Chapter 18.70 LIGHTING/DARK SKY

Sections:
18.70.010 Intent.
18.70.020 Applicability.
18.70.030 Exemptions.
18.70.040 General standards.
18.70.050 Types of lighting prohibited.
18.70.060 Required submittals.
18.70.070 Additional definitions.

18.70.010 Intent.

The intent of the lighting/dark sky regulations is to manage and/or limit outdoor lighting in order to preserve and recover the visibility of the night sky; prevent light pollution, light trespass, and glare; to conserve energy and protect natural resources; and to facilitate safety and security of persons and property.

(Ord. No. 909, § 2 (Exh. A), 6-18-2009)

18.70.020 Applicability.

A. All exterior lighting fixtures within the city of Black Diamond, installed after the effective date of this code, regardless of zoning classification or ownership, shall comply with the requirements of this chapter, unless expressly exempted herein.

B. Streetlights installed prior to the adoption of the ordinance from which this title was derived must be replaced with a compliant luminaire when the streetlight becomes inoperable.

C. All exterior lighting fixtures established or permitted as of the date of this code, shall be brought into conformance with the standards herein within one year for multifamily, commercial or industrial properties and three years for residential properties.

(Ord. No. 909, § 2 (Exh. A), 6-18-2009)
18.70.030 Exemptions.

The following types of lighting shall be exempt from the provisions of this chapter.

A. Federally funded and state funded roadway construction projects, are considered exempt from the ordinance from which this title was derived only to the extent that it is necessary to comply with state and federal requirements.

B. Full cutoff street lighting, which is part of a federal, state, or municipal installation.

C. Holiday lighting and other seasonal decorations do not have to be shielded provided they are not in use for more than sixty consecutive days.

D. Specialized lighting necessary for safety, such as navigation or runway lighting of airports, temporary lighting associated with emergency operations, or roadway hazard warnings, etc.

E. Traffic control signals and devices.

F. Sports field lighting, subject to the provisions contained in the general standards.

G. Lighting of the United States flag pursuant to U.S. Flag Code guidelines.

H. Motion-activated, intermittent home security lighting within residential zones.

(Ord. No. 909, § 2 (Exh. A), 6-18-2009)

18.70.040 General standards.

The following general standards apply to all outdoor lighting fixtures and accent lighting, unless otherwise exempt.

A. All light trespass is prohibited.

B. All area lights, including street lights and parking area lighting, shall be full cut-off fixtures.

C. In all zones except residential districts, accent lighting shall be directed downward onto the illuminated object or area, and not upward into the sky, or onto adjacent properties. Direct accent light emissions shall not be visible above the roofline, building, or other associated structure.
Canopy lights shall be recessed sufficiently so that no light spills onto adjacent property or right-of-ways.

Illumination levels and uniformity ratios shall be in accordance with current recommended standards set by the Illumination Engineering Society of North America (IESNA), and not exceeded.

The developer or builder must be able to verify to the city in writing that all outdoor lights were installed as described on the approved photometric plans.

All non-essential exterior commercial and residential lighting is required to be turned off after business hours or when not in use. Light timers or sensors are required when existing lighting is replaced.

Outdoor lighting fixtures and accent lighting may not illuminate non-navigable public bodies of water.

All radio, communication, and navigation towers that require lights shall have dual lighting capabilities. For daytime, a white strobe light may be used, and for nighttime, only red lights shall be used.

Uplighting is prohibited, except in cases where the fixture is shielded by a roof overhang or similar structural shield from the sky, and a licensed architect or engineer has stamped a prepared lighting plan that ensures that the light fixture(s) will not cause light to extend beyond the structural shield, except as specifically permitted in this chapter.

New and existing service stations are required to have lighting levels no greater than thirty footcandles, as set by the IESNA for urban service stations. Existing service stations shall comply with this standard within one year of the effective date of this code.

External illumination for signs shall conform to the provisions of the ordinance from which this title was derived.

