

(Effective until July 1, 2020)

WAC 51-11C-405054 Table C405.4.2(2)—Interior lighting power allowances—Space-by-space method.

Table C405.4.2(2)
Interior Lighting Power Allowances—Space-by-Space Method

Common Space-by-Space Types ^a	LPD ^d (w/ft ²)
Atrium - First 40 feet in height ^e	0.02 per ft. ht.
Atrium - Above 40 feet in height ^e	0.03 + 0.02 per ft. in total height
Audience/seating area - Permanent	
In an auditorium	0.50
In a convention center	0.66
In a gymnasium	0.34
In a motion picture theater	0.91
In a penitentiary	0.22
In a performing arts theater	1.94
In a religious building	1.22
In a sports arena	0.34
Otherwise	0.34
Banking activity area	0.81
Breakroom (see Lounge/breakroom)	
Classroom/lecture hall/training room	
In a penitentiary	1.07
Otherwise	1.00
Conference/meeting/multipurpose	0.98
Copy/print room	0.58
Corridor	
In a facility for the visually impaired (and not used primarily by the staff) ^b	0.74
In a hospital	0.63
In a manufacturing facility	0.33
Otherwise	0.53
Courtroom	1.38
Computer room	1.37
Dining area	
In a penitentiary	0.77
In a facility for the visually impaired (and not used primarily by the staff) ^b	1.52
In a bar/lounge or leisure dining	0.86
In a family dining area	0.71
Otherwise	0.52
Electrical/mechanical	0.76
Emergency vehicle garage	0.45
Food preparation	0.79

Common Space-by-Space Types^a	LPD^d (w/ft²)
Guest room	0.38
Laboratory	
In or as a classroom	1.02
Otherwise	1.45
Laundry/washing area	0.48
Loading dock, interior	0.38
Lobby ^c	
In a facility for the visually impaired (and not used primarily by the staff) ^b	1.44
For an elevator	0.51
In a hotel	0.85
In a motion picture theater	0.42
In a performing arts theater	1.60
Otherwise	0.72
Locker room	0.60
Lounge/breakroom	
In a health care facility	0.74
Otherwise	0.58
Office ^f	
Enclosed	0.89
Open plan	0.78
Parking area, interior	0.15
Pharmacy area	0.91
Restroom	
In a facility for the visually impaired (and not used primarily by the staff) ^b	0.97
Otherwise	0.78
Sales area	1.27
Seating area, general	0.43
Stairway (see space containing stairway)	
Stairwell	0.55
Storage room	0.50
Vehicular maintenance	0.54
Workshop	1.27

Building Specific Space-by-Space Types^a	
Building Specific Space-by-Space Types	LPD^d (w/ft²)
Automotive - (See Vehicular maintenance, above)	
Convention center - Exhibit space	1.16
Dormitory living quarters	0.30
Facility for the visually impaired ^b	
In a chapel (and not used primarily by the staff) ^b	1.77

Building Specific Space-by-Space Types^a	
Building Specific Space-by-Space Types	LPD^d (w/ft²)
In a recreation room (and not used primarily by the staff) ^b	1.93
Fire stations - Sleeping quarters	0.18
Engine rooms	0.45
Gymnasium/fitness center	
In an exercise area	0.58
In a playing area	0.96
Health care facility	
In an exam/treatment room	1.33
In an imaging room	1.06
In a medical supply room	0.59
In a nursery	0.70
In a nurse's station	0.57
In an operating room	1.51
In a patient room	0.50
In a physical therapy room	0.73
In a recovery room	0.92
Library ^f	
In a reading area	0.74
In the stacks	1.37
Manufacturing facility	
In a detailed manufacturing area	1.03
In an equipment room	0.59
In an extra high bay area (greater than 50-foot floor-to-ceiling height)	0.84
In a high bay area (25 - 50-foot floor-to-ceiling height)	0.98
In a low bay (< 25-foot floor-to-ceiling height)	0.95
Museum	
In a general exhibition area	0.84
In a restoration room	0.82
Performing arts theater dressing/fitting room	0.32
Post office - Sorting area	0.75
Religious buildings	
In a fellowship hall	0.51
In a worship/pulpit/choir area	1.22
Retail facilities	
In a dressing/fitting room	0.57
In a mall concourse	0.88
Sports arena - Playing area	
For a Class 1 facility	2.41

Building Specific Space-by-Space Types^a	
Building Specific Space-by-Space Types	LPD^d (w/ft²)
For a Class 2 facility	1.54
For a Class 3 facility	0.96
For a Class 4 facility	0.58
Transportation	
In a baggage/carousel area	0.42
In an airport concourse	0.29
At a terminal ticket counter	0.64
Warehouse - Storage area	
For medium to bulky palletized items	0.46
For smaller, hand-carried items	0.76

For SI: 1 foot = 304.8 mm, 1 watt per square foot = 11 W/m².

