

Draft Middleton Outdoor Lighting Code – Policy Decision Guide

The Working Draft of the Lighting Ordinance included in meeting packet (#3 refers to a couple sections of it). These policy topics were not discussed with the work group.

1. Nonconforming Exterior Lighting

The draft code proposes to use this language:

- c) Minor Additions. If a property or use with nonconforming lighting is seeking a minor addition, all new outdoor lighting shall be reviewed and brought into compliance with this Chapter, per subsection (2) above.
 - a. Any existing outdoor lighting that did not meet the requirements of this ordinance at the time it was installed shall be considered nonconforming lighting and shall be brought into compliance with this Chapter during the Site Plan review and approval process.
 - b. Any existing outdoor lighting proposed not to be altered by the minor addition shall be granted legal conforming status if the outdoor lighting met the requirements of the ordinance at the time it was installed.

This will require staff researching any previous approvals for the date in which the installation occurred and determining compliance with the old ordinance that was in place at that time. Although this could provide challenging in some cases. In contrast, the initial draft of this code was set up to apply the new standards to any new exterior lighting proposed and to grant legal conforming status to any existing fixture that would not be changed. Staff's concern with that approach was that it could prompt the installation of a non-compliant fixture prior to adoption of the new code. **Does the Plan Commission support the language as drafted?**

2. Special Uses: Vehicle Sales

As drafted, the code specifies the following:

- (a) Shielding. All display lot lighting shall utilize fully shielded luminaires that are installed in a fashion that maintains the fully shielded characteristics.
- (b) Luminance. The display lot shall be designed to achieve no greater than the minimal luminance levels for the activity as recommended by the Illuminating Engineering Society of North America (IESNA). Current IESNA standards shall be kept on file with the Zoning Administrator.
 - a. The maximum average on-site lighting of outdoor vehicle sales and gas station pump islands is 20.0 foot-candles, provided that lighting is dimmed to 3.0 foot-candles when business is closed. All under-the-canopy fixtures shall be fully recessed.

Recently, the city's consultant informed staff that Lake Geneva's dark sky ordinance states that outdoor display lighting shall be extinguished within 30 minutes after closing of

business and in no circumstance be permitted between the hours of 11 PM and 7 AM. All exterior lighting during such time period shall be a low levels for security purposes only. **Should we add this requirement here?**

Additionally, the 30-minute rule is applied to all non-residential properties. **Do we want to incorporate that in the new code, too?**

3. **Special Uses: Open Parking Facilities**

As drafted, the code includes a table (starting on page 10) specifying minimum and maximum average footcandles on pavement according to Level of Activity (High, Medium, Low). The city's project consultant recommends that we follow the approach as written in Section 33.05 (General Outdoor Lighting Standards), but they wanted to point out an approach that Lake Geneva uses in their dark sky ordinance:

<https://ecode360.com/attachment/LA3000/LA3000-098b%20Appendix%20A.pdf>

The high standards here are above what our uniform standard says (more restrictive), but the uniform standard is less restrictive than the low standards shown here. **What is the Plan Commission's preference?**

4. **Prohibited Lighting**

Section 33.10 is based on language adopted by Lake Geneva. **Do we want to incorporate this language in our ordinance?** It would mean that some special events either would no longer be able to incorporate these lighting features or they would need to receive a special exemption from the Council prior to the event.

33.10 Prohibited Lighting.

(1) The following lighting shall not be permitted within the City of Middleton:

- (a) Mobile or ground mounted searchlights, except those used for governmental or emergency purposes.
- (b) Strobe lights and laser lights, including laser light shows and aerial laser lights.
- (c) Rope lighting.
- (d) Neon lights.
- (e) Flashing, blinking, flickering, scrolling, rotating, pulsating, tracing lights or revolving lighting, unless temporarily triggered by a security system and extinguished within 30 minutes after the time of security response.
- (f) Lighting which is used to outline a building, structure, or window, including but not limited to rope, neon, and fluorescent tube lighting.
- (g) Any light fixture that may be construed as or confused with a traffic signal, traffic control device or maritime navigational markers.
- (h) Lighting that is determined by the City of Middleton Police Department to contribute to a condition of disabling or distracting glare into a public roadway.
- (i) Lighting used to illuminate property other than that on which the fixture is located and which constitutes light trespass.

