

## Title 2 – Building Regulations

### Chapter 4

#### OUTDOOR NIGHTTIME LIGHTING

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2-4-1: **SHORT TITLE:** This chapter shall be known and may be cited as the CITY OF CASCADE OUTDOOR NIGHTTIME LIGHTING ORDINANCE. (Ord. #A, --2019)

2-4-2: **PURPOSE:** The intent of this ordinance is to maintain the rural character of Cascade, in part by preserving the visibility of nighttime skies, and to minimize the impact of artificial lighting on nocturnal wildlife. This ordinance recognizes the importance of lighting for safety and security while encouraging energy efficiency, and promotes good neighborly relations by preventing glare from outdoor lights intruding on nearby properties or posing a hazard to pedestrians or drivers.

2-4-3: **SCOPE; EXEMPTIONS:**

Except as described and exempted in Subsection C of this section, all outdoor lighting installed after the date of effect of this ordinance shall comply with the requirements herein.

- A. New Lighting: All exterior lighting installed after the effective date hereof shall conform to the standards established by this chapter.
- B. Existing Lighting: All existing exterior lighting installed before the effective date hereof is encouraged to be brought into conformance with this chapter.
  - 1. All existing exterior lighting located on a subject property that is part of an application for design review approval, a conditional use permit, subdivision approval, or a building permit is required to be brought into conformance before issuance of a certificate of occupancy, final inspection or final plat recordation.
    - a. When replacing bulbs and/or fixtures, LED lighting color shall not exceed 3,000 K or 100-watt halogen. 100-watt incandescent sensor activated lights are exempted.
  - 2. Exemptions for Existing Lighting
    - a. The lights on the trees and lamp-posts are exempt on Main Street between Lake Cascade Parkway and Mill Street.

- b. Lighted signs that meet the definition of “nonconforming” under these rules and that exist when this ordinance is approved are exempt from the requirements of these rules (a.k.a., grandfathered).

The lighted signs exempted from this ordinance include the existing signs at Alpine Lodge, American Legion Post 60, Arrowhead RV Park, Birch Glen, Cascade Hardware, Cascade Lake Realty, Cascade Medical Center, D-9, Family Dollar, Bob Bate Ford, Grammas Family Restaurant, Harpo’s, Howdy’s Gas and Grub, Remington’s at the Chief, Reos, Sinclair, Subway, Tackle Tom’s, The Roxy Theatre, Umpqua Bank, United States Postal Office, Valley Baptist Church, Valley Club, Valley Store, ValleyWide Propane, Wellingtons, and Whistle Stop.

- 1. Businesses have until June 1, 2019 to contact city staff to be added to this list as an addendum.

- c. Unshielded globe lighting at the Ashley Inn, Water’s Edge, and Lake Front Bar and Grill are exempt; however, lighting shall not exceed 3,000k or 100-watt halogen as specified in Section 2-4-5: Performance Standards D.3.n.

**2-4-4: DEFINITIONS:**

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

**BUILDING INSPECTOR:** The City of Cascade Building Inspector.

**ENERGY WASTE:** Lighting that is not serving a useful purpose and shines when and where it is not needed, or lighting that is produced by an inefficient energy source such as mercury vapor lamps.

**EXTERIOR LIGHTING:** Temporary or permanent lighting that is installed, located, or used in such a manner to cause light rays to shine outdoors. Lights that are indoors that are intended to light something outside are considered exterior lighting for the purpose of this chapter. Exterior lighting does not include emergency or warning lights on vehicles.

**FULLY SHIELDED:** Lighting which incorporates a solid barrier (the shield), which permits no light to escape through the barrier. See Section 2-4-7, Figure 2.

**GLARE:** Stray, unshielded light striking the eye that may result in:

- A. Nuisance or annoyance glare such as light shining into a window;
- B. Discomfort glare such as bright light causing squinting of the eyes;

- C. Disabling glare such as bright light reducing the ability of the eyes to see into shadows; or
- D. Reduction of visual performance.

