# **CHAPTER 3**

## **OUTDOOR LIGHTING**

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#### 8-3-1: PURPOSE AND APPLICABILITY; DEFINITIONS:

A. Specified: Derived from a consensus of community values and interests, the purpose of this chapter is to improve nighttime public safety, utility, security and energy conservation by restricting the nighttime emission of light rays which are the source of light trespass and/or glare, and/or are detrimental to the safety and/or security of persons, property or vehicular traffic, and/or are detrimental to the traditional aesthetic values of the village, and/or unnecessarily restrict persons from the peaceful enjoyment of their property, and/or are detrimental to astronomical observations. The provisions of this chapter shall apply to all outdoor lighting devices for illumination or advertisement.

B. Exceptions: The provisions of this chapter, except for subsections 8-3-5A and B of this chapter, do not apply to glass tubes filled with neon, argon or krypton, or to outdoor advertising signs constructed of translucent material and wholly illuminated from within. Newly installed or replaced outdoor advertising signs constructed of translucent material and illuminated wholly from within shall be of the type having dark background with bright colored characters. Such signs having bright background with dark or colored characters shall not be installed.

C. Definitions: Specific terms and definitions used in this chapter include:

FULLY SHIELDED: A luminaire with light distribution such that no light is emitted above the angle fifteen degrees (15°) below the horizontal plane, as installed.

GLARE: The sensation produced by a bright source within the visual field that is sufficiently brighter than the level to which the eyes are adapted and which causes annoyance, discomfort, or loss of visual performance and visibility.

IESNA: Illuminating Engineering Society of North America.

LAMP: The bulb, tube, or other source of the light emanated from a luminaire.

LIGHT POLLUTION: Light emitted or reflected from surfaces that is not used for visual purposes, e.g., light that goes into the skyward direction.

LIGHT TRESPASS: Where unwanted light and/or glare shines from one property to another.

LUMINAIRE: The complete lighting assembly (including the lamp, housing, reflectors, lenses and shields), less the support assembly (pole or mounting bracket); a light fixture.

SIGNIFICANT INTENSITY: Any light that reaches the eye either directly from the luminaire lamp, or from specular reflection, or by less than two (2) diffuse reflections shall be considered to have "significant intensity". "Specular" means a mirror like reflection. "Diffuse" means a reflection off a roughened surface. (Ord. 331, 3-8-2005)

#### 8-3-2: CONFORMANCE REQUIRED:

A. Fixtures: The use of any luminaire not in conformance with this chapter is prohibited. This applies to both public and private outdoor luminaire installation.

B. Mercury Vapor Lamp Or Luminaire: The outdoor installation or use of any mercury vapor lamp or mercury vapor luminaire is prohibited.

C. Inspection: The village reserves the right to conduct a postinstallation nighttime inspection to verify compliance with ordinance requirements, and to require remedial action at no expense to the village, if appropriate. (Ord. 331, 3-8-2005)

#### 8-3-3: SHIELDING:

Except as otherwise provided, or in subsection 8-3-1B of this chapter, all outdoor luminaires shall be shielded in such a manner that light rays emitted by the luminaire, whether directly from the lamp or indirectly from the luminaire, are restricted to regions below an angle fifteen degrees (15°) beneath the horizontal plane running through the lowest point on the luminaire where light is emitted. No significant intensity of light shall be emitted from the luminaire horizontally, nor above the horizon, nor above the region defined above. In general, all outdoor lighting shall be downward directed, except where specified otherwise in this chapter. (Ord. 331, 3-8-2005)

#### 8-3-4: LIGHT POLLUTION AND LIGHT TRESPASS:

A. Shielding Required: Following the effective date hereof, only shielded outdoor luminaires which conform to the requirement of section 8-3-3 of this chapter may be newly installed or modified, except for lamp replacement but only of the same type and of the same or lesser wattage.

