

AGRICULTURE, CONSERVATION AND FORESTRY
MAINE LAND USE PLANNING COMMISSION

Proposed Chapter 2 and Chapter 10 Rule Revisions:
Lighting and Lighted Sign Standards

September 2024 – Draft

The following amendments propose changes to Chapter 2, *Definitions* and 10, *Land Use Districts and Standards for Areas within the Jurisdiction of the Maine Land Use Planning Commission*. This document only includes relevant sections of Chapter 10 and indicates additions in underline, deletions with a ~~striketrough~~, and relocated text in double underline and double ~~striketrough~~. Most revisions are self-evident. Where necessary, further explanations of some changes have been included in [brackets]. These explanatory notes would not be included in the final rule.

Rulemaking Introduction and Overview

What are the goals of this rulemaking?

Currently, the Land Use Planning Commission (LUPC) has standards for exterior lighting associated with development that requires a permit ([Chapter 10](#), Section 10.25,F,2). There are also standards for lighted signs ([Chapter 10.27,J](#)). The proposed rulemaking aims to update the standards to reflect the changes in lighting technology since the standards were adopted and help ensure there are no undue adverse impacts to natural or scenic resources, including Maine's dark sky resource, from unnecessary or inappropriate lighting.

Why make these rule changes now?

The current standards are 20 years old and are outdated. They do not reflect the changes in lighting technology that have occurred since the standards were adopted in 2004.

How would the rules change?

This rulemaking proposes to update standards for exterior lighting and lighted signs to reflect current best industry practices, including:

- **Correlated Color Temperature** - Light sources would be rated on a scale known as Correlated Color Temperature, which indicates the warmth or coolness of the light, ranging from 1,000 to 10,000 Kelvin. The changes would require lights be less than or equal to 3,000 Kelvin, as recommended by scientists and public health officials.¹
- **Fully Shielded Light Fixtures** – The changes would replace references to cut off fixtures with fully shielded light fixtures, which have tops and sides that cover the bulb and direct light downward. A definition of fully shielded light fixtures would be included in Chapter 2 and a new diagram illustrating these fixtures would be included in Chapter 10.
- **Lumens** - Current LUPC standards refer to wattage, a measure of the amount of electricity a light consumes that does not indicate the bulb's brightness or light output. The lighting industry uses lumens more commonly now, a measure of light output. Fully shielded light fixtures would be required for lights over 1,800 lumens.
- **Lighting for Ski Resorts and Similar Outdoor Recreation Facilities** - Currently, LUPC lighting standards do not specifically consider ski areas or outdoor recreation facilities. New standards would continue allowing for safe operations without undue adverse impacts on surrounding uses.
- **Exemptions** - The proposed updates to the list of exempt lighting would incorporate, refine, or clarify exemptions for: roadway and airport lighting; lighting required by the Federal Aviation Administration for air traffic safety; temporary lighting for events; emergency operations; and land management operations (e.g., forestry or agriculture), among other activities.
- **Lighted Signs** – The proposed changes reorganize and refine standards for lighted signs. Permits are required for any sign with moving or changing lights, including electronic message displays.
- **Clerical Edits** – The proposed changes include corrections and minor editing for conciseness in the sections of Chapter 10 included in this rulemaking.

¹ See [Council on Science and Public Health 2 \(ama-assn.org\)](#); and [Threats to Birds: Collisions - Nighttime Lighting | U.S. Fish & Wildlife Service \(fws.gov\)](#)

Chapter 2 - Definitions

...

#. Light Fixture, Fully Shielded.

Fully shielded light fixtures are constructed such that a light-blocking shield covers the top and sides of the lowest direct light-emitting part (bulb, tube, or lamp) and all light is projected below the horizontal plane.

...

Chapter 10 – Land Use Districts and Standards

...

10.25 DEVELOPMENT STANDARDS

This section contains review standards for structures and uses that require issuance of a permit from the Commission, or as otherwise required in Sub-Chapter II. Except as herein provided, development not in conformance with the standards of this section ~~are~~is prohibited.

Nothing in this section precludes the Commission from imposing additional reasonable terms and conditions in its permits as the Commission may deem appropriate ~~in order~~ to satisfy the criteria for approval and purposes set forth in the Commission’s statutes, rules and the Comprehensive Land Use Plan.

...

F. NOISE AND LIGHTING

1. Noise.

- a. The maximum permissible sound pressure level of any continuous, regular or frequent source of sound produced by any commercial, industrial and other non-residential development ~~shall~~must be as established by the time period and type of land use subdistrict listed below. Sound pressure levels ~~shall~~must be measured at all property boundary lines, ~~at a height of~~ at least 4 feet above the ground surface. The levels specified below may be exceeded by 10 dB(A) for a single period, no longer than 15 minutes per day.