- KELVIN:** Temperature scale, in this context, is used to describe the perceived color or appearance of light ranging from cool (blue) to warm (yellow) measured in kelvins (K). See Section 2-4-7, Figure 1.
- LED:** Light Emitting Diode.
- LIGHT COLOR:** Color temperature specified in kelvin (K) temperature scale.
- LIGHT POLLUTION:** Any adverse effect of manmade light including, but not limited to, discomfort to the eye or diminished vision due to glare, the uncomfortable distraction and confusion to the eye, light trespass, skyglow, over-lighting, uplighting, energy waste, compromised safety and security, impacts on nocturnal environment, or any manmade light that diminishes the ability to view the night sky.
- LIGHT TRESPASS:** Light falling on the property of another or on the public right of way when it is not wanted or required to do so.
- NONCONFORMING:** All exterior outdoor lighting that does not meet the Purpose (Subsection A) and Standards (Subsection C) as specified in Section 2-4-5: PERFORMANCE STANDARDS of these rules.
- OVER-LIGHTING:** Excessive and nonessential lighting causing light pollution.
- SKYGLOW:** The overhead glow from light emitted sideways and upwards. Skyglow is caused by the reflection and scattering of light by dust, water vapor, and other particles suspended in the atmosphere.
- UPLIGHTING:** Lights pointing directly up or light radiated into the hemisphere or above the horizontal plane.

**2-4-5: PERFORMANCE STANDARDS:**

- A. Purpose: These regulations are intended to establish standards that ensure minimal light pollution, reduce glare, improve safety for drivers and pedestrians, increase energy conservation, and maintain the quality of the city's physical and aesthetic character and heritage.
- B. Applicability: These standards shall apply to all exterior outdoor lighting, and include, but are not limited to, search, spot, canopy, or flood lights for:
  1. Buildings and structures;
  2. Recreational areas;

3. Parking lot lighting;
4. Landscape lighting; and
5. Signage.

C. Standards:

1. All exterior lighting shall be designed, located, and lamped in order to prevent:
  - b. Over-lighting or excessive lighting;
  - c. Energy waste;
  - d. Glare;
  - e. Light trespass; and
  - f. Skyglow.

D. Procedures

1. All nonessential exterior commercial and residential lighting is encouraged to be turned off after business hours and/or when not in use. Lights on a timer are encouraged. Sensor-activated lights are encouraged to replace existing lighting that is desired for security purposes.
2. Recreational facilities such as baseball, softball, soccer, volleyball or football fields; driving ranges; outdoor arenas and amphitheaters; ski trails; or other outdoor field recreation facilities are exempt from height restrictions in Paragraph 3.a. of this subsection, provided the lights are used only while the facilities or amenities are in use.
3. All other exterior outdoor lighting shall meet the following standards:
  - a. The height of any light fixture or illumination source shall not exceed thirty feet (30').
  - b. All lighting or illumination units or sources shall be hooded or shielded in a downward direction so they do not produce glare or cause light trespass on any adjacent lot or real property as depicted in Section 2-4-7, Figure 2.
    - (1) Unshielded lights can be mitigated by the uses of porches, overhangs, and walls provided these features minimize light trespass onto neighboring properties.
    - (2) Lighting can be shielded by opaque glass as long as the outline of the light bulb is not visible while the light is on.

- c. Lights or illumination units shall not direct light, either directly or through a reflecting device, upon any adjacent lot or real property. Lighting should not illuminate the sky or reflect off adjacent water bodies or produce glare or cause light trespass on any adjacent lot or real property.
- d. External lighting of the face of signs shall be placed above the sign and shielded, or placed below the sign and directed in a manner that the illumination source shall be directed at the sign and not be visible from any adjacent lot or real property or result in skyglow. Sign lighting shall not reflect or glare beyond the face of the sign and immediately below the sign. Internally lit signs are hereby prohibited. See Title 2, Chapter 2, Cascade City Code for further regulation of signs.
- e. Searchlights shall only be operated for special events or grand openings for a maximum of one week. Emergency usage is exempt.
- f. The installation of mercury vapor lamps is hereby prohibited.
- g. Flashing or intermittent lights, lights of changing degree of intensity, or moving lights shall not be permitted at night. This subparagraph shall not be construed to prohibit holiday lights or the flashing porch light signal used only while emergency services are responding to a call for assistance at the property.
- h. Industrial and exterior lighting shall not be used in such a manner that produces glare on public highways and neighboring property. Arc welding, acetylene torch cutting, or similar processes shall be performed so as not to be seen from any point beyond the property line. Exceptions will be made for emergency repairs to equipment.
- i. Sensor activated lights are allowed provided:
  - (1) It is located in such a manner as to prevent glare and lighting onto properties of others or into a public right of way;
  - (2) It is set to only go on when activated and to go off within five (5) minutes after activation has ceased; and
  - (3) It shall not be triggered by activity off the property.
- j. Lighting of radio, communication, and navigation towers, along with power lines and power poles, are allowed provided the owner or occupant demonstrates that the federal aviation administration (FAA) regulations can only be met through the use of lighting.
- k. Temporary lighting is allowed for periodic maintenance of property such as in the case of snow plowing.
- l. Waterway navigational lights are allowed as required by U.S. Coast Guard regulations and/or state regulations.