B. Installed Public Or Private Lighting: Only fully shielded, low pressure sodium or fully shielded high pressure sodium outdoor luminaires may be newly installed to provide illumination for public and private streets and for areas designated for public and private parking. This includes both pole and wall mounted luminaires.

C. Time Limits For Illumination; Exceptions: All outdoor luminaires maintained on public or private property, whether installed before or after the effective date hereof, shall be turned off between eleven o'clock (11:00) P.M. (local time) and sunrise, except when used for:

1. Commercial And Industrial Uses: Commercial and industrial uses (such as sales, assembly and repair areas) where business is conducted after eleven o'clock (11:00) P.M., but only while the business is open to the public;

2. Advertising Signs: Illuminated advertising signs on the premises of a business while it is open to the public;

3. Security Lighting: Per IESNA guidelines, lighting necessary for security purposes or to illuminate walkways or roadways; or

4. Recreational Use: Recreational use that continues after eleven o'clock (11:00) P.M., but only for so long as such use continues.

D. High Intensity Beams: The outdoor operation of searchlights, lasers with greater than five (5) milliwatts visible output power, or other high intensity beams is prohibited.

E. Public Safety: For pedestrian and vehicular safety, glare shall not be observable (outside the originating property limits for private installation) at an angle greater than seventy five degrees (75°) from the nadir of the vertical axis of the light source. The definition of "glare" in the context of light trespass is more stringent, given below in subsection G of this section.

F. Maximum Luminance: No permanently mounted luminaire shall employ a lamp rated greater than one hundred fifty (150) watts. Temporary use "task lighting" luminaires may exceed these limits by a factor of four (4), but for no more than thirty (30) days in a given calendar year. Also, no more than the equivalent of two hundred fifty (250) watts per acre of illumination from conforming luminaires may be employed on any property.

G. Light Trespass: All public and private lighting shall be shielded and/or directed in such a manner that it does not spill over into neighboring premises so as to interfere with the peaceful enjoyment of these premises. Light trespass can only exist if there is a complaint. In cases of unresolved disagreement, a formal complaint may be filed by the aggrieved party to the village codes enforcement officials, who will then make a determination and take appropriate actions.

Even though a luminaire may be legally installed and operated as given above, it is possible for any luminaire to create a light trespass situation. For purposes of evaluation, "light trespass" shall be defined as follows:

1. Light falling onto nearby residential property, bright enough to create a shadow easily seen on a dark, moonless night; and/or

2. Nuisance glare, where the illuminating source lamp or its reflection can be seen with significant intensity by a person standing off premises.

The provisions of this section apply to all luminaires. For the purposes of light trespass, a luminaire is no longer considered newly installed after one year from the date of installation or modification in the absence of complaint.

In the event of a formal complaint regarding an existing off street luminaire, the complaining party(ies) shall be financially responsible for any modifications found necessary to eliminate the light trespass. For newly installed lighting, the owner may elect to obtain written agreement that the lighting does not constitute light trespass from the owners of neighboring properties. If such agreement is obtained, a later complaint cannot be filed by these persons except as defined under the existing luminaires clause, or if the luminaire fails to meet the requirements elsewhere in this chapter.

If a contractor or public utility installs an off street luminaire, they are obliged to ensure that the owner warrants that the luminaire does not produce light trespass, and/or that the owners of the neighboring properties have in writing agreed to the installation of the luminaire. (Ord. 331, 3-8-2005)

#### 8-3-5: GENERAL REQUIREMENTS:

A. Flashing Lights: The use of flashing, rotating or pulsating lights in/on any outdoor sign or other lighting device is prohibited. This provision shall not apply to flashing, rotating or pulsating lights intended to warn of hazards and danger, nor to decorator lights as given to subsection 8-3-7A of this chapter.

B. Operation: No luminaire may be operated in such manner as to constitute a hazard or danger to persons, or to safe vehicular operation.

