

SMITHFIELD TOWNSHIP
MONROE COUNTY
COMMONWEALTH OF PENNSYLVANIA

ORDINANCE NO. _____

AN ORDINANCE OF SMITHFIELD TOWNSHIP, COUNTY OF MONROE, COMMONWEALTH OF PENNSYLVANIA, AMENDING THE TOWNSHIP CODE OF ORDINANCES OF SMITHFIELD TOWNSHIP CHAPTER 22 – SUBDIVISION AND LAND DEVELOPMENT, CHAPTER 27 – ZONING, AND ESTABLISHING CHAPTER 32 – OUTDOOR LIGHTING STANDARDS TO SET FORTH UPDATED STANDARDS AND CRITERIA FOR OUTDOOR LIGHTING AND REPEAL ALL PARTS OF THE ORDINANCES INCONSISTENT HEREWITH.

WHEREAS, Smithfield Township (the “Township”) is a political subdivision of the County of Monroe, Commonwealth of Pennsylvania and is a Second Class Township with offices located at 1155 Red Fox Road, East Stroudsburg, Pennsylvania, 18301; and,

WHEREAS, the Township has adopted a Subdivision and Land Development Ordinance found in the Township Code of Ordinances, Chapter 22 (hereinafter “SALDO”); and,

WHEREAS, the Township has adopted a Zoning Ordinance found in the Township Code of Ordinances, Chapter 27 (hereinafter “Zoning Ordinance”); and,

WHEREAS, the Township Zoning Ordinance and SALDO had established some standards and criteria for outdoor lighting; and,

WHEREAS, the Township is of the opinion that THESE standards and criteria for outdoor lighting need to be updated and expanded to preserve, maintain and promote the health, safety, and welfare of the residents of Smithfield Township; and,

WHEREAS, the Township recognizes the need to control outdoor lighting in height, timing, and intensity to maintain community character, and ensure that lighting design is integral to project planning; and,

WHEREAS, the Township seeks to minimize adverse offsite impacts such as glare, obtrusive light, light trespass, and sky glow to protect neighbors, community welfare, environment, and the night sky; and,

WHEREAS, advancements in lighting technology necessitate updated regulations to ensure that modern lighting systems are effectively managed to balance safety, community welfare, efficiency, and environmental protection; and,

WHEREAS, pursuant to the Pennsylvania Municipalities Planning Code, both the Township Planning Commission and the Monroe County Planning Commission have reviewed

the proposed amendments to the Smithfield Township Code of Ordinances, Subdivision and Land Development Ordinance (SALDO), and Zoning Ordinance; and

WHEREAS, the Smithfield Township Board of Supervisors has conducted a public hearing pursuant to public notice concerning the proposed amendments to the Smithfield Township Code of Ordinances, SALDO, and Zoning Ordinance; and

WHEREAS, after holding a public hearing, the Smithfield Township Board of Supervisors desires to ordain and adopt the amendments to the Smithfield Township Code of Ordinances, SALDO, and Zoning Ordinance as set forth hereinafter; and

WHEREAS, this ordinance serves as an amendment to the Township's existing Code of Ordinances, SALDO, and Zoning Ordinance, and is consistent with the Pennsylvania Second Class Township Code and the Pennsylvania Municipalities Planning Code.

WHEREAS, the Township Board of Supervisors Board hereby adopts the following ordinance amendments and establishes Chapter 32 in the Smithfield Township code of ordinances.

NOW THEREFORE BE IT ENACTED AND ORDAINED by the Board of Supervisors of Smithfield Township, Pennsylvania, as follows:

SECTION 1: The Smithfield Township Code of Ordinances, Chapter 32 - Outdoor Lighting Standards is hereby established as follows:

§32-101 Intent.

- A. Lighting shall be controlled in height, intensity and timing to maintain community character, and lighting design must be an inherent part of the project design. The applicant shall provide the specifications of the proposed lighting and its arrangement on the site. Any proposal which is considered a conditional use, change in use, variance, subdivision, land development, special exception, or building permit as defined by Chapter 27 and Chapter 22 or elsewhere in the Township Code of Ordinances shall be governed by the outdoor light and glare standards herein this Chapter 32: Outdoor Lighting Standards.
- B. Following the establishment of any land development, the ongoing operation and maintenance of the lighting facilities shall comply with the requirements of this Chapter 32 and violations shall be subject to the enforcement provisions as detailed herein.
- C. Permit the use of outdoor lighting that does not exceed the minimum levels specified in IES recommended practices for nighttime safety, utility, security, productivity, enjoyment, welfare, health, and commerce.

- D. Minimize adverse offsite impacts of lighting, including but not limited to glare, light trespass, sky glow, and obtrusive light.
- E. Protect neighbors, the environment, and the night sky from nuisance glare and light trespass from improperly selected, placed, aimed, applied, maintained, or improperly shielded light sources.
- F. Conserve energy and resources to the greatest extent possible.
- G. Protect drivers and pedestrians from the glare of non-vehicular light sources.
- H. Provide for and control lighting in outdoor places where public health, safety, and welfare are potential concerns.

§ 32-102 Definitions.

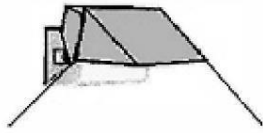
For the purposes of this chapter, the following terms, phrases, words, and their derivations shall have the meanings given herein. When not inconsistent with the context, words used in the present tense include the future; words in the plural include the singular; and words in the singular include the plural. Any personal pronoun shall be construed to mean either the masculine, feminine, or neuter gender, as the context may require; and the word "shall" is always mandatory and not merely precatory.

ACCEPTABLE LIGHTING FIXTURES

Examples of lighting fixtures that are acceptable to be installed in Smithfield Township.

Note: Even those types of fixtures shown must be installed and aimed properly to comply with this Chapter.

ACCEPTABLE



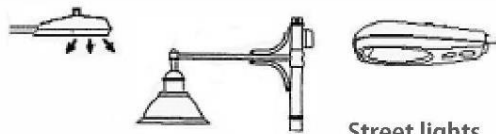
Fully Shielded Reduces Glare



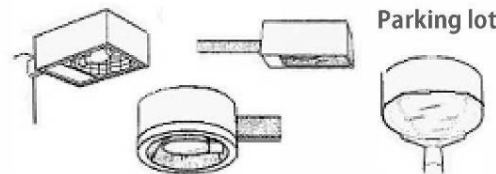
Fixtures must be properly angled and mounted to ensure that light is not emitted above the horizontal plane



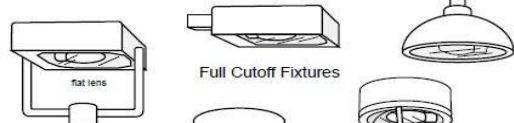
Shield Example



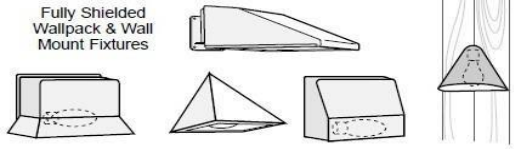
Street lights



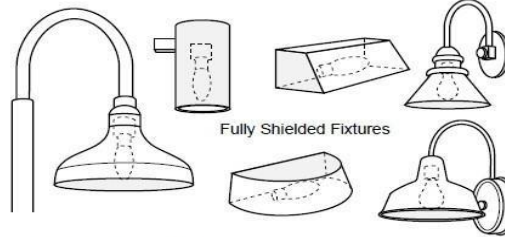
Parking lot



Full Cutoff Fixtures

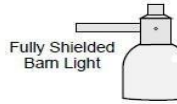


Fully Shielded Wallpack & Wall Mount Fixtures

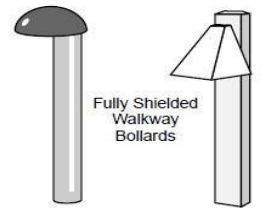


Fully Shielded Fixtures

Full Cutoff Streetlight



Fully Shielded Barn Light



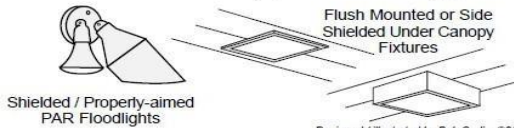
Fully Shielded Walkway Bollards



Fully Shielded Decorative Fixtures
bulb shielded in opaque top



Fully Shielded 'Period' Style Fixtures
bulb shielded in opaque top



Shielded / Properly-aimed PAR Floodlights

Flush Mounted or Side Shielded Under Canopy Fixtures

Designed / illustrated by Bob Crelin ©2005



AUTHORITY

The adopting municipality, agency, or other governing body.

