

SECTION XVIII
OUTDOOR LIGHTING ORDINANCE

18.1 TITLE AND AUTHORITY

- 18.1.1 This Ordinance shall be known and cited as the “Outdoor Lighting Ordinance” for the Town of Hopkinton, New Hampshire.
- 18.1.2 This Outdoor Lighting Ordinance was adopted by the Town of Hopkinton, NH on March 14, 2005 and is effective the same date.
- 18.1.3 The authority for this Ordinance is found in New Hampshire Revised Statutes 674:16 (Grant of Power) and 674:21 (Innovative Land Use Controls).

18.2 PURPOSE AND INTENT

- 18.2.1 Pursuant to recommendations of the Town of Hopkinton Master Plan Chapter IV – Current and Future Land Use, the purpose of this Ordinance is to provide guidelines and standards for outdoor lighting.
- 18.2.2 It is the intent of this Ordinance to recognize the benefits of outdoor lighting and provide guidelines for its installation so as to help maintain and compliment the character of Hopkinton. Appropriately regulated, and properly installed, outdoor lighting will contribute to the safety and welfare of the residents of the Town while eliminating excessive glare, light trespass, loss of privacy, and forms of signage which should not be permitted.
- 18.2.3 It is the intent of this Ordinance to encourage, through the regulation of the types, kinds, construction, installation, and uses of outdoor electrically powered illuminating devices, lighting practices, and systems, to conserve energy without decreasing safety, utility, security, and productivity while enhancing nighttime enjoyment of property.
- 18.2.4 It is also the intent of this Ordinance to minimize the intrusion of lighting across property lines, therefore avoiding disruption of the quality of life for nearby private residences, and, to avoid the disruption of natural instinctive cycles of flora and fauna within nearby natural areas.
- 18.2.5 The provisions of this Ordinance are not intended to prevent the use of any design, material, any method of installation, or any operation not specifically prescribed by this Ordinance, provided any such alternate has been approved by the Planning Board.

18.3. APPLICABILITY AND REGULATIONS:

- 18.3.1 All outdoor electrically powered illuminating devices shall be installed in conformance with the provisions of this Ordinance, the Building Code, the Electrical Code, and the Section VII of the Zoning Ordinance (“Sign Ordinance”) of the Town of Hopkinton as applicable and under appropriate permit and inspection. All previous language in Hopkinton bylaws and ordinances regarding outdoor lighting is replaced with this ordinance.

18.3.2 General Lighting Restrictions:

- A. Any luminaire with a lamp or lamps rated at a total of MORE than 2000 lumens, and all flood or spot luminaries with a lamp or lamps rated at a total of MORE than 2000 lumens shall be fully shielded.

- B. Any luminaire with a lamp or lamps rate at a total of MORE than 2000 lumens, and all flood or spot luminaires with a lamp or lamps rated at a total of MORE than 2000 lumens, shall be mounted at a height equal to or less than the value $3 + (D/3)$, where D is the distance in feet to the nearest property boundary. The maximum height of the luminaire may not exceed 25 feet.
- C. No luminaire may be aimed, directed or focused so as to cause direct light from the luminaire to be projected onto adjacent or nearby properties or to create glare perceptible to persons operating motor vehicles on public (or private) ways.
- D. Lighting shall be designed to limit any increase in off-site illumination to a maximum or two-tenths (.0.2) of a foot candle as measured at all property boundary lines.

18.3.3 Canopies: Luminaries mounted on a 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 is fully shielded. Luminaries shall not be mounted on the sides or top of the canopy, and the sides or fascias of the canopy shall not be illuminated.

18.3.4 Outdoor Advertising Signs:

- A. Top Mounted Fixtures Required: Lighting fixtures when used to illuminate an outdoor advertising sign shall be mounted on the top of the sign structure. All such fixtures shall comply with the shielding requirements of Section 3.2 above. Bottom-mounted outdoor advertising-sign lighting shall not be used.
- B. Internally Illuminated signs are prohibited: Internally illuminated signs within a building which are visible from the exterior of the building are also prohibited.
- C. Compliance Limit: Existing outdoor advertising structures shall be brought into conformance with this Ordinance within ten years from the date of adoption of this provision.
- D. Prohibitions: Electrical illumination of outdoor advertising off-site signs is prohibited.

18.3.5 Prohibitions:

- A. Laser Source Light. The use of laser source light or any similar high intensity light for outdoor advertising, when projected above the horizontal is prohibited.
- B. Searchlights. The operation of searchlights for advertising purposes is prohibited.
- C. Flashing and rotating lights are prohibited.

18.3.6 Non-Conforming Outdoor Lighting:

- A. Nonconforming temporary outdoor lighting may be permitted by the Planning Board after considering the public and/or private benefits that will result from the outdoor lighting as well as considering any annoyance or safety problems that may result from the use of the outdoor lighting.
- B. The applicant shall submit a detailed description of proposed nonconforming lighting to the Planning Board, who shall consider the request at a duly called public meeting.

