89-48. Outdoor lighting. [Amended by Ord. No. 16-93; 3-97; 2-22-2006 by Ord. No. 4-2006]

A. Purpose. The governing body of the Borough of Eatontown does herein find that regulation of outdoor lighting in the Borough of Eatontown is necessary to prevent misdirected or excessive artificial light, caused by inappropriate or misaligned light fixtures that produce glare, light trespass (nuisance light) and/or unnecessary sky glow; and also that such regulation is necessary to discourage the waste of electricity and to improve or maintain nighttime public safety, utility and security.

B. All outdoor light fixtures installed and thereafter maintained, other than those serving one- and two-family dwellings, shall comply with the requirements as specified below:

1. Where used for security purposes or to illuminate walkways, roadways and parking lots, only shielded light fixtures shall be used.

2. Where used for commercial and industrial purposes, such as in merchandise display areas, work areas, platforms, signs, architectural, landscape or sports or recreational facilities, all light fixtures shall be equipped with automatic timing devices and comply with the following:
   a. Light fixtures used to illuminate flags, statues or any other objects mounted on a pole, pedestal or platform shall use a narrow cone beam of light that will not extend beyond the illuminated object.
   b. Other upward-directed architectural, landscape or decorative direct light emissions shall have at least 90% of their total distribution pattern within the profile of the illuminated structure.
   c. Recreational and sports facility lighting shall be shielded whenever possible. Such lighting shall have directional and glare control devices, when necessary, to comply with Subsection C.
   d. Externally illuminated signs, including commercial billboard, building identification or other similar illuminated signs, shall comply with the following:
      [1] Top-mounted light fixtures shall be shielded and are preferred.
      [2] When top-mounted light fixtures are not feasible, illumination from other positioned light fixtures shall be restricted to the sign area. Visors or other directional control devices shall be used to keep spill light to an absolute minimum.
   e. All other outdoor lighting shall use shielded light fixtures.

3. All floodlight-type fixtures, once properly installed, shall be permanently affixed in the approved position.

4. Foundations supporting lighting poles not installed four feet behind the curb shall not be less than 24 inches above ground.

5. When 50% or more of existing outdoor light fixtures are being replaced or modified,
then all lighting must be made to conform with the requirements of this section.

C. Light trespass (nuisance light). All light fixtures, except street lighting and those used on one- or two-family dwellings, shall be designed, installed and maintained to prevent light trespass, as specified in Subsection C(1) and (2) below.

(1) At a height of five feet above the property line of the subject property, illuminations from light fixtures shall not exceed 0.1 footcandle in a vertical plane on residentially zoned property.

(2) Outdoor light fixtures installed and thereafter maintained shall be directed so that there will not be any objectionable direct glare source visible above a height of five feet from any property or public roadway.

D. Illuminance and luminance requirements. Illuminance and luminance requirements shall be as set forth in the current editions of the IESNA Lighting Handbook and other IESNA publications, and this chapter shall adopt those standards.

(1) Streetlighting. Average IESNA illuminance recommendations should not be exceeded. IESNA average-to-minimum illuminance uniformity ratios are to be used as a guide for designing safe and adequate roadway lighting.

(2) Outdoor parking facilities. Outdoor parking lot illuminance shall be based on certain illuminance specifications recommended by the IESNA, as contained in Schedule A. Editor's Note: Schedule A is included at the end of this section.

(3) All other illuminance uses shall not exceed IESNA recommendations.

(4) Internally illuminated signs shall not exceed IESNA luminance recommendations.

E. Electric utility floodlights. No electric utility floodlight intended for property illumination shall be located within the public right-of-way on any public roadway or on any property unless:

(1) The luminaire is sufficiently shielded and aimed so that no objectionable direct glare source is visible at any point on the roadway where the viewing height is five feet or greater and when the distance from the mounting pole is 70 feet or greater.

(2) The property being illuminated does not exceed the maximum maintained illuminance levels to perform the lighting task prescribed in Subsection D, Illuminance and luminance requirements, of this section.

(3) All electric utility floodlights shall be subject to the requirements in Subsection C, Light trespass (nuisance light).

Schedule A

Maintained Illuminance for Parking Lots

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>Enhanced Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal illuminance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>0.2 fc</td>
<td>0.5 fc</td>
</tr>
<tr>
<td>Average</td>
<td>1.0 fc</td>
<td>2.5 fc</td>
</tr>
<tr>
<td>Uniformity ratios</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average-to-minimum</td>
<td>5:1</td>
<td>5:1</td>
</tr>
<tr>
<td>Maximum-to-minimum</td>
<td>20:1</td>
<td>15:1</td>
</tr>
<tr>
<td>Minimum vertical illuminance</td>
<td>0.1 fc</td>
<td>0.25 fc</td>
</tr>
</tbody>
</table>
Notes:
1. Minimum horizontal illuminance shall be no lower than 0.2 fc.
2. Average horizontal illuminance shall not exceed 2.5 fc.
3. Uniformity ratios are to be used as a guide.
4. Minimum vertical illuminance shall be measured at 5.0 feet above parking surface at the point of lowest horizontal illuminance, excluding facing outward along boundaries.
5. For typical conditions: During periods of nonuse, the illuminance of certain parking facilities should be turned off or reduced to conserve energy. If reduced lighting is to be used only for the purpose of property security, it is desirable that the minimum (low point) not be less than 0.1 hfc in susceptible areas of the property. Reductions should not be applied to facilities subject to intermittent night use, such as apartments, hospitals and active transportation areas.
6. If personal security or vandalism is a likely and/or severe problem, an increase above the basic level may be appropriate.
7. High vehicular traffic locations should generally require the enhanced level of illumination. Exits, entrances, internal connecting roadways and such would be some examples.
8. Increasing the above illuminance is not likely to increase safety and security. Variance requests for higher levels will generally be for "retail" reasons and should not be granted unless shown to be necessary and at an average illuminance not to exceed 3.6 fc.

Chapter 218 Noise and Glare Nuisances
3-6

OBJECTIONABLE DIRECT GLARE SOURCE — Glare resulting from excessive levels of illumination or insufficiently shielded light sources emanating from light fixtures in the field of view where the lens, lamp or reflector is offensively visible above a height of five feet at a property line or a public roadway. Added 3-22-2006 by Ord. No. 11-2006]

218-2 Applicability

D. This chapter, as it applies to glare nuisance, shall be applicable to the following property categories:
   (1) Industrial facilities;
   (2) Commercial facilities;
(3) Public service;
(4) Community service facilities;
(5) Multi-use properties;
(6) Public and private rights-of-way;
(7) Public spaces;
(8) Multi-dwelling-unit buildings.