ASTRONOMIC TIME SWITCH

An automatic lighting control device that switches outdoor lighting relative to the time of solar day, with time-of-year correction.

CANOPY

A covered, unconditioned structure with at least one side open for pedestrian and/or vehicular access. (An unconditioned structure is one that may be open to the elements and has no heat or air conditioning.)



CATALOGUE CUT

Pages from luminaire manufacturers' catalogs are sometimes referred to as "catalog cuts" or "spec. sheets." They describe the specified luminaire's electrical, structural, lamp, and optical characteristics, along with accessories and special notes. There should be one cut on the plan for each luminaire type specified. The cut may state that the luminaire is full cutoff/fully shielded but then have a footnote or fine print that states that above a certain wattage or with a vertical lamp position, a sag or convex lens is required. At this point, the luminaire is no longer full cutoff/fully shielded despite the cut's assertion to the contrary.

COMMON OUTDOOR AREAS

Shared exterior spaces accessible to all occupants or users of a property, typically including but not limited to parking lots, parking structures, covered vehicle entrances, communal entrances, walkways, courtyards, plazas, recreational areas, or other outdoor spaces intended for public use or shared by multiple residents or visitors of the building or community.

DIRECTIONAL LUMINAIRE

A lighting fixture designed to emit light predominantly in a specific direction. This type of luminaire uses reflectors, lenses, or other optical devices to control the distribution of light, focusing it toward a particular area or object rather than dispersing it uniformly in all directions. Directional luminaires are used to achieve targeted illumination for applications such as accent lighting, task lighting, and outdoor lighting, ensuring efficient use of light and minimizing unwanted spill or glare.



EMERGENCY

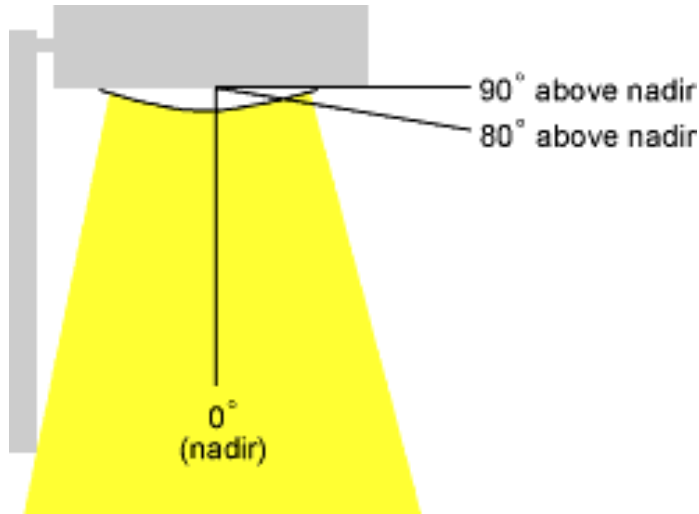
Generally, lighting that is only energized during an emergency; lighting fed from a backup power source; lighting for illuminating the path of egress solely during a fire or other emergency situation; or lighting for security purposes used solely during an alarm.

FOOTCANDLE (fc)

A non-SI unit of illuminance used primarily in the United States. One footcandle is defined as the illuminance cast on a surface by a one-candela light source placed one foot away, which is equivalent to one lumen per square foot. For consistency in this Chapter, the conversion of **1 footcandle to approximately 10.764 lux** (the SI unit of illuminance) shall be used in all lighting calculations and assessments.

FULL CUTOFF

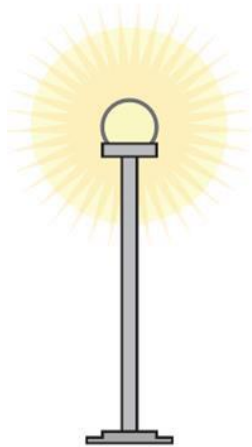
A lighting fixture from which no light is emitted at or above a horizontal plane drawn through the bottom of the fixture, and no more than 10% of the lamp's intensity is emitted at or above an angle 10° below that horizontal plane, at all lateral angles around the fixture. Alternatively, the luminous intensity (in candelas) at or above an angle of 90° above nadir is zero, and the luminous intensity (in candelas) at or above a vertical angle of 80° above nadir does not numerically exceed 10% of the luminous flux (in lumens) of the lamp or lamps in the luminaire.



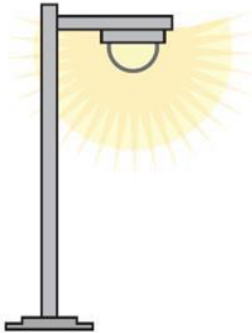
FULLY SHIELDED LUMINAIRE

A luminaire constructed and installed in such a manner that all light emitted by the luminaire, either directly from the lamp or a diffusing element, or indirectly by reflection or re- fraction from any part of the luminaire, is projected below the horizontal plane through the luminaire's lowest light-emitting part. Note: Even those types of fixtures shown as fully shielded must be installed and aimed properly to comply with this chapter.