18.4. EXCEPTIONS: The following are exempt from these regulations:

- 18.4.1 Temporary luminaries required for construction projects.
- 18.4.2 Luminaries related to police, fire, or other emergency services.
- 18.4.3 Hazard warning luminaries required by Federal regulatory agencies.
- 18.4.4 Temporary seasonal luminaries (not to exceed 45 days) in any calendar year.
- 18.4.5 Events pursuant to the authority of the Board of Selectmen and Zoning Board of Adjustment.
- 18.4.6 Lighting of architecturally significant buildings, structures, or monuments or building features subject to Planning Board approval.

18.5. DEFINITIONS - For the purposes of this Ordinance, terms used shall be defined as follows:

Cut-off Angle (of a luminaire): The angle, measured up from the nadir, between the vertical axis and the first line of sight at which the bare source is not visible.

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.

Flood or Spot light: 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.

Fully Shielded Lighting: Lighting in which the light rays emitted by the fixture are projected below the horizontal plane.

Glare: Light emitting from a fixture with intensity great enough to reduce a viewer's ability to see, and in extreme cases causing momentary blindness.

Internally Illuminated Sign: Internally illuminated means a sign illuminated by light sources enclosed entirely within the sign cabinet and not directly visible from outside the sign.

Light Trespass: Any artificial light falling outside of the boundaries of the property upon which it is installed.

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 ratings of a lamp.

Luminaire: This is a complete lighting system, and includes a lamp or lamps and a fixture.

Outdoor Lighting Fixture: Outdoor electrically powered illuminating devices, outdoor lighting or reflective surfaces, lamps and similar devices, permanently installed or portable, used for illumination, decoration, or advertisement. Such devices shall include, but are not limited to search, spot, and flood lights at or on

1. Buildings and structures,
2. Recreational areas,
3. Parking lot lighting,
4. Landscape lighting,
5. Billboards and other signs (advertising or other),
6. Street lighting,
7. Product display area lighting.

Photometric / Photometry: The measurement of light as produced by specific light fixtures indicating the foot-candle intensities of visible light.

18.6 SUBMISSIONS:


18.6.1 Commercial, Retail, and multifamily projects shall comply with the following submission requirements in addition to any other requirements within the zoning ordinance.

18.6.2 Submission Contents: The applicant for any permit required by any provision of the laws of this jurisdiction in connection with proposed work involving outdoor lighting fixtures shall submit (as part of the application for permit) evidence that the proposed work will comply with this Ordinance. The submission shall contain but shall not necessarily be limited to the following, all or part of which may be part or in addition to the information required elsewhere in the laws of this jurisdiction upon application for the required permit:

- A. Plans indicating the location on the premises, and the type of illuminating devices, fixtures, lamps, supports, reflectors, and other devices;
- B. Description of the illuminating devices, fixtures, lamps, supports, reflectors, and other devices and the description may include, but is not limited to, catalog cuts by manufacturers and drawings;
- C. Photometric data, such as that furnished by manufacturers or similar showing the angle of cut off or light emissions.

18.6.3 Additional Submission: The above required plans, descriptions and data shall be sufficiently complete to enable the plans examiner to readily determine whether compliance with the requirements of this Ordinance will be secured. If such plans, descriptions and data cannot enable this ready determination, by reason of the nature or configuration of the devices, fixtures, or lamps proposed, the applicant shall additionally submit as evidence of compliance to enable such determination such certified reports of tests as will do so provided that these tests shall have been performed and certified by a recognized testing laboratory.

The chart below is provided to assist the reader in understanding the lumen output values. The chart is not intended to be adopted as part of this ordinance.

Type		Shape	Wattage	Lumens	Life/Hours	
Incandescent	A19	Standard soft white bulb	100W	1690	750	A19
Incandescent	A19	Standard A19 clear	100W	1720	750	
Incandescent	A19	Standard A19 clear	75W	1200		
Incandescent	A19	Standard soft white bulb	60W	850	1,000	
Incandescent	A19	Sylvania "daylight"	60W	640		
Incandescent	R30/FL	Flood Light	65	640	2,000	

Incandescent	150FL	Flood Light	150W	1350	2000	
Compact Fluorescent	CF	Sylvania Dulux	30W	2000	6,000	
Compact Fluorescent	CF	Sylvania Dulux	20W	1200	10,000	
Compact Fluorescent	CF	Sylvania Dulux	13W	800	8,000	
Compact Fluorescent	CF/BR	Sylvania Dulux / Reflector	15W	560	6,000	
Halogen	PAR/38	Halogen Flood light	120W	1800	3000	
Halogen	BT	Sylvania Halo Bright	100W	1710	3,000	
Halogen	BT	Sylvania	60W	880	3,000	