

**TOWNSHIP OF SADDLE BROOK
COUNTY OF BERGEN
ORDINANCE NO. 1777-25**

AN ORDINANCE AMENDING AND SUPPLEMENTING CHAPTER 206 OF THE CODE OF THE TOWNSHIP OF SADDLE BROOK ENTITLED " ZONING". (OUTDOOR LIGHTING) (AS AMENDED)

BE IT ENACTED AND ORDAINED by the Township Council of the Township of Saddle Brook that those portions of the aforesaid set forth below are hereby amended as follows and that those portions of the Ordinance not set forth below shall remain unchanged.

Chapter 206 entitled "Zoning" to be amended and supplemented as follows:

New Article XXII entitled Lighting.

206-125. Purpose.

The purpose of this Ordinance is to provide regulations for outdoor lighting that will:

1. Provide sufficient lighting on each site and along roadways for safety, utility, security, productivity, enjoyment, and commerce;
2. Be designed to minimize the creation of visual glare and hazards to motorists and pedestrians or nuisances to adjoining property owners or residents;
3. Minimize adverse offsite impacts of lighting such as light trespass, and obtrusive light;
4. Curtail light pollution, reduce skyglow and improve the nighttime environment;
5. To promote efficient and cost-effective lighting that will conserve energy and resources to the greatest extent possible.
6. To allow for flexibility in the style of lighting fixtures;
7. To provide exterior lighting guidelines; and
8. To provide assistance to property owners and occupants in bringing nonconforming lighting into conformance with this section.

206-126 Applicability

- A. All outdoor lighting installed after the effective date hereof in any and all zoning districts in the Township of Saddle Brook shall be in conformance with the requirements established by this chapter and any other applicable ordinances. This includes but is not limited to:
 - (1) New lighting, replacement lighting, or any other lighting, whether attached to structures or freestanding.
 - (2) All lighting paid for by Saddle Brook Township.
- B. Conformance.
 - (1) All existing lighting located on a subject property that is part of an application for development or building permit is required to be brought into conformance with this chapter. Conformity shall occur prior to issuance of a certificate of occupancy, final inspection, or final plat recordation, when applicable. For other permits, the applicant shall have a maximum of thirty (30) days from date of permit issuance to bring the lighting into conformance.
 - (2) When existing outdoor light fixtures are being replaced or modified, such fixtures shall be updated to comply with the requirements of this Ordinance.
 - (3) Current adjustable commercial and municipal flood lights shall be adjusted so that they are aimed down and parallel with the ground until they are replaced.

- C. Exceptions. The following shall be exempt from the requirements of this Ordinance:
- (1) Lighting within public right-of-way or easement for the principal purpose of illuminating streets or roads. No exemption shall apply to any lighting within the public right of way or easement when the purpose of the luminaire is to illuminate areas outside the public right-of-way or any easement, unless regulated with a streetlighting ordinance.
 - (2) Lighting that is used only under emergency conditions.
 - (3) Lighting required by federal, state, or county laws or regulations.
 - (4) Underwater lighting in swimming pools and other water features.
 - (5) Temporary lighting and seasonal lighting provided that individual lamps emit less than 50 lumens.
 - (6) Lighting for a private single-family home, provided they conform to the general requirements of Subsection 206-128. This single-family home exemption shall not apply to any subdivision development involving more than 2 lots.

206-127 Definitions

ANSI shall mean the American National Standards Institute.

ANSI/IES Lighting Standards shall mean applicable outdoor lighting standards and metrics include but are not limited to: 1. RP-2: outdoor retail spaces 2. RP-6: outdoor sports and recreational areas 3. RP-7: outdoor industrial areas 4. RP-8: roadway and parking facilities 5. RP-40: port terminals 6. RP-43: outdoor pedestrian areas.

Candela (cd) shall mean the unit of measure for luminous intensity.

CCT (correlated color temperature) shall mean the measured color appearance of light emitted by a light source described using a nominal value stated in kelvins (K). Lower CCTs (1800 K to 2200 K) appear very warm or amber. Medium CCTs (2700 K to 3000 K) appear “warm white,” similar to standard incandescent bulbs. High CCTs (4000 K and higher) appear “cool white” or “blue.”

Distribution shall mean the way light is spread across a given area.

Footcandle shall mean the unit of measure expressing the quantity of light received on a surface. One footcandle is the illuminance produced by a candle on a surface one foot square from a distance of one foot.

