

Sec. 20-1065. – Outdoor lighting.

(a) Purpose.

The outdoor lighting regulations of this article are primarily intended to advance the general purposes of this zoning ordinance and to:

- (1) Provide adequate light for safety and security;
- (2) Promote efficient and cost-effective lighting and to conserve energy;
- (3) Reduce light pollution, light trespass, glare and offensive light sources;
- (4) To help avoid unsafe and unpleasant conditions as the result of poorly designed or installed outdoor lighting; and
- (5) To discourage excessive lighting.

(b) Applicability.

The outdoor lighting regulations of this article apply to all outdoor lighting installed after [insert the effective date of the ordinance], except that they do not apply to any of the following:

- (1) Public street lights;
- (2) Approved signs;
- (3) Safety lights required by state or federal regulations;
- (4) Spotighting of official government flags, provided that such lighting consists of no more than one fully shielded spotlight light fixture placed as close to the base of the flagpole as reasonably possible;
- (5) Outdoor lighting used exclusively for and during public recreational activities, sporting events at stadiums and ball fields or other outdoor public spaces or venues, provided such lighting is extinguished by 11 p.m.;
- (6) Low-voltage (12 volt maximum), low-wattage ornamental landscape lighting fixtures, and solar operated light fixtures with self-contained rechargeable batteries, provided that any single light fixture does not exceed 100 lumens, based on the manufacturer's specifications.
- (7) Soffit or wall-mounted luminaries that are permanently attached to buildings occupied by one or 2 dwelling units, provided that they are mounted below the eave and directed away from abutting residential uses.
- (8) Outdoor lighting used for emergency equipment and work conducted in the interest of law enforcement or for public health, safety or welfare;
- (9) Outdoor lighting in association with special events approved by the village; and

- (10) Customary holiday lights displayed for no more than 30 days before or after the subject holiday.
- (11) Temporary and/or mobile lighting from agricultural activities in an Agricultural District.

(c) Prohibited lighting.

The following light fixtures and sources are prohibited:

- (1) Mercury vapor lamps;
- (2) Low-pressure sodium lamps;
- (3) Blinking, flashing, moving, revolving, flickering, changing intensity or color, and chase lighting;
- (4) Any light fixture that may be confused with or construed as a traffic control device or emergency vehicle lights;
- (5) Any upward oriented lighting except as otherwise expressly allowed in this article;
- (6) Searchlights, beacons, and laser source light fixtures;
- (7) Exposed linear lamps that include, without limitation, neon, Light Emitting Diode (LED), and fluorescent lighting, primarily intended as an architectural highlight to attract attention or used as a means of identification or advertisement;
- (8) Any lamp or bulb, except for seasonal displays and landscape ornamental lighting, that is visible beyond the property line of the lot on which it is located; and
- (9) Any lamp or bulb with a correlated color temperature (CCT) that exceeds 4,000 degrees Kelvin, based on the manufacturer's specifications.
- (10) Any private light fixture that is placed in the public right of way or easement dedicated for use as a public right-of-way.

(d) Design standards.

- (1) *Shielding.* All light sources must be concealed or fully shielded to minimize the potential for glare and unnecessary diffusion and light trespass onto adjacent property.
- (2) *Fixture Height.* Freestanding lighting fixtures, including base, pole and luminaire, may not exceed the height limits of Table 1.

TABLE 1 – MAXIMUM FIXTURE HEIGHTS			
Location	R Districts, C Districts, and P.U.D. with Underlying Residential	P Districts	All Other Districts
In Parking Lots	20 Feet	20 Feet, but 20 feet within 50 feet of R zoned lot	30 feet, but 20 feet within 50 feet of R district
In parking lots and outdoor storage areas 3 acres or larger	20 Feet		35 feet, but 20 feet within 50 feet of R district
All other areas	15 feet	20 feet	15 feet

- (3) *Maximum light levels at lot lines.*
- a. The maximum light level at any point on a lot line may not exceed 0.5 footcandles within or adjacent to a residential zoning district or 2.0 footcandles within all other zoning districts.
 - b. The maximum light level at any point on a lot line butting a public right-of-way may not exceed 1.2 footcandles.
 - c. Illumination measurements must be taken from the top of the fence or wall along the lot line or at a height of 4.5 feet above finished grade at the lot line if there is no fence or wall.
 - d. Lighting intensity regulations of this section do not apply to abutting properties under common ownership.
- (4) *Minimum parking lot lighting.* A minimum of 0.5 foot-candle of illumination is required in all parking areas, including the parking surface and drive aisles.
- (5) *Lights Adjacent to Residential Zoning Districts, Residential Uses, or Public Rights of Way.* Any light fixture located within 10 feet of an R-zoned, a lot occupied by a residential dwelling unit, or a public right-of-way must be:
- a. Aimed away from such lots and rights-of-way; and