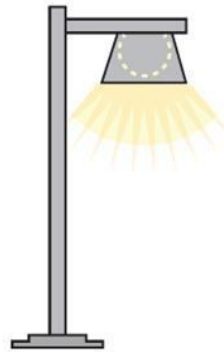
UNSHIELDED



PARTIALLY SHIELDED



FULLY SHIELDED

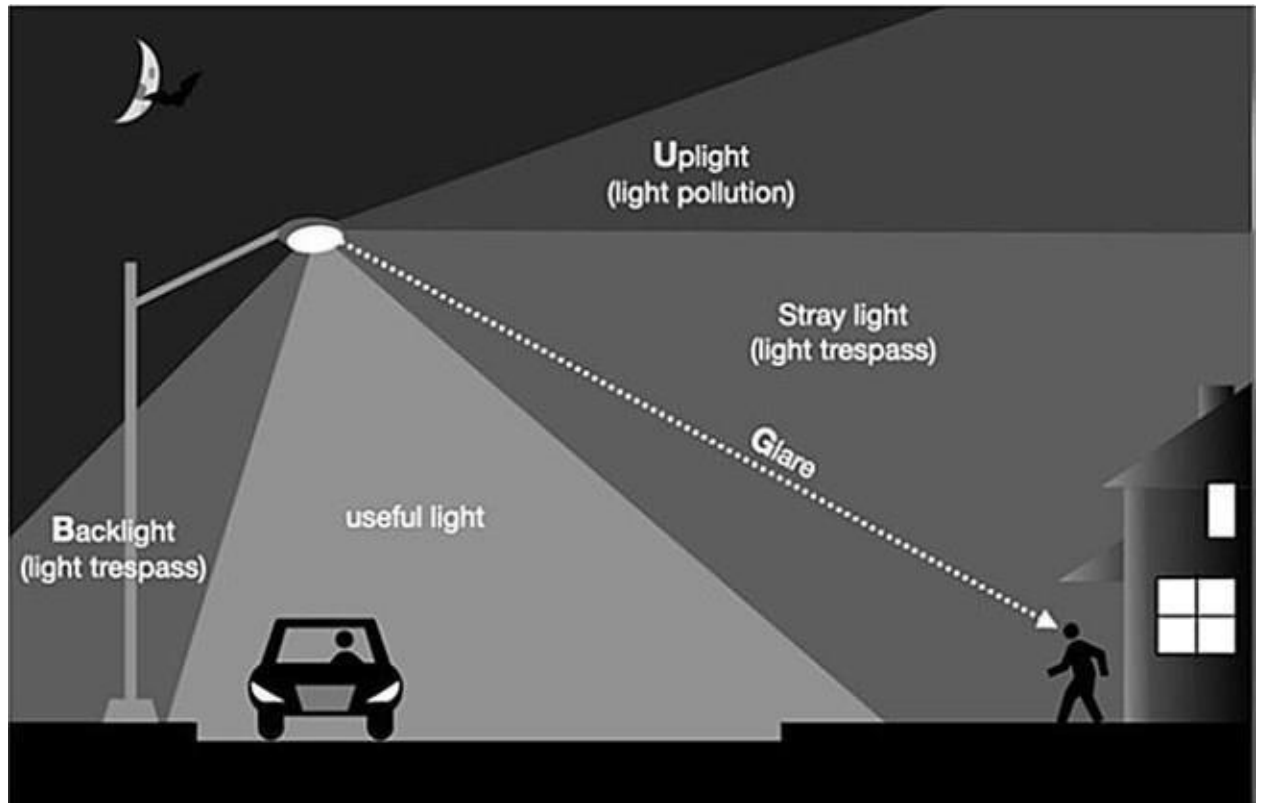


Examples of Fully Shielded Luminaires



GLARE

Excessive brightness in the field of view that is sufficiently greater than that to which the eyes are adapted, so as to cause annoyance or loss in visual performance and visibility to the eye.



IESNA (ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA)/ IES (ILLUMINATING ENGINEERING SOCIETY)

A professional organization that develops standards and guidelines for the design, implementation, and maintenance of lighting systems to ensure safety, efficiency, and sustainability. The organization provides technical expertise and recommended practices for various lighting applications in architectural, industrial, and public spaces.

ILLUMINANCE

The light that shines on an object or surface, and it is the measure of the amount of light that falls onto (or "illuminates") a surface. It represents the intensity of light per unit area that is incident on a surface and is used to quantify how well-lit that surface is.

KELVIN

The term "kelvin" as defined by lighting and illuminating societies or standards like the Illuminating Engineering Society (IES) generally refers to "color temperature," which is measured in kelvins. This describes the appearance of light emitted by a source and is particularly important in lighting design, photography, and cinematography. Color temperature describes the color of light emitted by an ideal black body radiator when it is heated to a particular temperature measured in kelvins.

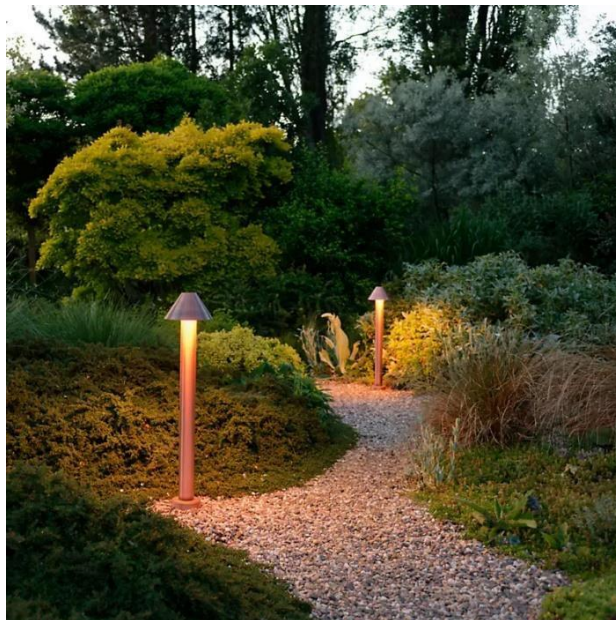


LAMP

A generic term for a source of optical radiation (i.e., “light”), often called a “bulb” or “tube.” Examples include incandescent, fluorescent, high-intensity discharge (HID) lamps, low-pressure sodium (LPS) lamps, and light-emitting diode (LED) modules and arrays.

LANDSCAPE LIGHTING

Lighting of trees, shrubs, or other plant material, as well as ponds and other landscape features.



LED (Light Emitting Diode)

A solid-state lighting device that emits light when an electrical current passes through such device.

LIGHT METER

Also known as an illuminance meter, as a device used to measure the amount of light (illuminance) reaching a specific surface or area. This instrument is commonly used in lighting design and assessment to ensure that lighting levels meet the desired standards for

visibility, safety, and energy efficiency. Illuminance is typically measured in lux (lumens per square meter) or footcandles (lumens per square foot).

LIGHT POLLUTION

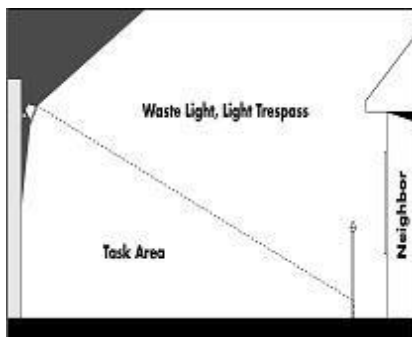
The adverse effects caused by excessive or misdirected artificial lighting at night. These effects include glare, which reduces visibility; light trespass, where light spills into areas where it is not needed or wanted; sky glow, which brightens the night sky; and broader impacts such as energy waste and disruptions to ecosystems and human health. Light pollution can interfere with wildlife behaviors, compromise human safety, and lead to unnecessary energy consumption.

LIGHT TRESPASS

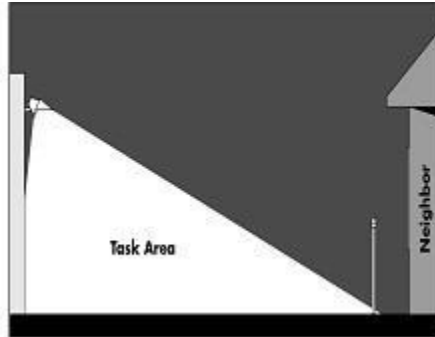
Unwanted or misdirected light that extends beyond the boundaries of the property where it is generated, spilling onto adjacent properties where it is not wanted or needed. This can cause visual discomfort, reduce privacy, or create unnecessary lighting for neighbors. It is typically measured at the property line in units of footcandles or lux.



Light trespass from uncontrolled source



Controlled source and good aiming prevents light trespass



LIGHTING

“Electric” or “man-made” or “artificial” lighting. See “lighting equipment.”

LIGHTING EQUIPMENT

Equipment specifically intended to provide gas or electric illumination, including but not limited to lamps, luminaires, ballasts, poles, posts, lenses, and related structures, electrical wiring, and other necessary or auxiliary components.

LUMEN

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).

LUMINAIRE

The complete lighting unit (fixture), consisting of a lamp or lamps and ballast(s) when applicable, together with the parts designed to distribute the light (reflector, lens, diffuser), to position and protect the lamps, and to connect the lamps to the power supply.

