

**TABLE 9.6.1 Lighting Power Density Allowances Using the Space-by-Space Method and Minimum Control Requirements Using Either Method**

<b>Informative Note:</b> This table is divided into two sections; this first section covers space types that can be commonly found in multiple building types. The second part of this table covers space types that are typically found in a single building type.			The control functions below shall be implemented in accordance with the descriptions found in the referenced paragraphs 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 9.4.1.1(a))	Restricted to Manual ON (See Section 9.4.1.1(b))	Restricted to Partial Automatic ON (See Section 9.4.1.1(c))	Bilevel Lighting Control (See Section 9.4.1.1(d))	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 Partial OFF (See Section 9.4.1.1(g) (Full Off complies))	Automatic Full OFF (See Section 9.4.1.1(h))	Scheduled Shutoff (See Section 9.4.1.1(i))
<b>Common Space Types<sup>1</sup></b>	<b>LPD W/ft<sup>2</sup></b>	<b>RCR Threshold</b>	<b>a</b>	<b>b</b>	<b>C</b>	<b>d</b>	<b>e</b>	<b>f</b>	<b>g</b>	<b>h</b>	<b>i</b>
<b>Atrium</b>											
...that is < 20 ft in height	0.03/ft total height	NA	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
...that is ≥ 20 ft and ≤ 40 ft in height	0.03/ft total height	NA	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...that is > 40 ft in height	0.40 + 0.02/ft total height	NA	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Audience Seating Area</b>											
...in an auditorium	0.63	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a convention center	0.82	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a gymnasium	0.65	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a motion picture theater	1.14	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a penitentiary	0.28	4	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
...in a performing arts theater	2.43	8	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a religious building	1.53	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a sports arena	0.43	4	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
...all other audience seating areas	0.43	4	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
<b>Banking Activity Area</b>	1.01	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Breakroom (See Lounge/Breakroom)</b>											
<b>Classroom/Lecture hall/Training Room<sup>8,9</sup></b>											
...in a penitentiary	1.34	4	REQ	REQ	-	REQ	REQ	REQ	-	REQ	-
...all other classrooms/lecture halls/training rooms	1.24	4	REQ	REQ	-	REQ	REQ	REQ	-	REQ	-
<b>Conference/Meeting/Multipurpose Room<sup>8,9</sup></b>	1.23	6	REQ	REQ	-	REQ	REQ	REQ	-	REQ	-
<b>Confinement Cells</b>	0.81	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Copy/Print Room</b>	0.72	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	REQ	-
<b>Corridor<sup>2</sup></b>											

...in a facility for the visually impaired (and not used primarily by the staff) <sup>3</sup>	0.92	width < 8 ft	REQ	-	-	-	REQ	REQ	REQ	ADD2	ADD2
...in a hospital	0.99	width < 8 ft	REQ	-	-	-	REQ	REQ	ADD2	ADD2	ADD2
...in a manufacturing facility	0.41	width < 8 ft	REQ	-	-	-	REQ	REQ	-	ADD2	ADD2
...all other corridors	0.66	width < 8 ft	REQ	-	-	-	REQ	REQ	REQ	ADD2	ADD2
<b>Courtroom</b>	1.72	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Computer Room</b>	1.71	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Dining Area</b>											
...in a penitentiary	0.96	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a facility for the visually impaired and not used primarily by staff) <sup>3</sup>	2.65	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in bar lounge or leisure dining	1.07	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in cafeteria or fast food dining <sup>7</sup>	0.65	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in family dining	0.89	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...all other dining areas	0.65	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Electrical/Mechanical Room<sup>7</sup></b>	0.42	6	REQ	-	-	-	REQ	REQ	-	-	-
<b>Emergency Vehicle Garage</b>	0.56	4	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
<b>Food Preparation Area</b>	1.21	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Guest Room</b>	0.91	6	See Section 9.4.1.3b.								
<b>Laboratory</b>											
...in or as a classroom	1.43	6	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
...all other laboratories	1.81	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Laundry/Washing Area</b>	0.60	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Loading Dock, Interior</b>	0.47	6	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
<b>Lobby</b>											
...in a facility for the visually impaired and not used primarily by staff) <sup>3</sup>	1.80	4	REQ	-	-	-	REQ	REQ	REQ	ADD2	ADD2
...for an elevator	0.64	6	REQ	-	-	-	REQ	REQ	-	ADD2	ADD2
...in a hotel	1.06	4	REQ	-	-	-	REQ	REQ	-	ADD2	ADD2
...in a motion picture theater	0.59	4	REQ	-	-	-	REQ	REQ	-	ADD2	ADD2
...in a performing arts theater	2.00	6	REQ	-	-	-	REQ	REQ	REQ	ADD2	ADD2
...all other lobbies	0.90	4	REQ	-	-	-	REQ	REQ	REQ	ADD2	ADD2
<b>Locker Room</b>	0.75	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	REQ	-
<b>Lounge/Breakroom<sup>8,9</sup></b>											
...in a healthcare facility	0.92	6	REQ	REQ	-	REQ	REQ	REQ	-	REQ	-
...all other lounges/breakrooms	0.73	4	REQ	REQ	-	REQ	REQ	REQ	-	REQ	-
<b>Office</b>											
...enclosed and ≤ 250 ft <sup>2</sup> (8,9)	1.0	8	REQ	REQ	-	REQ	REQ	REQ	-	REQ	-
...enclosed and > 250 ft <sup>2</sup>	1.0	8	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...open plan	0.90	4	REQ	-	REQ	REQ	REQ	REQ	-	REQ	-
<b>Parking Area, Interior</b>	0.19	4	See Section 9.4.1.2								
<b>Pharmacy Area</b>	1.68	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Restroom</b>											
...in a facility for the visually impaired (and not used primarily by the staff) <sup>3</sup>	1.21	8	REQ	-	-	-	REQ	REQ	-	REQ	-
...all other restrooms	0.98	8	REQ	-	-	-	REQ	REQ	-	REQ	-

