

**TABLE C405.5.2(2)  
INTERIOR LIGHTING POWER ALLOWANCES:  
SPACE-BY-SPACE METHOD**

| COMMON SPACE-BY-SPACE TYPES                   | LPD (w/ft <sup>2</sup> ) |
|---|--------------------------|
| Atrium – First 40 feet in height              | 0.03 per ft. ht.         |
| Atrium – Above 40 feet in height              | 0.02 per ft. ht.         |
| Audience/seating area – permanent             |                          |
| For auditorium                                | 0.9                      |
| For performing arts theater                   | 2.6                      |
| For motion picture theater                    | 1.2                      |
| Classroom/lecture/training                    | 1.30                     |
| Conference/meeting/multipurpose               | 1.2                      |
| Corridor/transition                           | 0.7                      |
| Dining area                                   |                          |
| Bar/lounge/leisure dining                     | 1.40                     |
| Family dining area                            | 1.40                     |
| Dressing/fitting room performing arts theater | 1.1                      |
| Electrical/mechanical                         | 1.10                     |
| Food preparation                              | 1.20                     |
| Laboratory for classrooms                     | 1.3                      |
| Laboratory for medical/industrial/research    | 1.8                      |
| Lobby   | 1.10                     |
| Lobby for performing arts theater             | 3.3                      |
| Lobby for motion picture theater              | 1.0                      |
| Locker room                                   | 0.80                     |
| Lounge recreation                             | 0.8                      |
| Office – enclosed                             | 1.1                      |
| Office – open plan                            | 1.0                      |
| Restroom                                      | 1.0                      |
| Sales area                                    | 1.6 <sup>a</sup>         |
| Stairway                                      | 0.70                     |
| Storage                                       | 0.8                      |
| Workshop                                      | 1.60                     |
| Courthouse/police station/penitentiary        |                          |
| Courtroom                                     | 1.90                     |
| Confinement cells                             | 1.1                      |
| Judge chambers                                | 1.30                     |
| Penitentiary audience seating                 | 0.5                      |
| Penitentiary classroom                        | 1.3                      |
| Penitentiary dining                           | 1.1                      |
| <b>BUILDING SPECIFIC SPACE-BY-SPACE TYPES</b> |                          |
| Automotive – service/repair                   | 0.70                     |
| Bank/office – banking activity area           | 1.5                      |
| Dormitory living quarters                     | 1.10                     |
| Gymnasium/fitness center                      |                          |
| Fitness area                                  | 0.9                      |
| Gymnasium audience/seating                    | 0.40                     |
| Playing area                                  | 1.40                     |

(continued)

**TABLE C405.5.2(2)—continued  
INTERIOR LIGHTING POWER ALLOWANCES:  
SPACE-BY-SPACE METHOD**

| COMMON SPACE-BY-SPACE TYPES                     | LPD (w/ft <sup>2</sup> ) |
|---|--------------------------|
| Healthcare clinic/hospital                      |                          |
| Corridors/transition                            | 1.00                     |
| Exam/treatment                                  | 1.70                     |
| Emergency                                       | 2.70                     |
| Public and staff lounge                         | 0.80                     |
| Medical supplies                                | 1.40                     |
| Nursery   | 0.9                      |
| Nurse station                                   | 1.00                     |
| Physical therapy                                | 0.90                     |
| Patient room                                    | 0.70                     |
| Pharmacy  | 1.20                     |
| Radiology/imaging                               | 1.3                      |
| Operating room                                  | 2.20                     |
| Recovery  | 1.2                      |
| Lounge/recreation                               | 0.8                      |
| Laundry – washing                               | 0.60                     |
| Hotel   |                          |
| Dining area                                     | 1.30                     |
| Guest rooms                                     | 1.10                     |
| Hotel lobby                                     | 2.10                     |
| Highway lodging dining                          | 1.20                     |
| Highway lodging guest rooms                     | 1.10                     |
| Library   |                          |
| Stacks  | 1.70                     |
| Card file and cataloguing                       | 1.10                     |
| Reading area                                    | 1.20                     |
| Manufacturing                                   |                          |
| Corridors/transition                            | 0.40                     |
| Detailed manufacturing                          | 1.3                      |
| Equipment room                                  | 1.0                      |
| Extra high bay (> 50-foot floor-ceiling height) | 1.1                      |
| High bay (25- – 50-foot floor-ceiling height)   | 1.20                     |
| Low bay (< 25-foot floor-ceiling height)        | 1.2                      |
| Museum  |                          |
| General exhibition                              | 1.00                     |
| Restoration                                     | 1.70                     |
| Parking garage – garage areas                   | 0.2                      |
| Convention center                               |                          |
| Exhibit space                                   | 1.50                     |
| Audience/seating area                           | 0.90                     |
| Fire stations                                   |                          |
| Engine room                                     | 0.80                     |
| Sleeping quarters                               | 0.30                     |
| Post office                                     |                          |
| Sorting area                                    | 0.9                      |
| Religious building                              |                          |
| Fellowship hall                                 | 0.60                     |
| Audience seating                                | 2.40                     |
| Worship pulpit/choir                            | 2.40                     |
| Retail  |                          |
| Dressing/fitting area                           | 0.9                      |
| Mall concourse                                  | 1.6                      |
| Sales area                                      | 1.6 <sup>a</sup>         |

