

12. Lighting for swimming pools and water features.
13. Lighting for the national flag in lighting zones 2, 3 and 4.
14. Required exit signs and exterior means of egress illumination.

**409.1.1 Exterior lighting zones.** The lighting zone for the building site shall be determined from Table 409.1.1 as clarified by *Administrative Bulletins*.

**[E] TABLE 409.1.1  
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 (not included in other zones)
4	High-activity commercial districts

**409.2 Uplight.** Exterior lighting shall comply with the requirements of Table 409.2 for the exterior lighting zones (LZ) appropriate to the *building site*.

**Exception:** Lighting used for the following exterior applications shall be exempt from the requirements of Table 409.2.

1. Lighting for *building* façades, landscape features, and public monuments in exterior lighting zones 3 and 4.
2. Lighting for *building* façades in exterior lighting zone 2.
3. Lighting installed below canopies.
4. Lighting for flag poles.

**TABLE 409.2  
UPLIGHT RATINGS<sup>a, b</sup>**

	LIGHTING ZONE (LZ)			
	1	2	3	4
Maximum luminaire uplight rating	U0	U1	U2	U3

- a. Uplight ratings (U) are defined by IESNA TM-15-07 Addendum A.
- b. The rating shall be determined by the actual photometric geometry in the specified mounting orientation.

**409.3 Light trespass and glare.** Where luminaires are mounted on buildings with their backlight oriented towards the building, such luminaires shall not exceed the applicable glare ratings specified in Table 409.3(1). Other exterior lumi-

nares shall not exceed the applicable backlight and glare ratings specified in Table 409.3(2).

**Table 409.3(1)  
MAXIMUM GLARE RATINGS FOR BUILDING MOUNTED  
LUMINAIRES WITH THE BACKLIGHT ORIENTED TOWARDS THE  
BUILDING<sup>a, b</sup>**

HORIZONTAL DISTANCE TO LIGHTING BOUNDARY ( $H_{LB}$ )	LIGHTING ZONE (LZ)			
	1	2	3	4
$H_{LB} > 2 h_m$	G1	G2	G3	G4
$h_m < H_{LB} \leq 2 h_m$	G0	G1	G1	G2
$0.5 h_m \leq H_{LB} \leq h_m$	G0	G0	G1	G1
$H_{LB} < 0.5 h_m$	G0	G0	G0	G1

$h_m$  = Mounting height: The distance above finished grade at which a luminaire is mounted, measured to the midpoint of the luminaire.

- a. Glare (G) ratings are defined by IESNA TM-15-07 Addendum A.
- b. The rating shall be determined by the actual photometric geometry in the specified mounting orientation.

**Table 409.3(2)  
MAXIMUM ALLOWABLE BACKLIGHT AND GLARE RATINGS<sup>a, b, c</sup>**

HORIZONTAL DISTANCE TO LIGHTING BOUNDARY ( $H_{LB}$ )	LIGHTING ZONE (LZ)			
	1	2	3	4
$H_{LB} > 2 h_m$	B3 G1	B4 G2	B5 G3	B5 G4
$h_m < H_{LB} \leq 2 h_m$	B2 G1	B3 G2	B4 G3	B4 G4
$0.5 h_m \leq H_{LB} \leq h_m$	B1 G1	B2 G2	B3 G3	B3 G4
$H_{LB} < 0.5 h_m$	B0 G1	B0 G2	B1 G3	B2 G4

$h_m$  = Mounting height: The distance above finished grade at which a luminaire is mounted, measured to the midpoint of the luminaire.

- a. Backlight (B) and glare (G) ratings are defined by IESNA TM-15-07 Addendum A.
- b. Luminaires located two mounting heights or less from the *lighting boundary* shall be installed with backlight towards the nearest *lighting boundary*, unless lighting a roadway, bikeway or walkway that intersects a public roadway.
- c. The rating shall be determined by the actual photometric geometry in the specified mounting orientation.

**409.4 Color temperature.** Maximum color temperature for lights complying with Section 409 shall be 3000 degrees Kelvin or lower.

