

City of La Crosse, Wisconsin

City Hall 400 La Crosse Street La Crosse, WI 54601

Meeting Agenda

Neighborhood Revitalization Commission

Wednesday, December 3, 2025

6:00 PM

Council Chambers - City Hall - 400 La Crosse St.

Members of the public will be able to attend the meeting in person in the Council Chambers at City Hall located at 400 La Crosse St in La Crosse or online via video conferencing with the links below.

Join Zoom Meeting:

https://cityoflacrosse-org.zoom.us/j/82155464093?pwd=aGw1NWRRUE4xM1RxajJxaTM0QkNUQT09

Meeting ID: 821 5546 4093

Passcode: 543969

Participate by phone: 1-312-626-6799

Call to Order

Roll Call

Approval of Minutes

Approval of the November 5, 2025 Meeting Minutes.

Agenda Items:

- 1. Presentation from Inspections Department.
- 25-0272 Discussion on Outdoor Lighting Regulation.

Attachments: Eau Claire Outdoor Lighting Ordinance 12/3/2025

Outdoor Lighting Research - Wisconsin Municipalities - 6/4/2025

Lighting Ordinance in other Wisconsin Municipalities

Turn Down the Lights and Turn Up Conservation Benefits APA article

Dark Skies, Bright Future APA article

DarkSky Recognized Codes and Statutes guidelines

- Update on Status of Neighborhood Associations.
- 4. Neighborhood Updates, Concerns, and Celebrations.

Adjournment

Notice is further given that members of other governmental bodies may be present at the above scheduled meeting to gather information about a subject over which they have decision-making responsibility.

NOTICE TO PERSONS WITH A DISABILITY

Requests from persons with a disability who need assistance to participate in this meeting should call the City Clerk's office at (608) 789-7510 or send an email to ADAcityclerk@cityoflacrosse.org, with as much advance notice as possible.

Neighborhood Revitalization Commission Members:

Mayor Shaundel Washington-Spivey, CM Erin Goggin, Jessica Stanton, Sean Hutubise, Ralph Geary, Robert McDonnell, Will Kratt, Lisa Walker



City of La Crosse, Wisconsin

City Hall 400 La Crosse Street La Crosse, WI 54601

Text File

File Number: 25-0272

Agenda Date: Version: 1 Status: Agenda Ready

In Control: Neighborhood Revitalization Commission File Type: General Item

Agenda Number: 2.



17.04.07. Outdoor Lighting

A. Purpose and Applicability.

- 1. **Purpose**. The standards of this Section are designed to regulate the physical effects of lighting and minimize the negative impact that lighting may have on surrounding properties. It is the intent of this section to:
 - a. Minimize light pollution, such as glare and light trespass,
 - b. Conserve energy and resources,
 - c. Maintain night-time safety and utility,
 - d. Improve the night-time visual environment, and
 - e. Help protect the natural environment from the effects of night lighting.
- 2. **Applicability**. The standards in this section shall apply to the installation of new outdoor lighting fixtures and as detailed in Chapter 1.
- 3. **Permit Required**. A Development Permit shall be required prior to the installation or replacement of outdoor lighting in all nonresidential development and all residential development, except for one- and two-unit dwellings. A photometric plan and cut sheets that include fixture photometric templates and BUG ratings for all fixtures shall be required.
- B. **Prohibitions**. The following lighting types shall be prohibited within the City of Eau Claire:
 - 1. The use of laser source light or any similar high intensity light for outdoor advertising or entertainment,
 - 2. The operation of searchlights by non-public safety personnel,
 - 3. Site lighting that may be confused with warning, emergency, or traffic signals,
 - 4. Lights that flash, move, revolve, rotate, scintillate, blink, flicker, vary in intensity or color, or use intermittent electrical pulsation, and
 - 5. Colored LED rope lighting that outlines windows, doors, or other architectural features.
- C. **Exemptions**. The following shall be exempt from the standards of this Section:
 - 1. Streetlights and other fixtures installed or temporarily used for public-roadway illumination may be installed at a maximum height of 37 feet and may be positioned at that height up to the edge of any bordering property,
 - 2. All temporary emergency lighting needed by the Police or Fire Departments or other emergency services, as well as all vehicular luminaires,



- 3. All hazard warning luminaires required by Federal regulatory agencies, except that all luminaires used must be red and must be shown to be as close as possible to the federally required minimum lumen output for the specific task,
- 4. Lighting associated with holiday, festival or other temporary uses allowed in Chapter 3,
- 5. Lighting of fountains or public art that has been permitted or otherwise approved by the City,
- 6. Other Municipal or State lighting installed for the benefit of public health, safety, and welfare, and.
- 7. Lighting of US and Wisconsin State flags provided the flag standard does not exceed the maximum permitted building height for that district.

D. Illumination Standards.

- 1. **LED Fixtures**. All outdoor lighting utilizing a light-emitting diode (LED) fixture shall meet the following standards:
 - a. **Color Rendering**. Outdoor LED fixtures shall be rated at a Color Rendering Index (CRI) value of 70 or higher.

b. Color Temperature.

- i. Outdoor LED fixtures in nonresidential development shall have a correlated color temperature (CCT) of 3,000 degrees Kelvin or lower.
- ii. Outdoor LED fixture in residential development shall have CCT of 2,700K or lower.
- iii. Outdoor LED fixtures with a CCT of up to 4,000K may be approved as an Administrative Adjustment (Section 17.12.04) to match existing fixtures installed prior to the effective date of this LDO if they are Design Lights Consortium (DLC) Light Utilized for Night Applications (LUNA) qualified and equipped with adjustable CCT setting capable of being adjusted down to 3,000K.



2. **BUG Rating**. Backlight Uplight Glare (BUG) ratings are a published luminaire classification system to comprehensively address light pollution from all directions. Streetlights and lighting fixtures shall not exceed the BUG rating established per District in Table 17.04.07(D)(2).

Table 17.04.07 (D)(2) Lighting Zone per District						
District	Lighting Zone					
NSR; GR; NR; MR; P[1]	LZ1					
UR; NC LZ2						
UC; DT	LZ2					
CC; LI; HI	LZ3					
Note						
[1] For airports, the airfield side is exempt from this ordinance and the landside shall conform to LZ3 standards.						

a. Maximum Allowable BUG Ratings.

i. A luminaire may be used if it is rated for the lighting zone of the site or lower in number for all ratings B, U, and G. Luminaires equipped with adjustable mounting devices permitting alteration of luminaire aiming more than 10 degrees (for leveling purposes) in the field shall not be permitted.

