

AN ORDINANCE TO AMEND CHAPTER 180 OF THE WARREN COUNTY CODE (ZONING ORDINANCE) TO ADD DEFINITIONS FOR FOOTCANDLE, FULLY SHIELDED FIXTURE, GLARE, OUTDOOR LIGHTING FIXTURE, AND RECESSED CANOPY FIXTURE AND TO AMEND THE SUPPLEMENTAL REGULATIONS FOR LIGHTING.

BE IT ORDAINED BY THE WARREN COUNTY BOARD OF SUPERVISORS that Section 180-49.2 of the Warren County Code (Zoning Ordinance) be amended and re-ordained as follows:

Chapter 180 Zoning
Article II. Application
§180-8 Definitions.

A. General usage.

...

C. Definitions of words and terms. As used in this chapter, the following words and terms shall have the meanings indicated:

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FOOTCANDLE

The unit of illumination produced on a surface, all points of which are one foot from a uniform point source of one candle.

...

FULLY SHIELDED FIXTURE

An outdoor lighting fixture that is shielded or constructed so that all light emitted is projected below a horizontal plane running through the lowest part of the fixture.

...

GLARE

Light that causes annoyance, discomfort or loss in visual performance and ability.

...

OUTDOOR LIGHTING FIXTURE

An electrically powered illuminating device or other outdoor lighting fixture, including all parts used to distribute the light and/or protect the lamp, permanently installed or portable, used for illumination. Such devices shall include, but are not limited to, search, spot flood and area lighting.

...

RECESSED CANOPY FIXTURE

An outdoor lighting fixture recessed into a canopy ceiling so that the bottom of the fixture is flush with the ceiling.

...

Chapter 180 Zoning
Article V. Supplementary Regulations
§180-49.2 Lighting.

~~A. Purpose and intent. The purpose of this section is to regulate the placement, orientation, distribution patterns and fixture type of outdoor lighting. The intent of this section is to encourage lighting that provides safety, utility and security; also to prevent glare on public roadways, protect the privacy of residents and reduce atmospheric light pollution.~~

~~B. Outdoor lighting compliance statement. The applicant for any permit for work involving outdoor lighting fixtures governed by this section shall submit, as part of the site plan, evidence that the proposed work will comply with this section. This information shall contain but not be limited to the following:~~

~~(1) The location, height, make, model, lamp type and wattage of each outdoor lighting fixture;~~

~~(2) Certification that the angle of total light cutoff is no more than 90°; and~~

~~(3) Additional information the Zoning Administrator may determine is necessary, including but not limited to illuminance level profiles.~~

~~C. Approved materials and methods of construction, installation or operation. The provisions of this section are not intended to prevent the use of any design, material or method of installation or operation not specifically prescribed by this section, provided that any such alternate has been approved. The Zoning Administrator may approve any such proposed alternative, provided that it:~~

~~(1) Provides at least approximate equivalence to the applicable specific requirement of this section; and~~

~~(2) Is otherwise satisfactory and complies with the purpose and intent of this section.~~

~~D. General requirements: all zoning districts.~~

~~(1) All outdoor lighting fixtures, including display lighting, shall be turned off after close of business, unless needed for safety or security, in which case the lighting shall be reduced to the minimum level necessary.~~

~~(2) Auto/truck filling stations. Island canopy ceiling fixtures shall be recessed.~~

~~(3) Recreational facilities, public or private. Lighting for outdoor recreational facilities shall be shielded according to Table F of this section.~~

~~(4) All light fixtures that are required to be fully shielded shall be installed and maintained so that the shielding is effective as described in the definition of a fully shielded fixture in § 180-49.2H, Definitions.~~

~~E. Special requirements. Industrial and Commercial Zoning Districts and industrial, commercial and institutional uses in any zoning district:
[Amended 12-15-1998]~~

~~(1) Outdoor lighting fixtures shall comply with the shielding requirements of Table F of this section.~~