LUMINAIRE LUMENS

For luminaires with relative photometry per IES, it is calculated as the sum of the initial lamp lumens for all lamps within an individual luminaire, multiplied by the luminaire efficiency. If the efficiency is not known for a residential luminaire, assume 70%. For luminaires with absolute photometry per IES LM-79, it is the total luminaire lumens. The lumen rating of a luminaire assumes the lamp or luminaire is new and has not depreciated in light output.

LUMINAIRE SHIELDED DIRECTIONAL

A shielded luminaire with an adjustable mounting device allowing aiming in a direction other than straight downward.



LUX (lx)

The SI unit of illuminance, representing the luminous flux per unit area. One lux is equal to one lumen per square meter. Lux is used to measure the intensity of light that hits or passes through a surface. The standard conversion of 1 footcandle equals approximately 10.764 lux.

LUMINANCE

A measure of the amount of light emitted, transmitted, or reflected from a surface in a specific direction. It is defined as the intensity of light per unit area projected in a given direction and is usually expressed in units of candelas per square meter (cd/m^2).

Luminance quantifies the brightness of a surface as perceived by the human eye.

MOUNTING HEIGHT

The height from the finished grade of the area being illuminated to the optical light center of the luminaire (assumed to be the bottom of the housing for a shoebox luminaire or lamp center for decorative luminaires). The luminaire mounting heights must be presented on the lighting plan. They form a part of the basis for the plotted illuminance values and are to be in accordance with lighting Chapter requirements. In the absence of a specified mounting height on the plan for a building-mounted or pole-mounted luminaire, it shall not be assumed to be in accordance with the Chapter and should be required to be added to the plan. Building-mounted luminaires must conform with the requirements of mounting height.

NEW LIGHTING

Lighting for areas not previously illuminated; newly installed lighting of any type, except for replacement lighting or lighting repairs.

OBTRUSIVE LIGHT

Unwanted light that includes spill light (light that falls onto neighboring properties) and glare (excessive light that hinders vision). This type of light can cause annoyance, discomfort, distraction, or a reduction in the ability to see essential information, such as signal lights. It also encompasses various adverse effects of artificial light, such as light trespass, sky glow, energy waste, and impacts on the nocturnal environment.

OBJECT

A permanent structure located on a site. Objects may include statues or artwork, garages or canopies, outbuildings, etc.

OBJECT HEIGHT

The highest point of an entity, not including antennas or similar structures.

OUTDOOR LIGHTING

Lighting equipment installed within the property line and outside the building envelopes, whether attached to poles, building structures, the earth, or any other location; and any associated lighting control equipment.

PARTLY SHIELDED LUMINAIRE

A luminaire with an opaque top and translucent or perforated sides, designed to emit most light downward.

PHOTOELECTRIC SWITCH

A control device employing a photocell or photodiode to detect daylight and automatically switch lights off when sufficient daylight is available.

PLOTTED ILLUMINANCE

The point-by-point illuminance plot and statistical area summary form the basis for judging illuminance-value compliance. A point-by-point plot displays illuminance values in a grid pattern across the entire area being illuminated and out to the property boundary. An iso-footcandle plot (the concentric rings emanating out from the light source in plan view) may be provided instead of a point-by-point plot. This could be considered adequate if the footcandle values of each ring are documented on the plan and is only used when there is a single or two luminaire installation, such as a roadway intersection or isolated area. But when three or more luminaires are contributing to the lighting of an area, a point-by-point plot of maintained illuminance values must be provided in this Chapter. Illuminance values are assumed to be at finished grade and maintained.

PROPERTY LINE also BOUNDARY LINE

The edges of the legally-defined extent of privately owned property.

RELATIVE PHOTOMETRY

Photometric measurements made of the lamp plus luminaire, and adjusted to allow for light loss due to reflection or absorption within the luminaire. Reference standard: IES LM-63.

REPAIR(S)

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 Chapter, 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

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

SEASONAL LIGHTING

Temporary lighting installed and operated in connection with holidays or traditions.



SHIELDED

The description of a luminaire from which no direct glare is visible at normal viewing angles, by virtue of its being properly aimed, oriented, and located and properly fitted with such devices as shields, barn doors, baffles, louvers, skirts or visors.



SKY GLOW

The brightening of the nighttime sky caused by artificial light that is unnecessarily directed upward or sideways, where it is scattered and reflected by moisture and dust particles in the atmosphere. This reduces the ability to view the night sky and results

from light that is not focused directly on the target area.



TEMPORARY LIGHTING

Lighting installed and operated for periods not to exceed 30 days, completely removed, and not operated again for at least 30 days.

THIRD PARTY

A party contracted to provide lighting, such as a utility company.

TIME SWITCH

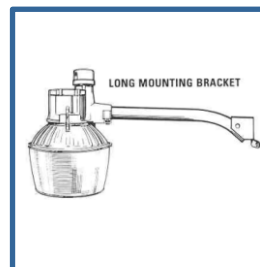
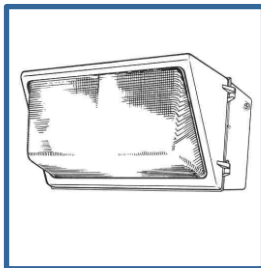
An automatic lighting control device that switches lights according to the time of day.

TRANSLUCENT

Allowing light to pass through, diffusing it so that objects beyond cannot be seen clearly (not transparent or clear).

UNACCEPTABLE LIGHTING FIXTURES

Examples of lighting fixtures that are not permitted to be installed as part of any plan in Smithfield Township.





Unacceptable

Area Floodlights

Spotlights

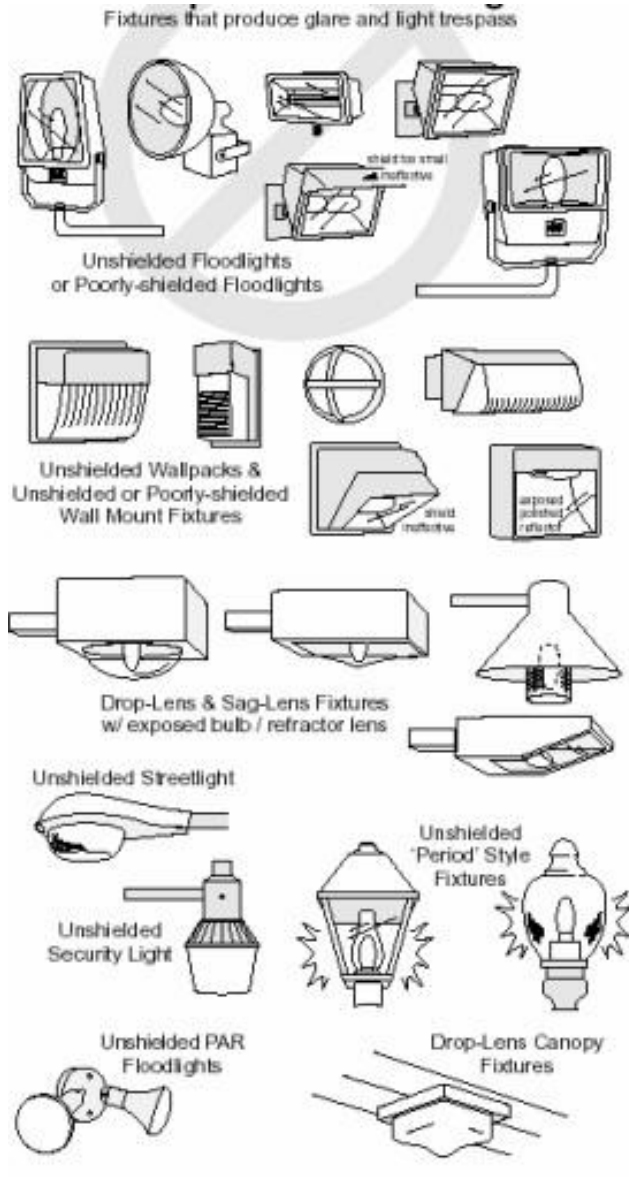
Wall Packs

Unacceptable

Decorative

Street Lighting

Parking Lot Lighting



UNIFORMITY

Evenness of illumination across the lighted area is an important factor for a successful lighting installation. Wide swings in value from minimum to maximum footcandles across a site, because of increased contrast, make the areas with lower illuminance values appear darker than they actually are and can create safety and security issues. All prescribed illuminance values are assumed to have an average-to-minimum uniformity ratio of 4:1 and a maximum-to-minimum uniformity ratio not to exceed 20:1. These values shall be found on the lighting plan in the statistical area summary.