<b>Sales Area<sup>4</sup></b>	1.30	6	REQ	ADD1	ADD1	REQ	-	REQ	-	ADD2	ADD2
<b>Seating Area, General</b>	0.54	4	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
<b>Stairway</b>	The space containing the stairway shall determine the LPD and control requirements for the stairway.										
<b>Stairwell</b>	0.69	10	REQ	-	-	REQ	REQ	REQ	REQ	ADD2	ADD2
<b>Storage Room</b>											
...< 50 ft <sup>2</sup>	1.24	6	REQ	-	-	-	-	-	-	ADD2	ADD2
...≥ 50 ft <sup>2</sup> and ≤1000 ft <sup>2</sup>	0.63	6	REQ	ADD1	ADD1	-	REQ	REQ	-	REQ	-
...all other storage rooms	0.63	6	REQ	ADD1	ADD1	-	REQ	REQ	REQ	ADD2	ADD2
<b>Vehicular Maintenance Area</b>	0.67	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Workshop</b>	1.59	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2

**TABLE 9.6.1 Lighting Power Density Allowances Using the Space-by-Space Method and Minimum Control Requirements Using Either Method (Continued)**

<b>Informative Note:</b> This table is divided into two sections; this first section covers space types that can be commonly found in multiple building types. The second part of this table covers space types that are typically found in a single building type.				<b>The control functions below shall be implemented in accordance with the descriptions found in the referenced paragraphs 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.</b>								
				Local Control (See Section 9.4.1.1(a))	Restricted to Manual ON (See Section 9.4.1.1(b))	Restricted to Partial Automatic ON (See Section 9.4.1.1(c))	Bilevel Lighting Control (See Section 9.4.1.1(d))	Automatic Daylight Responsive Controls for Sidelighting (See Section 9.4.1.1(e) <sup>6</sup> )	Automatic Daylight Responsive Controls for Toplighting (See Section 9.4.1.1(f) <sup>6</sup> )	Automatic Partial OFF (See Section 9.4.1.1(g) (Full Off complies))	Automatic Full OFF (See Section 9.4.1.1(h))	Scheduled Shutoff (See Section 9.4.1.1(i))
Building Type Specific/Space Types <sup>1</sup>	LPD W/ft <sup>2</sup>	RCR Threshold		a	b	c	d	e	f	g	h	i
<b>Facility for the Visually Impaired<sup>3</sup></b>												
...in a chapel (used primarily by residents)	2.21	4		REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a recreation room/common living room (and not used primarily by staff)	2.41	6		REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Automotive (See "Vehicular Maintenance Area")</b>												
<b>Convention Center-Exhibit Space</b>	1.45	4		REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Dormitory-Living Quarters</b>	0.38	8		REQ	-	-	-	-	-	-	-	-
<b>Fire Station-Sleeping Quarters</b>	0.22	6		REQ	-	-	-	-	-	-	-	-
<b>Facility for the Visually Impaired<sup>3</sup></b>												
...in a recreation room/common living room (and not used primarily by staff)	2.41	6		-	-	-	-	-	-	-	-	-
<b>Gymnasium/Fitness Center</b>												
...in an exercise area	0.72	4		REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a playing area	1.20	4		REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Healthcare Facility</b>												
...in an exam/treatment room	1.66	8		REQ	-	-	REQ	REQ	REQ	-	ADD2	ADD2
...in an imaging room	1.51	6		REQ	-	-	REQ	-	-	-	ADD2	ADD2
...in a medical supply room	0.74	6		(See "Storage Room" under "Common Space Types" for control requirements)								
...in a nursery	0.88	6		REQ	-	-	REQ	REQ	REQ	-	ADD2	ADD2
...in a nurse's station	0.71	6		REQ	-	-	REQ	REQ	REQ	-	ADD2	ADD2
...in an operating room	2.48	6		REQ	-	-	REQ	-	-	-	ADD2	ADD2
...in a patient room	0.62	6		REQ	-	-	REQ	REQ	REQ	-	ADD2	ADD2
...in a physical therapy room	0.91	6		REQ	-	-	REQ	REQ	REQ	-	ADD2	ADD2
...in a recovery room	1.15	6		REQ	-	-	REQ	REQ	REQ	-	ADD2	ADD2
<b>Library</b>												
...in a reading area	1.06	4		REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in the stacks	1.71	4		REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2