Table 17.04.07(D)(2)(a)-1 Allowed Backlight Rating [1]						
	Lighting Zone					
Location	Lighting Zone 0	Lighting Zone 1	Lighting Zone 2	Lighting Zone 3		
Greater than 2 mounting heights from property line	B1	В3	B4	B5		
1 to less than 2 mounting heights from property line and ideally oriented [2]	B1	B2	В3	B4		
0.5 to 1 mounting height from property line and ideally oriented [2]	В0	B1	B2	B3		
Less than 0.6 mounting height to property line and properly oriented [2]	В0	В0	В0	B1		

Notes

[1] For property lines that abut public walkways, bikeways, plazas, and parking lots, the property line may be considered to be five feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the center- line of the public roadway or public transit corridor for the purpose of determining compliance with this section.

NOTE: This adjustment is relative to this Table only and shall not be used to increase the lighting area of the site.

[2] To be considered 'ideally oriented', the luminaire must be mounted with the backlight portion of the light output oriented perpendicular and towards the property line of concern.



Table17.04.07(D)(2)(a)-2 Allowed Uplight Rating [1]							
Lighting Zone 0 Lighting Zone 1 Lighting Zone 2 Lighting Zone 3							
U0 U1 U1 U1							
[1] All U1 fixtures must be qualified under the Design Lights Consortium							

[1] All U1 fixtures must be qualified under the Design Lights Consortium (DLC) Light Utilized for Night Applications (LUNA) standards.

Table 17.04.07(D)(2)(a)-3 Allowed Glare Rating						
	Lighting Zone					
Location	Lighting Zone 0	Lighting Zone 1	Lighting Zone 2	Lighting Zone 3		
Ideally oriented luminaires [1]	G0	G1	G2	G3		
Any luminaire not ideally oriented [2] with 1 to less than 2 mounting heights to any property line of concern	G0	G0	G1	G1		
Any luminaire not ideally oriented with 0.5 to 1 mounting heights to any property line of concern [2]	G0	G0	G0	G1		
0.5 to 1 mounting heights from property line and ideally oriented [1]	G0	G0	G0	G0		

Notes

- [1] To be considered "ideally oriented", the luminaire must be mounted with the backlight portion of the light output oriented perpendicular and towards the property line of concern.
- [2] Any luminaire that cannot be mounted with its backlight perpendicular to any property line within 2X the mounting heights of the luminaire location shall meet the reduced Allowed Glare Rating in Table 17.04.07(D)(2)(a)-3
- 3. **Light Trespass.** Unless otherwise specified in this ordinance, light trespass shall meet the following:
 - a. Luminaire light sources shall not be visible from federal or state designated wilderness, natural area, habitat, or reserves, and light trespass shall measure no greater than 0.01 footcandles.
 - b. Light trespass onto waters of the United States shall measure no greater than 0.1 footcandles.
 - c. Light trespass onto residential use property shall measure no greater than 0.1 footcandles.
- 4. **Footcandles**. Unless otherwise specified in this ordinance, lighting installed for an outdoor use shall not exceed 25 percent more than the Light Level recommended by the applicable ANSI/IES Lighting Standard, or a state approved alternate, as published.



E. Luminaire Design Standards.

1. Fixture Classification.

- a. All outdoor lighting fixtures shall meet electrical code and the Wisconsin adopted version of the International Energy Conservation Code (IECC) and may include light emitting diode (LED) luminaires or another equally or more energy efficient fixture approved by the Zoning Administrator, per Section 17.12.04 Administrative Adjustments.
- b. All outdoor lighting fixtures shall either have a fixture cutoff classification of "Full Cutoff" and be fully shielded with a BUG rating of U0 or U1 based on Lighting Zone, unless otherwise expressly permitted in this LDO.

2. Mounting Height.

a. The maximum mounting height of all outdoor lighting shall be 30 feet unless otherwise permitted in this ordinance or approved as an Administrative Adjustment (Section 17.12.04) if all footcandle and light trespass standards are met.

F. Specific Lighting Type Standards.

1. Landscape Lighting.

- a. Landscape and decorative lighting with a light output of 500 lumens or less are permitted, provided that the light is installed, aimed, and shielded to prevent view from the property line.
- b. Fixture shall follow all footcandle and light trespass standards in this LDO and shall be controlled in accordance with the requirements for landscaping lighting in the Wisconsin adopted version of the International Energy Conservation Code (IECC).

2. Building Façade Lighting.

- a. Floodlights, spotlights, or any other similar lighting shall not be used to illuminate buildings or other site features.
- b. On-site lighting, that otherwise complies with all requirements of this LDO, may be used to accent architectural elements but not used to illuminate entire building(s).
- c. Where accent lighting is used, the maximum illumination on any vertical surface or angular roof surface shall not exceed 5.0 average maintained footcandles.
- d. Building facade and accent lighting will not be approved unless the light fixtures are selected, located, aimed, and shielded at or below a 90-degree angle as measured from vertical down to ensure that light is directed only onto the intended target and otherwise complies with all requirements of this LDO.
- e. Shall be controlled in accordance with the requirements for facade lighting in the Wisconsin adopted version of the International Energy Conservation Code (IECC),



3. Other Building Mounted Lighting.

- a. Wall mounted fixtures on buildings may be used and shall:
 - i. Be consistent or complementary in color with the color of the building materials,
 - ii. Have BUG ratings per the lighting zones and tables found in this LDO,
 - iii. Direct the light downward and shall otherwise comply with the light trespass requirements, and
 - iv. Be controlled in accordance with the requirements for other site lighting in the Wisconsin adopted version of the International Energy Conservation Code (IECC),

4. Bollard Lighting.

- a. Bollard lights shall comply with all BUG ratings and be installed to comply with light trespass standards.
- b. Bollard lights shall be controlled in accordance with the requirements for other site lighting in the Wisconsin adopted version of the International Energy Conservation Code (IECC).