33.05 GENERAL OUTDOOR LIGHTING STANDARDS

Except as otherwise expressly provided elsewhere:

(1) **Fixtures and Luminaires**

All new outdoor lighting fixtures not mounted on buildings (see Section 10.01.23 of the City of Middleton Zoning Ordinance) shall be shielded as follows:

- (a) Outdoor lighting shall use full cut-off fixtures and downward facing. No direct light shall transmit onto adjacent properties.
 - 1. Exempt from this requirement are decorative light fixtures with frosted glass lamps, and any fixtures using a light bulb with a factory-rated light output of five hundred (500) lumens or less.
- (b) Light fixtures shall not be located within required bufferyards or required minimum setbacks.
- (c) All new exterior lighting shall be light-emitting diode (LED) fixtures.
- (d) The color and design of fixtures shall be compatible with the building and public lighting in the area, and shall be uniform throughout the entire development site.
- (e) The maximum fixture mounting height and color temperature by zoning district (see Article II of the City of Middleton Zoning Ordinance, Chapter 10) shall be:

Figure 33.05a: Freestanding Outdoor Lighting Fixture Standards

Zoning District	Maximum Lumens	Lighting Fixture Type Permitted	Maximum Fixture Mounting Height	Maximum Fixture Color Temperature
SR-L, SR-M, SR-H, TR-D, TR-F, and CON	4,000 lumens	Light-Emitting Diode (LED)	8 feet	3,000K CCT
MH-D, MR-L, MR-M, MR-H, and MU-N	4,000 lumens	Light-Emitting Diode (LED)	12 feet	3,000K CCT
INST, MU-A, MU-U, MU-D, and PR	4,000 lumens	Light-Emitting Diode (LED)	20 feet	4,000K CCT
I-L, R-P, I-M, I-H, AGR, IOS, IOC, EXD, and AIR	4,000 lumens	Light-Emitting Diode (LED)	30 feet	4,000K CCT

- (f) All areas designated on required site plans for pedestrian circulation, vehicular or bicycle parking, loading, or circulation and used for any such purpose after sunset shall provide artificial illumination in such areas at a minimum intensity of 0.4 foot-candles and at a maximum intensity of one (1) foot-candle during hours of operation.

(2) **Intensity of Illumination**

- (a) In no instance shall an exterior lighting fixture be oriented so that the lighting element (or a clear shield) is visible from an adjacent property or right-of-way, outside of those lighting fixtures as specified in Section 33.05(1)(a) above. In no instance shall the amount of illumination attributable to exterior lighting, as measured at the property line, exceed 0.4 foot-candles above ambient lighting conditions on a cloudless night. Flashing, flickering or other lighting which may distract motorists are prohibited.

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- (b) The maximum average on-site lighting in nonresidential zoning districts (see Section 10.02.02 of the City of Middleton Zoning Code, Chapter 10) shall be 2.5 foot-candles, unless otherwise specified in this Chapter. See Section 33.07.
 - (c) The maximum average on-site lighting in residential zoning districts (see Section 10.02.02 of the City of Middleton Zoning Code, Chapter 10) shall be 1.0 foot-candles, unless otherwise specified in this Chapter.
 - (d) Reflected glare into the sky or onto nearby buildings, streets, or pedestrian areas is prohibited.
- (3) **On-Building Lighting**
- (a) Building mounted lights shall be mounted and installed so that all light is directed downward, unless the lights are decorative lighting in which case the light shall be directed toward the building.
 - 1. Exempt from this requirement are decorative light fixtures with frosted glass lamps, and any fixtures using a light bulb with a factory-rated light output of five hundred (500) lumens or less, unless the fixture is prohibited per Section 33.10.
 - (b) All on-building lighting shall be subject to the intensity of illumination standards in Section 33.05(2) above and all fixtures shall be fully shielded.
 - (c) No wall packs or similar lights shall be permitted unless the cutoff angle effectively eliminates visible glare from beyond the property lines.
 - (d) No lights shall be mounted above the parapet, or for pitched roofs above the eave except for motion detection security lighting, decorative building lighting.
 - (e) Functional lighting shall not exceed four thousand (4,000) lumens for an LED fixture. Decorative building or landscape lighting that does not include any lighting types in Section 33.10 shall not exceed one thousand (1,000) lumens. The illumination on any vertical surface shall not exceed 0.5 maintained foot-candles and shall not spill over roof lines or building edges.
 - 1. All new exterior lighting shall be light-emitting diode (LED) fixtures.
 - (f) The maximum light trespass allowed on adjacent properties is 0.4 foot-candles.
 - (g) If swivel mountings are used, lights may be raised a maximum of twenty (20) degrees from horizontal and must be full cutoff fixtures.
 - (h) Each exterior building entrance shall have an exterior light per the requirements of the City of Middleton Building Code (Chapter 11) and Electrical Code (Chapter 12).
 - (i) For residential uses, exterior lighting with automatic controls shall be provided so that the house numbers are visible from the adjacent street and interior drive. For units with individual exterior entrances, such lighting shall be provided so that the unit numbers are visible to pedestrians on the sidewalk.
 - (j) Exterior lighting with automatic controls shall be provided for all sidewalks and parking areas to provide safe travel between the parking areas and the building.
 - (k) Motion sensor lights shall be permitted, provided they comply with this Code, the City of Middleton Building Code (Chapter 11), and Electrical Code (Chapter 12).
- (4) **Public and Private Street Lighting**
- (a) All public street lighting shall comply with this Chapter to the extent possible consistent with professionally acceptable traffic engineering standards.

