

## TRIGGERS for 2013 Title 24, Part 6

## Nonresidential

# **Exterior Lighting**

	Mandatory Measures							Prescriptive Requirements	
Application	Motion Sensor	Luminaire Cutoff Requirements	Lighting Controls4 § 130.2 (c)	Demand Responsive EMC control	Cert <b>oc</b> OteOofO		Cert(f@0te@f0		Add@@n0l0 L@ht0ng Power0 Allow0nce
Application Alter0t@ns@h0t@epl0ce@0%@r0 more0	§ 130.2 (a)	§ 130.2 (b)	§ 130.3 (a)	§ 130.3 (a)	Compl0 nce0 YES0	YESO	Accept0nce0 YES0	§ 140.7 (	§ 140.7 ( o
Alter0t@ns@h0t@epl0ce@re0ter0 th0n&0%0	YES0	YES0	YES0	0	YES0	YES0	YES0	YES0	YES0
Outdoor0nc0ndescent r0ted0 >10 W0tts0	YES0	YES	YES0	О	YES0	YES0	YES0	O	0
All@utdoor@mps@0ted >150 W0tts(	YES	YES0	YES <sub>50</sub>	O	YES0	YES0	YES0	O	0
L@ht0ng for@utdoor@0les0 front0ge,@utdoor@0les0ots0 nd0 outdoor@0les@0nop@s <sub>A0</sub>	YES	o	YES0	o	YES0	YES0	YES0	o	YES
L@ht0ng for0bu0d0ng f0c0des,0 orn0ment0l h0rdsc0pe0 nd0 outdoor0d0n0ng <sub>B0</sub>	YES	YES	YES0	o	YES0	YES0	YES0	O	YES
Gener0l0n0rdsc0pe0@ht0ngco	YES	YES	YES0	О	YES0	YES0	YES0	YES0	0
Add@on0l L@ht@g Power0 Allow0nceGor&pecG@0 Appl@0t@ns (T0ble@4 .7-B) <sub>D</sub>	YES	O	YES0	O	YES0	YES0	YES0	o	YES
Outdoor <b>&amp;@n0</b> @ht0ng0	0	0	YESQ <sub>0</sub>	YESQ	YES0	YES0	YES0	0	0



### Exceptions:

- 1. Except signs, lighting for building façade, public monuments, statues, vertical surfaces of bridges, temporary outdoor lighting, lighting for public right of way on roadways, sidewalks and bikeways, replacement for existing non applicable pole mounted luminaires and not permitted by health of life safety statute, ordinance or regulation.
- Except outdoor signs in tunnels and signs that are lit continuously 24 hours per day year round.
- 3. Except lighting for EMCs not permitted by health of life safety statute, ordinance or regulation. These lights must be capable of reducing 30% when receiving a demand response signal.
- 4. Except outdoor lighting not permitted by health of life safety statute, ordinance or regulation. Lighting in tunnels.
- 5. Except lighting for outdoor sales frontage, outdoor sales lots and outdoor sales canopies and lighting for building facades, ornamental hardscape and outdoor dining. Also exempted are pole lighting that meet conditions in § 130.2 (c) 3. Applies to all exterior lighting mounted at least 24 feet above the ground. Outdoor lighting controlled by a photo-control or outdoor astronomical time-switch. No more than 1500W of lighting power should be controlled together.

#### Notes:

- A. Automatic part-night lighting control or motion sensor with auto-on functionality and capable of reducing lighting power by 40% but not exceeding 80%.
- B. Automatic part-night lighting control or motion sensor with auto-on functionality or centralized time-based zone lighting control.
- C. General hardscape lighting determined according to § 140.7 (d) 1 may be traded to specific applications in § 140.7 (d) 2.
- D. Additional lighting power allowances for specific applications as per Standards Table 140.7-B. Trade-offs are not allowed. Lighting power allowances are dependent on lighting zone.
  - 1. Allowance per application: building entrances and exits, primary entrance for twenty-four hour public occupancies, drive-up windows and vehicle service stations.
  - 2. Allowance per unit length: outdoor sales frontage.
  - 3. Allowance per hardscape area: ornamental lighting.
  - 4. Allowance per specific area: building facades, outdoor sales lots, vehicle service station hardscape and canopies, sales and non-sales canopies, guard stations, student drop-off zone, outdoor dining, security lighting and pedestrian hardscape

#### Additional Notes:

- 1. Allowed lighting power is calculated:
  - a. For outdoor lighting as per § 140.7 (d)
  - b. For outdoor sign lighting, maximum lighting power ≤ product of illuminated sign area and 2.3 W per sq. ft.
- Light sources for sign lighting are listed in § 140.8 (b)
- 3. Mandatory Requirements for Outdoor Lighting Control:
  - a. Lighting control devices are regulated by Appliance Standards, Title 20.
    - i. Following self-controlled lighting controls requires certification from manufacturer as compliant with Title 20:
      - 1. Time-switch controls: automatic time-switch control
        - a. Astronomical time-switch control
        - Multi-level astronomical time-switch control
        - . Outdoor astronomical time-switch control
      - 2. Daylighting controls:
        - a. Automatic daylighting control
        - b. Photo control
      - Dimmers
      - 4. Occupant sensing controls:
        - a. Occupant sensors
        - b. Motion sensors
        - c. Vacancy sensors
  - Lighting control systems are regulated by Title 24, Part 6 and must comply with § 110.9 (b).
  - c. All lighting control systems require an Installation Certificate
- 4. Outdoor lighting controlled by a photo-control or outdoor astronomical time-switch. No more than 1500W of lighting power should be controlled together.