UNSHIELDED LUMINAIRE

A luminaire that emits light in all directions, including upwards, and lacks any shielding

to control or limit the direction of light. These luminaires are not permitted under the provisions of this Chapter.



VERTICAL ILLUMINANCE

Illuminance measured or calculated in a plane perpendicular to a specific reference, such as the site boundary or property line. It quantifies the amount of light falling on a vertical surface or plane. Unlike horizontal illuminance, which measures light on flat surfaces like floors, vertical illuminance focuses on how much light strikes a vertical surface, such as a wall or a person's face.

§32-103 Applicability.

(A) This section shall apply to all uses within the Township where exterior lighting is viewed from outside, including, but not limited to, residential, resort, commercial, industrial, public, and private recreational/sports and institutional uses, as well as sign, architectural, and landscape lighting.

(B) Exemptions. The following lighting applications are exempt from the requirements of this Chapter:

- (1) Lighting within a 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 easement.
- (2) Lighting for municipal, state, and/or federal public monuments and statuary.
- (3) Underwater lighting in swimming pools and other water features.
- (4) Full cutoff low-voltage incandescent bulb landscape lighting not to exceed 20 watts; 10-watt compact fluorescent lamps (CFLs), or 5-watt LEDs.
- (5) Individual porch lights of a dwelling, as long as they meet the wattage requirements in **§32-103 (B)(4)**.
- (6) Repairs to existing luminaires not exceeding 25% of the total number of installed luminaires.
- (7) Temporary lighting for theatrical, television, and performance areas, and construction sites that do not exceed 7 days in duration.
- (8) Temporary lighting and seasonal decorative lighting not to exceed 30 days in duration, provided that individual lamps are less than 10 watts (incandescent), 2 watts compact fluorescent lighting (CFL), or 1 watt LED and equivalent to no more than 80 lumens.
- (9) Emergency lighting, as may be required by any public agency while engaged in the performance of its duties, or for the illumination of the path of egress during an emergency.

(C) Exceptions to Lighting Control Requirements.

Lighting reductions are not required for any of the following:

- (1) With the exception of landscape lighting, lighting for residential properties, including multiple residential properties not having common areas, provided that there is no more than 0.1 footcandle (1.08 Lux) of light spillover or light trespass onto adjacent properties.
- (2) When the outdoor lighting consists of only one fully shielded or full cutoff luminaire.
- (3) Low-wattage lighting for steps, stairs, walkways, and building doorway entrances: incandescent bulb landscape lighting not to exceed 20 watts; 10-watt compact fluorescent lamps (CFLs), or 5-watt LEDs.
- (4) Motion-activated lighting, as long as the lights return to the off state within 15 minutes of activation from motion.
- (5) Businesses that operate on a 24-hour basis.
- (6) Lighting under closed canopies.
- (7) Lighting for tunnels, parking garages, garage entrances, and similar conditions.

§32-104 Lighting Control Requirements.

(A) Automatic Switching Requirements.

Unless exempt in **§32-103(C)**, controls shall be provided that automatically extinguish all outdoor lighting fixtures 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, dimming switches, or lighting energy management system, all with battery or similar backup power or device.

(B) Automatic Lighting Reduction Requirements (ED, MI, RE Districts).

Unless exempt in §32-103(C), all luminaires shall be controlled by automatic switching devices such as time clocks, or dimming switches, or combination motion detectors and photocells to permit extinguishing sources between 11:00 p.m. and dawn.

Security lighting proposed for use after 11:00 p.m., or after the normal hours of operation for ED, MI, and RE Zoning Districts, shall be reduced by 75% from the levels normally permitted by this chapter from then until dawn via a dimmer switch or other similar technology that effectuates these standards.

§32-105 Standards and Criteria for Outdoor Lighting and for the Control of Light, Light Trespass, Sky Glow, Obtrusive Light, and Glare.

A. Illumination Levels:

Lighting shall have illuminances, uniformities, and glare control in accordance with the recommended practices of the Illuminating Engineering Society of North America (IESNA).

B. Acceptable and Unacceptable Lighting Fixtures:

Prior to plan submission and installation of lighting fixtures, all applicants shall review and cross-reference the illustrated acceptable lighting fixtures and unacceptable lighting fixtures examples in this Chapter to ensure compliance with the intent set forth herein.

C. Luminaire Design:

(1) Horizontal Surfaces:

[a] For the lighting of predominantly horizontal surfaces, such as, but not limited to, parking areas, roadways, culs-de-sac, vehicular and pedestrian passage areas, merchandising and storage areas, automotive-fuel dispensing facilities, automotive sales areas, loading docks, active and passive recreational areas, building entrances, sidewalks, bicycle and pedestrian paths, and site entrances, luminaires shall be aimed straight down and shall meet IESNA full-cutoff criteria and/or meet the definition of Fully Shielded.

[b] Luminaires with an aggregate rated lamp output not exceeding 400 lumens, e.g., the rated output of a standard nondirectional 30-watt incandescent or seven-watt compact fluorescent lamp, or five-watt LED are exempt from this §(C)(1)(a). In the case of decorative street lighting, the Township may approve the use of luminaires that comply with IESNA cutoff criteria rather than full-cutoff.

(2) Nonhorizontal Surfaces:

[a] For the lighting of predominantly nonhorizontal surfaces, such as, but not limited to, facades, landscaping, fountains, displays, and statuary, when their use is specifically permitted by the Township, luminaires shall meet the full cutoff criteria and shall be installed, partially shielded, and aimed so as not to project any output into the windows of neighboring residences, adjacent uses, past the object being illuminated, skyward, or onto a public roadway.

[b] Luminaires with an aggregate rated lamp output not exceeding 400 lumens, e.g., the rated output of a standard nondirectional 30-watt incandescent or seven-watt

compact fluorescent lamp, or five-watt LED are exempt from the requirements of this §(C)(2)(a).

(D) Control of Glare:

(1) All luminaires shall be aimed, located, designed, fitted, shielded, and maintained so as not to present a hazard to drivers or pedestrians by impairing their ability to safely traverse and so as not to create a nuisance by projecting or reflecting objectionable light onto a neighboring use or property.

(2) Directional luminaires, such as floodlights and spotlights, when their use is specifically approved, shall be so shielded, installed, and aimed that they do not project their output into the windows of neighboring residences, adjacent uses, past the object being illuminated, skyward, or onto a public roadway or pedestrian way. Floodlights installed above grade on residential properties, except when motion-sensor actuated, shall meet the full cutoff criteria. When a floodlight creates glare as viewed from an adjacent residential property or roadway, the floodlight shall be required to be re-aimed and/or fitted with a shielding device to block the view of the glare source from that property or roadway.

