

To see if the Town will vote to amend Chapter 10 of the General Bylaws, known as the Zoning Bylaws by adding a new Subsection XX: Lighting to Section VI: Area Regulations, as follows:

## **1. Definitions**

**Low Voltage Landscape Lighting:** Landscape lighting powered at less than 15 volts and limited to luminaires having a rated initial luminaire lumen output of 525 lumens or less.

**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.

## **2. Purpose**

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

- a. Minimize adverse offsite impacts of lighting such as light trespass, and obtrusive light.
- b. Curtail light pollution, and help protect the natural environment from the adverse effects of night lighting.
- c. Conserve energy and resources to the greatest extent possible.

## **3. General Requirements**

### A. Conformance with All Applicable Codes

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.

### B. Applicability

This lighting is applicable to applicants seeking site plan approval from the Planning Board or a special permit from either the Planning Board or the Zoning Board of Appeals for a nonresidential use or for a residential development of four or more dwelling units.

Except as described below, all outdoor lighting installed after the date of effect of this Ordinance shall comply with these requirements. This includes, but is not limited to, new lighting, replacement lighting, or any other lighting whether attached to structures, poles, the earth, or any other location, including lighting installed by any third party.

All lighting shall follow provisions in this ordinance; however, lighting required by federal or state laws or regulations shall take precedence.

The following are not regulated by this bylaw

- a. Lighting for statuary.
- b. Lighting solely for signs (lighting for signs is regulated by the Sign Bylaw).
- c. Temporary lighting for theatrical, television, performance areas and construction sites;
- d. Underwater lighting in swimming pools and other water features
- e. Temporary lighting and seasonal lighting.
- f. Lighting that is only used under emergency conditions.
- g. Low voltage landscape lighting controlled by an automatic device that is set to turn the lights off at one hour after the site is closed to the public or at a time established by the permit-granting body.

## **4. Lighting Principles and Requirements**

### **A. Lighting Principles**

The Planning Board or the Zoning Board of Appeals shall use the following principles when evaluating the proposed lighting.

Lighting should:

- Only be on when needed
- Only light the area that needs it
- Be no brighter than necessary
- Minimize blue light emissions
- Be fully shielded (pointing downward)

### **B. General Lighting Requirements**

1. The Planning Board or the Zoning Board of Appeals shall use the following principles when evaluating the proposed lighting.
  - Lighting fixtures shall have no light emitted above 90 degrees.

- Lighting fixtures shall either have the Fixture Seal of Approval from the International Dark-Sky Association or be consistent with the requirements of the Fixture Seal of Approval program.
- The color temperature configuration of the fixture shall be 3000K and lower (up to 3220K actual measured value).
- Outdoor lighting for businesses may be on one hour before the business opens for the day and one hour after it closes for the evening. Automatic lighting controls are recommended.
- Outdoor lighting for multiunit residential should be at the minimum level for safety between 11pm and 5am

### C. Prohibited Lighting

The following lighting systems are prohibited from being installed or used:

- a. Temporary lighting in which any single luminaire exceeds 20,000 initial luminaire lumens or the total lighting load exceeds 160,000 lumens.
- b. Aerial Lasers.
- c. Searchlights.
- d. Other very intense lighting defined as having a light source exceeding 200,000 initial luminaire lumens or an intensity in any direction of more than 2,000,000 candelas.