5. Outdoor Display Areas.

- a. The mounting height of outdoor display area fixtures shall not exceed 30 feet above finished grade.
- b. Timers or motion sensors shall be utilized to minimize unnecessary illumination during non-operational hours. Security lighting, as approved via the photometric plan, may be permitted to remain on during non-operational hours.
- c. A photometric plan, including all lighting, shall be required to be approved by the Administrator to ensure compliance with the standards of this Section prior to the installation of outdoor display area lighting.
- Outdoor display area lighting shall be controlled in accordance with the requirements for other site lighting in the Wisconsin adopted version of the International Energy Conservation Code (IECC).
- 6. **Parking Lots.** A photometric plan shall be required to be approved by the Administrator to ensure compliance with the standards of this LDO prior to the installation of any fixture. Whether using either building or pole mounted fixtures for parking lots.
- 7. Parking lot lighting shall be controlled in accordance with the requirements for other site lighting in the Wisconsin adopted version of the International Energy Conservation Code (IECC).



8. Vehicular Canopies.

- a. Lighting under vehicular canopies shall be fully recessed into the lower surface of the canopy and shall be fully shielded utilizing flat lenses. No part of the lens shall extend below the surface of the canopy ceiling.
- b. A photometric plan shall be required to be approved by the Administrator to ensure compliance with the standards of this Section prior to the installation of vehicular canopy lighting.
- 9. **Outdoor Recreation Areas**. Ball fields, basketball courts, tennis courts, outdoor performance areas and similar outdoor recreational uses are exempt from otherwise applicable outdoor lighting standards and shall instead adhere to the requirements below.
 - a. The maximum mounting height of outdoor recreation area lighting shall not exceed 80 feet.
 - b. Lights shall be shielded and positioned so as not to shine onto adjacent right-of-way or properties.
 - c. Fixtures shall be designed and aimed so that their beams fall within the primary playing area and the immediate surroundings, so that off-site direct illumination is significantly restricted.
 - d. The maximum permitted illumination at the property or right-of-way line shall not exceed 2 foot-candles and all event task lighting shall be turned off within one hour of event ending.
 - e. A photometric plan shall be required to be approved by the Administrator to ensure compliance with the standards of this Section prior to the installation of outdoor recreation area lighting.

10. Multi-Level Above Ground Parking Structures.

- a. Parking structures shall meet IES standards.
- A photometric plan shall be required to be approved by the Administrator to ensure compliance with the standards of this Section prior to the installation of parking structure lighting.
- 11. **Commercial and Industrial Uses Abutting Residential.** A photometric plan shall be required to be approved by the Administrator when commercial and industrial uses directly abut residential.

12. Private Lighting Impacting Public Roadways and Trails.

 A photometric plan shall be required to be approved by the Administrator in instances where light trespass may impact public rights of way and trails, as determined by the City Engineer.



b. Locations where light trespass is identified on a public right-of-way and trails shall be subjected to evaluation, including the request for photometric measurements and documentation of system justification. Light trespass which creates significant glare on public rights-of-way and trails shall be evaluated with respect to the safety of the users.

Outdoor Lighting Research

Municipality	Do outdoor lights put in before the ordinance get grandfathered in?	Are there exceptions?	What is required of private outdoor lighting?	What is required of public street lighting?	Max Lumens	Max Mounting Height	Maximum Color Temperature	Max Footcandles
Middleton	nonconforming lighting is seeking a minor addition, all new outdoor lighting shall be reviewed and brought into compliance	however they must still follow thee Illuminating Engineering Society of North America (IESNA).	Facing downward establishes maximum footcandles minimum setbacks requires LED establishes max lumen, mounting height, and color temperature for all zoning districts	All public street lighting shall comply to the extent possible consistent with professionally acceptable traffic engineering standards	4,000 Lumens	8-30 ft varying based on zoning district	3,000-4,000K CCT	1.0 residential 2.5 nonresidential
Fitchburg	Yes, code is only applicable to new outdoor lighting in new developments, buildings, additions, and structures requiring an architectural control	Yes- lighting for one and two family dwellings holiday lighting right-of-way lighting for public streetlights lighting for festivals	Light should be sheilded and directed downward maximum footcandles no lights mounted above the parapet	None	N/A	not mounted above the parapet	N/A	.5 footcandles
New Glarus	Yes but all replacement fixtures shall fully comply with new	Yes, lighting in public right-of- way is not included in standards	shielded and orineted away from residential areas maximum fixture height intensity of illumination hours of illumination	None	N/A	15-35 varying on zoning district	N/A	.5 footcandles
	Yes, but encourage nonconforming to be	Yes, lighting in public right-of- way is not included in standards in addition to lighting for FAA and	Shielded max intensity max light output max height	None	10,000 lumens for	8-30 ft varying	N/A	N/A

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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 footcandles 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) <u>Lighting Public Nuisance</u>

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.

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Fitchburg Lighting Ordinance



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 2024-0-37

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, multifamily 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 a 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)
Level of Activity	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).

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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:

<u>Section 1</u> – 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.

<u>Section 2</u> - 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.

<u>Section 3</u> – 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.

raspisa ans transay or restactly, 2020.
Julia Arata-Fratta, Mayor
Tracy Oldenburg, City Clerk
Published:

Adopted this 11th day of February 2025

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.

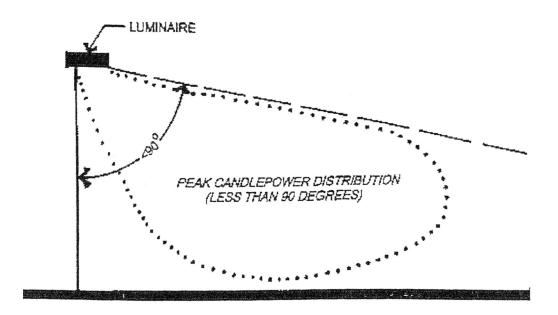
§ 305-142. Required Lighting Plan.

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

		Genera	d Parking & P	edestrian	1	Vehicle Use Only	
Level of	Examples	Average	Minimum	Uniformity	Average	Minimum	Uniformity
Activity				(Avg/Min)			(Avg/Min)
High	Major League	3.6 fc	0.9 fc	4:1	1.8 fc	0.6 fc	3:1
	Athletic Events	60,000 lu¹	15,000 lu¹		30,000 lu¹	10,000 lu¹	
	Major Cultural or	750 W	185 W MH		375 W	125 W MH	
	Civic Events	MH	185 W HPS		MH	125 W HPS	
	Regional Shopping	750 W	90 W LPS		375 W	65 W LPS	
	Centers	HPS			HPS		
		375 W			375 W		
		LPS			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					

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PLANNING MAGAZINE

Turn Down the Lights and Turn Up Conservation Benefits

How a Florida city became the state's first DarkSky-certified community through planning leadership, thoughtful policy creation, and ongoing community engagement.