- a 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.
- b A "Facility for the Visually Impaired" is a facility that is licensed or will be licensed by local or state authorities for senior long-term care, adult daycare, senior support or people with special visual needs.
- c For spaces in which lighting is specified to be installed in addition to, and controlled separately from, the general lighting for the purpose of highlighting art or exhibits, provided that the additional lighting power shall not exceed 0.5 W/ft² of such spaces.
- d The watts per square foot may be increased by 2 percent per foot of ceiling height above 20 feet, unless specifically directed otherwise by subsequent footnotes.
- e Footnote d may not be used for these occupancy types.
- f The watts per square foot may be increased by 2 percent per foot of ceiling height above 9 feet. Footnote d may not be used for these occupancy types.

[Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-405054, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-405054, filed 2/1/13, effective 7/1/13.]

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**Table C405.4.2(2)
Interior Lighting Power Allowances—Space-by-Space Method**

Common Space-by-Space Types^a	LPD (w/ft²)
Atrium - Less than 20 feet in height	0.39
Atrium - 20 to 40 feet in height	0.48
Atrium - Above 40 feet in height	0.60
Audience/seating area - Permanent	
In an auditorium	0.61
In a gymnasium	0.23
In a motion picture theater	0.27
In a penitentiary	0.67

Common Space-by-Space Types^a	LPD (w/ft²)
In a performing arts theater	1.16
In a religious building	0.72
In a sports arena	0.33
Otherwise	0.23
Banking activity area ⁿ	0.61
Breakroom (see lounge/breakroom)	
Classroom/lecture hall/training room	
In a penitentiary	0.89
Otherwise	0.71 ^m
Computer room, data center	0.94
Conference/meeting/multipurpose	0.97
Confinement cell	0.70
Copy/print room	0.31
Corridor	
In a facility for the visually impaired (and not used primarily by the staff) ^b	0.71
In a hospital	0.71
In a manufacturing facility	0.41
Otherwise ^c	0.41
Courtroom ^c	1.20
Dining area	
In a penitentiary	0.42
In a facility for the visually impaired (and not used primarily by the staff) ^b	1.27
In a bar/lounge or leisure dining ⁿ	0.86
In cafeteria or fast food dining	0.40
In a family dining area ⁿ	0.60
Otherwise	0.43
Electrical/mechanical	0.43
Emergency vehicle garage	0.52
Food preparation	1.09
Guest room ^{a,b}	0.41
Laboratory	
In or as a classroom	1.11
Otherwise	1.33
Laundry/washing area	0.53
Loading dock, interior	0.88
Lobby ^c	
In a facility for the visually impaired (and not used primarily by the staff) ^b	1.69
For an elevator	0.65
In a hotel	0.51

Common Space-by-Space Types^a	LPD (w/ft²)
In a motion picture theater	0.23
In a performing arts theater	1.25
Otherwise	0.84
Locker room	0.52
Lounge/breakroom ⁿ	
In a health care facility ⁿ	0.42
Otherwise ⁿ	0.59
Office	
Enclosed ≤ 250	0.74
Enclosed > 250	0.66
Open plan	0.61
Parking area, interior	0.15
Pharmacy area	1.66
Restroom	
In a facility for the visually impaired (and not used primarily by the staff) ^b	1.26
Otherwise ⁿ	0.63
Sales area	1.05
Seating area, general	0.23
Stairway (see space containing stairway)	
Stairwell ⁿ	0.49
Storage room	
< 50 ft ²	0.51
50-100 ft ²	0.38
All other storage	0.38
Vehicular maintenance	0.60
Workshop	1.26
Building Specific Space-by-Space Types^a	LPD (w/ft²)
Automotive (see vehicular maintenance)	
Convention center - Exhibit space	0.61
Dormitory living quarters ^{a,b}	0.50
Facility for the visually impaired ^b	
In a chapel (and not used primarily by the staff) ^b	0.70
In a recreation room (and not used primarily by the staff) ^b	1.77
Fire stations ^g	
Sleeping quarters	0.23
Gymnasium/fitness center	
In an exercise area	0.90
In a playing area	0.85
Health care facility	

