

International Dark-Sky Association

The Nightscape Authority

<u>Simple Guidelines for Lighting Regulations</u> <u>for Small Communities, Urban Neighborhoods, and Subdivisions</u>

The purpose of the regulation is to:

- Permit reasonable uses of outdoor lighting for nighttime safety, utility, security, and enjoyment while preserving the ambiance of the night;
- Curtail and reverse any degradation of the nighttime visual environment and the night sky;
- Minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary;
- Conserve energy and resources to the greatest extent possible;
- Help protect the natural environment from the damaging effects of night lighting.

All outdoor lighting fixtures (luminaires) shall be installed in conformance with this Regulation and with the provisions of the Building Code, the Electrical Code, and the Sign Code, as applicable and under permit and inspection, if such is required.

Comment: Practical Considerations:

- 1. The idea that more light always results in better safety and security is a myth. One needs only the right amount of light, in the right place, at the right time. More light often means wasted light and energy.
- 2. Use the lowest wattage of lamp that is feasible. The maximum wattage for most commercial applications should be 250 watts of high intensity discharge lighting should be considered the maximum, but less is usually sufficient.
- 3. Whenever possible, turn off the lights or use motion sensor controlled lighting.
- 4. Incorporate curfews (i.e. turn lights off automatically after a certain hour when businesses close or traffic is minimal). This is an easy and fast way to initiate dark sky practices.

Maximum Lamp Wattage and Required Luminaire or Lamp Shielding:

All lighting installations shall be designed and installed to be fully shielded (full cutoff), except as in exceptions below, and shall have a maximum lamp wattage of 250 watts HID (or lumen equivalent) for commercial lighting, 100 watts incandescent, and 26 watts compact fluorescent for residential lighting (or approximately 1,600 lumens). In residential areas, light should be shielded such that the lamp itself or the lamp image is not directly visible outside the property perimeter.

Lighting that is exempt from these regulations:

- 1. Lighting in swimming pools and other water features governed by Article 680 of the National Electrical Code.
- 2. Exit signs and other illumination required by building codes.
- 3. Lighting for stairs and ramps, as required by the building code.
- 4. Signs are regulated by the sign code, but all sign lighting is recommended to be fully shielded.
- 5. Holiday and temporary lighting (less than thirty days use in any one year).



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- 6. Football, baseball, and softball field lighting; only with permit from the authority recognizing that steps have been taken to minimize glare and light trespass, and utilize sensible curfews.
- 7. Low voltage landscape lighting, but such lighting should be shielded in such a way as to eliminate glare and light trespass.

Additional requirements:

- Lighting attached to single-family home structures should not exceed the height of the eave.
- Residential pole height restrictions can be considered to control light trespass on adjacent properties.

Notes:

- 1. The general belief that more light means better safety and security is just a myth. All that is needed is the right amount, in the right place, at the right time. More light just means wasted light and energy.
- 2. Use the lowest wattage of lamp as possible. For cost saving purposes, consider compact fluorescent lamps rather than incandescent, as they use much less energy and have a much longer lifetime.
- 3. Whenever possible, turn off the lights.

Definitions:

- **Glare**: Intense and blinding light. Causes visual discomfort or disability.
- **Landscape lighting**: Luminaries mounted in or at grade (but not more than 3 feet above grade) and used solely for landscape rather than any area lighting.
- **Obtrusive light**: Spill light that causes glare, annoyance, discomfort, or loss of visual ability. Light Pollution.
- Luminaire (light fixture): A complete lighting unit consisting of one or more electric lamps, the lamp holder, any reflector or lens, ballast (if any), and any other components and accessories.
- Fully shielded (full cutoff) luminaire: A luminaire emitting no light above the horizontal plane.
- **Spill light:** Light from a lighting installation that falls outside of the boundaries of the property on which it is located. Usually results in obtrusive light.

Additional Resources for Establishing Outdoor Lighting Guidelines

- 1. Model Lighting Ordinance (MLO)
- 2. Recommended Outdoor Lighting Zones
- 3. IDA Lighting Code Handbook
- 4. Directory of Ordinances and Other Regulations
- 5. Glossary of Basic lighting Terms and Definitions