C. Signs And Billboards: Illuminating fixtures for advertising or other signs shall be such that the illumination is confined to the area of the sign or billboard. Under no conditions may signs or billboards be illuminated from below. Any such illuminating fixture shall be placed above its respective sign or billboard such that the secondary (specular) reflected light from the surface of the sign or billboard is directed down toward the ground.

D. Motion Detector Security Lights: Motion detector security lights, which are normally "off" and which are activated "on" for less than four (4) minutes occasionally when motion is detected, are exempt from strict control of emission angles as defined in section 8-3-3 of this chapter, but are not exempt from subsection B of this section, and subsection 8-3-4G, "Light Trespass", of this chapter.

E. Outdoor Recreational Facilities: Outdoor recreational facilities designed for specifically scheduled sporting events are exempt from the specific shielding requirements of section 8-3-3 of this chapter. In its place, lighting for outdoor recreational facilities shall be so designed, installed and operated as to confine at least ninety percent (90%) of the illumination to the recreational area. Recreational facility fixtures shall be on elevated poles or structures so that illumination is directed downward. No significant intensity of light may extend above a horizontal plane from the lighting fixture. Illumination from recreational facility fixtures shall be shielded to minimize glare extending toward roadways or other places where impairment of motorists' vision might cause hazard. All such recreational lighting shall be extinguished at the close of the recreational activity.

F. U.S. Flags; Mounted Objects: In the case of pole mounted U.S. flags that cannot be easily illuminated with down lighting, upward lighting may be used only in the form of one narrow cone spotlight which confines the illumination to the flag. (Ord. 331, 3-8-2005)

## 8-3-6: NONCONFORMING FIXTURES; GRANDFATHER PROVISION:

Outdoor lighting fixtures preexisting and legally installed and operative before the effective date hereof are exempt from the requirements of this chapter for the life of the preexisting fixture. This exemption does not apply to the requirements of section 8-3-5 or subsection 8-3-4G of this chapter, which shall be binding on "grandfathered" fixtures beginning one year from the effective date hereof. Whenever a preexisting nonconforming luminaire is replaced or moved, the replacement thenceforth shall meet the requirements of this chapter. (Ord. 331, 3-8-2005)

#### 8-3-7: SPECIAL EXEMPTIONS:

A. Decorator Lights: Decorator lamps smaller than one-half (0.5) watt rating may be used in any desired string length year round, but are still subject to light trespass restrictions given in subsection 8-3-4G of this chapter.

B. Temporary Exemption Request: Request for temporary exemption from the provisions of this chapter may be submitted to the village board of trustees in written form describing the reason for the request and the nature of the request. If approved and granted in writing by an authorized representative of the village board of trustees, such exemption shall be in force for not more than thirty (30) days. Request for a maximum of one 15-day renewal may be made in similar manner. (Ord. 331, 3-8-2005)

## 8-3-8: EFFECT ON OTHER CODES; CONFLICTS:

The provisions of this chapter are intended to supplement other applicable codes and requirements. Compliance with all applicable provisions of building, electrical and other codes must be observed. In the event of a conflict between the requirements of this chapter and other requirements, the more stringent requirement shall apply. (Ord. 331, 3-8-2005)

## 8-3-9: PENALTY:

Violations of this chapter shall be subject to the general penalty provisions contained in section 1-4-1 of this code. (Ord. 331, 3-8-2005)

## 8-3-10: OUTDOOR LIGHTING ADVISORY COMMITTEE ESTABLISHED:

In order to evaluate compliance in new installations and in cases of dispute, there is hereby established an "outdoor lighting advisory committee" to be appointed by the mayor with approval of a majority of all members of the governing body to consist of not less than three (3) persons. At the request of the village, this volunteer resource board will advise the village council, the village manager, and/or the planning and zoning officer on questions of interpretation of this chapter, provide guidelines for new construction and installations. In addition, this advisory committee will provide outdoor lighting resources and information materials to the village for distribution to the community. (Ord. 331, 3-8-2005)