Fully Shielded shall mean a Luminaire designed or shielded in such a manner that no light is emitted, either directly or indirectly, at or above a horizontal plane running through the lowest light-emitting part of the luminaire (has a U0 Uplight Rating).

IES (Illuminating Engineering Society) shall mean an ANSI-recognized Standards Development Organization. ANSI/IES Recommended Practices are universally recognized as authoritative references for lighting applications.

Illuminance shall mean measured in Lux or footcandles, the total luminous flux incident at a point on a surface (light level on a surface).

Glare shall mean lighting entering the eye directly from luminaires or indirectly from reflective surfaces that causes visual discomfort or reduced visibility.

Light Level shall mean the maintained Luminance or Illuminance value.

Light Pollution shall mean artificial light traveling into areas where it is not needed or wanted. This can be in the form of Light Trespass, glare, or atmospheric sky glow.

Light Trespass shall mean illumination past property lines without permission. Unless specified otherwise, light trespass limits are measured at any location along a property line both horizontally at the ground plane facing upward and vertically at 1.5 meters (5ft) above grade with the meter aimed toward the light source in question.

Lighting Equipment shall mean equipment specifically intended to provide gas or electric illumination, including but not limited to, lamp(s), luminaire(s), ballast(s), poles, posts, lens(s), and related structures, electrical wiring, and other necessary or auxiliary components.

Lumen shall mean the unit of measure used to quantify the amount of light produced by a lamp or emitted from a luminaire (as distinct from "watt," a measure of power consumption). 1 Lumen per square foot is equivalent to 1 Footcandle. In terms of SI units 1 Lumen per square foot is approximately equivalent to 10.76 Lux.

Luminaire shall mean a complete lighting unit, including the light source, housing, optics, electronics, and other necessary components for the purpose of providing outdoor illumination.

Luminance shall mean the intensity of light emitted from a light source per unit area in a given direction.

Lux shall mean the SI unit of illuminance. One lux is one lumen per square meter. 1 Lux is a unit of incident illuminance approximately equal to 1/10 footcandle.

Mounting Height shall mean the height of the photometric center of a luminaire above grade level. The horizontal spacing of poles is often measured in units of "mounting height". Example: "The luminaires can be spaced up to 4 mounting heights apart."

Nadir shall mean the downward vertical vector directly beneath a luminaire.

Ornamental Lighting shall mean lighting that does not impact the function and safety of an area but is purely decorative, or used to illuminate architecture and/or landscaping, and installed for aesthetic effect.

Repair(s) shall mean the reconstruction or renewal of any part of an existing luminaire for the purpose of its ongoing operation, other than relamping or replacement of components including capacitor, ballast or photocell. Note that retrofitting a luminaire with new lamp and/or ballast technology is not considered a repair and for the purposes of this ordinance the luminaire shall be treated as if new. "Repair" does not include normal relamping or replacement of components including capacitor, ballast or photocell.

Replacement Lighting shall mean lighting installed specifically to replace existing lighting that is sufficiently broken to be beyond repair.

Sky Glow shall mean the brightening of the nighttime sky that results from scattering and reflection of artificial light by moisture and dust particles in the atmosphere. Skyglow is caused by light directed or reflected upwards or sideways and reduces one's ability to view the night sky.

Temporary lighting shall mean lighting installed and operated for periods not to exceed 60 days, completely removed and not operated again for at least 30 days.

Temporary Seasonal Lighting shall mean lighting installed and operated in connection with holidays or traditions.

Township Agency shall mean the Saddle Brook Township entity having jurisdiction over outdoor lighting, including the Planning Board, Zoning Board, Zoning Officer, Township Engineer, Construction Official, Public Works, or Code Enforcement Officer, as applicable.

Uplight shall mean for an exterior luminaire, light emitted at or above the horizontal plane.

206-128 General Requirements.

The following shall apply to all outdoor non-exempt lighting fixtures in the Township:

- A. Code Compliance. All outdoor lighting shall be installed in conformance with the provisions of this Ordinance, applicable Electrical and Energy Codes, and applicable sections of the Building Code. Lighting shall be designed to minimize energy and maintenance requirements and shall comply with the U.S. Energy Policy Act of 1992 as it may be amended or superseded.
- B. Light Level: Outdoor Luminaires shall not exceed the Light Level recommended by the applicable ANSI/IES Lighting Standard. Lighting sources should be of similar and complementary brightness throughout a site and to that of adjacent properties
- C. Light Distribution: Outdoor Luminaires shall be Fully Shielded and oriented directly downward (towards the Nadir) to prevent glare, sky glow and light trespass. See **Figure 1.F**
- D. Light Trespass: Light from outdoor Luminaires shall measure no greater than 0.1 Lux at adjacent government, commercial, and residential property lines.

