

## Chapter 49

### EXTERIOR LIGHTING

#### GENERAL REFERENCES

Uniform code enforcement — See Ch. 39.      Streets and sidewalks — See Ch. 109.  
Design and construction standards — See Ch. 48.      Zoning — See Ch. 130.

---

#### § 49-1. Purpose.

The general purpose of this chapter is to protect and promote the public health, safety and welfare of the residents of the Town of Avon, as well as preserve the quality of life, retain the rural character of Avon and afford the public the ability to view the night sky, by establishing regulations and a process for review of exterior lighting. This chapter establishes standards for exterior lighting in order to accomplish the following:

- A. To provide safe roadways for motorists, cyclists and pedestrians;
- B. To protect against direct glare and excessive lighting;
- C. To ensure that sufficient lighting can be provided where needed to promote safety and security;
- D. To prevent light trespass in all areas of the Town;
- E. To protect and reclaim the ability to view the night sky;
- F. To allow for flexibility in the service of lighting fixtures;
- G. To provide lighting guidelines;
- H. To provide assistance to property owners and occupants in bringing nonconforming lighting into conformance with this chapter;
- I. To promote the conservation of energy for exterior lighting;
- J. To reduce the impact of artificial lighting on human health, flora, fauna and the environment.

#### § 49-2. Title; conflict with other laws.

- A. Title. Chapter 49, together with the amendments thereto, shall be known and may be cited as the "Town of Avon Lighting Ordinance."
- B. Conflict with other laws. In a case where this article is found to be in conflict with a provision of a zoning, fire, safety, health, water supply, subdivision or sewage disposal law or ordinance, or regulation adopted pursuant thereto, or other law, ordinance, code or regulation, the provision or requirement which is the more restrictive or which establishes the higher standard shall prevail.

#### § 49-3. Applicability; exemptions.

- A. New lighting. All exterior lighting installed after the effective date of this article shall conform to the standards established by this article, except exterior lighting required to protect and promote public health and safety.

- B. Upon adoption of this article as established by its effective date, all subsequent installation, replacement, alteration, change, repair or relocation of any nonconforming luminaire shall conform with the provisions of this article.
- C. All exterior lighting installed shall comply with §§ 49-5 and 49-7D of this article regarding glare, light pollution, light trespass and skyglow as defined in this article.
- D. The following exterior lighting, existing or installed prior to the effective date of the adoption herein, which does not conform with the provisions of this chapter, shall be exempt, provided the following requirements are met:
- (1) Preexisting residential floodlight luminaires are exempt, provided that the total light output for the fixture does not exceed 1,800 lumens (equivalent to 100 watts incandescent) regardless of the number of lamps; and angled downward or shielded so as not to cause glare or light trespass or beam spread beyond the intended target or across property lines. This exemption expires no later than December 31, 2010, at which time full conformance is required.
  - (2) Preexisting unshielded residential fixtures mounted on the primary structure are exempt, provided the light output, regardless of the number of lamps, is no greater than 900 lumens (60 watts incandescent). This exemption expires no later than December 31, 2010, at which time full conformance is required.
  - (3) Preexisting nonconforming nonresidential luminaires rated over 1,800 lumens (100 watts incandescent), regardless of the number of lamps, shall be altered to the greatest extent possible to prevent visible glare across property lines by re-aiming, shielding, adding louvers, relamping, or other means, to meet the definition of "fully shielded" or "partially shielded." This exemption expires no later than December 31, 2010, at which time full conformance is required.
  - (4) Preexisting nonconforming automated teller machine (ATM) lighting; fuel filling and gas service station canopy lighting shall be in full compliance with the provisions of this article no later than December 31, 2010.
  - (5) Preexisting nonconforming commercial and industrial parking lot lighting illuminating less than 20 parking spaces shall be in full conformance with the provisions of this article no later than December 31, 2012.
  - (6) Preexisting nonconforming commercial and industrial parking lot lighting illuminating 20 or more parking spaces shall be in full conformance with the provisions of this article no later than December 31, 2017, and may be achieved by partial areas of complete renovations regarding lighting levels, pole heights and lamp types in increments of 10% of the parking lot area per year.