- m. Uplighting for flags is allowed provided the flag is of the United States. Flags are encouraged to be taken down at sunset to avoid the need for lighting.
  - n. LED lighting color shall not exceed 3,000 K or 100-watt halogen. 100-watt incandescent sensor activated lights are exempted.
  - o. Streetlights shall be high pressure sodium, low pressure sodium, LED, or metal halide, unless otherwise determined that another type is more efficient.
  - p. Canopy lights, such as service station lighting, shall be fully recessed or fully shielded so as to ensure no light source is visible from or causes glare on public rights-of-way or adjacent properties.
- 4. Applications Requiring Lighting Plans: All applications for conditional use permits, planned unit developments, subdivision approvals, applicable sign permits, or building permits shall include lighting plans showing location, type, and height in order to verify that lighting conforms to the provisions of these rules. The approved plan shall be a part of the building and/or conditional use permit.
  - 5. Review by Planning and Zoning Administrator: The planning and zoning administrator shall review any new exterior lighting plans on subject property that is part of an application for conditional use permits, planned unit developments, or subdivision approvals to determine whether the exterior lighting complies with the standards of these rules.
  - 6. Review by Building Inspector: The building inspector shall review any new exterior lighting, any existing exterior lighting, or applicable sign permits on subject property that is part of an application for a building permit to determine whether the exterior lighting complies with the standards of these rules.
  - 7. An administrative variance may be granted for exterior temporary lighting for construction or commercial purposes. All such decisions may be appealed to the city planning and zoning commission.
  - 8. Education:
    - a. The city will collaborate with local organizations to provide education to businesses and residential property owners to increase awareness of the standards within this chapter and encourage the following:
      - (1) All nonessential exterior commercial and residential lighting is encouraged to be turned off after business hours and/or when not in use. Lights on a timer are encouraged. Sensor-activated lights are encouraged to replace existing lighting that is desired for security purposes.
      - (2) Flags are encouraged to be taken down at sunset to avoid the need for lighting.

- b. Education will be provided annually. The information in Subparagraph a. of this paragraph may be provided in water bill mailings.
- c. The city will encourage the transition of existing nonconforming lighted signs at businesses that are exempted in Section 2-4-3 2.b. from the requirements herein, and will collaborate with local organizations to coordinate funding resources and opportunities for cost sharing when these resources and opportunities are found to be available to help businesses transition to the regulations herein.
- d. The city will collaborate with local organizations to provide educational materials to the Chamber of Commerce, and encourage the chamber to highlight these materials on their web site to promote Cascade as a night sky tourism destination and to educate the community and visitors about the benefits listed in Subparagraph e. of this paragraph.
- e. The city will incorporate dark sky materials into the comprehensive plan and other planning documents to highlight the local and regional tourism opportunities for night sky destinations; recreational opportunities; economic benefits; reduction of energy usage; environmental benefits; and benefits to the safety, health and well-being of residents and visitors.
- f. The city will coordinate with community groups and organizations to promote an annual night sky celebration, dissemination of educational information and recognition of community efforts to reduce light pollution and adverse impacts from it.

**2-4-6: VIOLATIONS AND LEGAL ACTIONS:**

- A. Notice of Violations: If the building inspector or planning and zoning administrator finds that any provision of this chapter is being violated, they shall give notice by hand delivery or by certified mail of such violation to the owner and/or to the occupant of such premises, urging that the violation be abated within thirty (30) days of the date of hand delivery or of the date of mailing of the notice.
- B. Noncompliance; Actions and Proceedings: If the violation is not abated within thirty (30) days, the building inspector or planning and zoning administrator may institute actions and proceedings, either legal or equitable, to enjoin, restrain or abate any violations of this chapter.
- C. Penalty: The person in violation of this chapter shall be liable for a civil penalty as provided in Title 1, Chapter 3, Cascade City Code.