- E. Light Spectrum (Color): The maximum allowable correlated color temperature (CCT) for outdoor Luminaires is 2700 Kelvin (2700K). Lighting sources should be of similar and complementary CCT throughout a site and to that of adjacent properties.

206-129 Lighting Control Requirements.

- A. Automatic Switching Requirements: Controls shall be provided that automatically extinguish all outdoor lighting when sufficient daylight is available using a control device or system such as a photoelectric switch, astronomic time switch or equivalent functions from a programmable lighting controller, building automation system or lighting energy management system, all with battery or similar backup power or device.
 - (1) Exceptions: Automatic lighting controls are not required for the following:
 - (a). Lighting under canopies.
 - (b). Lighting for tunnels, parking garages, garage entrances, and similar conditions.
- B. Automatic Lighting Reduction Requirements: Non-essential outdoor lighting shall be extinguished within one hour after the close of business.
 - (1) Exceptions: Lighting reductions are not required for any of the following:
 - (a). With the exception of landscape lighting, lighting for residential properties including multiple residential properties not having common areas.
 - (b). When the outdoor lighting consists of only one luminaire.
 - (c). Code required lighting for steps, stairs, walkways, and building entrances for safety purposes.
 - (d). When, in the opinion of the Township Agency having jurisdiction, lighting levels must be maintained for safety or security purposes.
 - (e). Motion activated lighting.
 - (f). Lighting governed by site plan approval in which times of lighting operation are specifically identified.
 - (g). Businesses that operate on a 24 hour basis.

206-130 Prohibited Lighting.

The following types of lighting shall be prohibited, unless otherwise specified:

- A. High pressure sodium, metal halide, and mercury vapor lights sources.
- B. Blinking, flashing, rotating, moving, strobe, or search lights.
- C. Exposed strip lighting used to illuminate building facades or signs.
- D. Any light that may be confused with or construed as a traffic control device.
- E. Non-exempt lighting that does not comply with Chapter 206-128 (General Requirements)

206-131 Lighting Plan.

- A. Lighting Plans Required: All applications for development and/or building permits shall include lighting plans showing location, type, height, color temperature, lumen output and amount of all proposed and existing fixtures. The applicant shall provide sufficient information to verify that lighting conforms to the provisions of this chapter. The Township Agency shall have the authority to request additional information in order to achieve the purposes of this chapter.

- (1) The plan shall be prepared, signed, and sealed by a Certified Landscape Architect, Professional Engineer, or other professional deemed by the Township to have the proper qualifications.
- (2) The lighting plan shall show:
 - (a). All existing lights, including building-mounted and canopy fixtures, within one hundred (100') feet of the site in question, including location of all poles and luminaries.
 - (b). Computer generated photometric grid showing lux/footcandle readings every five feet (5'), including building-mounted and canopy fixtures. The plan should note whether the lines are initial or maintained.
 - (c). Identify the maintained horizontal illuminance shown as footcandles, including the following required and proposed levels, per area:
 - [1] Maximum
 - [2] Minimum
 - [3] Average, during operating and non-operating hours.
 - [4] Average to minimum uniformity ratio.
 - (d). Description of all exterior light fixture specifications, including:
 - [1] Lamp type
 - [2] Wattage
 - [3] Isolux diagrams for each fixture
 - [4] Reflectors
 - [5] Optics
 - [6] Angle of cutoff
 - [7] Shields
 - [8] Manufacturer's catalog cuts.
 - [9] The number of each luminary type.
 - [10] Pole height and mounting height of the luminaries and detail of the pole.
 - [11] Pole base, foundation design, and foundation detail, in accordance with the Uniform Construction Code (UCC).
 - (e). Light levels along the property lines.
 - (f). All proposed and existing freestanding and wall-mounted lights.
 - (g). Fixtures with existing shields and fixtures proposed for shield installation.
 - (h). The hours of operation of the proposed use, and general notations.
 - (i). Lamp life lumen depreciation factor.
 - (j). Luminaries' dirt depreciation factor.
 - (k). Maintenance factor correction.