- b. Shielded on the side closest to such lots and rights-of-way.
- (6) *Building Mounted Lighting.* Building mounted security light fixtures such as wall packs may not project above the fascia or roof line of the building and must be full cut-off. Building mounted fixtures may not be substituted for parking area or walkway lighting and are restricted to use in loading areas, storage areas, service areas, and similar locations.
- (7) *Canopy Lighting.* Lighting fixtures mounted under fueling station, automatic teller machine, and similar canopies must be aimed downward and installed so that the bottom of the light fixture or its lens, whichever is lower, is recessed or mounted flush with the bottom surface of the canopy. A full cutoff light fixture may project below the underside of a canopy. All light emitted by an under-canopy fixture must be substantially confined to the ground surface directly beneath the perimeter of the canopy. No lights are permitted on the top or sides of a canopy.
- (8) *Architectural Lighting of Building Facades.* The lighting of a building facade for architectural, aesthetic, or decorative purposes is permitted subject to the following restrictions:
- a. Building facade lighting must be fully shielded, fully confined from projecting into the sky by eaves, roofs, or overhangs, and mounted as flush to a wall as possible.
 - b. Building facade lighting must be fully contained within the vertical surface of the wall being illuminated.
- (9) *Lighting for Security Purposes.* Motion detector security lights, which are normally "off" and which are activated "on" for less than 4 minutes occasionally when motion is detected, are exempt from the requirements of this ordinance, but are not exempt from the requirements of Sections (d) (1), (2), (3), and (6) of this ordinance.
- (e) Light plans.
- (1) *When Required.* Outdoor lighting plans must be included with all required site plans, or if no site plan is required, with building permit applications, provided that lighting plans are required for residential projects only when any single outdoor light fixture exceeds 2,600 lumens output, based on the manufacturer's specifications.
- (2) *Required Information.* Lighting plans must include the following information:
- a. Plans indicating the location, type, intensity, and height of luminaires including both building- and ground-mounted fixtures;
 - b. A description of the luminaires, including lamps, poles or other supports and shielding devices, which may be provided as catalogue illustrations from the manufacturer;

- c. Photometric data, such as that furnished by the manufacturer, showing the angle of light emission and the foot-candles on the ground; and
- d. Additional information as may be required by the zoning administrator in order to determine compliance with this article.

(f) Measure of illumination.

- (1) Light levels expressed in terms of maximum foot-candles must be measured with a direct-reading, light meter.
- (2) For the purpose of measuring footcandles along property lines, the light meter's sensor must be located at the top of any visual screening fence or wall along on the property line (or at a height of 4 feet above finished grade at the property line if there is no fence or wall), aimed towards the subject property in horizontal position. Readings must be recorded after the value has stabilized. Measurements are made after establishment of darkness, first with the light sources to be measured illuminated, and then with those light sources extinguished. The difference between these readings must then be compared to the maximum allowed illumination at the property line. In this way, contributions to light levels by the moon and other ambient light sources are eliminated and the light intensity from the subject light sources can be accurately determined.

(g) Definitions.

- (1) The definitions of this section supplement the general definitions for the purpose of interpreting and administering the outdoor lighting regulations of this article.
 - a. Fixture. A complete lighting assembly (including the lamp, housing, reflectors, lenses, and shields), less the support assembly (pole or mounting bracket); a light fixture. Includes luminous tubes, lamps or similar devices, permanently installed or portable, used for illumination, decoration, or advertisement.
 - b. Footcandle. A quantitative unit measuring the amount of light cast onto a given point, measured as one lumen per square foot.
 - c. Fully Shielded (Full-Cutoff) Fixture. A light fixture shielded or constructed in such a manner that it emits no light above the horizontal plane through the luminaire's lowest light-emitting part.
 - d. Glare. Intense or blinding light that is sufficiently brighter than the level to which the eyes are adapted, to cause visual discomfort, or loss of visual performance and ability.
 - e. Light Source. The element of a lighting fixture that is the point of origin of the lumens emitted by the fixture.
 - f. Light Trespass. Light falling where it is not wanted or needed including spill light and obtrusive light.

- g. Lumen. A quantitative unit measuring the amount of light emitted by a light source.
- h. Kelvin. A measurement used to describe the color temperature of a light source. This is the specification that gives a description of the warmth or coolness of a light source. For instance, a 1000 kelvin light source will emit a dark, low intensity, orange light and a 5000 kelvin light source will emit a bright, high intensity, white light.

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