



## COMMERCIAL AND MULTI-FAMILY EXTERIOR LIGHTING REQUIREMENTS

### APPLICABILITY

Any changes to exterior lighting or any new exterior lighting must comply with the following standards and submittal requirements.

### SUBMITTAL REQUIREMENTS

1. **Lighting Plan.** A lighting plan showing all proposed exterior lighting fixtures, and their relationship to buildings, landscaping, and parking areas, shall be approved by the City Police Department prior to issuance of a building permit. Construction shall be in accordance with the approved lighting plan.

The following shall be included with the plan:

- a. Isolux or point-by-point photometric calculations at intervals of not more than ten (10) feet, at ground level.
    - The area covered by the photometric shall extend twenty feet (20') beyond the edge of the subject property, to show the effect of the lighting on adjacent properties.
    - The photometric shall include a summary data table, showing maximum, minimum, max. to min. and average to min. light level ratios.
  - b. Specifications for all proposed lighting fixtures including designation as IESNA "cut-off" fixtures, Color Rendering Index (CRI) of all lamps (bulbs), and other descriptive information on the fixtures.
  - c. Wattage of all bulbs. No bulb shall have a wattage greater than 250 watts.
2. **Luminaire "Cut Sheets".** Manufacturer's "cut sheets" showing the height and type of lighting fixtures.

### LIGHTING STANDARDS

1. **Lighting Levels.** Exterior lighting levels shall be designed in strict conformance with IESNA (Illuminating Engineering Society of North America) standards, as periodically revised and updated. Any increase or decrease in lighting levels above or below the minimum IESNA levels shall be approved by the Police Department and Department of Planning & Community Development.
2. **Light Standard Height.** Light standards shall be limited in height as follows:
  - a. no greater than 20 feet in height in residential areas, or within 20 feet of a residential area;
  - b. no greater than 25 feet in height in all other cases.
3. **Exterior Glare Shields.** All new exterior lighting adjacent to a noncompatible use (such as any commercial or multi-family use adjacent to single family residential) shall have external shields of sufficient length to shield light and prevent glare from reaching adjacent properties.
4. **Pedestrian Lighting.** In addition to parking lot lighting, pedestrian-level lighting shall be provided for all **retail, office, and housing uses** and for **other uses with substantial pedestrian activity**. Such lighting may include bollards, pedestrian-height fixtures, building façade lighting, path lighting and landscaping/accent lighting. To prevent glare, all light fixtures shall be selected and oriented so that the luminaire source is not visible or is shielded from view.
5. **Canopy Lighting.** Any lighting under canopies (such as gas station service areas, or covered parking drop off areas) shall be recessed into the canopy structure.

**SECTIONS:**

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<b>17.20.010</b>	<b>Purpose</b>
<b>17.20.030</b>	<b>Exterior Lighting Standards</b>
<b>17.20.040</b>	<b>Lighting Configuration</b>

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**17.20.010 Purpose**

- A. This chapter establishes lighting levels, in order to promote visual surveillance, reduce the potential for criminal activity, and meet energy constraints.
- B. The goal of CPTED exterior lighting standards is to enable that a driver, pedestrian, or observer looking at the brightest spot in the field of view will also be able to detect an object, or threat, in the darkest areas within the field of view. This detection can only occur if the maximum-to-minimum illuminance is limited to a range that the human eye can see and is related to the uniformity of light on the property. (Ord. 03-1033 § 11)

**17.20.030 Exterior Lighting Standards**

The installation of exterior lighting shall conform to the following requirements:

- A. New exterior lighting installations shall include timers, dimmers, and/or sensors for automatic lights.
- B. If existing exterior lighting fixtures are modified, extended, expanded, or added to, the altered portion shall comply with this title.
- C. Expansions, additions, or replacements to exterior lighting installations shall be designed to avoid harsh contrasts in color and/or lighting levels.
- D. Alternate lighting installations not covered by this chapter may be approved only if the Director of Planning and Community Development determines the following:
  - 1. They are designed to minimize glare;
  - 2. They do not result in excessive lighting levels. (Ord. 03-1033 § 11)

**17.20.040 Lighting Configuration**

The height and configuration of building-mounted and freestanding light fixtures shall conform to the following:

- A. Transitional lighting should be incorporated in exterior areas going to and from the building(s) or use(s) within the site. Transitional lighting shall be provided for recreation/office buildings, swimming pools, laundry and mail rooms, covered breezeways, and similar areas.
- B. All exterior lighting shall be directed downward and away from adjoining property with luminaries shielded.
- C. All exterior fixtures on multi-family housing units that are directed toward common areas shall be illuminated from dusk until dawn.
- D. Trees and shrubs shall not interfere with the distribution of lighting required by CPTED. The Director of the Department of Planning and Community Development may waive the landscape requirements of Chapters 15.14 and 17.56 SMC to conform to this requirement. (Ord. 03-1033 § 11)

**SECTIONS:**

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- 17.24.010 Purpose**  
**17.24.020 Parking Lot Standards**  
**17.24.030 Garbage Dumpsters/Recycling Bins**
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**17.24.010 Purpose**

This chapter establishes standards for parking lot lighting to provide the minimum lighting necessary to ensure adequate vision and comfort in parking areas, and avoid glare or direct illumination onto adjacent properties or streets. (Ord. 03-1033 § 11)

**17.24.020 Parking Lot Standards**

- A. All luminaires shall be cut-off luminaires as defined by the IESNA Handbook, page 7-8, except as follows:
1. If the design is of a period or architectural style, as determined by the Director of Planning and Community Development, within the overall design of the project, alternatives or supplements to the lighting may be used provided that:
    - a. If such are not “cut-off” luminaires as defined by IESNA, the maximum initial lumens generated by each fixture shall not exceed two thousand (2,000).
    - b. Mounting heights of such alternative luminaires shall not exceed fifteen (15) feet above grade.
    - c. All luminaires of a period or architectural style shall be approved by the Director of Planning and Community Development.
- B. Parking areas adjacent to residential lots shall have approved glare shields to prevent glare as approved by the CPTED Section.
- C. Illuminance, mounting height, and uniformity ratio shall conform to the requirements in Table 17.24.020.

**Table 17.24.020 Parking Lot Lighting Standards**

	District 1	District 2	District 3	District 4
<b>Mounting Height (Maximum)</b>	25 ft	16 ft	25 ft	25 ft
<b>Minimum Illumination Level*</b>	No less than .5 fc	No less than .5 fc	No less than .2 fc	No less than .2 fc
<b>Maximum Illumination Level**</b>	No more than 7.5 fc	No more than 7.5 fc	No more than 3 fc	No more than 3 fc
<b>Uniformity Ratio***</b>	15:1	15:1	15:1	15:1

\* Minimum Illumination Level (in footcandles “fc”) at the darkest spot on the parking area surface.

\*\* Maximum Illumination Level (in footcandles “fc”) at the brightest spot on the parking area surface.

\*\*\* Minimum Uniformity Ratio is no less than 15:1. Measured here for maximum light level compared to minimum light level.

(Ord. 03-1033 § 11)

**17.24.030 Garbage Dumpsters and Recycling Bins**

Garbage dumpsters and recycling bins must have a dedicated light source. The light level shall be in accordance with light levels specified in Table 17.24.020.

(Ord. 03-1033 § 11)

- A. Lighting District 1 consists of the following districts: Industrial (I), Office/Commercial Medium (OCM), Office/Commercial/Mixed Use (O/C/MU), Neighborhood Business (NB), Community Business (CB), Business Park (BP), and Aviation Commercial (AVC).
- B. Lighting District 2 shall consist of the area within the City Center boundary.
- C. Lighting District 3 consists of the following higher density residential districts: UM-3600, UM-2400, UH-1800, UH-900, Mobile Home Park (MHP), and UH-UCR.
- D. Lighting District 4 consists of the following low-density residential districts: UL-15000, UL-9600, UL-7200, and UL-5000. (Ord. 03-1033 § 11)

**17.12.200 Lumens**

The measured quantity of light emitted by a lamp. Different wattages and type of bulbs emit different levels. For example, a typical household incandescent one hundred (100) watt light bulb emits approximately one thousand seven hundred (1,700) lumens. (Ord. 03-1033 § 11)

**17.12.210 Luminaire**

The complete lighting unit consisting of the lamp, its holder, and the reflectors and diffusers used to distribute and focus the light. (Ord. 03-1033 § 11)

**17.12.220 Mounting Height**

The vertical distance from the grade elevation of the surface being illuminated to the bottom of the lighting fixture (i.e., luminaire). (Ord. 03-1033 § 11)

**17.12.230 Nonresidential**

Any uses or occupancies which are not residential as defined in this section. (Ord. 03-1033 § 11)