Building Specific Space-by-Space Types^a	LPD (w/ft²)
In an exam/treatment room	1.40
In an imaging room	0.94
In a medical supply room	0.62
In a nursery	0.92
In a nurse's station	1.17
In an operating room	2.26
In a patient room ^g	0.68
In a physical therapy room	0.91
In a recovery room	1.25
Library	
In a reading area ⁿ	0.31
In the stacks	1.10
Manufacturing facility	
In a detailed manufacturing area	0.80
In an equipment room	0.76
In an extra high bay area (greater than 50-foot floor-to-ceiling height)	1.42
In a high bay area (25 - 50-foot floor-to-ceiling height)	1.24
In a low bay (< 25-foot floor-to-ceiling height)	0.86
Museum	
In a general exhibition area	0.31
In a restoration room	1.10
Performing arts theater dressing/fitting room	0.41
Post office - Sorting area	0.76
Religious buildings	
In a fellowship hall ⁿ	0.54
In a worship/pulpit/choir area ⁿ	0.85
Retail facilities	
In a dressing/fitting room	0.51
In a mall concourse	0.82
Sports arena - Playing area	
For a Class 1 facility ⁱ	2.94
For a Class 2 facility ^j	2.01
For a Class 3 facility ^k	1.30
For a Class 4 facility ^l	0.86
Transportation	
In a baggage/carousel area	0.39
In an airport concourse	0.25
At a terminal ticket counter ⁿ	0.51
Warehouse - Storage area	

Building Specific Space-by-Space Types^a	LPD (w/ft²)
For medium to bulky palletized items	0.33
For smaller, hand-carried items	0.69

For SI: 1 foot = 304.8 mm, 1 watt per square foot = 11 W/m².

- a 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.
- b A facility for the visually impaired is a facility that is licensed or will be licensed by local or state authorities for senior long-term care, adult daycare, senior support or people with special visual needs.
- c For spaces in which lighting is specified to be installed in addition to, and controlled separately from, the general lighting for the purpose of highlighting art or exhibits, provided that the additional lighting power shall not exceed 0.5 W/ft² of such spaces.
- d Reserved.
- e Reserved.
- f Reserved.
- g Where sleeping units are excluded from lighting power calculations by application of Section R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units is counted.
- h Where dwelling units are excluded from lighting power calculations by application of Section R404.1, neither the area of the dwelling units nor the wattage of lighting in the dwelling units is counted.
- i Class I facilities consist of professional facilities; and semiprofessional, collegiate or club facilities with seating for 5,000 or more spectators.
- j Class II facilities consist of collegiate and semiprofessional facilities with seating for fewer than 5,000 spectators; club facilities with seating between 2,000 and 5,000 spectators; and amateur league and high school facilities with seating for more than 2,000 spectators.
- k Class III facilities consist of club, amateur league and high school facilities with seating for 2,000 or fewer spectators.
- l Class IV facilities consist of elementary school and recreational facilities; and amateur league and high school facilities without provisions for spectators.
- m For classrooms, additional lighting power allowance of 4.50 W/lineal foot of white or chalk boards for directional lighting dedicated to white or chalk boards.
- n Additional lighting power allowance of 0.30 W/ft² for ornamental lighting. Qualifying ornamental lighting includes luminaires such as chandeliers, sconces, lanterns, neon and cold cathode, light emitting diodes, theatrical projectors, moving lights and light color panels when any of those lights are used in a decorative manner that does not serve as display lighting or general lighting.
- o For scientific laboratories, additional lighting power allowance of 0.35 W/ft² for specialized task work - lighting that provides for small-scale, cognitive or fast performance visual tasks, lighting required for operating specialized equipment associated with pharmaceutical/laboratorial activities.
- p For offices, additional lighting power allowance of 0.20 W/ft² for portable lighting, which includes under shelf or furniture-mounted supplemental task lighting qualifies when controlled by a time clock or an occupancy sensor.

[Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160 and chapter 19.27 RCW. WSR 19-24-040, § 51-11C-405054, filed 11/26/19, effective 7/1/20. Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-405054, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-405054, filed 2/1/13, effective 7/1/13.]