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- (b) All new street lamps on public and private streets shall be fully shielded. This requirement shall not be construed to apply to the repair or replacement of an existing lamp unless part of a larger project including replacement of all street lamps in the project area.
 - (c) Public street lighting shall be approved by the Director of Public Works.

(5) **Security Lighting**

Security lighting is a minimum amount of lighting required for all principal land uses in Article III of the Zoning Ordinance, except for single-family dwelling units, mobile or manufactured homes, duplexes, twin homes, and two flats in Section 10.03.06 (see the City of Middleton Zoning Code, Chapter 10). The purpose of security lighting is for the safety of persons and property.

- (a) Security lighting is required in all exterior or interior parking areas, service walk areas, and entrance or exits.
- (b) All security lighting fixtures shall be shielded and aimed so that illumination is directed only to the designated area. In no case shall security lighting be directed above a horizontal plane through the top of the lighting fixture, and the fixture shall include shields that prevent the light source or lens from being visible from adjacent properties and roadways.
- (c) Security lighting fixtures may be mounted on poles no higher than permitted in Section 33.05(1)(e) above and located no more than five (5) feet from the perimeter of the designated secure area.
- (d) Security lights intended to illuminate a perimeter (such as a fence line) shall include motion sensors and be designed to be off unless triggered by an intruder located within five (5) feet of the perimeter.
- (e) The maximum foot-candles allowed on adjacent property is 0.4.
- (f) The minimum foot-candles required for security lighting shall conform to the Illuminating Engineering Society of North America's (IESNA) recommendations and standards. Current IESNA standards shall be kept on file with the Zoning Administrator.
- (g) Commercial and multi-family dwelling construction sites whether new, additions or remodeling shall install the minimum security lighting in accordance with IESNA recommendations and standards to safeguard the site and materials.
- (h) Additional lumens in excess of the calculated allowance may be permitted through the design review process with a finding that exceeding the allowance is necessary to meet public safety or security needs.

(6) **Flag Illumination**

Flag lighting shall be shielded.

- (7) All outdoor lighting fixtures, unless expressly exempted from the terms of this Code must be installed and maintained according to approved plans.

(8) **Lighting Public Nuisance**

Nothing in this Chapter shall be construed to permit lighting that otherwise constitutes a public nuisance. Any lighting producing excessive glare, pollution, or trespass may be deemed a public nuisance under Chapter 17 of the Middleton Code of Ordinances or Wis. Stat. Chap. 823 subject to the remedies provided therein.



Committee or Commission Referral

Direct Referral Initiated by:
 Direct Referral Approved by:

Date Referred: **December 10, 2024** Ordinance Number: **2024-O-37**
 Date to Report Back: **February 11, 2025*** Resolution Number:

Sponsored by: Mayor Drafted by: PUBLIC WORKS

TITLE: Creating Outdoor Lighting Regulations by Creating Chapter 28 of Fitchburg General Code of Ordinances

Background: The proposed Creating Outdoor Lighting Regulations by Creating Chapter 28 of Fitchburg General Code of Ordinances, establishes outdoor lighting standards and a process for review and approval of lighting plans.

