

Dark Sky Outside Lighting Ordinance

ORDINANCE 2025-10-8

AN ORDINANCE ESTABLISHING REGULATIONS FOR OUTDOOR LIGHTING IN THE TOWN OF RUTLAND

I. Purposes.

To minimize light trespass, glare, obtrusive light, and artificial sky glow caused by mis-directed, excessive, or unnecessary outdoor lighting,

To preserve the Town's rural setting, to enhance safety, security and the nighttime use and enjoyment of property,

To promote the health of residents, preserve nocturnal environments for migratory birds and insects, and

To promote and encourage the use of smart lighting controls such as Zero Uplight fixtures, shields, and motion sensors.

II. Rationale for Dark Sky Lighting

Common Sense

Smart dark sky lighting will not sacrifice the safety of our residents or visitors, or the security of property, but instead will result in safer, efficient and more cost-effective lighting.

Detriments to wildlife and ecosystems.

Artificial light at night can disorient migrating birds, cause collisions, and disrupt nesting and foraging behaviors. Insect populations are dwindling, and many insects are drawn to artificial lights, circling them until exhaustion or predation. Smart lighting ordinances help protect bird and insect populations, ensuring the continuation of their essential ecosystem services.

Loss of the natural beauty of the night sky and degradation of our rural environment.

Negative effects on human health, including sleep disorders and increased stress.

Downlighting improves visibility and is a more effective and cost-efficient way to illuminate the space.

III. Applicability

This ordinance applies to all outdoor lighting within the Town of Rutland unless otherwise exempted.

If a property or use with non-conforming lighting is abandoned, then all outdoor lighting shall be reviewed and brought into compliance with this ordinance before the use is resumed.

IV. Requirements

For all developments, buildings, and structures that require a building permit subsequent to the effective date of this ordinance, the following are required:

1. All outdoor light fixtures shall be "Zero Uplight Fixtures".
2. Light Emitting Diode (LED) lighting must have a correlated color temperature (CCT) of 2700K or less.
3. All newly installed or retrofitted lighting fixtures must comply with the currently adopted Wisconsin Energy Code, "Chapter SPS 363 ENERGY CONSERVATION" for outdoor lighting control requirements.
4. New or replacement street lights shall use "Zero Uplight Fixtures" and must have a correlated color temperature (CCT) of 2200K or less.
5. All outdoor lighting shall meet the requirements of this ordinance.

V. Exemptions

This ordinance does not apply to light fixtures that were installed prior to the effective date of this ordinance.

This ordinance does not apply to "emergency" lighting.

This ordinance does not apply to "temporary" lighting, including holiday lighting.

This ordinance does not apply to vehicular lighting, including wheeled farm machines.

This ordinance does not apply to building permits secured solely for work on HVAC or plumbing.

This ordinance does not apply to sports fields, airfields, towers nor lighting for U.S or WI flags.

The Town Board may allow other exemptions to this ordinance on a case by case basis.

VI. Light fixtures permitted by this ordinance

All light fixtures that are Zero Uplight fixtures are approved and permitted by this ordinance. DarkSky International approved and/or DesignLights Consortium LUNA certified fixtures meet the criteria and are allowed.

Non-Zero Uplight fixtures are prohibited in the Town of Rutland unless the fixtures are exempted by this ordinance.

VII. Replacement of Non-compliant fixtures

When a Non-Zero Uplight fixture is replaced, it shall be replaced with a Zero Uplight Fixture.

VIII. Installation

When a new or replacement light fixture is installed, it shall be installed with a switch to allow it to be manually turned on and off. A dusk to dawn sensor is allowed. Alternatively, the fixture may be installed with a motion sensor to automatically turn it on when motion is detected and turn it off when motion ends.

When a new or replacement light fixture is installed, and it is visible from any nearby or adjacent residential property, the fixture must be designed or shielded such that direct lamp light is not visible from that residential property.

IX. Outdoor lighting practices encouraged BUT NOT REQUIRED under this ordinance

1. The addition of motion sensors to existing lighting is encouraged to help minimize the duration of nighttime lighting.
2. Bulbs with soft yellow/orange lights (K or Kelvin correlated color temperature in the 1800-2200 range are encouraged to protect the view of the night sky.
3. Bulbs emitting 1,000 lumens or less are encouraged to protect the view of the night sky.
4. The replacement of existing non-compliant fixtures with Zero Uplight fixtures is encouraged to prevent glare and light trespass beyond the property line.
5. Turn off unnecessary outdoor lights to help migrating birds during the peak migration months of May and September (aka "Lights Out").
6. Application of Responsible Outdoor Lighting Principles to existing lighting.