(continued)

**TABLE C405.5.2(2)—continued  
INTERIOR LIGHTING POWER ALLOWANCES:  
SPACE-BY-SPACE METHOD**

| BUILDING SPECIFIC SPACE-BY-SPACE TYPES | LPD (w/ft <sup>2</sup> ) |
|--|--------------------------|
| Sports arena                           |                          |
| Audience seating                       | 0.4                      |
| Court sports area – Class 4            | 0.7                      |
| Court sports area – Class 3            | 1.2                      |
| Court sports area – Class 2            | 1.9                      |
| Court sports area – Class 1            | 3.0                      |
| Ring sports area                       | 2.7                      |
| Transportation                         |                          |
| Air/train/bus baggage area             | 1.00                     |
| Airport concourse                      | 0.60                     |
| Terminal – ticket counter              | 1.50                     |
| Warehouse                              |                          |
| Fine material storage                  | 1.40                     |
| Medium/bulky material                  | 0.60                     |

For SI: 1 foot = 304.8 mm, 1 watt per square foot = 11 W/m<sup>2</sup>.

a. Where lighting equipment is specified to be installed to highlight specific merchandise in addition to lighting equipment specified for general lighting and is switched or dimmed on circuits different from the circuits for general lighting, the smaller of the actual wattage of the lighting equipment installed specifically for merchandise, or additional lighting power as determined below shall be added to the interior lighting power determined in accordance with this line item.

Calculate the additional lighting power as follows:

Additional Interior Lighting Power Allowance = 500 watts + (Retail Area 1 × 0.6 W/ft<sup>2</sup>) + (Retail Area 2 × 0.6 W/ft<sup>2</sup>) + (Retail Area 3 × 1.4 W/ft<sup>2</sup>) + (Retail Area 4 × 2.5 W/ft<sup>2</sup>).

where:

Retail Area 1 = The floor area for all products not listed in Retail Area 2, 3 or 4.

Retail Area 2 = The floor area used for the sale of vehicles, sporting goods and small electronics.

Retail Area 3 = The floor area used for the sale of furniture, clothing, cosmetics and artwork.

Retail Area 4 = The floor area used for the sale of jewelry, crystal and china.

**Exception:** Other merchandise categories are permitted to be included in Retail Areas 2 through 4 above, provided that justification documenting the need for additional lighting power based on visual inspection, contrast, or other critical display is *approved* by the authority having jurisdiction.

**C405.6.2 Exterior building lighting power.** The total exterior lighting power allowance for all exterior building applications is the sum of the base site allowance plus the individual allowances for areas that are to be illuminated and are permitted in Table C405.6.2(2) for the applicable lighting zone. Tradeoffs are allowed only among exterior lighting applications listed in Table C405.6.2(2), Tradable Surfaces section. The lighting zone for the building exterior is determined from Table C405.6.2(1) unless otherwise specified by the local jurisdiction. Exterior lighting for all applications (except those included in the exceptions to Section C405.6.2) shall comply with the requirements of Section C405.6.1.

**Exception:** Lighting used for the following exterior applications is exempt where equipped with a control

device independent of the control of the nonexempt lighting:

1. Specialized signal, directional and marker lighting associated with transportation;
2. Advertising signage or directional signage;
3. Integral to equipment or instrumentation and is installed by its manufacturer;
4. Theatrical purposes, including performance, stage, film production and video production;
5. Athletic playing areas;
6. Temporary lighting;
7. Industrial production, material handling, transportation sites and associated storage areas;
8. Theme elements in theme/amusement parks; and
9. Used to highlight features of public monuments and registered historic landmark structures or buildings.

**TABLE C405.6.2(1)  
EXTERIOR LIGHTING ZONES**

| LIGHTING ZONE | DESCRIPTION  |
|---------------|--|
| 1             | Developed areas of national parks, state parks, forest land, and rural areas   |
| 2             | Areas predominantly consisting of residential zoning, neighborhood business districts, light industrial with limited nighttime use and residential mixed use areas |
| 3             | All other areas  |
| 4             | High-activity commercial districts in major metropolitan areas as designated by the local land use planning authority  |

**C405.7 Electrical energy consumption (Mandatory).** In buildings having individual dwelling units, provisions shall be made to determine the electrical energy consumed by each tenant by separately metering individual dwelling units.

**SECTION C406  
ADDITIONAL EFFICIENCY PACKAGE OPTIONS**

**C406.1 Requirements.** Buildings shall comply with at least one of the following:

1. Efficient HVAC Performance in accordance with Section C406.2.
2. Efficient Lighting System in accordance with Section C406.3.
3. On-Site Supply of Renewable Energy in accordance with Section C406.4.

Individual tenant spaces shall comply with either Section C406.2 or Section C406.3 unless documentation can be provided that demonstrates compliance with Section C406.4 for the entire building