INNOVATIONS (/PLANNING/SECTION/INNOVATIONS/) ENVIRONMENT



The Milky Way shines brightly in Groveland, Florida, thanks to the city's efforts fighting light pollution. Photo by Steven Miller/Steven Miller Photography.

April 11, 2024

By REBECCA SUSMARSKI

Groveland, Florida, lives by its brand — the "city with natural charm." Located 30 miles west of Orlando in a county with hundreds of lakes, the eco-agrarian city of about 24,000 people <u>prioritizes (https://groveland-fl.gov/514/Conservation)</u> preservation of its natural resources. In 2017, the growing city added protecting its view of the night sky to the list of conservation efforts.

To curb light pollution from new residential developments, advocates negotiated for a developer of a housing project to install outdoor lighting fixtures in accordance with standards set by <u>DarkSky International (https://darksky.org/)</u>, a recognized worldwide authority on light-pollution mitigation. DarkSky <u>recommends (https://darksky.org/what-we-do/darksky-approved/)</u> lighting fixtures be fully shielded to direct light downward and reduce the amount of light thrown upward toward the sky.

But continued community interest in DarkSky practices drove the city to embark on a larger initiative to achieve DarkSky certification (awarded if the city mandates responsible outdoor lighting practices), which Groveland included as a conservation goal in its 2022 strategic plan. The three-year initiative culminated in the city becoming Foliads/strst/darksky.org/news/city-of-groveland-named-first-international-dark-sky-community-in-florida/) International Dark Sky Community last June.

Andrew Landis — then the city's planning and zoning division manager and currently the conservation and strategic initiatives division manager — led the DarkSky initiative with help from community members. The result was an adaptable model for light-pollution mitigation rooted in thoughtful policy creation and widespread community engagement.

"I think what makes Groveland's initiative unique is the community support that we've had throughout," Landis says. That buy-in was no accident. "We've fostered a lot of that. We've gone to great lengths to continually educate the community, to build a base of community support."

Using the 'best of the best'

Landis found early supporters in Marty Proctor, a Groveland resident and DarkSky advocate, and Steven Miller, chapter director for DarkSky's Central Florida chapter. Miller proved key in helping to develop Groveland's new lighting ordinance

(https://library.municode.com/fl/groveland/codes/community_development_code?nodeId=ART7DASKLI_S7.3LIST), which was designed to be a model for other communities across the country. Landis and Miller researched 24 ordinances from around the world to create a modern, holistic policy that featured "the best of the best" standards, Landis says.

Landis and Miller wanted it to reflect advancements in technology and remove outdated standards. For instance, they wanted to create defined lighting standards for streetlights, which DarkSky International says produce most of the light pollution on the planet. But some of the older ordinances Landis and Miller found exempted streetlights from DarkSky standards in accordance with recommended practice and available technology at the time. Other cities' ordinances — like Santa Fe, New Mexico's — only required streetlights to have basic shielding, whereas Groveland's streetlight standards include color temperature specifications and light-trespass limitations.



A downtown building has fully shielded, low-Kelvin streetlights to protect the night sky. Photos by Steven Miller Photography.



Streetlights in new residential developments in Groveland, Florida, are now required to meet DarkSky International requirements.

"We were kind of judging [the ordinances] in terms of their progressiveness, but also, different-sized municipalities have different needs," Landis says. "Some of these small towns might not have [many] streetlights because they're so rural."

Groveland's comprehensive ordinance defines permitted light levels for development across categories — from general types, such as residential and industrial, to specific-use developments like athletic fields and greenhouses. Landis and Miller took inspiration for the latter from parts of Canada and the Netherlands.

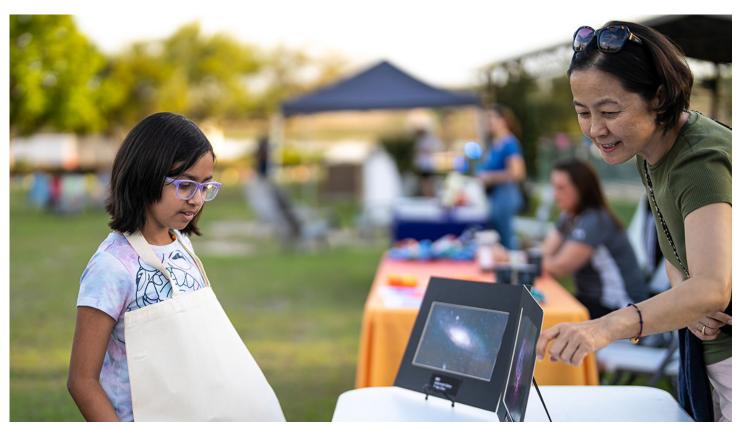
"[Groveland] really wanted to do something all-encompassing to cover all angles so that no matter how the city grows, at least on the lighting side of things, it's covered, and it can grow responsibly," Miller says.

Meanwhile, as part of the DarkSky International certification process, Groveland needed to educate its residents about the causes of light pollution and how DarkSky lighting standards and fixtures could help mitigate it.

"It's not intuitive that you can make lighting something fun or worth discussing," Landis says. "So, how we do that in different, unique ways is really what has gotten the community involved."

For example, DarkSky recommends low-level, warm-colored, and fully shielded lights aimed at specific locations only at times when the light is needed. The benefits of DarkSky-compliant lighting include reduced glare at night, which improves safety for drivers and nondrivers; greater protection for wildlife, including birds and sea turtles threatened by unnatural light at night; and lower energy costs.

To drive those points home, Landis turned to visual aids to show the difference between how the night sky used to look compared to today. During virtual workshops, Landis, Miller, and Proctor also used maps that showed the intensity of light pollution in different parts of Florida based on the Bortle scale, which measures the sky's brightness.



A requirement of the DarkSky International certification process, Groveland hosts community outreach programs — like the Star Party held earlier this year — to educate the public about light pollution and the importance of preserving the night sky. Photo by Mike Fried/Sonacity Photography.

But the most effective visual aid was the night sky itself. Earlier this year, Groveland hosted a <u>Star Party (https://grovelandstarparty.com/)</u>, an outdoor event Landis coordinated that drew around 1,000 attendees. Jessica Ulloa, public works administrative coordinator for Oakland, Florida, attended to gain inspiration for her town's DarkSky initiative. She was "wowed" when she saw the contrast between Groveland's dark night sky and the more polluted sky over nearby Clermont — without needing a telescope.