(3) "Barn lights," also known as "dusk-to-dawn lights," shall not be permitted unless the luminaires are fully shielded or meet the full cutoff criteria.

(4) The use of floodlights and wall-mounted luminaires (wall packs) shall not be permitted unless the luminaires are fully shielded or meet the full cutoff criteria.

(5) Parking facility and vehicular and pedestrian way lighting for commercial, industrial, and resort uses shall be automatically extinguished no later than one hour after the close of business or facility operation. When safety or security lighting is proposed for after-hours illumination, it shall not be in excess of 25% of the number of luminaires or illumination level required or permitted for illumination during regular business hours.

(6) Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, glare control shall be achieved primarily through the use of such means as full cutoff luminaires, shields, and baffles, and appropriate application of luminaire mounting height, wattage, aiming angle, and luminaire placement.

(7) Light Spillover:

[a] Residential: The illumination projected from any use onto a residential use or permanent open space shall at no time exceed 0.1 initial footcandle (1.08 Lux), measured line-of-sight at any time and from any point on the receiving residential property.

[b] Nonresidential: The illumination projected from any property onto a nonresidential use shall at no time exceed 0.5 initial footcandle (5.38 Lux), measured line-of-sight from any point on the receiving property.

(8) Height: Except as permitted for certain recreational lighting and permitted elsewhere

in this subsection, luminaires shall not be mounted in excess of 15 feet above finished grade (AFG) of the surface being illuminated. Luminaires not meeting full-cutoff criteria shall not be mounted in excess of 13 feet AFG. Where proposed parking lots consist of 100 or more contiguous spaces, the Township Supervisors may entertain a permit, based on the demonstrated mitigation of potential off-site impacts, for a luminaire mounting height not to exceed 25 feet AFG. For maximum mounting height of recreational lighting, refer to §32-106.

(9) The United States, state, and other official flags may be illuminated from dusk to dawn. All other flags shall not be illuminated past 11:00 p.m. Flag lighting sources shall not exceed 7,000 aggregate lamp lumens per flagpole. The light source shall have a beam spread no greater than necessary to illuminate the flag.

(10) Under-canopy lighting for such applications as gas/service stations, hotel/theater marquees, and fast-food/bank/drugstore drive-ups shall be accomplished using flat-lens full-cutoff luminaires aimed straight down and shielded in such a manner that the lowest opaque edge of the luminaire shall be below the light source and its light-directing surfaces, at all lateral angles around the luminaire. The average illumination intensity in the area directly below the canopy shall not exceed 10 maintained footcandles (107.6 Lux), and the maximum density shall not exceed 20 initial footcandles (215.2 Lux).

(11) Soffit lighting around building exteriors shall not exceed 10 initial footcandles (107.6 Lux).

(12) The use of white strobe lighting for tall structures such as smokestacks, chimneys, and radio/communication towers is prohibited during hours of darkness.

(13) No outside lighting sources shall exceed a color temperature of 3500 Kelvin. This is meant to minimize sky glow, minimize nighttime interference with circadian rhythms of the public and also minimize impacts to nocturnal non-human animals.

(14) Aiming Angles: Luminaires must be aimed at 0° (straight down) to retain that classification. If luminaires have an adjustable mounting arrangement, while they may be full cutoff/fully shielded on the plan and catalog cut, they will not necessarily be so as installed. Any plan reference to adjustable mounting type shall be disallowed or the mounting shall be permanently locked in the 0-degree tilt position.

(E) Installation:

(1) Electrical feeds for lighting shall be run underground, not overhead, and shall be in accordance with the National Electrical Code (NEC) Handbook.

(2) Poles supporting luminaires for the illumination of parking areas and located within the parking area or directly behind parking spaces, or where they could be hit by snow plows or wide-swinging vehicles, shall be protected by being placed a minimum of five feet outside the paved area or tire stops, or placed on concrete pedestals at least 30 inches

high above the pavement, shielded by steel bollards, or protected by other Township Engineer-approved means.

(3) Pole-mounted luminaires for lighting horizontal surfaces shall be aimed straight down, meet full cutoff criteria, and poles shall be perfectly vertical, aligned straight up and down.

(4) Poles and brackets for supporting luminaires shall be those specifically manufactured for that purpose and shall be designed and rated for the luminaire and mounting accessory weights and possible wind loads experienced in the Poconos.

(5) Pole foundations shall be designed consistent with manufacturer's wind load requirements and full consideration of the local soil conditions involved.

(F) Maintenance: Luminaires and ancillary equipment shall be maintained so as to meet the requirements of this chapter.

(G) Illumination Standards for Signs: See Chapter § 27- 504: Sign Regulations and see Chapter 19.

§32-106 Sports and Recreational Outdoor Lighting.

Recreational uses. The nighttime illumination of outdoor recreational facilities for such sports as baseball, basketball, soccer, tennis, track and field, and football typically necessitates higher than normally permitted luminaire mounting heights and aiming angles, utilizes very-high-wattage lamps and potentially produces unacceptable levels of light trespass and glare when located near residential properties. Permission to illuminate such facilities shall be granted only when the Township is satisfied that the health, safety and welfare rights of nearby property owners and the Township as a whole have been properly protected. When recreational uses are specifically permitted by the Township for operation during hours of darkness, the following requirements shall apply:

- A. Racetracks and such recreational venues as golf driving ranges that necessitate the horizontal or near horizontal aiming of luminaires and projection of illumination may be permitted by conditional use. A visual impact plan, as set forth in **Subsection (F)** below, shall be required.
- B. Recreational facilities for basketball, baseball, football, soccer, miniature golf, tennis or track shall not be illuminated if located within a residential district or sited on a nonresidential property located within 1,000 feet of a property within a residential

district.

- C. Sporting events shall be timed to end at such time that all lighting in the sports facility, other than lighting for safe exit of patrons, shall be extinguished by 10:00 p.m., except on the occurrence of extra innings or overtimes.
- D. The Township reserves the right to limit the number of illuminated sporting events per week or season.
- E. Maximum mounting heights for recreational lighting shall be in accord with the following:
 - (1) Basketball: 20 feet.
 - (2) Football: 70 feet.
 - (3) Soccer: 70 feet.
 - (4) Lacrosse: 70 feet.
 - (5) Baseball and softball:
 - [a] Two-hundred-foot radius: 60 feet.
 - [b] Three-hundred-foot and larger radius: 70 feet.
 - (6) Miniature golf: 20 feet. See driving range in § 32-106(A).
 - (7) Swimming pool aprons: 20 feet.
 - (8) Tennis: 20 feet.
 - (9) Track: 20 feet.
 - (10) All uses not listed: 20 feet, including commercial recreational lighting not otherwise regulated in this §32-106.
- F. Visual impact plan. To assist the Township in determining whether the potential impacts of proposed lighting have been suitably managed, applications for illuminating recreational facilities shall be accompanied not only with the information required under §32-106, but also by a visual impact plan that contains the following:
 - (1) Plan views containing a layout of the recreational facility and showing pole locations and the location of residences on adjoining properties.
 - (2) Elevations containing pole and luminaire mounting heights, horizontal and vertical aiming angles and luminaire arrays for each pole location.
 - (3) Elevations containing initial vertical illuminance plots at the boundary of the site,

taken at a height of five feet line-of-sight.

- (4) Elevations containing initial vertical illuminance plots on the windowed facades of all residences facing and adjacent to the recreational facility. Such plots shall demonstrate compliance with the light trespass and glare control requirements of §32-105.
- (5) Proposed frequency of use of the facility during hours of darkness on a month-by-month basis and proposed time when the sports lighting will be extinguished.
- (6) A narrative describing the measures proposed to achieve minimum off-site disturbance.

