Principles of lighting

Effective outdoor lighting should be intentional, well planned, well designed, and use appropriate technologies.

- Only light when needed.
- Only light where needed.
- Only light as much as needed.
- Minimize blue light emission.
- Fully shielded and pointed downward.

Remember, dark sky does not mean dark ground!

What can we do?

- Install lighting only when and where it's needed.
- Use energy saving features such as timers, dimmers and motion sensors on outdoor lights.
- Make sure your lighting is shielded so light shines down, not up. Encourage good lighting at your workplace, too.
- Educate your friends and neighbors about the importance of good lighting for our health, economy and environment.

What about safety?

There is no clear scientific evidence that increased outdoor lighting deters crime. Some studies show increases in lighting result in decreases in safety. While it may make us feel safer, bad outdoor lighting can actually reduce safety. Brighter lights can often mean darker shadows, increased discomfort, and increased glare. Pedestrians and motorists can be temporarily blinded.

What is light pollution?

Most of us are familiar with air, water and land pollution, but did you know that light can also be a pollutant? The inappropriate or excessive use of artificial light — known as light pollution — can have serious environmental consequences for humans, wildlife and our climate.

How does it hurt our planet?

Light pollution is not specifically an astronomer problem, a scientist problem, or even just a human problem. Light pollution affects all living things.

- Light pollution devastates wildlife.
- Light pollution may harm your health.
- Light pollution can make you less safe.
- Light pollution wastes energy and money.
- Light pollution robs us of our heritage.

How does it affect wildlife?

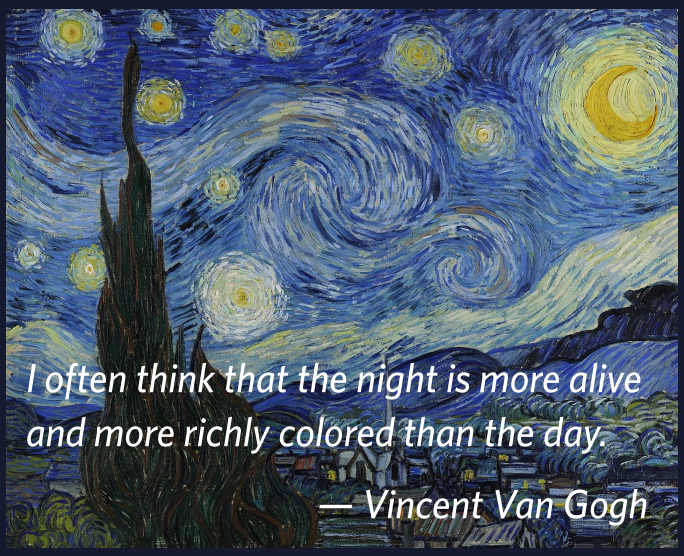
Plants and animals depend on Earth's daily cycle of light and dark to govern life-sustaining behaviors such as reproduction, nourishment, sleep and protection from predators. Scientific evidence suggests that artificial light at night has negative and deadly effects on many creatures, including amphibians, birds, mammals, invertebrates and plants. In fact, millions of birds die each year by colliding into illuminated buildings. Light pollution affects entire ecosystems.

- Coral
- Frogs and toads
- Sea turtles
- Birds
- Hummingbirds
- Wallabies
- Little penguins
- Zebrafish
- Sweat bees
- Seabirds
- Monarch butterflies
- Atlantic salmon
- Zooplankton
- European perch
- Songbirds
- Peahens
- Bats
- Owls
- Mice
- Insects
- Geckos
- Fireflies

Wasted Money & Resources

About 35% of light is wasted by unshielded or poorly-aimed outdoor lighting. This is about $3 billion per year worth of energy lost to skyglow. And, that's $10 per year spent for every man, woman, and child in the US.

Because every day needs a night.



Further Reading, Additional Resources, & References

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Credits

International Dark-Sky Association. http://www.darksky.org/
Light Pollution Map. http://www.lightpollutionmap.info/