"Just showing what the sky can be and what it is compared to, I feel like that's important in showing the effects of pollution," Ulloa says. "I come from Miami, and we have no stars out there. I'm just so used to the sky being lit up that I didn't think anything of it."

The education didn't focus on just the adults in the community. When Proctor volunteered at the Star Party, he says kids came up to him and told him what they knew about DarkSky lighting and the negative effects of light pollution. It left him overjoyed.

"I've never had that experience before," he says. "The message is getting out. ... Something's working, and I'm not going to stop [promoting DarkSky], because something's working."

'An ongoing commitment'

Landis says "easily a dozen" Florida communities have reached out for guidance on either achieving DarkSky certification or crafting lighting ordinances, including Oakland, which hopes to become Florida's second International Dark Sky Community. Ulloa hopes that Oakland and Groveland working together will start a cascade of other Florida communities becoming certified to make the sky as dark as what she saw in Groveland at the Star Party.

In the meantime, Landis continues to work with community partners to address light-pollution mitigation in Groveland.

"It didn't end with the certification," Landis says. "It really began with the certification, because it really is an ongoing commitment."

Rebecca Susmarski is an award-winning journalist and advocate for stronger, healthier communities.

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July 13, 2023



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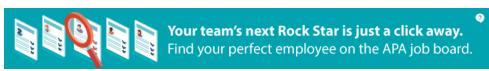
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Planning May 2017	
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Dark Skies, Bright Future

City policies throw shade on light pollution.

By Allen Best

Back in January, I returned home one night to the disconcerting spectacle of my front yard bathed in harsh light, as if something had gone wrong. Living in metro Denver, I never expect to see a truly dark sky. Polaris and the dippers, big and little, can still be seen, but it's usually like looking through a dirty window.

This was different, though. The owner of the parking lot across the street had installed energy-efficient light-emitting diodes, or LEDs, with brighter light to ensure safety for patrons. But the light that spilled into my yard was bright enough for reading a newspaper. Instead of secure, I felt accosted, as if a stranger had begun loitering on my porch.

Light trespass has been a problem since the arrival of electricity allowed us to banish the night. Many jurisdictions have codes that seek to limit it. Some are better than others, but all succeed only to the extent that they're enforced. Other regulations seek to tackle the broader problem of man-made light blotting out the stars, what many call light pollution.

Some places, including Flagstaff, Arizona, home to two astronomical observatories, have proven that you can have it all: stars in the sky and safety and commerce. Regulations adopted there nearly 60 years ago enjoy broad support. Mass retailers, accustomed to few restraints, soon learn that things are different in Flagstaff.

The two observatories make darker skies part of the local economy - 102 people work there, and dark skies are a nuanced component of the tourism business. The U.S. Naval Observatory, which has a mission of delivering information useful to U.S. defense, makes dark skies patriotic. "It really does a lot for our quality of life," says Dan Folke, aicp, the planning director in Flagstaff.



Composite image of North America at night assembled from data acquired by the Suomi NPP satellite in 2012 using the Visible Infrared Imagining Radiometer Suite, which detects light in a range of wavelengths and uses filters to observe dim signals such as city lights. Source: NASA.

LED growing pains

Technological development of lighting has had a growth spurt lately. But after Edison patented the first incandescent bulb in 1879, the next big thing was fluorescent bulbs, unveiled at the New York World's Fair in 1939. Later came mercury, high-pressure vapor bulbs, and so on. But now technology is moving fast, especially since LEDs began arriving in the market in the early 2000s.

LEDs can deliver robust cost savings and reduce energy use, an important element in ambitious climate-action plans. Edison's incandescent bulbs delivered 10 lumens for every watt of power; LEDs can deliver more than 100 lumens per watt. Lumens measure the level of brightness. Although they cost more than incandescents, manufacturers have promised LEDs can last as much as 25 times longer than some of the older lighting technologies.

But communities have also stumbled as they rushed to curb costs and realize energy savings. California's college town of Davis is something of a living laboratory, says Mitch Sears, the city's sustainability program manager. "You learn by mistakes as much as you learn by success," he says.

Davis, at the cutting edge, tested LED lights in street fixtures in 2011. Getting no pushback, the city set out to replace all of its streetlights with LEDs. That's when emails and phone calls flooded city offices. After the city council halted the retrofit, the city staff consulted with the California Lighting Technology Center at the University of California-Davis and engaged with several manufacturers.

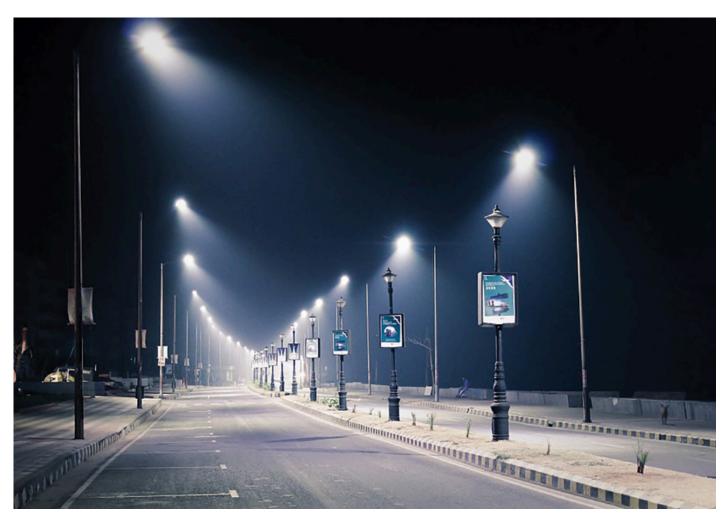
Davis officials had missed something at the outset. Many others have, too. The LEDs delivered a different kind of light than the older high-pressure sodium fixtures they replaced. Some have likened it to being under the torch of an arc welder. Its intensity enhances blues and whites, whereas older lights enhance reds and yellows. To understand it, you have to understand color temperatures, which are described on the Kelvin scale.

For some of us non-physicists, it's bizarre. The scale's range is based on what a piece of metal would look like if heated. At 2,000 to 3,000 Kelvin, you get light that is white but warm, such as you might want for your bedroom. At higher Kelvins, the light "cools" and brightens. At 4,600 to 6,000 K, it's whitish to blue, more like daylight — or, as in my front yard in January, like a police lineup.

