

UNIFIED DEVELOPMENT ORDINANCE

Greenville County, South Carolina



Article 8: Outdoor Lighting

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ARTICLE 8: OUTDOOR LIGHTING¹

8.1 PURPOSE, APPLICABILITY, & EXEMPTIONS

8.1.1 PURPOSE

The purpose of this Article is to prevent lighted sites from creating light pollution and off-site glare in ways that constitute a hazard to public safety or an interference with the use, value, and enjoyment of nearby properties.

8.1.2 APPLICABILITY

Except as provided in Section 8.1.3: *Exemptions*, the provisions of this Article apply to all development in the PD, POD, and FRD zoning districts; group developments; multiplex dwellings; apartment complexes; and non-residential (including campgrounds and recreational vehicle parks) and mixed use development in unincorporated Greenville County that meets or exceeds the following thresholds:

- A. **New Development.** New development on previously undeveloped land;
- B. **Change in Use.** A change in use from a residential to a non-residential use; and
- C. **Expansions.**
 - 1. *Expansion of Multiplex Dwelling.* Expansion of a multiplex dwelling by more than 5 dwelling units;
 - 2. *Expansion of an Apartment Complex.* Expansion of an apartment complex by more than 5 dwelling units;
 - 3. *Expansion of a Campground.* Expansion of a campground by more than 5 campsites;
 - 4. *Expansion of a Recreational Vehicle Park.* Expansion of a recreational vehicle park by more than 5 recreational vehicle sites;

¹ This Article carries forward and expands the applicability of the County’s current provisions for outdoor lighting (ZO Section 12:1.1 and LDR Sections 10.2.3 and 10.3.6). ZO Section 12:1.1 generally applies to funeral homes and cemeteries, churches, agritourism, mixed use development, and group development as well as the PD, FRD, NC, and POD districts. LDR Sections 10.2.3 and 10.3.6 generally apply to industrial, commercial, and multi-family developments. Proposed here is to expand the applicability of the regulations to include all multiplex dwellings and non-residential, mixed use, and apartment complex developments in the zoned and un-zoned areas. “Non-residential” includes industrial, commercial, and civic uses, as well as religious facilities; however, Section 8.1.3 expressly exempts agricultural uses.

5. *Expansion of Gross Floor Area.* Expansion of the gross floor area of a building by more than 25%; or
6. *Expansion of Paved Surface.* Expansion of a paved surface by more than 25%.

8.1.3 EXEMPTIONS

The following types of outdoor lighting are exempt from the requirements of this Article:

- A. **Emergencies.** Lighting used only under emergency conditions;
- B. **Street Lights.** Lighting used for the principal purpose of illuminating streets and sidewalks;
- C. **Agricultural.** Lighting for agricultural uses and structures;²
- D. **Residential.** Lighting for detached house dwellings, duplexes, triplexes, quadplexes, townhouses, and manufactured homes;
- E. **Temporary Uses.** Lighting associated with an approved temporary use;
- F. **Temporary Construction Lighting.** Temporary lighting associated with a construction site;
- G. **Monuments and Statutes.** Lighting for public monuments and statues;
- H. **Water Features.** Underwater lighting in fountains, swimming pools, and other water features;
- I. **State and Federal Mandates.** Lighting required pursuant to state and federal laws (e.g., FAA);
- J. **Building Code.** Lighting required by the County's Building Code;
- K. **Ornamental Lighting.** Ornamental lighting with a rated initial luminaire lumen output of 525 mean lumens or less.; and
- L. **Seasonal Lighting.** Seasonal lighting.

² The current Zoning Ordinance requires agritourism uses to comply with the lighting standards in Section 12:1.1. The exemption proposed in this paragraph would remove the requirement for agritourism uses to meet outdoor lighting standards.

8.2 STANDARDS

8.2.1 PROHIBITED LIGHTING

Any outdoor lighting that is not designed for roadway illumination that produces incidental or reflected light that could impair the operator of a motor vehicle or pose a danger to pedestrians is prohibited.

8.2.2 MULTIPLEX, APARTMENT COMPLEX, NON-RESIDENTIAL, & MIXED USE STANDARDS³

- A. **Generally.** In order to reduce light trespass and light pollution, the standards of this Subsection, including those in Table 8.2.2-1: *Multiplex, Apartment Complex, Non-Residential, and Mixed Use Light Pole and Fixture Requirements*, shall apply to all multiplex, non-residential (including campgrounds and recreational vehicle parks), and mixed use development.
- B. **Adjacent to Residential.** All lighting within 30 feet of a property line with adjacent residential property shall meet IESNA “full-cutoff” (no light output above 90 degrees at any lateral angle around the fixture) standards, as depicted in Figure 8.2.2-1: *Full Cut-Off Fixture*, to limit light trespass onto adjoining properties, notwithstanding the requirements of Table 8.2.2-1.
- C. **Photometric Plan.** Sites that utilize light fixtures of greater than 400 watts and/or 25,000 lumens shall provide a photometric plan to confirm that there is no more than 0.5 foot-candle at the property line with adjoining residential property.