Order	Referred To	Staff Contact	Place on Agenda For	Action Taken On Referral
1	Resource Conservation Commission	Schulte	January 13, 2025	Approved as Amended
2	Board of Public Works	Voelker	January 27, 2025	2-2 vote
3	Plan Commission	Schmidt	December 17, 2024	Approved*
4	Community & Economic Development Authority	Zimmerman	January 23, 2025	Approved

Amendments:

At the December 10, 2024 Common Council meeting this resolution was referred to CEDA's January 23, 2025 meeting and the Common Council report back date was changed from January 14, 2025 to February 11, 2025.

PC 12/17/24: Postponed decision to 1/21/25 PC meeting.

PC 1/21/25: **Approved with amendment to Sec. 28.9(2) replacing the phrase "manifest injustice" with "unreasonable hardship," subject to review by the City Attorney.**

BPW 1/6/25: Postponed decision indefinitely (placed on 1/27/25 meeting).

RCC 1/13/25: Amended Sec. 28-5. – Exempt Lighting. Remove: 28-5.(6) Lighting for one and two-family dwellings.

Board of Public Works vote 2-2 at the January 27, 2025 meeting

SUPPORTING DOCUMENT FOR ORDINANCE 2024-O-37

CHAPTER 28 – DARK SKY ORDINANCE

ARTICLE I. – IN GENERAL

Sec. 28-1. – Purpose

The purpose of this chapter is to create standards for outdoor lighting that do not interfere with the reasonable use of commercial site and residential site property, that prevent light trespass, and conserve energy yet maintain night time safety. The regulations in this chapter seek to mitigate the adverse impacts of inappropriate outdoor lighting and lead to desired outcomes such as improved enjoyment of property; increased health and safety of residents and others; improved nighttime ambiance and aesthetics; and diminished adverse impacts on natural wildlife and ecosystems.

Sec. 28-2. – Definitions

Director means the city’s zoning administrator, or the director’s designee.

Full cutoff means a luminaire emitting no luminous flux above the horizontal plane. Drop lenses are not allowed. Minimal up light caused by the reflection of light from support structures or arms shall not disqualify what is otherwise defined as a full cutoff light fixture.

Holiday Lighting means any low wattage seasonal decorative lighting.

Level of Activity means the principal use for outdoor parking facilities, with activities levels Low, Medium, and High defined below:

Low Activity: E.g., employee parking, educational facility parking, office parks, multi-family parking, and church parking.

Medium Activity: E.g., shopping centers, retail parking areas, mixed use multi-family and retail parking, hospital and clinic parking areas, transportation parking (commuter lots), cultural, civic or recreational events, and fast-food facilities.

High Activity: E.g., facilities for major or league athletic events or major cultural or civic events.

Light fixture means the assembly that holds a lamp, or lamps. It includes the elements designed to give light output control, such as a reflector (mirror) or refractor (lens), the ballast, housing, and the attachment parts.

New Outdoor Lighting shall mean lighting installed after the effective date of this chapter.

Temporary Lighting means lighting installed with temporary wiring and operated for less than 60 days in any calendar year.

Sec. 28-3. – Conformance with Applicable Codes

All outdoor lighting fixtures (luminaires) shall be installed in conformance with the provisions of this chapter, the Building Code, the Electrical Code, and the Sign Code of the City as applicable and under appropriate permit and inspection.

Sec. 28-4. – Applicability

- (1) The requirements of this Code are applicable to all new outdoor lighting in new developments, buildings, additions, and structures requiring an architectural control approval as described in Section 25-1.
- (2) Lighting submitted under the SmartCode Zoning District.

Sec. 28-5. – Exempt Lighting

- (1) Code required exit signs.
- (2) Code required lighting for stairs and ramps.
- (3) Interior lighting.
- (4) Lighting required, regulated, and/or permitted by any federal, state, municipal agency.
- (5) Lighting in swimming pools and other water features governed by Article 680 of the National Electrical Code.
- (6) Lighting for one and two-family dwellings
- (7) Holiday lighting.
- (8) Temporary lighting used for emergency services.
- (9) Right of Way lighting including public streetlights.
- ~~(9)~~(10) Lighting associated with Large Scale Festival Events as outlined in Sec. 54.26 of the general code of ordinances.