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Building Specific/Space Types <sup>1</sup>	Type	LPD W/ft <sup>2</sup>	RCR Threshold	a	b	c	d	e	f	g	h	i
<b>Manufacturing Facility</b>												
...in a detailed manufacturing area		1.29	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in an equipment room		0.74	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in an extra high bay area (> 50 ft floor-to-ceiling height)		1.05	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a high bay area (25-50 ft floor-to-ceiling height)		1.23	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a low bay area (< 25 ft floor-to-ceiling height)		1.19	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Museum</b>												
...in a general exhibition area		1.05	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a restoration room		1.02	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Performing Arts Theater-Dressing Room</b>		0.61	6	REQ	ADD1	ADD1	REQ	REQ	REQ	-	REQ	-
<b>Post Office-Sorting Area</b>		0.94	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2
<b>Religious Buildings</b>												
...in a fellowship hall		0.64	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...in a worship/pulpit/choir area		1.53	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Retail Facilities</b>												
...in a dressing/fitting room		0.71	8	REQ	ADD1	ADD1	REQ	-	REQ	-	REQ	-
...in a mall concourse		1.10	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Sports Arena-Playing Area</b>												
...for a Class I facility		3.68	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...for a Class II facility		2.40	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...for a Class III facility		1.80	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
...for a Class IV facility		1.20	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Transportation Facility</b>												
...in a baggage/carousel area		0.53	4	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
...in an airport concourse		0.36	4	REQ	ADD1	ADD1	-	REQ	REQ	-	ADD2	ADD2
...at a terminal ticket counter		0.80	4	REQ	ADD1	ADD1	REQ	REQ	REQ	-	ADD2	ADD2
<b>Warehouse-Storage Area</b>												
...for medium to bulky, palletized items		0.58	4	REQ	ADD1	ADD1	REQ	REQ	REQ	REQ	ADD2	ADD2

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Building Specific/Space Types <sup>1</sup>	Type	LPD W/ft <sup>2</sup>	RCR Threshold	Local Control (See Section 9.4.1.1(a))	Restricted to Manual ON (See Section 9.4.1.1(b))	Restricted to Partial Automatic ON (See Section 9.4.1.1(c))	Bilevel Lighting Control (See Section 9.4.1.1(d))	Automatic Daylight Responsive Controls for Sidelighting (See Section 9.4.1.1(e) <sup>6</sup> )	Automatic Daylight Responsive Controls for Toplighting (See Section 9.4.1.1(f) <sup>6</sup> )	Automatic Partial OFF (See Section 9.4.1.1(g) (Full Off complies))	Automatic Full OFF (See Section 9.4.1.1(h))	Scheduled Shutoff (See Section 9.4.1.1(i))
				a	b	c	d	e	f	g	h	i
...for smaller, hand-carried items <sup>3</sup>		0.95	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 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 0.53w/ft<sup>2</sup> shall be allowed, provided that the additional lighting is controlled separately from the base allowance of 0.42 W/ft<sup>2</sup>. The additional 0.53 w/ft<sup>2</sup> allowance shall not be used for any other purpose.
8. Occupant sensor shall not have an override switch that converts from manual-on to automatic-on functionality.
9. The occupant sensor may have a grace period of up to 30 seconds to turn on the lighting automatically after the sensor has turned off the lighting if occupancy is detected.