<u>Subdistrict (Category)</u>	<u>7:00 AM to 7:00 PM</u>	<u>7:00 PM to 7:00 AM</u>
D-CI, D-MT, D-RB (Category 3), and D-ES	70 dB(A)	65 dB(A)
D-GN, D-GN2 <u>D-GN2</u> ,		
D-RB (Categories 1 & 2), D-RF, and D-RD	65 dB(A)	55 dB(A)
D-PD, D-PR	As determined by the Commission.	
<u>All Other Subdistricts</u>	<u>55 dB(A)</u>	<u>45 dB(A)</u>

Table 10.25,F-1. Sound pressure level limits.

...

[Revision notes: This rulemaking proposes to repeal and replace the provisions of Section 10.25,F,2; however, individual revisions are illustrated below for reader convenience.]

2. **Exterior Lighting Standards, standards for exterior light levels, glare reduction, and energy conservation.**

a. All new exterior lighting sources for residential, commercial, and industrial development must have a Correlated Color Temperature of 3,000 Kelvin (K) or less. building exterior lighting fixtures will be full cut-off, except for incandescent lights of less than 160 watts, or any other light less than 60 watts. Full cut-off fixtures are those that project no more than 2.5% of light above the horizontal plane of the luminary's lowest part. Figure 10.25,F-1 illustrates a cut-off fixture as defined by the Illuminating Engineering Society of North America (IESNA).

b. All new exterior lighting sources for residential, commercial, and industrial development must be fully shielded light fixtures, except for lights of 1,800 lumen or less. Figure 10.25,F-1 illustrates fully shielded fixtures.

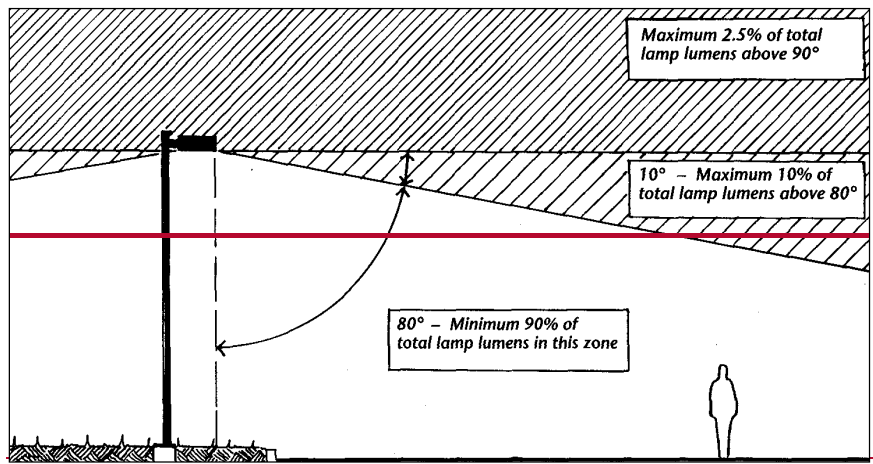
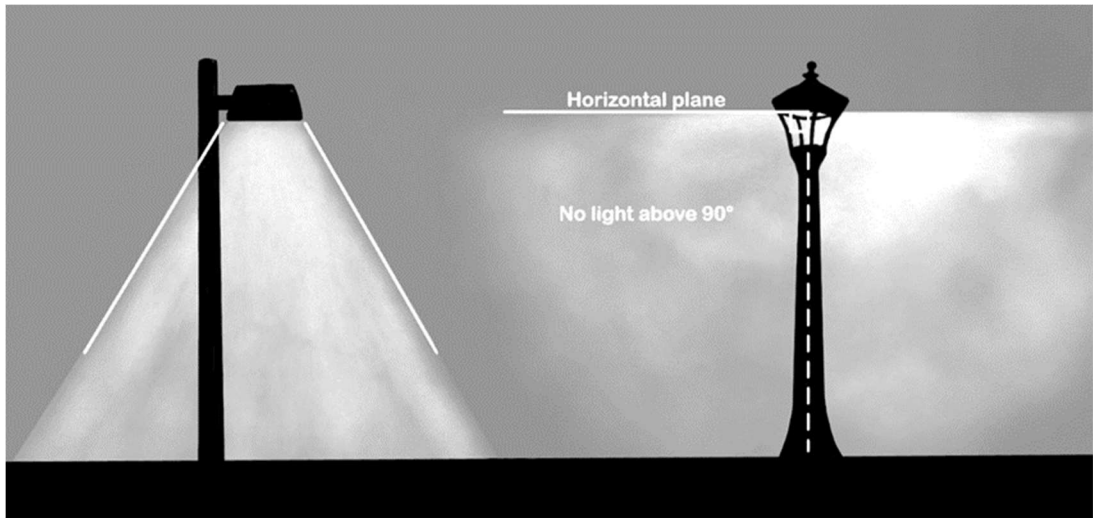