§32-107 Plan Submission Requirements.

Lighting plans shall be submitted for Township review and approval for all subdivision and land development, change of use, conditional use, variance, zoning permit, and special exception applications. The submitted information shall include the following:

A. The applicant shall submit a visual impact plan that demonstrates appropriate steps have been taken to mitigate on-site and off-site glare, including but not limited to plotted illuminance with a matrix of the calculated foot-candles with measurements ten (10) feet into the neighboring properties, including those on the opposite side of a public right-of-way or public roadway, at five feet above the ground.

B. A plan or plans of the site, complete with all structures, parking spaces, building entrances, traffic areas (both vehicular and pedestrian), existing and proposed vegetation (both with and without leaves for deciduous species), and adjacent uses that might be adversely impacted by the lighting. The lighting plan shall contain a layout of all proposed and existing luminaires, including, but not limited to, area, architectural, building entrance, canopy, soffit, landscape, flags, and signs, by location, orientation, aiming direction, mounting height, lamp, photometry, and type. Landscaping plans (both with and without leaves for deciduous species) shall contain luminaire locations, demonstrating that the site lighting and landscaping have been coordinated to minimize conflict between vegetation and intended light distribution, both initially and at vegetation maturity.

C. Levels of anticipated illumination shown along all the perimeter property boundaries.

D. Description of the proposed equipment, including luminaire catalog cuts, photometrics, glare-reduction devices, manufacturer's catalog cuts of specified luminaire types, lamps, on/off control devices, mounting heights, pole foundation details, pole-protection means, and mounting methods. An artistic rendering shall be provided of the proposed external lighting equipment, including photometrics, glare reduction devices, lamps, on/off control devices, mounting heights, pole foundation, and mounting methods. Light-loss factors, IES candela test filenames, initial lamp-lumen ratings, and specific lamp manufacturer's lamp ordering nomenclature used in calculating the plotted illuminance levels.

- E. If poles supporting luminaires are in the middle of a parking area or directly behind parking spaces, the method of protecting the poles from being struck by backing vehicles.
- F. Detail of pole foundation.
- G. Method of control of the lighting, e.g., photocell, time clock, programmable controller, motion sensor.
- H. Proposed hours of operation of the lighting.
- I. Specific luminaires that are proposed to remain on for site safety/security after the facility is closed.
- J. Plan Notes: The following notes shall appear on the lighting plan:

(1) "Post-approval alterations to lighting plans or intended substitutions for specified lighting equipment on the approved plan shall be submitted to the Township for review and approval prior to installation. Requests for substitutions shall be accompanied by catalog cuts of the proposed equipment that demonstrate the proposed substitution is equal to or exceeds the optical quality and maintainability of the specified luminaires; and accompanied by a lighting plan, including a point-by-point plot, which demonstrates that proposed substitutions will result in a lighting design that equals or exceeds the quality of the approved plan."

(2) "The Township reserves the right to conduct post-installation nighttime inspections to verify compliance with ordinance requirements and approved lighting plan commitments and, if deemed appropriate by the Township, Township designated Constable, or Police, to require remedial action at no expense to the Township."

(3) "All exterior lighting, including building-mounted lighting, shall meet IESNA full-cutoff criteria."

(4) "Installer shall notify the Township to arrange for inspection and approval of all exterior lighting, including building-mounted lighting, prior to its installation."

§32-108 Non-Conforming Lighting.

Any lighting fixture or lighting installation existing on the effective date of this chapter that does not conform with the requirements of this chapter shall be brought into conformance when:

- A. Minor corrective action, such as re-aiming or shielding, can bring conformity with the applicable requirements of the chapter.
- B. It is deemed by the Township Code Enforcement Officer, Township designated Constable, or Police to create a safety hazard or any possible other health and welfare concerns.
- C. It is replaced with another fixture or fixtures, abandoned, or relocated.
- D. There is a change in use.

E. Major Additions: If a major addition occurs on a property, lighting for the entire property shall comply with the requirements of this Code. For purposes of this section, the following are considered to be major additions:

- a) Additions of 25 percent or more in terms of additional dwelling units, gross floor area, seating capacity, or parking spaces, either with a single addition or with cumulative additions after the effective date of this Chapter.
- b) Single or cumulative additions, modification, or replacement of 25 percent or more of installed outdoor lighting luminaires existing as of the effective date of this Chapter.

F. Minor Modifications, Additions, or New Lighting Fixtures for Non-residential and Multiple Dwellings: For non-residential and multiple dwellings, all additions, modifications, or replacement of more than 25 percent of outdoor lighting fixtures existing as of the effective date of this Chapter shall require the submission of a complete inventory and site plan detailing all existing and any proposed new outdoor lighting. Any new lighting shall meet the requirements of this Chapter.

G. Resumption of Use after Abandonment: If a property with non-conforming lighting is abandoned for a period of six months or more, then all outdoor lighting shall be brought into compliance with this Chapter before any further use of the property occurs.

§32-109 Waivers.

The provisions of this Chapter are the minimum standards for the protection of public health, safety, and welfare.

- A. If the applicant demonstrates to the satisfaction of the Board of Supervisors that strict compliance with any mandatory provision of this Chapter imposes an undue hardship, which is unique to the particular property or project and not self-created, the Board of Supervisors, upon obtaining the comments and recommendations of the Township Engineer and Township Planning Commission, may grant a waiver. The waiver must be necessary to ensure substantial justice while maintaining the public interest, provided that the waiver will not have the effect of nullifying the intent and purpose of this Chapter.
- B. The applicant shall make all requests for waivers in writing and include such requests as a part of the application for development. The applicant shall include supporting evidence, such as expert reports, photometric studies, or any other relevant documentation, to substantiate claims of unreasonableness or hardship. The request shall specify the provision(s) of this Chapter involved and the minimum waiver necessary, and how the proposal results in equal or better compliance with the intent of this Chapter.
- C. The Board of Supervisors shall keep a written record of all action on all waiver requests.

D. In granting waivers, the Board of Supervisors may impose conditions as will, in its judgment, secure substantially the objectives of the standards or requirements so modified. Such conditions may include, but are not limited to, time limits for the waiver, monitoring and reporting requirements, and mitigation measures such as additional shielding, re-aiming, or dimming.

E. The applicant shall address all of the following in its application for a waiver:

- (1) Are there existing outdoor lighting problems on the property? The applicant shall demonstrate, through a photometric analysis or testimony, that the requested waiver will improve these problems using techniques such as full shielding, re-aiming, or dimming.
- (2) Will the proposed project's modification increase light spillover, glare, or light trespass onto adjacent properties compared to what would occur if the project complied with the standards of this Chapter? The applicant shall demonstrate compliance with acceptable light spillover and glare thresholds using a photometric analysis, and provide specific mitigation measures for any adverse impacts.
- (3) Are there unique topographic or site-specific conditions that make compliance with the lighting standards in this Chapter unreasonable or impractical? For example, does the site's elevation, slope, or other physical characteristics create conditions where strict compliance with the standards would result in unnecessary hardship or technical infeasibility? If so, the applicant must demonstrate how proposed alternatives will achieve comparable or improved outcomes in terms of reducing glare, light spillover, and protecting adjacent properties from adverse effects.
- (4) Is the lighting shielded, aimed, and controlled to meet industry best practices, such as those established by the Illuminating Engineering Society (IES), to reduce glare and light trespass while preventing hazards, preventing glare, and light spillover, and nuisance lighting to adjacent properties?