Illumination for outdoor recreation facilities must conform to the shielding requirements of this chapter, except when such shielding would interfere with the intended activity (including but not limited to, baseball, softball, and football). For such facilities, partially-shielded luminaries are permitted, and may operate only with a permit from the city recognizing that steps have been taken to minimize glare and light trespass. Where fully-shielded luminaries are required (including but not limited to tennis, volleyball, racquetball and handball courts, and swimming pools), the light fixtures must
also conform to the requirements of light trespass. Illumination for outdoor recreation facilities shall be turned off between the hours of 10:00 p.m. and 6:00 a.m.

(Ord. No. 909, § 2 (Exh. A), 6-18-2009)

18.70.050 Types of lighting prohibited.

A. The provisions of this chapter are not intended to prevent the use of any design, material or method of installation unless specifically prohibited as follows.

The following fixtures and luminaries are not allowed:

B. Newly installed fixtures which are not full-cutoff fixtures.

1. Search lights, laser source lights, and other high-intensity lights, are not permitted except in emergencies by police, fire fighters and other emergency or rescue operations.

2. Uplighting unless specifically permitted by this chapter.


18.70.060 Required submittals.

A. All projects requiring site plan review per Chapter 18.16, and MPDs being reviewed pursuant to Chapter 18.64, shall include a photometric plan as part of the required application.

The plan shall include the following information:

B. The location of all light standards or wall fixtures;

1. The manufacturer and model number of each fixture; and

2. A drawing that shows the light footprint of each fixture.


3. 18.70.070 Additional definitions.

The following definitions shall apply to implementation of this chapter:

Accent Lighting. Lighting used to emphasize or draw attention to a special
A. Object or building.

B. Area Light. Area lights include, but are not limited to, street lights, parking lot lights and yard lights.

C. Bulb or Lamp. The source of electric light (to be distinguished from the whole assembly (see luminaries)). The term "lamp" is often used to denote the bulb and its housing.

D. Cutoff-Fixture. A fixture that provides a cutoff (shielding) of the emitted light.

E. Exterior Lighting. Temporary or permanent lighting that is installed, located or used in such a manner to cause light rays to shine outside. Fixtures that are installed indoors that are intended to light something outside are considered exterior lighting for the intent of this code.

F. Fixture. The assembly that holds the lamp in a lighting system. It includes the elements designed to give light output control, such as a reflector (mirror) or refractor (lens), the ballast, housing, and the attachment parts.

G. Floodlight. A fixture or lamp designed to "flood" an area with light. Generally, floodlights produce from 1000 to 1800 lumens.

H. Footcandle. A measure of light falling on a surface. One foot candle is equal to the amount of light generated by one candle shining on a square foot surface one foot away (Lux is the metric equivalent of footcandles). The Illuminating Engineering Society of North America (IESNA) provides lighting standards for typical applications.

I. Full-Cutoff Fixture. A fixture which, as installed, gives no emission of light above a horizontal plane. See Figures 1 and 2.

J. Glare. Intense and blinding light that may impair visibility.

K. Light Pollution. Any adverse effect of man-made light. Often used to denote urban sky glow, but also includes glare, light trespass, visual clutter, and other adverse effects of lighting.

L. Light Trespass. Light falling where it is not wanted or needed; or shines beyond the property on which the luminaries is installed. See figures 3 and 4.

M. Lighting. Any or all parts of a luminaries that function to produce light.

Luminaries. The complete lighting unit, including the lamp, the fixture, and other parts.

O. Recessed. When a light is built into a structure or portion of a structure such that the light is fully cut-off and no part of the light extends or protrudes beyond the underside of a structure or portion of a structure.

P. Shielded. When the light emitted from the fixture is projected below a horizontal plane running through the lowest point of the fixture where light is emitted. The bulb is not visible with a shielded light fixture, and no light is emitted from the sides of the fixture. Also considered a full cut-off fixture.

Q. Uplighting. Lighting that is directed in such a manner as to shine light rays above the horizontal plane.

(Ord. No. 909, § 2 (Exh. A), 6-18-2009)