~~(2) Light trespass from a property shall be designed not to exceed one footcandle at the property line.~~

~~F. Table of Shielding Requirements.~~

Fixture Lamp Type	Shielded
Low/high pressure sodium, mercury vapor, metal halide and fluorescent over 50 watts	Fully
Incandescent over 160 watts	Fully
Incandescent 160 watts or less	None
Fossil fuel	None
Any light source of 50 watts or less	None
Other sources	As approved by § <u>180-49.2C</u>

~~[Note: Incandescent includes tungsten halogen (quartz) lamps.]~~

~~G. Exemptions. The following uses shall be exempt from the provisions of this section:~~

~~(1) Roadway and airport lighting and lighting activated by motion sensor devices.~~

~~(2) Temporary circus, fair, carnival or civic uses.~~

~~(3) Construction or emergency lighting, provided that such lighting is temporary and is discontinued immediately upon completion of the construction work or abatement of the emergency necessitating said lighting.~~

~~(4) Temporary lighting.~~

~~(5) Lighting associated with agricultural pursuits.~~

H. ~~Definitions. As used in this section, the following terms shall have the meanings indicated:~~

~~FULLY SHIELDED FIXTURE~~

~~An outdoor lighting fixture that is shielded or constructed so that all light emitted is projected below a horizontal plane running through the lowest part of the fixture.~~

~~GLARE~~

~~Light that causes annoyance, discomfort or loss in visual performance and ability.~~

~~OUTDOOR LIGHTING FIXTURE~~

~~An electrically powered illuminating device or other outdoor lighting fixture, including all parts used to distribute the light and/or protect the lamp, permanently installed or portable, used for illumination. Such devices shall include, but are not limited to, search, spot flood and area lighting.~~

~~RECESSED CANOPY FIXTURE~~

~~An outdoor lighting fixture recessed into a canopy ceiling so that the bottom of the fixture is flush with the ceiling.~~

The purpose and intent of this section is to establish outdoor lighting standards to regulate the placement, orientation, distribution patterns, fixture type and to reduce the impact of glare, light trespass and excessive lighting; to promote safety and security; and encourage energy conservation.

- A. **Applicability and general provisions. These standards shall apply to the installation of new outdoor lighting fixtures or the replacement of existing fixtures. Replacement of a fixture shall mean a change of fixture type or change to the mounting height or location of the fixture. Routine lighting fixture maintenance, such as changing lamps or light bulbs, ballast, starter, photo control, housing, lenses and other similar components, shall not constitute replacement and shall not require a permit, provided such changes do not result in a higher footcandle output.**
- B. **Approved materials and methods of construction, installation or operation. The Zoning Administrator may grant a modification with respect to any of the provisions of this Section, after notice to adjoining property owners as provided in Virginia Code Section 15.2-2286(A)(4) in the event that the Zoning Administrator finds in writing that:**

- (1) The strict application of this Section would produce undue hardship;
- (2) Such hardship is not shared generally by other properties in the same zoning district and in the same vicinity; and
- (3) The authorization of the modification will not be of substantial detriment to adjacent properties and the character of the zoning district will not be changed by the granting of the modification.