#### **§ 49-4. Definitions.**

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

**AREA LIGHT** — A luminaire equipped with a lamp that produces over 1,800 lumens. Area lights include, but are not limited to, streetlights, parking lot lights and yard lights.

**AVERAGE HORIZONTAL FOOTCANDLE** — The average level of illuminance for a given situation, measured at ground level with the light meter placed parallel to the ground.

**CODE ENFORCEMENT OFFICER** — The officer or employee designated by the Town Board to enforce the zoning provisions of Avon Town Code as well as the related applicable provisions of the New York State Code of Rules and Regulations and New York State Building Code.

**CORRELATED COLOR TEMPERATURE (CCT)** — A measurement on the Kelvin (K) scale that indicates the warmth or coolness of a lamp's color appearance. The higher the color temperature, the cooler the color appearance. Typically, a CCT rating below 3,200 K is considered warm, while a rating above 4,000 K is considered cool.

**EXTERIOR LIGHTING** — Temporary or permanent lighting that is installed, located or used in such a manner to cause light rays to shine outdoors. Luminaires that are indoors that are intended to light something outside are considered exterior lighting for the purpose of this article.

**FLOODLIGHT** — A luminaire rated to produce 1,800 lumens (100 watts incandescent) or more, regardless of the number of lamps, and which is designed to flood an area with light.

**FOOTCANDLE (fc)** — The American unit used to measure the total amount of light cast on a surface (illuminance). One footcandle is equivalent to the illuminance produced by a source of one candle at a distance of one foot. For example, the full moon produces 0.01 fc as measured with a light meter.

**FULL CUTOFF LUMINAIRES** — A luminaire designed and installed where no light is emitted at or above a horizontal plane running through the lowest point on the luminaire. (See Figure 1.<sup>1</sup>) Further, no more than 10% of the lumen output should be provided at angles between 90° and 80° below the lowest light-emitting part of the luminaire.

**FULLY SHIELDED** — A luminaire constructed and installed in such a manner that all light emitted by it, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below a horizontal plane through the luminaire's lowest light emitting part, as designed and installed. (See Figure 1.<sup>2</sup>)

**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;

---

1. **Editor's Note: Figure 1 is included at the end of this chapter.**

2. **Editor's Note: Figure 1 is included at the end of this chapter.**

C. Disabling glare such as bright light reducing the ability of the eyes to see into shadows; or

D. Distracting glare, such as light which diverts the eye from a visual task.

HOLIDAY LIGHTING — Temporary lighting used to celebrate holidays. Holiday lighting includes, but is not limited to, strings of small individual lights, illuminated menorahs, illuminated nativity scenes, illuminated candles, and various yard decorations seasonal in nature.

IESNA — Illuminating Engineering Society of North America (IES or IESNA); the professional society of lighting engineers.

IESNA RECOMMENDED PRACTICES — The current publications of the IESNA setting forth illuminance levels.

ILLUMINANCE — The amount of light falling on any point of a surface measured at footcandles.

LAMP — The generic term for an artificial light source, to be distinguished from the whole assembly (See "luminaire."); commonly referred to as "bulb" or "light bulb."

LANDSCAPING LIGHTING — Nonessential low-lumen output fixtures (maximum of 500 lumens or 40 watts incandescent) used to illuminate residential walkways and foliage.

LIGHT — The form of radiant energy acting on the retina of the eye to make sight possible.

LIGHT-EMITTING DIODE (LED) — A semiconductor device that emits light when an electric current passes through it.

LIGHTING — Any or all parts of a luminaire that function to produce light.

LIGHT POLLUTION — Any adverse effect of man-made light, including, but not limited to, discomfort to the eye or diminished vision due to glare, light trespass, uplighting, the uncomfortable distraction to the eye or any man-made light that diminishes the ability to view the night sky.

LIGHT TRESPASS — Light falling on the property of another or the public right-of-way when it is not required to do so.