§32-110 Enforcement, Violations, and Penalties.

A. Lighting Measurement Standards: All lighting measurements shall be taken with a light meter as the differential between the ambient light level (natural or pre-existing artificial light) and the light levels introduced by the lighting installation or luminaire(s) in question. The difference between the ambient light and the light introduced by the new or modified lighting installation shall not exceed the limits specified in this Chapter 32. Any exceedance of these limits shall be subject to enforcement actions as outlined in §32-110(C), or as otherwise provided in this Chapter 32.

B. Baseline Measurements for Luminaires/Fixtures: If the luminaire or fixture cannot be turned off for comparison, baseline measurements shall be taken at nearby locations shielded

from direct light emitted by the luminaire(s) or fixture(s) in question but still within the area of general ambient light. These measurements shall be used for compliance purposes under this Chapter.

C. Enforcement and Penalties: Any person who is found to have violated an order of the Township or who willfully or negligently failed to comply with the provisions of this chapter and the orders, rules, regulations, and permits issued hereunder shall be prosecuted by action brought before a District Justice in the same manner provided for the enforcement of summary offenses under the Pennsylvania Rules of Criminal Procedure. This does not preclude enforcement under other Ordinances of Smithfield Township.

The Municipal Solicitor or the Code Enforcement Officer may assume charge of prosecution without the consent of the District Attorney as required by Pa. R.Crim.P. No. 83 (relating to trial in summary cases).

The Board shall prescribe criminal fines not to exceed \$1,000 for the violation of this chapter for the punishment of summary offenses. Each day or portion thereof that such violation continues or is permitted to continue shall constitute a separate offense, and each section of this chapter that is violated shall also constitute a separate offense.

The Smithfield Township Board of Supervisors may take any appropriate action at law or in equity, civil or criminal, to enforce the provisions of this chapter, and this chapter shall in no way restrict any remedies otherwise available and provided by law. In all actions instituted and successfully prosecuted by the Township, it shall have a further right to reimbursement from the violator for attorney's fees and costs related to the action.

SECTION 2: Smithfield Township Ordinance, Chapter 22 of the Township Code of Ordinances, Section 1020 is repealed and restated in its entirety as follows:

Please see Chapter 32: Outdoor Lighting Standards for regulations on lighting.

SECTION 3: Smithfield Township Ordinance, Chapter 22 of the Township Code of Ordinances, Section 1017 the following sections are repealed and restated in its entirety as follows:

1017(C) All lighting shall be fully shielded, and properly directed, reflected, or shielded to avoid glare, to avoid shining light directly into the eyes of motorists and to direct lighting away from neighboring dwellings. Shields, visors, hoods and careful aiming shall be used to control the direction of lighting and to meet the standards in Chapter 32: Outdoor Lighting Standards. Luminaries that are near residential areas shall utilize full cut-off type fixtures that direct lighting away from neighboring properties and meet the standards of Chapter 32: Outdoor Lighting Standards.

1017(D) Lighting shall not cause nighttime spillover of light and shall conform to the regulations in Chapter 32: Outdoor Lighting Standards.

SECTION 4: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 1001 Definitions for Glare, Light Trespass, Over Lighting, Sky Glow are repealed and restated in their entirety as follows:

Please see Chapter 32: Outdoor Lighting Standards for definitions related to lighting.

SECTION 5: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 305 (4) (F) (8) is repealed and restated in its entirety as follows:

Please see Chapter 32: Outdoor Lighting Standards for regulations on lighting.

SECTION 6: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 308 (3) (I) is repealed and restated in its entirety as follows:

Please see Chapter 32: Outdoor Lighting Standards for regulations on lighting.

SECTION 7: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 403 (1) (O) is repealed and restated in its entirety as follows:

Any lighting for exterior environments shall be regulated by the standards in Chapter 32: Outdoor Lighting Standards.

SECTION 8: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 502 (6) is repealed and restated in its entirety as follows:

Please see Chapter 32: Outdoor Lighting Standards for regulations on lighting.

SECTION 9: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 509 (4)(F) is repealed and restated in its entirety as follows:

Please see Chapter 32: Outdoor Lighting Standards for regulations on lighting.

SECTION 10: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 511, the following sections are repealed and restated in its entirety as follows:

§ 27-511 (1)(G) Outdoor Lighting shall Conform to the standards of Chapter 32, and the use of outdoor public address systems shall be subject to approval by the Township Supervisors.

§ 27-511 (4)(c)(6) All pedestrian pathways shall be lit according to the regulations in Chapter 32: Outdoor Lighting Standards.

§ 27-511 (5)(D) All exterior lighting shall conform to the regulations in Chapter 32: Outdoor Lighting Standards.

§ 27-511 (10)(E) Parking areas designed for use between sunset and sunrise shall conform to the regulations in Chapter 32: Outdoor Lighting Standards.

§ 27-511 (18)(J) Parking areas designed for use between sunset and sunrise shall conform to the regulations in Chapter 32: Outdoor Lighting Standards.

§ 27-511 (22)(H) All outdoor lighting shall conform to the regulations in Chapter 32: Outdoor lighting standards, and no direct or reflected heat from any source shall be detectable in objectionable amounts beyond the boundaries of the zoning district in which the use is located or at the boundary with an adjacent residential property.

SECTION 11: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 512, the following sections are repealed and restated in its entirety as follows:

§ 27-512 (4)(O). Lighting. Tower-based WCF shall not be artificially lighted, except as required by law. Towers shall be galvanized and/or painted with a rust-preventive paint of an appropriate color to harmonize with the surroundings. If outdoor lighting is required, the applicant shall conform with the regulations in Chapter 32: Outdoor Lighting Standards.

§ 27-512 (5)(X). Non-tower WCF shall not be artificially lighted, except as required by law. If lighting is required, the applicant shall conform to the regulations in Chapter 32: Outdoor Lighting Standards.

SECTION 12: Smithfield Township Ordinance, Chapter 27 of the Township Code of Ordinances, Section 705, the following sections are repealed and restated in its entirety as follows:

§ 27-705 (1)(A)(4) The location, size, arrangement and capacity of all areas to be used for motor vehicle access, off-street parking, off-street loading and unloading, and provisions to be made for lighting such areas in conformance with the regulations in Chapter 32: Outdoor Lighting Standards.

§ 27-705 (1)(A)(5) The types, dimensions, locations, and landscaping and methods of exterior lighting as per the regulations in Chapter 32: Outdoor Lighting standards and the types, dimensions, locations, landscaping and methods of project signage.

§ 27-705 (1)(B)(3) Lighting and Signage. Improvements made to the property should not detract from the character of the neighborhood producing unnecessary sign proliferation and shall conform to the regulations in Chapter 32: Outdoor Lighting standards. Recessed landscaped ground signs are preferred.

SECTION 13. Severability. If any part, section, subsection, paragraph, subparagraph, sentence, phrase, clause, term, or word in this Ordinance is declared invalid, such invalidity shall not affect the validity or enforceability of the remaining portions of the Ordinance.

SECTION 14. Repealer, Continued Application, and Interpretation Clause: If one of the Township's existing ordinance or regulations conflicts with these provisions herein, the more restrictive provision shall prevail.

SECTION 15. Effective Date. This Ordinance shall become effective five (5) days after the date of enactment as provided by law and shall remain in force until modified, amended, or rescinded by Smithfield Township, Monroe County, Pennsylvania

ADOPTED this ____ day of _____, 2024 at a public meeting held by the Board of Supervisors of the Township of Smithfield, Monroe County, Pennsylvania