**17.12.250 Residential**

Uses or occupancies upon which one or more dwelling units are located. (Ord. 03-1033 § 11)

**17.12.260 Shrub**

A woody plant having more than one (1) stem, each less than two (2) inches in diameter, a height of less than ten (10) feet, and an undefined crown. (Ord. 03-1033 § 11)

**SECTIONS:**

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<b>17.40.010</b>	<b>Purpose</b>
<b>17.40.020</b>	<b>Standards</b>
<b>17.40.030</b>	<b>Lighting of Sports Fields</b>

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**17.40.010 Purpose**

This chapter specifies standards for walkways, bikeways and parks to increase safety and also limit the impact on surrounding properties. (Ord. 03-1033 § 11)

**17.40.020 Standards**

Where lighting is to be provided for walkways, bikeways, or parks, the following requirements shall apply:

- A. The walkway, pathway, or ground area shall be illuminated to a level of at least three-tenths (0.3) footcandles and no more than five-tenths (0.5) footcandles.
- B. The vertical illumination levels at a height of five (5) feet above grade shall be at least three-tenths (0.3) and no more than five-tenths (0.5) footcandles.
- C. Lighting fixtures shall be designed to direct light downward, and light sources shall have an initial output of no more than one thousand (1,000) lumens.
- D. Lighting shall be consistent with the IESNA Handbook, Chapter 22 and Figure 22-11. (Ord. 03-1033 § 11)

**17.40.030 Lighting of Sports Fields**

Sports fields shall be lighted in accordance with the standards specified by the IESNA Handbook, Chapter 20. (Ord. 03-1033 § 11)

**SECTIONS:**

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<b>17.44.010</b>	<b>Purpose</b>
<b>17.44.020</b>	<b>Building Facade Lighting Standards</b>
<b>17.44.030</b>	<b>Landscape Lighting Standards</b>

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**17.44.010 Purpose**

The purpose of building facade and landscape lighting is to enhance the visual appeal of the property as well as increasing the capacity for visual surveillance. These standards are also meant to limit the impact of the lighting onto adjacent properties. (Ord. 03-1033 § 11)

**17.44.020 Building Facade Lighting Standards**

A. With the exception of structures having symbolic (i.e., churches and/or public buildings) or historical significance in the community, exterior building facades shall not be illuminated. When buildings having symbolic or historic significance are to be illuminated, a design for the illumination shall be approved by the CPTED Section and the following provisions shall be met:

1. The maximum illumination on any vertical surface or angular roof shall not exceed five (5) footcandles.
2. Lighting fixtures shall be shielded and directed onto the building facade. Lighting fixtures shall not be directed toward adjacent streets, roads, or properties.
3. Lighting fixtures mounted on the building and designed to “wash” the facade with light are recommended.
4. To the extent practicable, lighting fixtures shall be directed downward (i.e., below the horizontal) rather than upward.

B. Facades of buildings without symbolic or historical significance may be illuminated if approved by the City Manager or designee subject to the following criteria and meeting the performance standards contained in subsection (A) of this section.

1. Lighting does not cast light and glare on adjacent properties and rights-of-way.



2. The lighting is needed to ensure the safety of employees and/or customers. (Ord. 03-1033 § 11)

**17.44.030 Landscape Lighting Standards**

Landscaping may be illuminated if approved by the CPTED Section subject to the following criteria:

- A. The CPTED Section shall first approve the landscape lighting plan that presents the purpose and objective of the lighting.
- B. The landscape lighting plan shall show the location of all lighting fixtures and what landscaping will be illuminated.
- C. The plan shall demonstrate that installation will not generate excessive light levels, cause glare, or direct light beyond the landscaping into the night sky.
- D. Landscape lighting shall follow the requirements of the IESNA Handbook, Chapter 21. (Ord. 03-1033 § 11)

**17.12.190 Lighting District**

A consolidation of the zoning districts established under SMC Title 15 into districts with distinct lighting standards as follows:

- A. Lighting District 1 consists of the following districts: Industrial (I), Office/Commercial Medium (OCM), Office/Commercial/Mixed Use (O/C/MU), Neighborhood Business (NB), Community Business (CB), Business Park (BP), and Aviation Commercial (AVC).
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- C. Lighting District 3 consists of the following higher density residential districts: UM-3600, UM-2400, UH-1800, UH-900, Mobile Home Park (MHP), and UH-UCR.
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