Sec. 28-6. – General Requirements

- (1) All new outdoor lighting subject to regulations of this chapter under 28-4, and installed and maintained on property, private or public, shall comply with all of the following:
 - (a) Light sources shall be full cutoff fixtures with the light source fully shielded and directed downwards and inwards.
 - (b) In no instance shall the amount of illumination attributable to outdoor lighting, as measured at the property line, exceed 0.50 footcandles above ambient lighting conditions on a cloudless night.
 - (c) No lights shall be mounted above the parapet, or for pitched roofs above the eave except for motion detection security lighting, decorative building lighting.
- (2) All outdoor lighting fixtures shall be maintained according to approved plans.

Sec. 28-7. – Specific Lighting Standards

- (1) Horizontal Illuminances for Parking Facilities.
 - a. Open Parking Facilities.

Level of Activity	General Parking & Pedestrian Area	Vehicle use Area (Driveway)
	Max. Avg. Footcandles on Pavement	Max. Avg. Footcandles on Pavement
High	3.75 fc	2.5 fc
Medium	2.5 fc	1.5 fc
Low	1.5 fc	1.0 fc

b. Covered Parking Facilities.

Areas	Max. Avg. Footcandles on Pavement
General Parking and Pedestrian Areas	9 fc
Private Controlled Entry Parking	6 fc

¹ Not Mandatory within four (4) feet of the pavement edge.

- (2) Building and accent architectural lighting.
 - a. All building lighting must conform to the general requirements of Section 28.6 of this code.
- (3) Outdoor merchandizing and display lots.
 - a. The maximum initial illumination level in 75% of the lot shall not exceed 20 footcandles. A contiguous area not to exceed 25% of the lot may be illuminated to a level which shall not exceed 40 footcandles.

Sec 28-8. – Lighting Plan

- (1) Submittal Required. Any application for design review pursuant to Section 25-1 and Section 35-136 shall include evidence that the proposed work will comply with this chapter. The evidence shall include but shall not necessarily be limited to the following:
 - (a) A catalog page, cut sheet or photograph of the lighting fixtures, including the mounting method.
 - (b) A photometric data test report of the proposed lighting fixture graphically showing the lighting distribution in all angles vertically and horizontally around the fixture.
 - (c) A plot plan showing the location of all outdoor lighting fixtures proposed, the mounting or installation height, the overall initial illumination levels and uniformities and the point where 0.5 horizontal footcandles occurs on the property at ground level. This may be accomplished by means of an isolux curve or computer printout projecting the illumination levels.
- (4) Plan Review. If the Director or designee determines that the proposed lighting does not comply with this Code, the permit shall not be issued, or the plan approved.

Sec 28.9. – Special Permits

- (1) Applicant may submit an application to the Director for a Special Permit under this section for lighting systems not complying with the technical requirements of this Chapter but consistent with the intent of this Chapter.

(2) Application for a special permit shall include the basis for the application, which shall be one or more of the following: the application of this chapter may cause a manifest injustice to be done, the compliance time required for compliance with this chapter is unreasonable, an alternate plan for outdoor lighting is equally good or better than standards set by this chapter. The application shall state fully the circumstances and conditions relied upon as the basis special permit application and shall be accompanied by plans and legal description of the property involved. In addition, the request shall contain the following information:

- (a) Name, address, and telephone number of applicant;
- (b) Location of outdoor lighting fixtures for which the special permit is requested;
- (c) The nature of the circumstances which necessitate the special permit;
- (d) The use of the outdoor lighting fixture involved;
- (e) Information required under section 28-8;
- (f) For all special permit applications, applicant shall demonstrate that the proposed system utilizes fully shielded luminaires and, if required, side shielded and internally shielded luminaires that are installed in a fashion that maintains the shielding characteristics unless certified in writing by a registered engineer or by a lighting certified professional that such shielding is impractical.
- (g) An explanation of whether the lighting plan complies with the technical requirements of this section to the maximum extent practicable.