LUMEN — The unit used to quantify the amount of light energy produced by a lamp at the lamp. Lumen output of most lamps is listed on the packaging. For example, a sixty-watt incandescent lamp produces 950 lumens while a fifty-five-watt low-pressure sodium lamp produces 8,000 lumens.

LUMINAIRE — A complete lighting unit, consisting of a lamp or lamps, together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power; when used, includes ballasts and photocells; commonly referred to as "fixture."

MUNICIPAL RECREATIONAL FIELDS — Includes, but is not limited to, tennis, basketball and handball courts; football, baseball, softball and soccer fields; hockey, skating and skateboarding rinks constructed by or at the behest of the Town of Avon.

**NONESSENTIAL LIGHTING** — Lighting that is not necessary for an intended purpose after the purpose has been served; does not include any lighting used for safety and/or public circulation purposes.

**PARTIALLY SHIELDED** — A light fixture which incorporates an opaque barrier, shield, louvers or other means, so that the light source is not visible across property lines or into roadways.

**REPAIR OF A LUMINAIRE OR SIGN** — Any service normally provided by a licensed electrician upon a luminaire or sign. Repair shall be considered to include replacement or modification of any of the following: poles, mounting arms, housings, hardware, wiring, ballasts, lenses, reflectors, diffusers, baffles, shields, sensors, switches, relays, power supplies, and lamp replacement modules which contain any of the items listed above. Replacement of a user-serviceable lamp will not by itself be considered a repair.

**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. Skyglow reduces one's ability to view the night sky.

**TEMPORARY LIGHTING** — Lighting that is intended to be used for a special event for seven days or less.

**UPLIGHTING** — Lighting that is directed in such a manner as to shine light rays above the horizontal plane.

#### **§ 49-5. Exterior lighting standards.**

##### **A. General standards.**

- (1) All exterior lighting shall be designed, located and lamped in order to prevent:
  - (a) Overlighting;
  - (b) Energy waste;
  - (c) Glare;
  - (d) Light trespass;
  - (e) Skyglow.
- (2) 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.
- (3) Canopy lights, such as service station lighting, shall be fully recessed and full cutoff luminaires so as to ensure that no light source is visible from or causes glare on public rights-of-way or adjacent properties.
- (4) Area lights. All area lights shall be full-cutoff-type luminaires.

##### **B. Type of luminaires.**

- (1) All exterior lighting, with an exemption granted to municipal recreational fields, rated to be lamped at 1,800 lumens (100 watts incandescent) and greater shall use full cutoff luminaires as determined by photometry test or certified by the manufacturer

and installed as designed with the light source directed downward. Municipal recreational fields, at a minimum, shall utilize partially shielded fixtures to direct light to the field of play and to minimize up-glow and light trespass.

- (2) All exterior light fixtures rated to emit 1,800 lumens (100 watts incandescent) and less, regardless of the number of lamps, shall use fully shielded fixtures (See Figure 1.<sup>3</sup>) and shall be installed as designed.
  - (3) Privately owned or leased light fixtures located on public utility poles or located in the public right-of-way are prohibited.
- C. Exempt exterior lighting. The following types of exterior lighting are exempt from the provisions of this section:
- (1) Holiday lighting lit between November 15 and January 15 of the following year.
  - (2) Motion-sensor-activated luminaires, provided:
    - (a) They are fully shielded and located in such a manner as to prevent glare and lighting onto properties of others or into a public right-of-way; and
    - (b) The luminaire is set to only go on when activated and to go off within five minutes after activation has ceased;
    - (c) The luminaire shall not be triggered by activity off the property; and
    - (d) The luminaire, regardless of the number of lamps, does not exceed 1,800 lumens and not rated to exceed 100 watts.
  - (3) Vehicular lights and all temporary emergency lighting needed by the Fire and Police Departments, or other emergency services.
  - (4) Uplighting for flags, provided the flag is not used for advertising and the total maximum lumen output is 1,300 lumens.
  - (5) Lighting of radio, communication and navigation towers, provided the owner or occupant demonstrates that the Federal Aviation Administration (FAA) regulations can only be met through the use of lighting that does not comply with Chapter 49, and that the provisions of Chapter 49 are otherwise met.
  - (6) Runway lighting. Lighting on any landing strip or runway, provided the owner or occupant demonstrates that the Federal Aviation Administration (FAA) regulations can only be met through the use of lighting that does not comply with this article.
  - (7) Neon lights. Neon lights as permitted pursuant to the Town of Avon sign regulations.<sup>4</sup>
  - (8) Residential landscape lighting as defined herein, provided the lamp or lamps are not visible across property lines and, in addition, are not triggered by a dusk-to-dawn timer.
- D. Prohibited exterior lighting. The following types of lighting are prohibited:
- (1) Searchlights, except those used for governmental, emergency and law enforcement purposes.

