

Article XIII: Light Trespass

1. Purpose

The intent of this ordinance is to maintain the rural character of Candia in part by the dark night-time skies, reducing light trespass and to minimize the impact of artificial lighting on nocturnal wildlife. This ordinance recognizes the importance of lighting for safety and security while encouraging energy efficiency and promoting neighborly relations by preventing glare from outdoor lights from intruding on nearby properties or posing a hazard to pedestrians or drivers.

2. Definitions

Direct Light: Light emitted directly from the lamp, off of the reflector or reflector diffuser, or through the refractor or diffuser lens, of a luminaire.

Fixture: The assembly that houses the lamp or lamps and can include all or some of the following parts: a housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror, and/or a refractor or lens.

Lamp: The component of a luminaire that produces the actual light.

Luminaire: A complete lighting assembly that includes the fixture and its lamp or lamps.

Flood or Spotlight: Any light fixture or lamp that incorporates a reflector or a refractor to concentrate the light output into a directed beam in a particular direction.

Glare: Light emitting from a luminaire with intensity great enough to reduce a viewer's ability to see.

Height of Luminaire: The height of a luminaire shall be the vertical distance from the ground directly below the centerline of the luminaire to the lowest direct-light-emitting part of the luminaire.

IESNA: Illuminating Engineering Society of North America.

Indirect Light: Direct light that has been reflected or has scattered off of other surfaces.

Light Trespass: The shining of light produced by a luminaire beyond the boundaries of the property on which it is located.

Lumen: A unit of luminous flux. One foot candle is one lumen per square foot. For the purposes of this ordinance, the lumen-output values shall be the initial lumen output rating of a lamp.

Outdoor Lighting: The night-time illumination of an outside area or object by any manmade device located outdoors that produces light by any means.

Temporary Outdoor Lighting: The specific illumination of an outside area or object by any manmade device located outdoors that produces light by any means for a period of less than seven days with at least 180 days passing before being used again.

3. Scope

A. All public and private outdoor lighting installed on the Town of Candia shall be in compliance with the requirements established by this ordinance.

4. Outdoor Lighting Requirements

A. Any luminaire emitting *more than* 1800 lumens (with 1,700 lumens being the typical output of a 100-watt incandescent bulb) shall be fully shielded so as to produce no light above a horizontal plane through the lowest direct light-emitting part of the luminaire. (Such fixtures usually are labeled Dark Sky Certified or Compliant.)

B. Any luminaire with a lamp or lamps rated at 1800 lumens *or less*, and all flood or spot lights with a lamp or lamps rated at 900 lumens *or less*, may be used without restriction to light distribution or mounting height, except that, to prevent light trespass, if any flood or spot light is aimed, directed or focused so as to cause direct light from the luminaire to be directed toward residential buildings on abutting or nearby land, or to create glare perceptible to pedestrians or persons operating motor vehicles on public ways, the luminaire shall be redirected, or its light output reduced or shielded, as necessary to eliminate such conditions. The maximum height of any luminaire shall not exceed 20 feet.

C. Any luminaire used to illuminate a public area such as a street or walkway shall utilize an energy efficient lamp such as a low-pressure sodium lamp, high pressure sodium lamp or metal halide lamp or other energy efficient technologies.

D. Luminaires used in public areas such as roadway lighting, parking lots and for exterior building illumination shall be designed to provide the minimum illumination recommended by the IESNA in the most current edition of the IESNA Lighting Handbook.

E. To protect light-sensitive wildlife habitats light fixtures shall be minimized and fully shielded to prevent lateral emission.

F. Whenever practicable, outdoor lighting installations should include timers, dimmers, and/or motion sensors to reduce overall energy consumption and eliminate unneeded lighting, particularly after 10 p.m.

G. Moving, fluttering, blinking, or flashing, neon or tubular lights shall not be permitted, except as temporary seasonal holiday decorations.

H. Luminaires mounted on a gas station canopy shall be recessed in the ceiling of the canopy so that the lens cover is recessed or mounted flush with the ceiling of the canopy and fully shielded. Luminaires shall not be mounted on the sides or top of the canopy, and the sides or fascia of the canopy shall not be illuminated.

5. Exemptions

A. Luminaires used for public roadway illumination may be installed at a maximum height of 25 feet and may be positioned at that height up to the edge of any bordering property.

B. All lighting required by federal or New Hampshire state law as well as all lighting required by emergency or town services.

C. Seasonal holiday lighting and illumination of the American and state flags shall be exempt from the requirements of this ordinance, providing that such lighting does not produce glare on roadways and neighboring residential properties.

D. Installations existing prior to the enactment of this ordinance are exempt from its requirements. However, any changes to an existing lighting system, fixture replacements, or any grandfathered lighting system that is moved, must meet these standards. Lighting that directly illuminates adjoining property or presents a hazard to drivers or pedestrians shall not be grandfathered.

6. Temporary Lighting

A. Any temporary outdoor lighting for construction or other purposes that conforms to the requirements of this article shall be allowed. Non-conforming temporary outdoor lighting may be permitted by the planning board after considering:

1. The public and/or private benefits that will result from the temporary lighting.
2. Any annoyance or safety problems that may result from the use of the temporary lighting.
3. The duration of the temporary non-conforming lighting.

7. Public Area and Roadway Lighting

Installation of any new public area or roadway lighting fixtures other than for traffic control shall be permitted only by decision of the planning board, following a duly noticed public hearing.