Table 8.2.2-1: Multiplex, Apartment Complex, Non-Residential, and Mixed Use Light Pole and Fixture Requirements

Wattage	Mean Lumens (max)	Cut-Off Requirements	Pole Height (max)
0-175	15,000	Non Cut-off	18 ft
176-400	27,000	Semi cut-off ¹	30 ft
400-1000	100,000	Cut-Off ²	40 ft
1000+	Unlimited	Full cut-off ³	40 ft

Key: max = maximum allowed | ft = feet

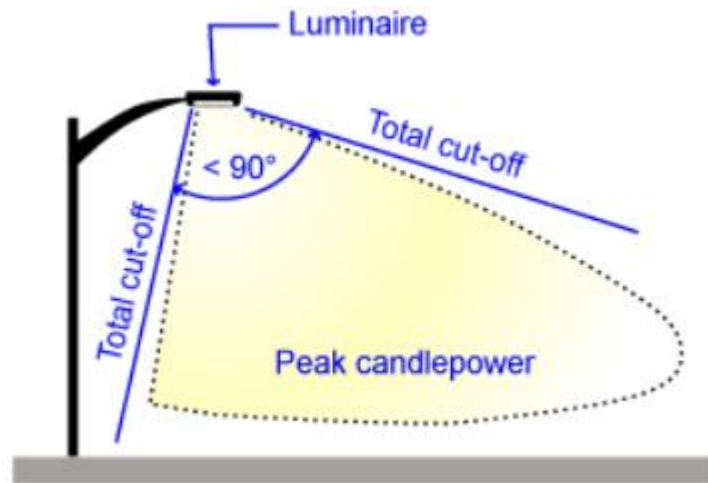
¹ Semi Cut-off fixtures will have no more than 5% lamp lumens above the horizontal plane.

² Cut-off fixtures will have no more than 2.5% lamp lumens above the horizontal plane.

³ Full Cut-off fixtures will have no lamp lumens above the horizontal plane.

³ This Subsection carries forward the standards in LDR Sections 10.2.3 and 10.3.6, which apply to industrial, commercial, and multi-family development. “Non-residential” is intended to include industrial and commercial developments as well as civic buildings, religious facilities, etc.

Figure 8.2.2-1: Full Cut-Off Fixture



- D. **Awnings.** Awnings or canopies used for building accents over doors and windows shall not be internally illuminated (i.e., from underneath or behind the awning) unless the awning material is entirely opaque so that light cannot shine through.
- E. **Wall Pack Lights.**
1. *Fully Shielded.* Wall packs on the exterior of the building shall be fully shielded (e.g., true cut-off type bulb or light source not visible from off-site) to direct the light vertically downward and be of low wattage (100 watts or lower).
 2. *Visible Light Source.* Wall pack light sources visible from any location off the site are prohibited.

8.2.3 STANDARDS FOR SPECIFIC USES & DISTRICTS⁴

- A. **Uses in the PD, POD, and FRD Districts.** Outdoor lighting fixtures for all uses in the PD, POD, and FRD districts shall meet IESNA “full-cutoff” requirements (no light output above 90 degrees at any lateral angle around the fixture). Fixtures shall not be mounted in excess of 20 feet above finished grade. Flashing lights are prohibited.
- B. **Exterior Lighting for Group Developments.** Adequate exterior lighting shall be provided in all group developments. Outdoor lighting fixtures for group developments shall meet IESNA “full-

⁴ Paragraph A carries forward ZO Section 12:1.1. Paragraph B carries forward ZO Section 10:1.1 F. Paragraphs C, D, and E are new.

cutoff” requirements (no light output above 90 degrees at any lateral angle around the fixture). Fixtures shall not be mounted in excess of 25 feet above finished grade.

- C. **Fuel Canopies.** Lighting under a fuel canopy shall be designed so as not to create glare off-site. Acceptable methods include one or both of the following:
1. *Recessed Fixture.* A recessed fixture incorporating a lens cover that is either recessed or flush with the bottom surface (ceiling) of the canopy that provides a full cutoff or fully-shielded light distribution; or
 2. *Surface Mounted Fixture.* A surface-mounted fixture incorporating a flat glass that provides a full cutoff or fully-shielded light distribution.