In Davis, after the first stumble, city officials surveyed residents, the majority of whom preferred the warmest LED lights in the spectrum, says Sears. That gave Davis officials enough confidence to replace the 650 LEDs originally installed, at a cost of \$350,000, and begin the methodical replacement of other streetlights. They don't save quite as much energy, but they're easier on the eye.

Then came another phase: lights for the parks and paths connecting neighborhoods. On shorter poles, the upward globes that imitate the gas lamps of old, sending light skyward, were replaced by a cobraheaded fixture to more efficiently direct light downward. And these LEDs were dimmer, too — much dimmer than the 2011 test lights.

Residents soon adjusted to lower levels of light. Sears says energy savings have exceeded 90 percent. "It's part science, part how-does-it-feel?" he says. "That's what lighting is all about."



Blue wavelengths from the sun are beneficial during the day, but blue light at night may cause health problems. Photo courtesy darksky.org (CC0 1.0).

Overexposure

A large body of research conducted in recent decades points to adverse effects in the natural world from extravagantly lit human ecosystems. Newly hatched turtles in coastal areas, for example, will get drawn inland to lights instead of plodding out to the sea. In doing so, they risk becoming prey.

Humans can also suffer from too much light and the wrong light. The American Medical Association last year issued a report warning that blue-rich LED streetlights operate at wavelengths that adversely suppress melatonin at night. Too-bright residential lighting is associated with reduced sleep times, dissatisfaction with sleep quality, excessive sleepiness, impaired daytime function, and obesity. The AMA-recommended street lighting should have a color temperature of no greater than 3,000 K. For reference, an incandescent bulb has 2,400 K, meaning it contains far less blue and far more yellow and red wavelengths.

Peter Strasser, technical director at the International Dark-Sky Association, describes it as still a fledging technology. Most existing lighting regulations never anticipated LEDs. He describes development and adoption of regulations as moving "at the speed of government" while the adoption of the new technology is proceeding "blazingly fast."

Manufacturers overemphasized the cost and energy benefits of LEDs, Strasser charges. "They were really dangling carrots in front of communities, saying the chips (in LEDs) lasted 100,000 hours. That's 20 years of not having to service the products," he says. LEDs can last a long time, but not nearly so long: evidence is coming in at six to eight years, he says. Further, the effectiveness of the lights depends on their cleanliness. LEDs must be wiped occasionally to remove grime. LEDs still deliver a big bang, but not quite so much as advertised.

Tucson, where the Dark-Sky Association is based, has had lighting ordinances since 1972. The amount of illumination is limited, and importantly, lights must also be directed downward, to where the light can be used. It's foolish, says Strasser, to point lights upward to illuminate the bellies of passing airplanes. The upshot of these regulations in Tucson, says Strasser, is that he can still see the Milky Way from the driveway of his home eight miles from a city center of one million people.

Stars and planets aside, says John Barentine, the Dark-Sky Association's program manager, the bottom line for planners and elected officials is what's good for dark skies also saves money, by making sure light is used most efficiently — including the most effective ways to improve public safety. More lighting is not always the answer. In fact, additional public lighting often has an inverse relationship with public safety, say dark-sky advocates.

Bob Parks, the director of a Virginia-based nonprofit called the Smart Outdoor Lighting Alliance, says the fallacy of increased lighting is demonstrated by metropolitan Washington D.C., where he lives. The city has straight edges, dating to the original founding in the late 18th century. Those borders are well defined by the night lights photographed from 249 miles in space by the International Space Station commander Scott Kelly early this year.

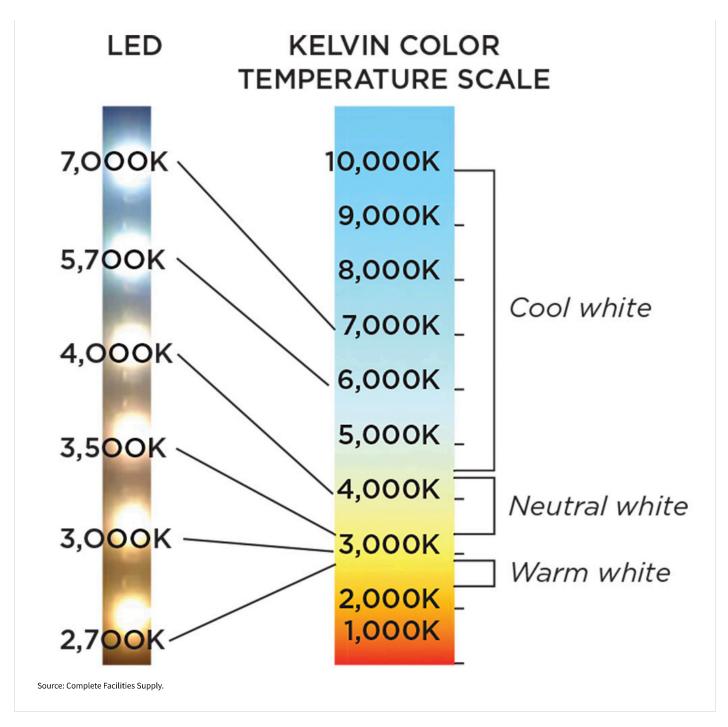
Washington is lit more brightly, as satellite images show. One reason, says Parks, is because many policy makers believe that lighting deters crime. A study he commissioned several years ago, when he was still with the International Dark-Sky Association, found no correlation.

"We found that with few exceptions the DC side had similar or higher overall crime than Maryland or Virginia and two to three times the average lighting levels," he says. The study was abandoned before being published because funding was withdrawn, says Parks, so he can point to no numbers for examination.

Evidence about the value of lighting in deterring crime is surprisingly thin. A 2007 review of studies prepared for the Swedish Council for Crime Prevention found mixed results in eight American studies. Four of the studies found that improved street lighting was effective in reducing crime, while the other four found no effect, according to the report, "Improved Street Lighting and Crime Prevention." Five studies from the United Kingdom, however, were clear that improved lighting led to decreases in crime. What may matter most, however, is the perception that improved lighting reduces crime.

Colors by Number

The Kelvin temperature scale assigns a numerical value to the color of a light source.