(3) The Director shall review each such application. In considering whether to approve the special permit, the Director may consider the following factors:

- (a) Special circumstances or conditions for the land, building, or outdoor lighting fixture requested;
- (b) The impact on the applicant's reasonable use of the land or buildings;
The impact of approving the special permit on the public welfare.

Sec 28-10. – Appeals

Appeals of administrative decisions under this chapter may be made to the zoning board of appeals following the procedure in section 22-642 and 22-643, which are incorporated and adopted herein by reference.

Sec 28-11. – Enforcement and Penalties

- (1) Violations Any person found to have violated or caused a violation of this Code may be subject to enforcement action as provided in this section. Each day during which the violation continues shall constitute a separate offense. The city may institute appropriate action or proceedings to enjoin violations of this Code.
- (2) Penalties Any person who fails to comply with the provisions of this Code shall, upon conviction thereof, forfeit no less than One Hundred Dollars (\$100.00) nor more than Five Hundred Dollars (\$500.00) as provided in section 1-21(b).

Mayor Arata-Fratta
Introduced by

PUBLIC WORKS
Prepared by

Resource Conservation Commission, Board of Public Works
Plan Commission
Referred to

December 10, 2024
Date

ORDINANCE 2024-O-37

**CREATING OUTDOOR LIGHTING REGULATIONS
BY CREATING CHAPTER 28 OF FITCHBURG GENERAL CODE OF ORDINANCES**

The Common Council of the City of Fitchburg, Dane County, Wisconsin ordains as follows:

Section 1 – Pursuant to Wis. Stat. 66.0103, that attached Chapter 28 entitled Outdoor Lighting, which has been available for public inspection not less than 2 weeks prior to it being enacted, is hereby adopted by reference as if fully set forth herein.

Section 2 - The City Clerk is directed to publish a copy of this enabling and to keep a copy of this enabling ordinance and attached Chapter 28 of the Fitchburg General Code of Ordinances on file in their office permanently and open for public inspection during regular office hours, as adopted hereby.

Section 3 – Except as otherwise set forth herein, after approval by the Common Council, this Ordinance and attached Chapter 28 of the Fitchburg General Code of Ordinances, described herein, as created, hereby take effect on the day after publication.

Adopted this 11th day of February, 2025.

Julia Arata-Fratta, Mayor

Tracy Oldenburg, City Clerk

Published:

B. Variance. Other modifications of this subchapter may be obtained by application for a variance.

SECTION 9. Chapter 305 ARTICLE XVIII of the Code of the Village of New Glarus is hereby created to read as follows:

ARTICLE XVIII Exterior Lighting Plans and Standards

§305-140. Purpose.

The purpose of this section is to regulate the spill-over of light and glare on operators of motor vehicles, pedestrians, and land uses in the vicinity of a light source in order to promote traffic safety and prevent the creation of nuisances. A further purpose of this section is to regulate outdoor night lighting fixtures to preserve and enhance the area's dark sky while promoting safety, conserving energy and preserving the environment for astronomy.

§305-141. Applicability and Definitions.

A. The requirements of this section apply to all private exterior lighting within the Village, except for lighting within public rights-of-way and/or lighting located on public property.

B. Definitions, for the purpose of this Article are as follows,

EXTERIOR LIGHTING - an outdoor artificial illuminating device, whether permanent or portable used for illumination or advertisement, including general lighting fixtures, searchlights, spotlights and floodlights, whether for architectural lighting, display lot lighting, parking lot lighting, landscape lighting, signage or other purposes.

SHIELDED FIXTURE - a fixture that is shielded in such a manner that light rays emitted by the fixture, either directly from the lamp or indirectly from the fixture, are projected at least fifteen degrees below a horizontal plane running through the lowest point on the fixture where light is emitted.

