The Outdoor Lighting Forum was established in Northern Michigan after years of concern over issues of poor outdoor lighting. Its goal is to encourage efficient lighting, which can light needed objects or places, but does not broadcast light into areas where it is not needed or wanted. The results are cost-savings, increased security (safety), more aesthetically pleasing communities and protection against wasteful lighting of the night sky. One of OLF’s most prominent success stories has been its work with Emmet County in establishing the Headlands park in Mackinaw City as an international Dark Sky Park -- one of 6 in the U.S. and 9 in the world.

Mission
To research and disseminate information on good outdoor lighting practices; to promote lighting that is efficient and offers safety to the public; improves community appearance and protects the night sky environment.

About the Outdoor Lighting Forum

LIGHTING PROBLEMS
Around our country in many places, dark skies are vanishing. Two out of three people in the U.S. can't see the Milky Way. Poor and inefficient outdoor lighting exists almost everywhere and is a growing concern. We certainly need outdoor lighting for safety and security. However, too much of today’s outdoor lighting does not do what we want it to do. Instead, it creates new problems:

- Sky Glow
- Light Trespass
- Glare
- Clutter
- Energy Waste
- Confusion

And did you know ...
In the United States alone, misdirected light costs us more than $2.2 billion each year. U.S. power plants create nearly 14.7 million tons of carbon dioxide to generate this amount of wasted electricity.

LIGHTING SOLUTIONS
Fortunately, there are simple solutions that can help us save energy and money. Good outdoor lighting improves visibility, safety and security, provides ambience and lets us find our way - all while preserving the quality of our nighttime environment.

What can you do?
- Light the ground - not the sky.
- Use a uniform lighting pattern and avoid sharp contrasts.
- Choose a fixture that has a full-cutoff design.
- Apply proper shielding to existing fixtures to direct light downward.
- Place fixtures only where light is needed.
- Use bulbs with appropriate wattage.
- Use time controls to automatically turn off lights when not needed.

Think Dark Skies every day!
If you had a water pipe in your house that lost 40% of its water every time you turned on the faucet, you’d be upset. And yet, we throw away that much light with many of the outdoor light fixtures that we use.

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Cover photo, the Headlands
Robert de Jonge • robertdejonge.com

Think Dark Skies

Use Efficient & Effective Outdoor Lighting
Lighting examples

**Unshielded Security Lighting (bad)**

**The Problem**
Unshielded fixtures, such as these 'acorn' lights, cause glare, light trespass and light pollution. They also waste energy and money. In the photograph, nearly 50% of the light travels up and away from the ground. Homeowners and police are blinded by the glare; intruders can hide in the shadows.

**The Solution**
Retrofit security lights with an inexpensive cap, shield, or fully-shielded fixture to reduce glare, up-light and light trespass. Shielded lights produce 45% greater light levels on the ground, allowing for a lower wattage bulb to produce the same light level. Shielded lights consume less energy and virtually eliminate light trespass.

**Shielded Security Lighting (good)**

**Unshielded Outdoor Fixture (bad)**

**The Problem**
Wall-mounted fixtures like this are often used for security purposes. They produce an enormous amount of glare and up-light and should never be used. The good news: This fixture can be retrofitted with a shield to become a fully-shielded fixture.

**The Solution**
Fully shielded fixtures with a flush-mounted lens come in many shapes and sizes. The light is controlled with internal reflectors. Glare and light are minimized and no up-light is produced.

**Shielded Outdoor Fixture (good)**