Figure 10.25,F-1. Cut-off fixture as defined by IESNA Fully shielded light fixtures.

b.c. Light fixtures mounted on commercial awnings or canopies such as those found at gasoline stations or convenience stores must canopies shall be recessed so that fixtures are flush with

the canopy. ~~Alternatively, canopies may be indirectly lit using light beamed upward and then reflected down from the underside of the canopy. In this case light fixtures must be shielded so that direct illumination is focused exclusively on the underside of the canopy.~~

- ~~e.d.~~ All exterior lighting ~~shall~~must be designed, located, installed, and directed ~~downward in such a manner as~~ to illuminate only the target area, to the extent practicable. ~~No activity shall~~Activities must not produce a strong, dazzling light or reflection of that light beyond lot lines onto neighboring properties, ~~onto~~ any water bodies ~~with a significant or outstanding scenic resource rating~~, or ~~onto~~ any roadway so as to impair the vision of the driver of any vehicle upon that roadway or to create nuisance conditions.
- ~~d.e.~~ For commercial, industrial, and other non-residential development, all non-essential lighting ~~shall~~must be turned off after business hours, leaving only the minimal necessary lighting for site security. The term “non-essential” applies, without limitation, to display, aesthetic, and parking lighting ~~that is not motion-activated~~.
- ~~f.~~ An exterior lighting plan must be submitted for proposed subdivisions and proposed non-residential, commercial, or industrial projects with structural development requiring a permit. The exterior lighting plan must include the following information for each existing and proposed exterior light fixture: the location, type of fixture, bulb lumens, and Correlated Color Temperature, and whether it is a motion activated fixture. The lighting plan must also include the cumulative total lumens for the project.
- ~~e.g.~~ In addition to the lighting standards in Section 10.25,F,2, lighted signs ~~shall~~must also comply with the standards in Section 10.27,J ~~or applicable permit conditions~~.
- ~~f.h.~~ The following activities are exempt from the lighting standards of Section 10.25,F,2,a through ~~de~~:
- ~~(1) Roadway and airport lighting, and H~~ Lighting required by the Federal Aviation Administration ~~for air traffic safety~~;
 - ~~(2) Temporary fair, event, or civic uses;~~Use of exterior lighting sources for temporary events such as sporting events, public festivals, celebrations, or the observance of holidays;
 - (3) Emergency lighting, provided it is temporary and is discontinued upon termination of the work;
 - ~~(4) Lighting that is activated by motion sensors; and~~Lighting emitting brightness less than 500 lumens;
 - (5) Lighting that was in place on ~~April 1, 2004~~[insert the effective date]; and
 - ~~(6) Temporary lighting associated with road construction or repair; or agricultural management or forest management activities as defined in Chapter 2.~~

3. Lighting standards for ski resorts and similar outdoor winter recreational facilities

- ~~a.~~ Ski resorts and similar outdoor recreational facilities are exempt from the fully shielded standard of Section 10.25,F,2,b during the ski season when snow is on the ground.
- ~~b.~~ If exterior lights are used during non-snow seasons, then fixtures must comply with the fully shielded standard of Section 10.25,F,2,b unless otherwise exempt pursuant to Section 10.25,F,2,h.

...

10.27 ACTIVITY-SPECIFIC STANDARDS

The documents referenced within this section may be obtained from the Commission’s office in Augusta, or any of its regional offices.

A. AGRICULTURAL ACTIVITIES

...

2. Small-scale Agritourism.

The following standards apply to all small-scale agritourism in all subdistricts where such activities are allowed:

- a. **Parking.** Adequate parking ~~shall~~must be provided for the vehicles of employees and visitors. On-street or off-street parking areas must be designed to ensure safe conditions and must be sized to accommodate the number of employees and visitors expected during peak times.
- b. **Lighting.** All exterior lighting fixtures must be fully ~~shielded~~ ~~cut off~~ and designed, located, installed, and directed in such a manner as to illuminate only the target area, to the extent practicable. No activity ~~must~~ ~~shall~~ produce a strong, dazzling light or reflection of that light beyond lot lines onto neighboring properties, or onto any roadway so as to impair the vision of the driver of any vehicles upon that roadway or to create nuisance conditions. Additionally, all non-essential lighting ~~must~~ ~~shall~~ be turned off after business hours, leaving the minimum necessary for site security.

...

