

**Chapter 19.556****OUTDOOR LIGHTING**

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**19.556.010 Purpose.**

This Chapter sets forth standards to ensure that outdoor lighting is adequate for safety, security and commerce while preserving the naturally dark night sky by mitigating artificial sky glow and preventing glare and light trespass.

**19.556.020 Definitions.**

For the purposes of this Chapter only, the following words and phrases are defined as follows:

“Architectural Floodlighting and Outlining” means the use of lighting to illuminate building facades, statuary, and similar edifices for appearance or other needs not involving visual tasks such as walking or driving.

“Artificial Sky Glow” means anthropogenic light scattered in the atmosphere that on clear nights reduces the ability to see stars and the Milky Way. It also has negative environmental impacts.

“Community & Economic Development Director” means the director of the Community & Economic Development Department of the City of Riverside or the person designated by the Community & Economic Development Director.

“Curfew” means the time each night that lighting shall be dimmed or turned off in accordance with Title 24, Part 6, Section 130.2 for non-residential lighting and Section 150.0 for residential lighting.

“Downlight” means that the luminaire emits no light above 90 degrees relative to nadir.

“Fully shielded” means a light fixture constructed and installed in such a manner that all light emitted by the fixture, either directly from the light source or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane through the fixture’s lowest light-emitting part.

“Glare” means lighting entering the eye directly from a light fixture or indirectly from reflective surfaces that causes visual discomfort or reduced visibility.

“Light Source” means, in generic terms, a source of optical radiation (i.e., “light”), often called a “lamp”, “bulb”, or “tube”. Examples include incandescent, fluorescent, high-intensity discharge (HID) lamps, and low-pressure sodium (LPS) lamps, as well as light-emitting diode (LED) modules and arrays.

“Light Trespass” means light that falls beyond the property on which it originates. The amount of trespass is expressed in footcandles (fc) and is measured in the vertical plane at 5’ above grade at the property line of the site on which the light(s) is located. If the adjacent property is a street, alley or sidewalk, then the point at which trespassing light is measured shall be the center of the street, alley, sidewalk, or right-of-way. Field measurements to determine light trespass compliance shall not include the effect of light produced by street lights.

“Lumen” means the unit of measure used to quantify the amount of visible light produced by a light source or emitted from a luminaire (as distinct from “watt,” a measure of power consumption).

“Luminaire” means outdoor electrically powered illuminating devices, including a light source, outdoor reflective or refractive surfaces, lenses, electrical connectors and components, and all parts used to mount the assembly, distribute the light and/or protect the light source, whether permanently installed or portable.

“Maximum Lumens” means the allowed maximum rated lumens per a photometric report or manufacturer’s product literature for a dedicated fluorescent, LED or HID luminaire or the rated lumens of the light source installed for a line voltage socket luminaire or a low voltage socket luminaire.

“Shielded Up-light” means a luminaire aimed upward within 30 degrees of straight up that employs a baffle or louver to prevent glare.

“Temporary Lighting” means lighting that (a) employs a cord and plug that is not permanently wired and (b) is installed and removed when the temporary need is over, not to exceed 45 days, including but not limited to seasonal lighting.

“Outlining” means exposed light sources attached to structures for the primary purpose of attraction, branding or decoration.

#### **19.556.030 Applicability.**

Except as described below, all outdoor lighting installed or modified after the effective date of this Ordinance shall comply with these requirements. This includes, but is not limited to,

new lighting, replacement lighting, additions and alterations to existing lighting whether attached to structures, poles, the earth, or any other location. Applications for land use entitlements after the effective date of this ordinance shall comply with this chapter.

**19.556.040 Exemptions.**

A. The following are not regulated by this Chapter:

1. Lighting within public right-of-way, or quasi-public easement for common access, such as a private street serving a community of homes.
2. Lighting solely for signs (see 19.620).
3. Repairs to existing luminaires, not including replacements or modifications.
4. Temporary lighting.
5. Underwater lighting in swimming pools and other water features.
6. Short-term lighting associated with activities authorized by a Special Event Permit or Film Permit.
7. Construction or emergency lighting which is shielded, temporary and is discontinued immediately upon completion of the construction work or abatement of the emergency for which the light serves.
8. Lighting approved by Temporary, Variance, Minor Conditional or Conditional Use Permit.
9. Lighting under the jurisdiction of Title 20 of the Riverside Municipal Code and for which a Certificate of Appropriateness has been granted.

**19.556.050 Prohibited Lighting**

A. The following types of lighting are prohibited unless in conjunction with the exemptions provided in 19.556.040:

1. Dynamic lighting, such as moving lights, color changing lighting, or digital LED panels that flash, chase, change color, or changes intensity for any purpose other than serving as a traffic signal, safety light, or aviation or marine marker.
2. Luminaires exceeding 500,000 peak candelas or 50,000 lumens

3. Aerial Laser lighting.
4. Lighting within Lighting Zone 0 except as permitted by Title 24, Part 6, Section 140.7.
5. Sport facility lighting.

**19.556.060 Lighting Zones.**

A. Lighting zones are defined as follows:

1. Lighting Zone 0 (Zero) shall include undeveloped areas of parks, recreation areas, and wildlife preserves. These areas are undeveloped or intended to be preserved in a natural state that require little or no exterior light at night.
2. Lighting Zone 1 (One), shall include developed portions of parks, recreation areas, wildlife preserves, and the area within the Mt. Palomar Observatory boundary as shown in the General Plan which are suitable for low levels of exterior lighting at night.
3. Lighting Zone 2 (Two) shall include all areas of the City that are zoned RA-5, RC and RR which are suitable for modest levels of exterior lighting at night.
4. Lighting Zone 3 (Three) shall include all other areas of the City not in Lighting Zones 0, 1 or 2 which are suitable for medium to high levels of exterior lighting at night.