---

**3. Editor's Note: Figure 1 is included at the end of this chapter.**

**4. Editor's Note: See § 130-23, Sign regulations.**

- (2) Strobe lights, laser lights or revolving lighting.
- (3) Neon lights, except as legally permitted.
- (4) Blinking, pulsating, tracing or flashing lights unless temporarily triggered by a security system.
- (5) Any light fixture that may be construed as or confused with a traffic signal, traffic control device or maritime navigational markers.
- (6) Lighting that is determined by municipal law enforcement personnel to contribute to disabling or distracting glare into a public roadway.
- (7) Any light fixture located within a designated nature preserve, easement or waterway.
- (8) Illuminated signs without a municipal permit.
- (9) Nonmunicipal recreational field lighting, including but not limited to tennis, basketball and handball courts, and sports fields, including but not limited to baseball, soccer and football, without site plan approval and a building permit.

**§ 49-6. Placement and height of luminaires.**

- A. Luminaires, exclusive of municipal streetlighting and municipal recreational fields, shall be mounted no higher than 16 feet from the level ground to the lowest light-emitting part of the fixture.
- B. Luminaires on commercially used properties shall be located and shielded in a manner to prevent light projection beyond the property line. (See Figure 3.<sup>5</sup>)
- C. Luminaires used for municipal recreational fields and municipal outdoor recreational uses shall be exempt from the height restriction and illuminance levels, provided all other provisions of this article are met and the light is used only while the field is in use.
- D. Sign lighting. Lighting shall be mounted on the top of the sign directed downward and positioned and shielded so that the light source meets all the requirements set forth in this article. No individual lamp shall exceed 1,000 lumens. Mounting height of lights shall not exceed 20 feet.
- E. Mounting height of residential luminaries may not exceed 14 feet.

**§ 49-7. Illuminance and type of lamp.**

- A. Illuminance levels for parking lots, sidewalks and other walkways affected by side-mounted building lights and freestanding sidewalk lights (not streetlights) shall not exceed illuminance levels listed in the IESNA Recommended Practices, either PR33 or RP20, depending on the application. (See Tables 1, 2 and 3.<sup>6</sup>) The Town of Avon recognizes that not every such area will require lighting.
- B. Parking lot lighting shall not exceed an overall average illumination as listed on Table 1.<sup>7</sup>
- C. Streetlight luminaires shall be full cutoff luminaires and be lamped with high-pressure sodium or compact fluorescent light source. The Town Engineer shall make a determination for the type of light distribution,

---

5. Editor's Note: Figure 3 is included at the end of this chapter.

6. Editor's Note: Table 1, Table 2 and Table 3 are included at the end of this chapter.

7. Editor's Note: Table 1 is included at the end of this chapter.

the height and lumen value of the light source for each location, based on the manufacturer's supplied photometric information, in order to meet the streetlighting warrants. The criteria for evaluating the warrant of streetlights shall be nonconformance to the American Association of State Highway Transportation Officials (AASHTO) standards and/or a safety hazard as determined by the Town Engineer. The Town Engineer shall reserve the option to alter the type of light, light intensity of public roads and public facilities in areas where public safety is an issue. Streetlight luminaries shall be brought into compliance with this section no later than December 31, 2017.