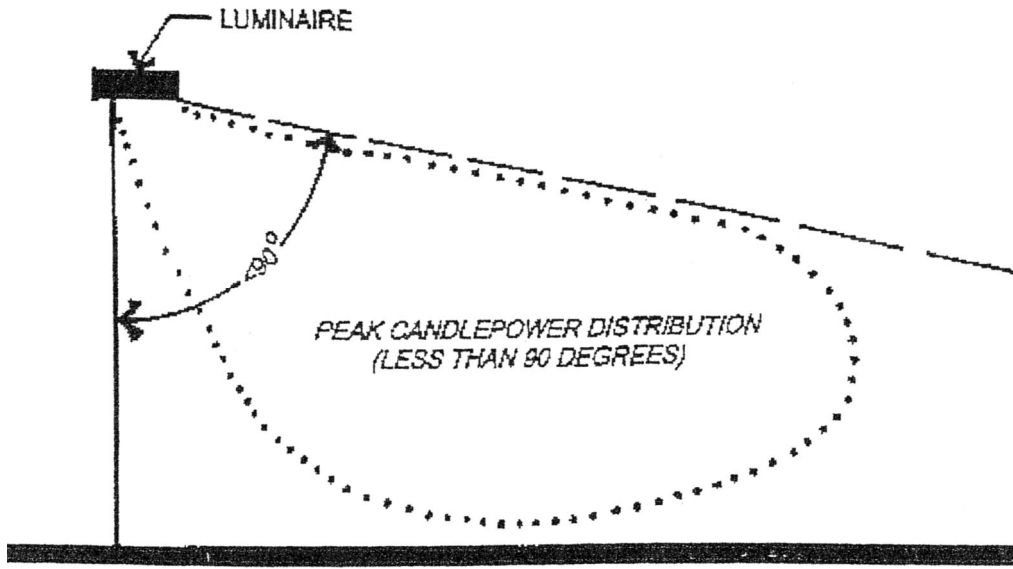
§ 305-142. Required Lighting Plan.

Where a development requires site plan review, all outdoor lighting fixtures shall be depicted and described on the required site plan or on a separate lighting plan. Depending on the complexity of the proposal or projected impact of lighting, the Village may also require the following information:

- (1) A catalog page, cut sheet, or photography of the outdoor lighting fixtures(s) including the mounting method and light cut-off angles.
- (2) A photometric plot plan, drawn to the same scale as the site plan, and indicating the location of all lighting fixtures proposed, mounting and/or installation height in feet, the average illumination level (in footcandles) within the parking lot, and illumination levels at regular intervals around the site and at property lines.

§305-143. Standards.

A. Orientation of Fixture. All exterior lighting fixtures shall be shielded fixtures, except for incandescent fixtures of 150 Watts or less, and other sources of 70 Watts or less. In no instance shall an exterior lighting fixture be oriented so that the lighting element (or a transparent shield) is visible from a property located within a residential zoning district. The use of shielded luminaries and careful fixture placement is required so as to facilitate compliance with this requirement.



B. Fixture Height. The height of any light fixture shall not exceed 15 feet for any residential use, 25 feet for LOW and MODERATE intensity non-residential uses, and 35 feet for HIGH intensity non residential uses, as defined in the table in Paragraph C below, except for athletic field lighting associated with institutional uses. The height of the pole and base shall constitute the measurement.

C. Intensity of Illumination and Filtering. In no instance shall the amount of illumination attributable to exterior lighting, as measured at the property line, exceed 0.50 footcandles above ambient lighting conditions on a cloudless night. In addition to this requirement, all exterior lighting fixtures shall not exceed the illumination levels recommended by the Illuminating Engineering Society of North America (IES) as given in the Table below. All metal halide fixtures shall be filtered by a glass or acrylic enclosure. Quartz glass shall not be considered as meeting this requirement.

IES Illumination Standards for Parking Lots

Level of Activity	Examples	General Parking & Pedestrian			Vehicle Use Only		
		Average	Minimum	Uniformity (Avg/Min)	Average	Minimum	Uniformity (Avg/Min)
High	Major League Athletic Events	3.6 fc	0.9 fc	4:1	1.8 fc	0.6 fc	3:1
	Major Cultural or Civic Events	60,000 lu ¹	15,000 lu ¹		30,000 lu ¹	10,000 lu ¹	
	Regional Shopping Centers	750 W MH	185 W MH		375 W MH	125 W MH	
		750 W HPS	185 W HPS		375 W HPS	125 W HPS	
		750 W LPS	90 W LPS		375 W LPS	65 W LPS	
Medium	Community	2.4 fc	0.6 fc	4:1	0.9 fc	0.3 fc	3:1

