	1.70	10%
<u>Massage</u>	<u>0.81</u>	<u>10%</u>
Sports Arena—Playing Area		
Class I facility	4.61	10%

a. In cases where both a common *space* type (see Table G3.7-1) and a *building-specific space* type are listed, the *building-specific space* type shall apply.

b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.

c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Table G3.7-2 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (I-P) (Continued)

<i>Building-Specific Space Types^a</i>	Lighting Power Density, W/ft²	Occupancy Sensor Reduction^b
Class II facility	3.01	10%
Class III facility	2.26	10%
Class IV facility	1.50	10%
Natorium		
<u>Class I facility</u>	<u>3.57</u>	<u>0%</u>
<u>Class II facility</u>	<u>2.38</u>	<u>0%</u>
<u>Class III facility</u>	<u>1.42</u>	<u>0%</u>
<u>Class IV facility</u>	<u>0.48</u>	<u>0%</u>
Transportation Facility		
<u>Airport hanger</u>	<u>2.25</u>	<u>0%</u>
Baggage/carousel area	1.00	10%
Airport concourse	0.60	10%
<u>Passenger loading area</u>	<u>1.11</u>	<u>10%</u>
Ticket counter	1.50	10%
Warehouse—Storage Area		
Medium-to-bulky, palletized items	0.90	45%
Smaller, hand-carried items	1.40	45%

- a. In cases where both a common *space* type (see Table G3.7-1) and a *building-specific space* type are listed, the *building-specific space* type shall apply.
b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.
c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Modify Normative Appendix G as shown (SI).

Table G3.7-1 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (SI)

Common Space Types ^a	Lighting Power Density, W/m ²	Occupancy Sensor Reduction ^b
Atrium		
<6.1 m in height	0.404 per metre in total height	10%
6.1 and 12.2 m in height		10%
>12.2 m in height	5.382 + 0.269 per metre in total height	10%
Audience Seating Area		
Auditorium	9.69	10%
Convention center	7.53	10%
Exercise center	3.23	10%
Gymnasium	4.41	10%
Motion picture theater	12.92	10%
Penitentiary	7.53	10%
Performing arts theater	27.99	10%
Religious facility	18.30	10%
In a sports arena	4.31	10%
Transportation facility	5.38	10%
All other audience seating area	9.69	10%
Atrium		
<12.2 m in height	0.404 per meter in total height	10%
>12.2 m in height	5.382 + 0.269 per foot in total height	10%
Banking Activity Area	16.15	10%
Classroom/Lecture Hall/Training Room		
Penitentiary	13.99	None
Preschool through 12th grade, laboratory, and shop classrooms	15.07	30%
All other classroom/lecture hall/training room	15.07	None
Computer Room	23.03	35%
Conference/Meeting/Multipurpose Room	13.99	None
Confinement Cells	9.69	10%
Copy/Print Room	9.69	10%
Corridor	5.38	25%
Facility for the visually impaired (and used primarily by residents)	12.38	25%

a. In cases where both a common space type and a building-specific space type (see Table G3.7-2) are listed, the building-specific space type shall apply.
 b. For manual-ON or partial-auto-ON occupancy sensors, the occupancy sensor reduction factor shall be multiplied by 1.25.
 c. For occupancy sensors controlling individual workstation lighting, occupancy sensor reduction factor shall be 30%.

Table G3.7-1 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (SI) (Continued)