- D. All existing and/or new exterior lighting shall not cause light trespass and shall protect adjacent properties from glare and excessive lighting.
- E. Gas station under-canopy fixtures shall be lamped so as not to exceed light level measurements as recommended in RP33, Table 2.<sup>8</sup>
- F. All ATM and bank lighting shall conform to the provisions of the New York State ATM Safety Act as contained in the New York State Banking Law § 75-a et seq., and the provisions of this chapter.
- G. All utility-company-leased preexisting nonconforming unshielded floodlight fixtures, including GE Powerflood, Mercury Vapor fixtures and all one-thousand-watt fixtures, shall not be relamped, repaired or replaced.
- H. The following types of lamps shall not be permitted:
  - (1) Mercury vapor.
  - (2) Unshielded LED lamps, except as exempt for holiday lighting.
  - (3) Metal halide except as approved by the Town Engineer and only when the correlated color temperature (CCT) is less than 3,200 K and when the arc tube of the lamp is enclosed with a protective acrylic or tempered glass shroud.

#### **§ 49-8. Figures and tables.<sup>9</sup>**

The attached figures and tables shall be incorporated into Chapter 49 as guidelines for the public and the Town of Avon for use in enforcing this article. The Town does not endorse or discriminate against any manufacturer or company that may be shown, portrayed or mentioned by the examples.

- A. Figure 1: illustrations of full cutoff and full shielded fixtures.
- B. Figure 2: diagrams of generally acceptable and generally unacceptable light fixtures.
- C. Figure 3: diagrams of recommended fixture placement in relation to the property line to control light trespass.
- D. Table 1: limits of illumination for target areas for parking lots.
- E. Table 2: limits of illumination for target areas for car dealerships, sidewalks, walkways and gas stations.
- F. Table 3: limits of illumination for roadways.

---

**8. Editor's Note: Table 2 is included at the end of this chapter.**

**9. Editor's Note: Figure 1, Figure 2, Figure 3, Table 1, Table 2 and Table 3 are included at the end of this chapter.**



**§ 49-9. Lighting plans required.**

- A. All applications for site plan review, use permits, planned unit developments, subdivision approvals, applicable sign permits or building permits shall include lighting plans showing location of each existing and proposed outdoor light fixture, and luminaire distribution, type, lamp source type, wattage, mounting height, hours of operation, lumen output and illuminance levels in ten-foot grids in order to verify that lighting conforms to the provisions of this article. The Code Enforcement Officer may waive the requirement for illuminance level information only, if the Town Engineer finds that the illuminance levels conform to this article. For all other exterior lights which must conform to the requirements of this Chapter 49, an application shall be made to the Planning Board showing location, luminaire and bulb type, height, hours of operation, lumen output and illuminance levels.
- B. The Planning Board shall review any new exterior lighting or any existing exterior lighting on subject property that is part of an application for design review, site plan review, conditional use permit, planned unit development, subdivision approval, applicable sign permits or building permit to determine whether the exterior lighting complies with the standards of this Chapter 49.
- C. For all other exterior lighting which must conform to the requirements of Chapter 49, the Planning Board shall issue a decision whether the exterior lighting complies with the standards of this Chapter 49. All such decisions may be appealed to the Town of Avon Zoning Board of Appeals within 30 days of the decision.

**§ 49-10. Violations and legal actions.**

If the Code Enforcement Officer finds that any provision of this article is being violated, the Code Enforcement Officer shall give notice by hand delivery or by certified mail, return receipt requested, of such violation to the owner and/or the occupant of such premises, demanding that the violation be abated within 30 days of the date of hand delivery or of the date of mailing of the notice. The Planning Board shall be available to assist in working with the violator to correct said violation. If the violation is not abated within the thirty-day period, the Code Enforcement Officer may institute actions and proceedings, either legal or equitable, to enjoin, restrain or abate any violations of this article.

**§ 49-11. Severability.**

If any clause, sentence, paragraph or section of this article shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not impair or invalidate the remainder hereof, but such adjudication shall be confined in its operation to the clause, sentence, paragraph or section directly involved in the controversy in which judgment shall have been rendered.

**§ 49-12. When effective.**

This article shall be in full force and effect from and after its passage, approval and publication.