

Topic 1: Dark Skies & Lighting Performance Standards

General information:

- “Dark Skies” references principles and standards issued by the International Dark-Sky Association (www.darksky.org) that are intended to minimize light pollution from developed and urban areas using lighting that is directed downward, with physical cut-offs to minimize light spillage, and generally lessen the “glow” from outdoor lighting.
- The text of the proposed “model ordinance” produced by this group gets fairly technical and specific employing multiple lighting zones, lumen allowances, and a variety of calculations. Staff review of other codes indicates many have adopted codes that speak to the overall principles of minimizing impact in a manner that is easier to understand and implement.
- Many of these principles have been employed in Town for the past few years, utilizing the prior code requirement of photometric plans to minimize light spillage into residential area, as well as more recent Staff requests for down-directional, full-cut-off fixtures where possible, Staff has also worked with builders and developers to review “color” and brightness of proposed fixtures as well. Current standards in the LUDC include:
 - Sec 17-4-5 District Performance Standards notes maximum “foot-candles (FC)” (measure of light) at the property line in different zoning districts.
 - Sec 17-9-4 provides regulations related to the management of lighting on electronic message displays (signs).
 - The proposed Engineering Specifications and Design Standards will also address lighting related to streets. The Town has been providing an interim guideline for the past several years to address streetlights – consistency, brightness, spacing, and color.

Analysis and Recommendation:

In the review of the current LUDC, Staff concurs that more stringent language regulating lighting should be added into the code to ensure that private development implements meaningful standards in their lighting design and use. The Dark Sky model codes reviewed seem overly technical and challenging to administer. Staff requested additional code language from the code consultants, but had not received the proposed language in sufficient time to present to Council prior to the May public hearing on the Code.

The following verbiage was proposed to insert into Article 8 of the LUDC, which addresses overall landscaping and site design for all development. It would apply to all types of development. In general the updated code language includes standards for fixture height based on the purpose of the lighting, provides basic performance standards and notes that a photometric plan may be required.

17-8-6 Outdoor Lighting

A. **Design Objectives.** Exterior lighting of sites and buildings shall meet the following design objectives:

1. Provide safety and security in publicly accessible areas.
2. Create comfort and atmosphere with softer and warmer lighting in gathering spaces, social places, and pedestrian-oriented and residential areas and streetscapes.
3. Accent the architectural features of buildings, gateways or other portions of sites visible from the streetscape or other public spaces.
4. Design the appropriate scale of light considering pedestrian-oriented or vehicle-oriented portions of sites.
5. Limit backlighting, uplighting, glare, spillage, and other impacts on adjacent sites.
6. Comply with the general principles for responsible outdoor lighting, including useful, targeted, controlled, low-level, and color-appropriate lighting.
7. Use the appropriate design, location, and type of fixture to minimize lighting impacts and reinforce the character of distinct areas.
8. Utilize energy efficient lighting strategies in balance with other site lighting objectives.

B. **Mounting Height.** All exterior lighting shall be limited to the heights noted in the following table:

Table 8-6: Maximum Light Mounting Height	
<i>Driveways and Parking Areas</i>	<ul style="list-style-type: none"> ▪ 24' in residential districts; or within 30' of any street; or within 100' of a residential use or residentially zoned property. ▪ 35' in all other districts or situations.
<i>Pedestrian Walkways, Plazas or Courtyards, and Pedestrian-oriented Streetscapes</i>	<ul style="list-style-type: none"> ▪ 16'
<i>Facade Lights</i>	<ul style="list-style-type: none"> ▪ Below the eave or cornice line, provided the light is directed downward or otherwise designed and located to limit up lighting beyond the facade.
<i>Other Site Lighting</i>	<ul style="list-style-type: none"> ▪ 12' nonresidential; ▪ 7' residential
<i>Building Mounted Security Lights</i>	<ul style="list-style-type: none"> ▪ May be mounted at heights required to provide adequate security provided all efforts be made to mitigate off-site impacts including dimmers, timers, sensors, shields or other technology.
<i>General</i>	<ul style="list-style-type: none"> ▪ All light poles shall be setback from the property at least 3', or at least 1/3 of the height, whichever is greater.
<i>Specialty</i>	<ul style="list-style-type: none"> ▪ To be reviewed and approved on a case-by-case basis, based upon the needs and context of the use. i.e., sports fields, industrial user, etc.

C. **Performance Standards.** In addition to the height and location standards, exterior site lighting shall meet the following performance standards:

1. All exterior fixtures shall be fully shielded and installed so that the direct illumination shall be confined to the property boundaries of the source, except for ornamental lights below 500 lumens, or 200 lumens where multiple fixtures are used.
2. The location, height, and fixture shield shall prevent light spread or glare onto any adjacent property or any public right-of-way, with the exception of building-mounted lighting on street-front buildings which could spill onto a sidewalk or adjacent street.
3. All facade lighting and other externally illuminating lights shall use shielded, directional fixtures, designed and located to minimize uplighting and glare. Decorative lighting, such as lanterns and wall sconces, which may be allowed as long as the fixtures, do not exceed 200 lumens and do not emit light directly upward.

4. The style of light standards and fixtures shall be consistent with and complement the style and character of architecture proposed on the site and building.
5. Lighting shall be designed to meet the functional and security needs of the site, without adversely affecting adjacent properties. Features such as dimming interfaces or timers that reduce light levels to minimal security levels for off-hours are encouraged and may be required.
6. Lighting plans shall demonstrate compliance with Town and industry standards and guidelines for environmental and energy performance, including the fixture types, light source, and energy source, employing LED or current best practice energy-efficient technologies.
7. A photometric plan and information related to fixture and lighting design, prepared by a qualified professional, may be required by the Director to accompany any project subject to review under 17-2.

D. **Alternative Compliance.** Alternative compliance to the lighting standards established in Section 17-8-6, may be authorized according to the process and criteria in Section 17-2-6.