Five Lighting Principles for Responsible Outdoor Lighting





Illuminating
TRAFFIC ENGINEERING CONSULTANTS

Responsible outdoor lighting is	1 Useful	Use light only if it is needed All light should have a clear purpose. Consider how the use of light will impact the area, including wildlife and their habitats.	
	2 Targeted	Direct light so it falls only where it is needed Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.	
	3 Low Level	Light should be no brighter than necessary Use the lowest light level required. Be mindful of surface conditions, as some surfaces may reflect more light into the night sky than intended.	
	4 Controlled	Use light only when it is needed Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.	
	5 Warm-colored	Use warmer color lights where possible Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.	

Rev. 12/2022

Resources

The links below are just a few examples of where residents or contractors can locate products that comply with responsible lighting principles.

1. <https://designlights.org>
2. 1800 to 2700k LED fixtures
<https://www.4darksities.org/home/resources/lighting-fixture-list>
3. Light bulb selection aid
<https://www.4darksities.org/home/resources/selecting-bulbs>
4. <https://darksity.org/what-we-do/darksity-approved/darksity-approved-luminaires-program/luminaires/>

X. Enforcement

The Town Building Inspector and Town Board are authorized to enforce the provisions of this ordinance.

All building permit applicants shall provide the Town Building Inspector with fixture specifications or cut sheets that list upright ratings, lumens output and CCT ratings sufficient to show the applicant will comply with this ordinance, and the Town Building Inspector shall review all building permit applications for such evidence.

The Town Building Inspector shall inspect all new outside lighting to ensure compliance prior to issuing a Certificate of Occupancy.

XI. Definitions

1. "Light Fixture" means any device intended to produce outdoor illumination.
2. "Zero Uplight Fixture" means any light fixture that is designed or shielded in such a way where no direct light is emitted at 90 degrees and only minimal indirect light is emitted between 80 and 90 degrees, measured from 0 to 180 degrees vertical. (Fixtures must have an upright rating of U0 as defined in Addendum A of Illuminating Engineering Society (IES) "TM-15-11: Backlight, Uplight, and Glare (BUG) Ratings" and be installed with the lens of the fixture in a level position, not tipped).
3. "Motion Sensor" means any device that turns a light fixture on when it detects motion and off when motion stops.
4. "Switch" means any device that can be manually controlled by a person to turn a light fixture on and off. For the purpose of this ordinance, switches include motion sensors but switches do not include light sensors.
5. "Emergency" refers to lighting as required by civil officers, agents and officials to perform

their duties to maintain public health, safety and welfare.

6. "Temporary" refers to lighting as required by citizens to carry out legally approved activities for durations as specified in the permits for those activities. These include but are not limited to, for example, activities such as nighttime agricultural operations, construction work lighting, and seasonal decorations, but in no case for more than a period of 2 months without an exemption granted by the Town of Rutland.

7. "Lumen (lm)" means a unit of measure of light output. The total quantity of visible light emitted by a source per unit of time.

8. "CCT (correlated color temperature)" means a measure (in kelvins, K) of the color appearance of a light source. Lower CCTs (1800 K to 2200 K) appear very warm or amber. Medium CCTs (2700 K to 3000 K) appear "warm white," similar to standard incandescent bulbs. High CCTs (4000 K and higher) appear "cool white" or "blue."

9. "Uplighting" causes artificial sky glow and wasted energy. The U rating defines the amount of light traveling into the upper hemisphere with greater concern for the light at or near the horizontal angles (UL).

10. "Glare" means a visual condition of excessive contrast or incorrect distribution of light that disturbs the observer or limits the ability to distinguish details and objects.

11. "Light Trespass" means artificial light illuminating past property lines without permission. Unless specified otherwise, light trespass limits are measured at any location along a property line both horizontally at the ground plane facing upward and vertically at 5ft above grade with the meter aimed toward the light source in question.

12. "IES (Illuminating Engineering Society)" means a non-profit lighting education and standards development organization. IES Recommended Practices are universally recognized as authoritative references for lighting applications.

13. "DarkSky International" means a nonprofit organization building awareness of the value of dark skies, and of the need for quality outdoor lighting. <https://darksky.org/>

14. "DarkSky International Approved" means the DarkSky Approved program that provides objective, third-party certification for products and designs that minimize glare, reduce light trespass, and don't pollute the night sky.

15. "DesignLights Consortium" means an independent non-profit organization that provides decision makers with data and resources on lighting and controls. <https://designlights.org>

Rutland Town Board Approval

Adopted by the Rutland Town Board of the Township of Rutland, Dane County, Wisconsin, this 8th day of October, 2025.

Dawn George, Clerk



Kent Knutson, Chairperson