B. All proposed changes and appeals to Lighting Zone designations shall be approved by the City Council upon recommendation of the Planning Commission. The Community & Economic Development Director shall notify the California Energy Commission according to California Code of Regulations, Title 24, Part 1, Section 10-144(d).

**19.556.070 Design Review and Permitting.**

A. All proposed outdoor lighting installations involving new lighting or the modification, alteration, or replacement of outdoor lighting shall submit plans and related information as listed below:

1. Plans depicting the proposed luminaires with certification from engineer, applicant and/or designee that the plans comply with this chapter.
2. Product specification data such as manufacturer's data sheets for each luminaire and control device(s) or systems being used.

3. For non-residential properties, signed pages of required documents for Title 24 – Part 6 Section 140.7 and Title 24 – Part 11 Section 5.106.8 demonstrating compliance.
4. Details, elevations, summaries or calculations as required to demonstrate compliance with this Ordinance.
5. Such other data and information as may be required by the Community & Economic Development Director.

**19.556.080 Design and Development Standards.**

- A. All outdoor lighting shall be designed and implemented to mitigate light trespass onto adjacent properties and comply with the following:
1. The correlated color temperature of all outdoor lighting shall be 3000 Kelvin or less, with tolerance within the ANSI standard C78.377 of LED sources.
  2. Shall comply with the California Title 24 California Code of Regulations, Title 24, Parts 1, 2, 6 and 11.
  3. Shall comply with Table 19.556.080 A – Lighting Limits for Residential Including Multifamily Properties with Fewer than 8 Units or Table 19.556.080 B – Lighting Limits for Non-Residential and Multifamily Residential Properties with 8 Units or more.
    - a. Except that, the maximum mounting height of luminaires (above adjacent grade) shall not apply to fully recessed luminaires.
    - b. Except that, the maximum mounting height for buildings with exterior entrance doors shall be 12 feet above adjacent floor unless recessed into an adjacent ceiling, soffit or overhang.
    - c. Average illumination of a façade or edifice shall not exceed 5 footcandles (50 lux).
  4. Lighting shall be hooded or shielded so as to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing, except as may be specifically allowed herein.

**Table 19.556.080 A – Limits for Residential Including Multifamily with Less than 8 Units.**

Restriction	Lighting Zone 0 (Zero)	Lighting Zone 1 (One)	Lighting Zone 2 (Two)	Lighting Zone 3 (Three)
Automatic Lighting Controls	Per Title 24 Part 6 Section 150.0(k.) 3. (A).iii.			
Maximum lumens per fully shielded luminaire	300	1000	2000	3000
Unshielded and decorative lighting	Prohibited	One per residence, not to exceed 300 lumens per residence	Two per residence, not to exceed 600 lumens per luminaire and 1000 lumens per residence	Three per residence, not to exceed 900 lumens per luminaire and 2000 lumens per residence
Maximum mounting height of luminaires (above adjacent grade)	8 feet	12 feet	12 feet	25 feet
Landscape lighting maximum per luminaire	Prohibited	Downlight only, not to exceed 300 lumens	Downlight and/or shielded uplight, not to exceed 450 lumens	Downlight and/or shielded uplight, not to exceed 600 lumens
Landscape lighting maximum lumens per acre	0	6000	12000	18000
Architectural Floodlighting <sup>1</sup>	Prohibited	Prohibited	16000 lumens above horizontal plane of light source	20000 lumens above horizontal plane of light source
Maximum allowable light trespass <sup>2</sup>	0	0.1 footcandle (1 lux)	0.2 footcandle (2 lux)	0.5 footcandle (5 lux)

1. Lumens represent maximum lumens per site development. Architectural floodlighting must comply with unshielded and decorative lighting restrictions, including maximum number of luminaires and lumens per residence.
2. Allowable light trespass shall be determined based upon the light zone in which the trespass occurs, not from which the light originates.

**Table 19.556.080 B – Limits for Non-Residential and Multifamily Properties more than 8 Units.**

Restriction	Lighting Zone 0 (Zero)	Lighting Zone 1 (One)	Lighting Zone 2 (Two)	Lighting Zone 3 (Three)
Maximum Allowed Lighting Watts	Per Title 24 Part 6 Section 140.7			
Automatic Lighting Controls	Per Title 24 Part 6 Section 130.2 for non-residential properties and for <b>multifamily</b> residential properties of 8 residences or more.			
Backlight, uplight and glare limits	BUG 0,0,0 only	Per Title 24 Part 11 Section 5.106.8		
Unshielded and decorative lighting	Prohibited	Prohibited	Maximum 600 lumens per luminaire, not to exceed 12000 lumens per acre.	Maximum 900 lumens per luminaire, not to exceed 18000 lumens per acre
Maximum mounting height of luminaires (above adjacent grade)	8 feet	25 feet		
Landscape lighting per luminaire	Prohibited	Downlight only, not to exceed 450 lumens	Downlight and/or shielded uplight, not to exceed 600 lumens	Downlight and/or shielded uplight not to exceed 900 lumens
Maximum landscape lighting lumens per acre	0	9000	12000	18000
Architectural Floodlighting <sup>1</sup>	Prohibited	Prohibited	20000 lumens above horizontal plane of light source	20000 lumens above horizontal plane of light source
Maximum allowable light trespass <sup>2</sup>	0	0.1 footcandle (1 lux)	0.2 footcandle (2 lux)	0.5 footcandle (5 lux)

1. Lumens represent maximum lumens per site development. Architectural floodlighting must comply with unshielded and decorative lighting restrictions, including maximum number of luminaires and lumens per residence.
2. Allowable light trespass shall be determined based upon the light zone in which the trespass occurs, not from which the light originates.