J. SIGNS

Signs not in conformance with the standards of Section 10.27,J may be allowed upon issuance of a permit from the Commission, provided that such types of activities are allowed in the subdistrict involved. An applicant for such permit ~~shall~~must show by a preponderance of the evidence that the proposed sign, which is not in conformance with the standards of Section 10.27,J, ~~shall~~will be erected and maintained in a manner which produces no undue adverse impact upon the resources and uses in the area.

...

[Revision notes: The following section would be restructured to group provisions that apply to all signs, and then group standards for illuminated signs. This rulemaking proposes to repeal and replace the provisions of Section 10.27,J,2; however, individual revisions are illustrated below for reader convenience.]

2. Regulations Applying to All Signs.

~~Notwithstanding any other provisions of this chapter, no sign may be erected or maintained which:~~

a. General Provisions.

Notwithstanding any other provisions of this chapter, no sign may be erected or maintained which:

- ~~a. (1) Interferes with, imitates, or resembles any official traffic control sign, signal, or device, or attempts or appears to attempt, to direct the movement of traffic;~~
- ~~b. (2) Prevents the driver of a motor vehicle from having a clear and unobstructed view of official traffic control signs and approaching or merging traffic;~~
- (3) Has any animated or moving parts:
 - ~~e. Contains, includes, or is illuminated by any flashing, intermittent or moving light, moves or has any animated or moving parts, except that this restriction shall not apply to a traffic control sign;~~
 - ~~d. Has any lighting, unless such lighting is shielded so as to effectively prevent beams or rays of light from being directed at any portion of the main traveled way of a roadway, or is of such low intensity or brilliance as not to cause glare or impair the vision of the driver of any motor vehicle or otherwise interfere with the operation thereof;~~
 - ~~e. Is in violation of, or at variance with, any federal law or regulation, including, but not limited to, one containing or providing for conditions to, or affecting the allocation of federal highway or other funds to, or for the benefit of, the State or any political subdivision thereof;~~
- ~~f. (4) Is in violation of, or at variance with, any other applicable federal or state State-law or regulation;~~
- ~~g. (5) With the exception of Except for marijuana businesses, advertises activities which that are illegal under any state or federal law applicable at the location of the sign or of the activities;~~
- ~~h. (6) Is not clean or in good repair; or~~
- ~~i. (7) Is not securely affixed to a substantial structure.~~

Any sign which is a combination of exempt and/or non-exempt signs ~~shall be~~ regulated by the most protective standards applicable.

b. Lighted Signs.

- (1) Lighted signs, whether internally or externally illuminated, must not cause glare or impair the vision of the driver of any motor vehicle or otherwise interfere with the operation thereof;
- (2) Other than traffic control or emergency signage, signs must not include any flashing, intermittent, moving, or changing light, including electronic message displays;
- (3) Lighting for externally illuminated signs must be fully shielded and directed downward so as to illuminate only the target area and effectively prevent beams or

rays of light from being directed upward or toward any portion of a traveled way of a roadway or neighboring property;

(4) Internally illuminated signs must have a black or dark background; and

(5) Internally illuminated signs must be turned off after business hours.

3. Criteria for Sign Approval.

In approving, conditionally approving, or denying any application for a sign permit, ~~the Commission shall require that~~ the applicant **must** demonstrate that the proposed sign complies with those criteria set forth in 12 M.R.S. § 685-B(4) as well as the following:

- a. That the sign is compatible with the overall design of the building height, color, bulk, materials, and other design and occupancy elements;
- b. That the color, configuration, height, size, lighting, and other design elements of the sign will fit harmoniously into the surrounding natural and man-made environment;
- c. That the sign will not constitute a hazard to the flow of traffic; and
- d. That the applicant sufficiently demonstrates the need for any non-conformity with the size, height, lighting, and other limitations set forth in Section 10.27,J,1.

...

S. COMMERCIAL BUSINESSES

...

3. Recreation Supply Facilities.

...

b. Standards for Recreation Supply Facilities without Structural Development. In addition to the standards listed in Section 10.27,S,3,a recreation supply facilities that do not have structures must comply with the following:

...

(4) Noise and Lighting.

(a) Noise. Facilities must meet the standards for noise included in Section 10.25,F,1.

(b) Lighting. ~~Facilities must meet the standards for lighting included in Sections 10.25,F,2,a through e. All exterior lighting must be fully shielded cut-off and designed, located, installed, and directed in such a manner as to illuminate only the target area, to the extent practicable. Activities must not produce a strong, dazzling light or reflection of that light beyond lot lines onto neighboring properties, water bodies, or onto any roadway so as to impair the vision of the driver of any vehicles upon that roadway or to create nuisance conditions. Additionally, all non-essential lighting must be turned off after business hours, leaving the minimum necessary for site security.~~

...