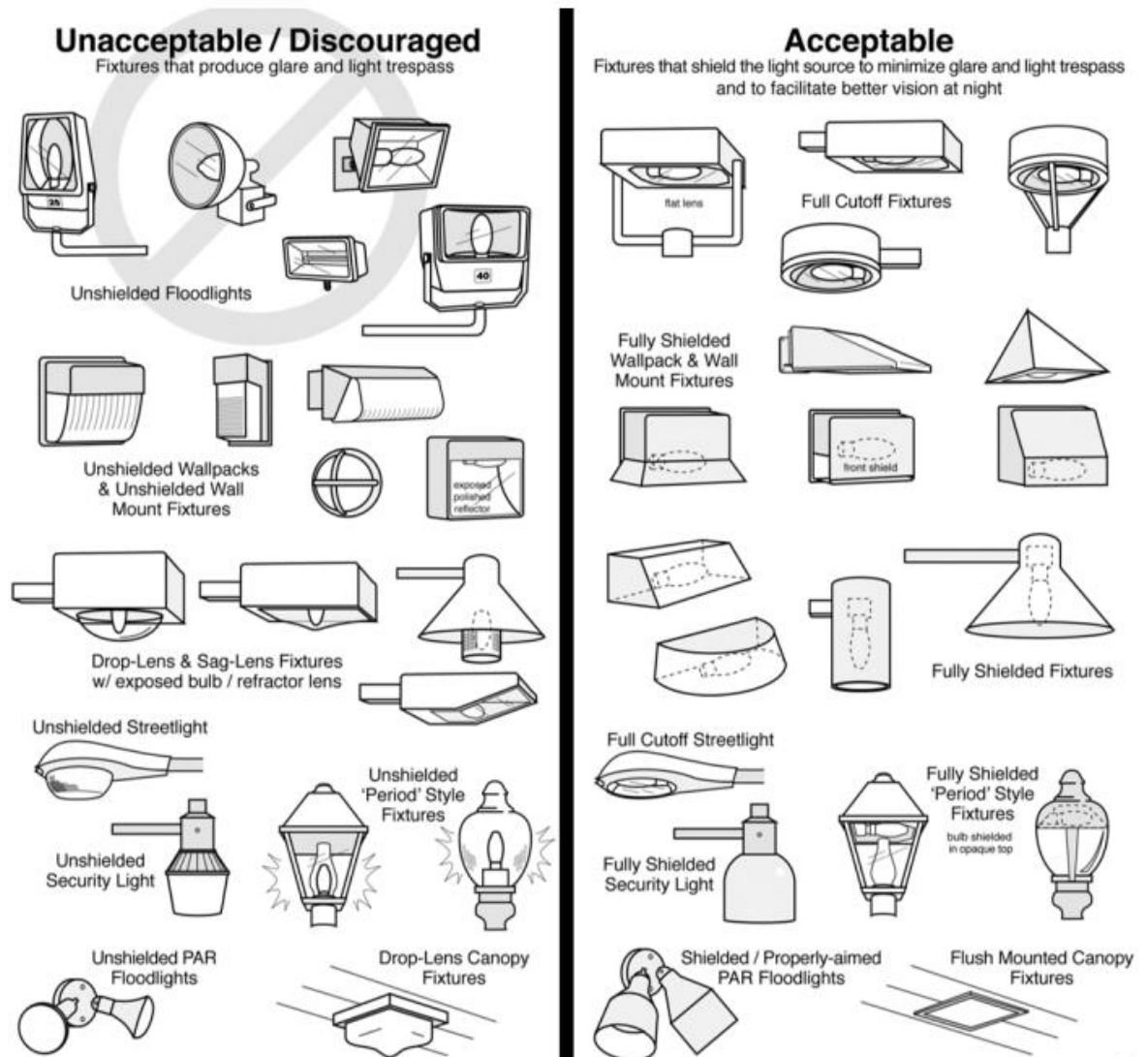
206-132 Compliance and Monitoring

- A. A night light function test shall be conducted by the Township Engineer to ensure lighting levels conform to approved plans, which shall be required prior to the issuance of any Certificate of Occupancy.
- B. The Township may conduct post-installation inspections of lighting fixtures to ensure compliance with ordinance requirements and intent. Corrective actions may be required for any installation that does not meet ordinance criteria or which displays unacceptable levels of light trespass, or contributions to sky glow.

- C. The Township may recommend changes in the field that would correct problem situations, such as re-aiming floodlights, adding shielding, using alternate lighting with a lower wattage, temperature, and/or lumen production level, or replacing equipment.

Figure 1--Acceptable Lighting Types & Shields

This figure is a guideline for the public and the Township for use in meeting the intent of Chapter 206-129 (General Requirements). Figure 1 serves only as an example. The Township does not endorse or discriminate against any manufacturer or company that may be shown, portrayed or mentioned by the examples.



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