A different kind of preservation

In Flagstaff (pop. 68,000), four hours north of Tucson, dimmed lights are part of the culture, even on the old Route 66. Recent images comparing cities of about the same size show that Cheyenne, Wyoming, is nearly 14 times brighter than Flagstaff. Flagstaff is divided into zones, with maximum lumens per acre in each zone. Some areas must have fully shielded fixtures, and others just partially shielded fixtures. There are also classes of light. An informed citizenry, including astronomers, is on board.

"Once you start pushing the envelope, people start getting it," says Brian Kulina, AICP, zoning code manager for Flagstaff. "It's my experience that our lighting standards are pretty well set in stone. None of our planners here negotiate. Either you hit it [the standard] or you don't."

Businesses will arrive, informing the city that they have certain standards, such as for canopies on chain gas stations. Flagstaff tells them to comply with the regulations. A developer arrived recently with a proposal for 1,300 houses — and agreed to create more restrictive standards than the city's standards for that area, near the Naval Observatory.

In Massachusetts, Cambridge has other concerns. It's a city of just over 100,000 people, and officials want to balance needs of the many users in mixed use developments: ground-floor merchants, upper-floor residents, maybe a life sciences company next door. An outdoor lighting task force met 18 times over two

years to forge regulations. The goal, says Lisa Hemmerle, director of economic development, was to create requirements that developers can pass to the electricians they contract with.



Camping under the stars in Utah's Canyonlands National Park, an International Dark Sky Park, is a rare experience. The park's goal is to make visitors and neighbors aware of its fragile night sky. Photo courtesy NPS/Emily Ogden via Flickr (CC By 2.0).

If you examine a satellite photograph of the U. S. taken at night, the coasts and the more densely populated East are heavily lighted. Lights dim at the Great Plains. "The East will only get lighter over time, but that just underscores the need to preserve the few places with dark skies," says Barentine. "And they are vanishing rapidly."

Greater hope remains in the more thinly settled West, and there are already many dark-sky designations associated with national parks.

In Idaho, there's ambition for something more: the first dark-sky reserve in the U.S. and the 12th in the world recognized by the International Dark-Sky Association. The Idaho Conservation League is pushing for the designation in the Sun Valley-Ketchum area, which has wilderness on three sides. The towns adopted lighting regulations in the late 1990s but do not necessarily enforce them.

In Utah, Janet Muir retired to the mountain town of Eden after a career in New York City. Eden is on the shadowy side of the Wasatch Range, away from the lights of Ogden. She works to protect the dark sky of her mountain valley. "Your nightscape is a very big part of placemaking," she says.

Muir is cofounder of the University of Utah's recently formed Consortium for Dark Sky Studies. It is described as the first academic center in the world dedicated to discovering, developing, communicating, and applying knowledge pertaining to the quality of night skies.

Stephen Goldsmith, who was the director of planning in Salt Lake City when the Olympics were held there in 2002, is now associate professor of city and metropolitan planning at the university. He grew up in Salt Lake City just a few blocks away from the university, and it was a different place then. As a boy, he could see the Milky Way from his backyard.

"I would just fall asleep staring at the sky and I remember seeing the Milky Way and thinking, 'What is that?" he says. That sense of wonder gave him a grounding that he says is lost when the night sky is obscured. Restoring the night sky - harnessing our energy flows that have hidden the stars - is a vital task in making cities more livable, he thinks. To see the stars, he says, is to feel like a speck of dust on earth, itself a speck of dust in the cosmos. He finds that comforting. It keeps a lot of other stressful questions in perspective.

Allen Best writes about energy and other topics from his home base in the Denver area. He is a frequent contributor to Planning.

RESOURCES

The International Dark-Sky Association and the Illuminating Engineering Society of North America offer a model ordinance and standards communities can use to reduce glare, light trespass, and skyglow. darksky.org/our-work/public-policy/mlo (http://darksky.org/our-work/public-policy/mlo)

A recent study (http://advances.sciencemag.org/content/2/6/e1600377) finds that 80 percent of the world's population lives under a light-polluted sky. It's even worse in the U.S. and Europe, where 99 percent of residents experience nighttime skyglow. To see how bad light pollution is in your area, download the New World Atlas of Artificial Sky Brightness from the Cooperative Institute for Research in Environmental Sciences. cires.colorado.edu/artificial-sky (http://cires.colorado.edu/artificial-sky)









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What we do Advancing responsible outdoor Creating codes and statutes

DarkSky Recognized Codes and Statutes guidelines



Version 1.0, updated November 2024

Introduction

The DarkSky Recognized Codes and Statutes program is established by DarkSky International (DarkSky) to recognize government entities or private developments that adopt bylaws, ordinances, codes, statutes or legislation (codes and statutes) that meet or exceed DarkSky-approved provisions for reducing light pollution. The provisions are provided freely within templates that list them as a collective set of measures to ensure a comprehensive approach, and are designed for incorporating into the governing entity's format. The templates contain industry-standard definitions and provide alternatives and options for some of the

provisions. Guidance is also provided to help explain why certain options might be considered.

There are two templates offered:

- 1. DarkSky International Municipal Ordinance Template and User Guide: This template is for use with independently governed municipalities (villages, cities, counties, hamlets, etc) and includes provisions typically governed by local governments.
- 2. **DarkSky International State Legislation Template and User Guide**: This template is for regional bodies that govern larger areas, including overseeing the municipalities within it (states, provinces, territories).

The templates are written based on the governmental structure of the United States, however the provisions are universally applicable.

For a government or private entity to be *DarkSky Recognized*, it must formally adopt a legally binding and enforceable document (code, ordinance, bylaw, statute), and provide proof of the adoption by the governing entity. DarkSky's program for achieving Recognition offers interim reviews of the proposed language, and a final review and certification for enacted statutes meeting the requirements within the templates. Government bodies achieving the "*Recognized*" status will be listed on the DarkSky website.

The provisions within the template follow the objectives of the **Five Principles for Responsible Outdoor Lighting**. Those Principles are:

- 1. All light should have a clear purpose.
- 2. Light should be directed only to where it is needed.
- 3. Light levels should be no higher than necessary.
- 4. Light should be used only when it is useful.
- 5. Warmer color lights should be used where possible.

This document explains the requirements for achieving the *DarkSky Recognized* status for codes and statutes, including both technical and

administrative requirements.

For questions on the program, contact the Lighting Program Manager

1.0 General

1.1 Scope

This DarkSky Recognized Code and Statute program offers DarkSky International (DarkSky) recognition for government agencies (cities, counties, provinces, regions, states, territories) or private developments (Homeowners Associations, private landholdings) that meet or exceed DarkSky provisions as written in DarkSky International Policy Templates (Templates).