	Shopping Centers Cultural, Civic, or Recreational Event Office Parking Hospital Parking Transportation Parking Fast Food Facilities Residential Complex Parking	40,000 lu ¹ 500 W MH 500 W HPS 250 W LPS	10,000 lu ¹ 125 W MH 125 W HPS 65 W LPS		15,000 lu ¹ 185 W MH 185 W HPS 90 W LPS	5,000 lu ¹ 60 W MH 60 W HPS 30 W LPS	
Low	Neighborhood Shopping Industrial Employee Parking Educational Facility Parking Church Parking	0.9 fc 15,000 lu ¹ 185 W MH 185 W HPS 90 W LPS	0.18 fc 3,000 lu ¹ 35 W MH 35 W HPS 18 W LPS	4:1	0.45 fc 7,500 lu ¹ 90 W MH 90 W HPS 45 W LPS	0.12 fc 5,000 lu ¹ 25 W MH 25 W HPS 15 W LPS	4:1

¹ Assumes light is at a height of 20 feet. If light is at 30 feet the lumens needs to be doubled to achieve the same fc at the ground.

D. Minimum Lighting Standards. All areas designated on required site plans for vehicular parking, loading, or circulation and used for any such purpose after sunset shall provide artificial illumination in such areas meeting the minimum for “LOW” level of activity as defined in the table in Subsection C above during operating hours.

E. Architectural Lighting. All architectural lighting shall be of 150 Watts or less in incandescent, and shall be of 70 Watts or less for other lighting types. All architectural lighting during such period shall have a minimum of 90 percent of its light fall onto the illuminated structure, rather than into sky or space beyond the structure.

F. Hours of Illumination.

1. *Architectural Lighting.* Within one hour after closing of the store, completion of the final work shift, or completion of specific activities associated with an institutional use, only architectural lighting necessary for building security will be permitted. Under no circumstances shall the illumination of architecture other than building security lighting be permitted between 11:00 p.m. and 7:00 a.m. Public institutions and structures used primarily as places of worship are exempt from this requirement provided they comply with Section 305-143 (E.) of this Chapter.
2. *Display/Storage Lot Lighting.* Display and storage lot lighting other than security lighting shall be extinguished within one hour after closing of the business. Under no circumstances shall the illumination of display lots other than security lighting be permitted between 11:00 p.m. and 7:00 a.m. Display Lot security lighting during the periods indicated not exceed levels allowed for “LOW” intensity uses, as specified in the table in Subsection C above.
3. *Parking, Loading and Vehicular Circulation Lighting.* Within one hour after closing of the store, completion of the final work shift, or completion of specific activities associated with an institutional use, lighting of parking lot, loading and unloading areas, and other vehicular areas shall not exceed the maximum intensity allowed for “LOW” intensity uses as specified in the table in Subsection C above.

G. Lights and Fixtures Prohibited.

1. *Mercury Vapor Fixtures.* No new mercury vapor exterior lighting fixtures shall be installed following the effective date of this ordinance amendment.

2. *Flashing Lights.* Flashing, Flickering and other Distracting Lighting. Flashing, flickering and/or other lighting which may distract motorists are prohibited.
3. *Spotlights and Beacons.* Spotlights and Beacons directing light off premises, other than those required for aviation safety and navigation.

H. Nonconforming Lighting. All lighting fixtures existing prior to the effective date of this Chapter shall be considered as legal conforming structures (see Article V). To the extent permitted by technology used, existing nonconforming lighting structures shall be made to comply with operational requirements for hours of illumination, and lighting intensity requirements of the Village of New Glarus Municipal Code following the effective date of this ordinance. All replacement fixtures shall fully comply with the requirements of this section.

SECTION 10. Severability. In the event that any subsection, paragraph, sentence, clause or term contained in this ordinance shall be determined to be valid or unenforceable, such determination shall not affect the remaining provisions which shall continue to apply.

SECTION 11. Effective date. This ordinance shall take effect upon its passage as provided by law.

The foregoing ordinance was duly adopted by the Village Board of the Village of New Glarus at its regular meeting held on February 6, 2007.

Thomas C. Myers, Village President

Lynne R. Erb, Village Clerk

PRESENTED: 2/6/07

ADOPTED: 2/6/07