C. General outdoor lighting standards.

- (1) All outdoor lighting fixtures shall be designed, fully shielded, aimed, located and maintained to shield adjacent properties and to not produce glare onto adjacent properties or road rights-of-way.
- (2) Lighting levels shall not exceed 0.2 footcandles at any common property line in the residential and agricultural zoned districts. In addition, all light poles shall be equipped with supplemental opaque shielding on the residential property side of the lighting fixture to reduce glare caused by direct light source exposure.
- (3) All outdoor lighting fixtures, including display lighting, shall be turned off after close-of-business, unless needed for safety or security, in which case the lighting shall be reduced to the minimum level necessary.
- (4) All lighting shall be oriented not to direct glare or excessive illumination onto streets in a manner that may distract or interfere with the vision of drivers on such streets.
- (5) Flashing, revolving, or intermittent exterior lighting visible from any property line or street shall be prohibited. Directional fixtures for advertisement purposes, such as but limited to high-intensity beams, lasers or strobe lights, shall be prohibited. When permitted, directional fixtures shall be installed or aimed so that they do not shine skyward and to ensure that the light source is not visible from adjacent properties or road rights-of-way.
- (6) Light fixtures shall be placed outside of the paved areas of a site. Lighting fixtures shall be placed within landscaped islands or in the perimeter green space of the site. The Zoning Administrator may allow light fixtures to be placed in alternative locations for such uses such as motor display areas and storage areas as long as the intent of this section is met.
- (7) Lighting used to illuminate flags, signs, statues or any other objects mounted on a pole, pedestal or platform, spotlighting or floodlighting used for architectural purposes shall consist of full-cutoff or directionally

shielded lighting fixtures that are aimed and controlled so that the directed light shall be confined to the object intended to be illuminated. All lights shall not cause glare on adjacent properties or road rights-of-way.

D. Outdoor lighting standards for nonresidential uses.

- (1) The average maintained lighting levels for nonresidential uses shall not exceed the following standards, unless a lower limit is set forth in this subsection:
 - (a) Five footcandles for parking lots and loading areas.
 - (b) Ten footcandles along fronts of buildings and along main drive aisles.
 - (c) Twenty footcandles for high-security areas, such as but not limited to, motor display areas, vehicle fueling stations canopies, automated teller machines (ATMs), but not including their parking lots.
- (2) Light fixtures under fueling stations canopies or any other canopy shall be completely flush or recessed within the underside of the canopy. Portions of the canopy not included in the sign area shall not be illuminated.
- (3) Lighting levels shall not exceed 1.0 footcandles at any common property line and road right-of-way with property zoned or used for commercial or industrial uses.
- (4) Light fixtures, including mounting base, shall not be more than 25 feet in height above finished grade. Properties in the C (Commercial), I (Industrial) zoning districts that have a site plan, the Zoning Administrator may allow light fixtures to exceed 25 feet in height if additional security is required, provided that the site is not adjacent to property used for residential or agriculture uses. In no case shall the light fixtures in the Commercial and Industrial zoning districts exceed 40 feet in height.

E. Photometric plan requirements.

- (1) A photometric lighting plan shall be submitted and approved with any site plan required by Section 180-64 of the Warren County Code. A photometric plan submitted with site plans shall be current (less than 45 days old) and must be certified by the National Council on Qualifications for the Lighting Professions (NCQLP), or a Virginia licensed professional engineer, architect or land surveyor.
- (2) Required plans should include the following.
 - (a) Description of all proposed and existing light fixtures, which should include but not limited to catalog cuts and illustrations by manufactures

that describe the equipment, including lamp type, initial lumen outputs and wattage, glare-control devices, proposed placement of all fixtures including engineering details of fixtures, models and manufacture.

(b) Location of all proposed and existing lighting fixtures on the site, including a schematic layout of the proposed fixture locations that demonstrate adequate uniformity and intensities, the light coverage resulting from the combination of existing and proposed lighting layout.

(c) Mounting height of all light fixtures on the site.

F. Exemptions.

(1) Lighting required by law enforcement, fire and rescue, the Department of Transportation or other emergency response agencies to perform emergency or construction repair work, or to perform overnight road construction.

(2) Lighting fixtures and standards required by the Federal Communications Commission, Federal Aviation Administration, Federal and State Occupational Safety and Health Administrations, or any other state and federal agencies.

(3) Roadway lighting including street lights within a public or private right-of-way.

(4) Lighting for fairs, carnivals, civic activities or holiday decorative purposes, provided that the lighting is temporary.

(5) Lighting located on properties developed with agricultural and residential uses, but not limited to residential security lightning controlled and activated by motion sensors or timing devices and being fully shielded.