Common <i>Space</i> Types ^a	Lighting Power Density, W/m ²	Occupancy Sensor Reduction ^b
Hospital	10.76	25%
Manufacturing facility	5.38	25%
All other corridor	5.38	25%
Courtroom	20.45	10%
Computer Room	23.03	35%
Dining Area		
Penitentiary	13.99	35%
Facility for the visually impaired (and used primarily by residents)	35.74	35%
Bar/lounge or leisure dining	15.07	35%
Cafeteria or fast food dining	9.69	35%
Family dining	22.60	35%
All other dining area	9.69	35%
Electrical/Mechanical Room	16.15	30%
Emergency Vehicle Garage	8.61	10%
<u>Equipment Room</u>	<u>12.92</u>	<u>10%</u>
Food Preparation Area	12.92	30%
Guest Room	11.84	45%
Judges Chambers	13.99	30%
Dwelling Unit	11.5	None
Laboratory		
In or as a classroom Preschool through 12th grade, laboratory, and shop classrooms	15.06	30%
All other laboratory <u>except in or as a classroom</u>	15.07	10%
Laundry/Washing Area	6.46	10%
Loading Dock, Interior	6.35	10%
Lobby		
Facility for the visually impaired (and used primarily by residents)	24.33	25%
Elevator	8.61	25%
Hotel	11.84	25%
Motion picture theater	11.84	25%
Performing arts theater	35.52	25%
All other lobby	13.99	25%
Locker Room	6.46	25%
Lounge/Breakroom		
Healthcare facility	8.61	None

a. In cases where both a common *space* type and a *building-specific space* type (see Table G3.7-2) are listed, the *building-specific space* type shall apply.

b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.

c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Table G3.7-1 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (SI) (Continued)

Common <i>Space</i> Types ^a	Lighting Power Density, W/m ²	Occupancy Sensor Reduction ^b
<u>Mother's/wellness room</u>	<u>12.15</u>	<u>24%</u>
All other lounge/breakroom	12.92	None
Office		
Enclosed and <23 m ²	11.84	30%
Enclosed and >23 m ²	11.84	30%
Open plan	11.84	15% ^c
<u>Parking Area, Interior</u>		
<u>Parking Area, Interior</u>	<u>2.15</u>	<u>45%</u>
<u>Daylight transition zone</u>	<u>18.83</u>	<u>30%</u>
All other parking areas and drive	1.94	30%
Pharmacy Area	12.92	10%
Restroom	<u>9.69</u>	<u>45%</u>
Facility for the visually impaired (and used primarily by residents)	16.36	45%
All other restroom	9.69	45%
Sales Area	18.30	15%
Seating Area, General	7.32	10%
<u>Security Screening</u>		
<u>Airport/bus/ship/train/transportation screening</u>	<u>16.46</u>	<u>0%</u>
<u>Airport/bus/ship/train/transportation screening queue</u>	<u>9.89</u>	<u>0%</u>
General security screening	11.41	0%
<u>Stairwell</u>	<u>6.46</u>	<u>75%</u>
Storage Room		
Hospital	9.69	45%
≥50 ft ²	8.61	45%
<50 ft ²	8.61	45%
Vehicle Maintenance Area	7.53	10%
<u>Workshop</u>		
<u>Workshop</u>	<u>20.45</u>	<u>10%</u>
Preschool through 12th grade, laboratory, and shop classrooms	15.06	10%
All other workshops	20.44	10%

a. In cases where both a common *space* type and a *building-specific space* type (see Table G3.7-2) are listed, the *building-specific space* type shall apply.

b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.

c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Table G3.7-2 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (SI)

<i>Building-Specific Space Types^a</i>	<i>Lighting Power Density, W/m²</i>	<i>Occupancy sensor Reduction^b</i>
Assisted Living Facility		
Chapel (used primarily by residents)	29.80	40%
Recreation room (used primarily by residents)	32.49	40%
Casino—Gaming Area		
Betting/sportsbook/keno bingo area	14.41	0%
High-limit game area	29.91	0%
Slot machine/digital gaming area	9.68	0%
Table games area	19.37	0%
Convention Center—Exhibit Space	13.98	35%
Correctional Facilities		
Audience seating area	7.53	10%
Classroom	13.98	None
Confinement cells	9.68	10%
Dining	13.98	35%
Dormitory—Living Quarters	11.94	10%
Facility for the Visually Impaired		
Chapel (used primarily by residents)	29.81	10%
Corridor (and used primarily by residents)	12.37	25%
Dining (and used primarily by residents)	35.72	35%
Lobby (and used primarily by residents)	24.32	25%
Recreation room (used primarily by residents)	32.49	10%
Restroom (and used primarily by residents)	16.36	45%
Fire Station—Sleeping Quarters	3.23	10%
Gymnasium/Fitness Center		
Exercise area	9.68	35%
Playing area	15.06	35%
Health Care Facility		
Control room (MRI/CT/radiology/PET)	23.02	10%
Emergency room	29.05	40%
Exam/treatment room	16.14	10%
Hospital corridor	10.76	25%
Lounge	8.61	None
Medical supply room	15.06	45%
Nursery	6.47	10%

a. In cases where both a common *space* type (see Table G3.7-1) and a *building-specific space* type are listed, the *building-specific space* type shall apply.

