



## Lighting Management Plan

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Author(s): Mike Miller, John Mueller

### We take lighting seriously.

For our lighting requirements we follow the International Dark-Sky Association's guidelines, and are inline with fostering the dark skies and being designated as an International Dark Sky Park.

We have the following overarching guidelines when evaluating new lighting on Lodge property:

- Outside lighting must be dark-sky compliant: fully shielded, 3,000K color temperature or less. Where it is an option, use timers and motion sensors.
- Reduction of energy consumption using energy saving light fixtures, minimizing the time lights are on, and the removal of unnecessary lighting.
- Provide a safe observing area for dark sky viewing where the public can enjoy the beauty of the stars.
- As part of our education and outreach initiatives, we will work with individuals and organizations in the area to educate them about what we have learned regarding artificial lighting as it relates to dark skies.

### Visitor Lighting

The use of auxiliary lighting at night can detract from a guest's experience. When walking around the property at night, guests are advised to use red light, and to shine the light towards the ground in order to not hinder the stargazing experience of others. For example, below is the text we have on our Stargazing page of our website regarding using flashlights on property.

Through our education and messaging currently, and going forward, we provide guests with opportunities to understand the impacts of outdoor lighting on outdoor activities. The goal is to provide for the enjoyment of stargazing and other nighttime activities, while still providing supplemental lighting for safety and navigation.

### Temporary Lighting

Any temporary installation of outside lighting will adhere to the dark-sky compliant guidelines to the greatest possible extent, and whose duration will be limited to the shortest possible time.

## Illuminated Signs

We use very few illuminated signs on property. The illuminated signs that we do currently have on property are at the property entrance on US Hwy 41 and cabin number signs on the cabin. The lights that illuminate these signs comply with the dark-sky lighting requirements.

Any illuminated signs that we install on property in the future are preferably to use dark-sky compliant lighting. In the case that we are not able to use dark sky compliant lighting on those lights (e.g. for safety and navigation purposes), then the the operation of those illuminated signs will be prohibited from one hour after local sunset to one hour before local sunrise (unless for wayfinding/navigation or identification of business services during normal business hours). The signs must be single-color on a black background, and the luminance after sunset must not exceed 100 nits (100 candelas per m<sup>2</sup>) and the illuminated surface area of an individual sign must not exceed 200 ft<sup>2</sup> (18.6 m<sup>2</sup>).

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Per the county's ordinance, all lighting shall be down-shining and shielded from adjoining properties and roadway per the requirements of Section 15.2. Here is an excerpt of the Section 15.2 where lighting is referred to:

### Section 15.2 LIGHTING REQUIREMENTS

A. All outdoor lighting above 150 watts, including illuminated signs, shall be placed, and shielded to reduce glare and reflect light away from adjacent Residential Districts and adjacent dwelling units as well as to prevent interference with the vision of persons on adjacent highways.

B. All freestanding outdoor lighting shall not exceed thirty (30) feet in height except to light a public athletic field, except for lighting located in public rights-of-way used to light public streets.

C. All off-street commercial parking areas open to the public shall be illuminated by natural or artificial light during all hours of operation, and not more than thirty (30) minutes after the business closes.

D. All lighting in business districts used for the external illumination of buildings, so as to feature said buildings, shall be placed and shielded so as not to interfere with the vision of persons on adjacent roads and streets or adjacent property.

E. Illumination of signs shall be directed or shaded downward so as not to interfere with the vision of persons on the adjacent roads and streets or adjacent property.

The full zoning ordinance can be found online at:

- <http://keweenawcountyonline.org/docs/ZoningOrdinance.pdf>

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Our lighting meets or surpasses the lighting ordinances for Keweenaw County. Individuals on Lodge staff who oversee facilities maintenance are educated on the lighting guidelines. As a team, they work on the maintenance of outdoor lighting within the park and strive to meet or exceed the benchmarks prescribed for Dark Sky Parks as indicated by the International Dark-Sky Association.

By following our lead, individuals and organizations in the community can find ways to reduce their energy consumption and artificial light usage.

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Approved on: October 9, 2021

Approved by:



John Mueller, Owner / Member, Keweenaw Resort, LLC