**2-4-7: FIGURES:**

The following figures shall be applicable to these rules and incorporated as guidelines for the public and for the city for use in enforcing these rules:

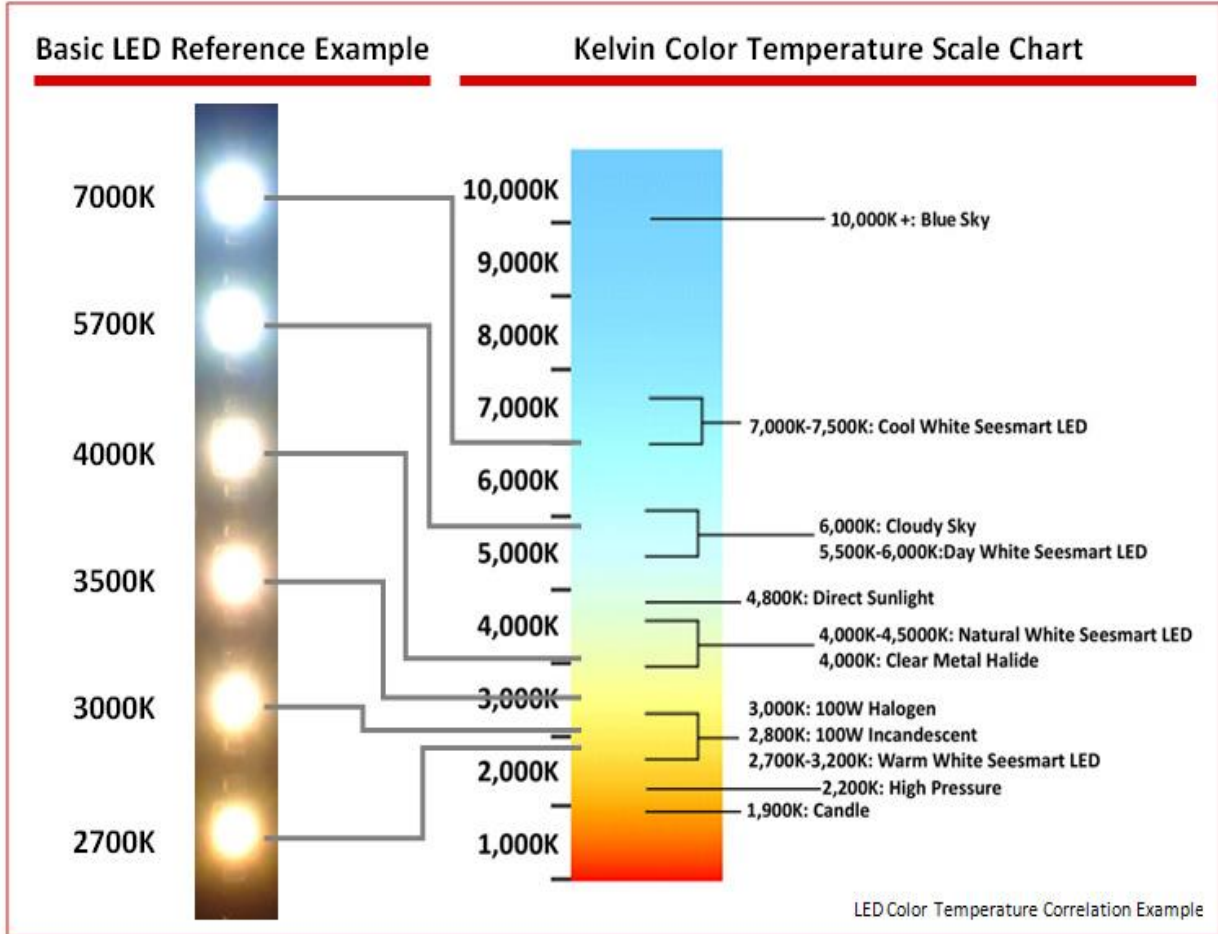


Figure 1: Kelvin color temperature is a way to describe the light appearance provided by a light bulb (lamp). It is measured in kelvins (K) on a scale from 1,000 to 10,000 and is referenced to LED light appearance in this figure.



# Examples of Acceptable / Unacceptable Lighting Fixtures



Figure 2: Examples of lighting that emits no direct uplight and reduces light pollution

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