b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.

c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Table G3.7-2 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (SI) (Continued)

Building-Specific Space Types^a	Lighting Power Density, W/m²	Occupancy sensor Reduction^b
Nurse's station	10.76	10%
Operating room	23.67	10%
Patient room	7.53	10%
Physical therapy room	9.68	10%
Recovery room	8.61	10%
<u>Telemedicine</u>	<u>23.78</u>	<u>10%</u>
Library		
Reading area	12.91	15%
Stacks	18.29	15%
Manufacturing Facility		
Detailed manufacturing area	22.60	10%
Equipment room	12.91	10%
<u>Low bay area (<25 ft floor-to-ceiling height)</u>	<u>12.91</u>	<u>10%</u>
Extra-high bay area (>50 ft floor-to-ceiling height)	14.20	10%
High bay area (25 to 50 ft floor-to-ceiling height)	18.29	10%
Low bay area (<25 ft floor-to-ceiling height)	12.91	10%
<u>Extra-high bay area (>50 ft floor-to-ceiling height)</u>	<u>14.20</u>	<u>10%</u>
Museum		
General exhibition area	10.76	10%
Restoration room	18.29	10%
Performing Arts Theater—Dressing Room	<u>6.89</u>	<u>0%</u>
Post Office—Sorting Area	12.91	10%
Religious Facility		
<u>Audience seating area</u>	<u>18.29</u>	<u>10%</u>
Fellowship hall	9.68	10%
Worship/pulpit/choir area	25.82	10%
Retail Facilities		
Dressing/fitting room	9.58	10%
<u>Hair care</u>	<u>11.19</u>	<u>10%</u>
<u>Manicure/pedicure</u>	<u>7.53</u>	<u>10%</u>
Mall concourse	18.29	10%
<u>Massage</u>	<u>8.72</u>	<u>10%</u>
Sports Arena—Playing Area		
Class I facility	49.60	10%

a. In cases where both a common *space* type (see Table G3.7-1) and a *building-specific space* type are listed, the *building-specific space* type shall apply.

b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.

c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

Table G3.7-2 Performance Rating Method Lighting Power Density Allowances and Occupancy Sensor Reductions Using the Space-by-Space Method (SI) (Continued)

Building-Specific Space Types^a	Lighting Power Density, W/m²	Occupancy sensor Reduction^b
Class II facility	32.38	10%
Class III facility	24.32	10%
Class IV facility	16.14	10%
Natorium		
Class I facility	<u>38.41</u>	<u>0%</u>
Class II facility	<u>25.61</u>	<u>0%</u>
Class III facility	<u>15.28</u>	<u>0%</u>
Class IV facility	<u>5.16</u>	<u>0%</u>
Transportation Facility		
Airport hanger	<u>24.21</u>	<u>0%</u>
Baggage/carousel area	10.76	10%
Airport concourse	6.46	10%
Passenger loading area	<u>11.94</u>	<u>10%</u>
Ticket counter	16.14	10%
Warehouse—Storage Area		
Medium-to-bulky, palletized items	9.68	45%
Smaller, hand-carried items	15.06	45%

a. In cases where both a common *space* type (see Table G3.7-1) and a *building-specific space* type are listed, the *building-specific space* type shall apply.

b. For *manual-ON* or *partial-auto-ON occupancy sensors*, the *occupancy sensor* reduction factor shall be multiplied by 1.25.

c. For *occupancy sensors* controlling individual workstation lighting, *occupancy sensor* reduction factor shall be 30%.

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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