1.2 Recognition status

Recognition status through this program validates that outdoor lighting codes and statutes (ordinances, bylaws, or other forms of law) meet or exceed provisions in the DarkSky International Policy Templates and have been adopted and enacted. The recognized entity will be the governing body and the statute or code itself. For instance, 'the City of XYZ has a DarkSky Recognized municipal ordinance'. This status is designed to be a source of pride for communities, regions and territories as having enacted laws to mitigate light pollution. DarkSky will publish the list of Recognized locations and policies on DarkSky's website.

1.2 Voluntary participation

The program is available to any entity desiring DarkSky Recognition and is voluntary. DarkSky Recognition has no enforcement of law; it simply recognizes laws that follow DarkSky principles and guidelines, as adopted by DarkSky International and published in their DarkSky International Policy Templates.

1.4 Recognition is not an endorsement

DarkSky Recognition merely confirms that the enacted statutes meet the provisions of the Templates. Recognition does not mean that DarkSky endorses the statutes for any purpose. Specifically, if the governing entity

chooses to enact stricter laws than our Templates call for, the DarkSky Recognition status of having met DarkSky's Template requirements does not mean that DarkSky endorses measures that go beyond the limits of what are published in the Templates.

2.0 Technical requirements

2.1 Adherence to templates, minimum requirements

Any adopted code or statute must be fully compliant with all measures noted in the Templates.

- A. **Values, minimum or maximum:** If a value is stated as a maximum, or "shall be no greater than", the limits contained within the Templates must be adhered to within the statute. For example, the Templates state that light levels may not be more than 25% above recommended standards, and therefore the statute may not allow more light than this provision in order to be DarkSky Recognized. In some cases, the Template language will state minimum values, or maximum values; these limits are not negotiable for Recognition.
- B. **Comprehensive inclusion:** Statutes must include provisions that cover all of the baseline provisions within the Templates. Partial inclusion does not meet the needs of DarkSky Recognition.
- C. **Options and supplements:** Items that are optional or supplemental are not required for Recognition unless the Template states that at least one of the options must be chosen. When options or supplemental provisions are incorporated into the statute or code, the statute or code must meet all the requirements contained within the template option or supplement.
- D. **Definitions and terms:** Definitions and terms used in the DarkSky Templates are non-negotiable. These are based on industry standards, and it is our goal to create an international common vocabulary. Changes to the definitions will be grounds for rejection.

3.0 Administrative requirements

3.1 Downloading templates

DarkSky International Policy Templates are freely available on the darksky.org website. In order to download the documents, you must agree to the Terms of Use, which stipulate how they can be used and what representations are allowed when using them. Two downloadable versions are available for each template:

- A. PDF format: The non-edited PDF document is the official version of the DarkSky Templates and contains the DarkSky approved language. Applications for DarkSky Recognition will be compared to the language in the PDF document.
- B. Word format: This is an editable version of the Template for ease of editing, copying and pasting the provisions of the Template to meet local requirements, or to insert the provisions into established document formats.

3.2 Review Process

There are two reviews offered by DarkSky International under this program through the website [Link]. Each application requires a separate fee.

- A. Interim Review(s): DarkSky will review works in progress to assess whether a proposed statute meets the requirements contained in the Templates. The review will include reviewing the proposed language and providing feedback including a list of conforming and nonconforming measures, with directives on what would be needed to meet the program requirements. DarkSky Strongly recommends at least one interim review prior to the vote for adoption to ensure all requirements have been met. Each interim review is treated as an independent review requiring fees for each time an application for review is submitted.
- B. Recognized Status: DarkSky will review submissions for adopted codes and statutes by a governing body. To ensure that the adopted code or statute complies with DarkSky's Template provisions, DarkSky recommends an interim review prior to adoption. DarkSky will provide provisional approvals for documents that meet the requirements of the

Templates and have been adopted, but are not yet enacted; *DarkSky Recognition* status will be given once the final code or statute has been approved *and* is enacted. Applicants to this program must provide two documents as proof of the adoption of the Code/Statute:

- 1. The final adopted code or statute language that includes the date of enactment; and
- 2. Proof that the code or statute was adopted by the governing entity. This can be through a record of the official recording of the document, official minutes of the governing entity, publication of the final code or statute, or other official documentation.

3.3 Recognition certification and listing

Recognized codes and statutes will be awarded a certificate and will be listed on the DarkSky International website. Certificates will be numbered in accordance with the chronological order in which they are approved by DarkSky for Recognition. The listing on the DarkSky website will include the name of the government entity, the date of enactment, the certification number, and a link to the published legal document.

3.4 Requirement to give notice of change



change but are not reviewed by DarkSky. Changes to the Recognized statutes must conform to the most recently adopted version of the Templates at the time of the change.

Appendix A - Background

The following background is provided for the reader to better understand the rationale within this document.

DarkSky International is often asked to assist advocates, architects, planners and government agencies to write policies, statutes, and codes to protect night skies. As this work has been done over the years, a consistent

set of prioritized provisions have emerged; and given the time commitment for DarkSky to attend to all the requests, the DarkSky Board of Directors approved the implementation of Policy Templates that provide simple and effective measures consistent with the DarkSky International/Illuminating Engineering Society Five Principles of Responsible Outdoor Lighting.

The Policy Templates are the result of year-long preparations that included several iterations based on meetings with various design, engineering, manufacturer representatives and environmental organizations.

Throughout this process, terms and definitions have been refined and the provisions have been vetted. DarkSky believes that the resulting provisions within the Templates represent cost-effective measures that enhance lighting quality and efficiency, while meeting our objective of mitigating light pollution for the benefit of humans, plants, animals, and our planet.

The Recognition program provides a hub for all entities adhering to these provisions to celebrate their achievement, which DarkSky hopes will inspire others. The accomplishment of enacting codes and statutes that protect the night sky is a source of pride for communities, regions and territories for doing their part to reduce light pollution. When this effort is taken seriously, the results positively affect not only the inhabitants, but their neighbors and the environment as well. Light pollution is unfortunately not contained within the property boundaries of a municipality or a state, and when proper measures are taken to reduce the output of light at night, it is to the benefit of wildlife, plant life, and neighboring communities or wilderness.

DarkSky encourages all communities, regions, states and territories to consider passing statutes to achieve these goals. Your constituents will be glad you did.

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