

## **Amended Outdoor Lighting Standards** **(Proposed amendments in ~~strikeout~~ and underline)**

### **I. Amendment to the Northfield City Code, Chapter 34 (Land Development Code), Article 3.3**

#### **3.3.4 Outdoor Lighting Standards.**

(A) **Purpose.** It is the purpose of these lighting standards to recognize the values as expressed by the International Dark Sky Association and the citizens of Northfield by ~~and~~ implementing lighting standards that will serve to enhance the value of dark sky and minimize ambient lighting to the degree possible. These regulations are intended to minimize the spillover of light and glare on operators of motor vehicles, pedestrians, and land uses in ~~the close~~ proximity ~~toef~~ the light source. A reduction in light spillover increases safety for auto drivers and reduces hazards and nuisances associated with light and glare. The regulations found herein promote the reduction of light pollution that interferes with viewing the night sky and protects the natural environment from the damaging effects of night lighting from man-made sources. With respect to motor vehicles in particular, safety considerations form the basis of the regulations contained in this section. In other cases, both the nuisance and hazard aspects of glare are the basis for these regulations.

(B) **Applicability.** ~~The requirements of this section shall apply to all projects unless\_ otherwise stated elsewhere in this ordinance.~~

#### **(C) Outdoor Lighting Plan.**

- (1) An exterior light plan shall be required for the installation or modification of exterior lights for any project requiring site plan review (See Section 8.4.5, Type 2 Review Procedure).
- (2) The lighting plan shall be prepared by a certified professional either an architect, landscape architect or lighting designer.
- (3) The applicant ~~shall~~**must** provide a plan that identifies the location, height and type of luminaries and shows how the applicant ~~intends to will~~ comply with this section.
- (4) A photometric plan of the site and fixture data sheets ~~shall~~**must** be submitted with the site plan in order to determine the effect of the luminaries on surrounding properties.

#### **(D) Outdoor Lighting Standards.**

- (1) The placement of light poles within raised curb planter areas or landscaped islands is encouraged to the extent practical. Where conflict may occur as a result of adherence to this standard with respect to parking lot trees that may obscure required lighting, the design of parking lot lighting shall be modified to overcome these conflicts and shall be interpreted as being in compliance with lighting standards.
- (2) All wiring, fittings, and materials used in the construction, connection and operation of electrically illuminated signs shall be in accordance with the provisions of the State Electrical Code in effect.
- (3) The maximum height of a light fixture, either mounted on a pole or on a structure, is established in Table 3.3-1.

Table 3.3-1: Maximum Height of a Light Fixture	
District	Maximum Height of 90° Cutoff Lighting (See Figure 3-13)
R1, R2, R3, R4, N1, N2, A-S, and NC-F districts	12 feet [1]
C1, C2, I1, CD-S, PI-S, and ED-F districts	20 feet [2]
<p>1. When the bulb, lamp, or light source is completely recessed and/or shielded from view by an observer at five feet above grade, the maximum height may be increased to 15 feet.</p> <p>2. When the bulb, lamp, or light source is completely recessed and/or shielded from view by an observer at five feet above grade, the maximum height may be increased to 30 feet.</p>	

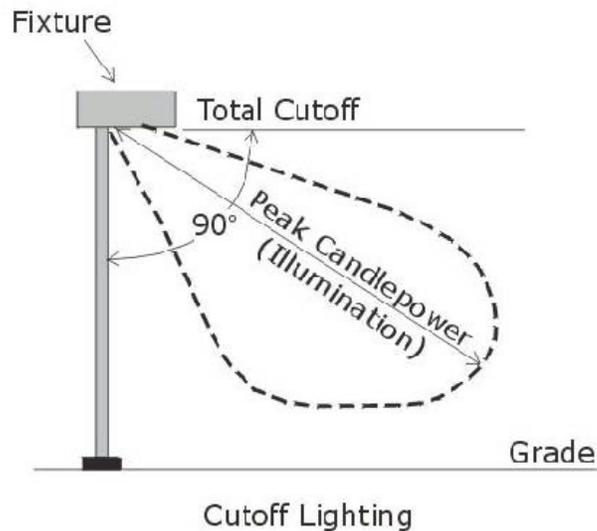


Figure 3-13: Cutoff lighting.

(4) Illumination Standards.

- (a) Outdoor lighting shall not be designed or located in such a way as to shine directly into an adjacent dwelling unit, regardless of the applicable zoning district.
- (b) The maximum illumination permitted in each district type, as demonstrated by a photometric drawing, shall be as shown in Table 3.3-2 below:

Table 3.3-2: Maximum Illumination Level at the Property Line		
District	Average lumens ( <del>foot candles across the</del> Property or Development Area may not exceed:	Maximum Illumination at the Property Line, in <del>lumens</del> <del>foot-</del> candles) may not exceed:
R2, R3, R4, N1, N2, and NC-F districts	1.5	0.1
C1, C2, I1, CD-S, PI-S, and ED-F districts	2.5	0.1 when adjacent to a residential use or 2.5 when adjacent to lot in the same district
Parking lots of six spaces or more	2.0	0.1 when adjacent to a residential use or 0.5 when adjacent to a nonresidential use

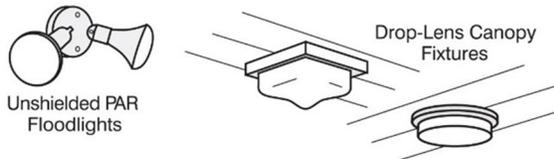
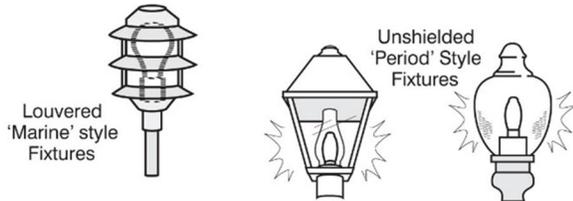
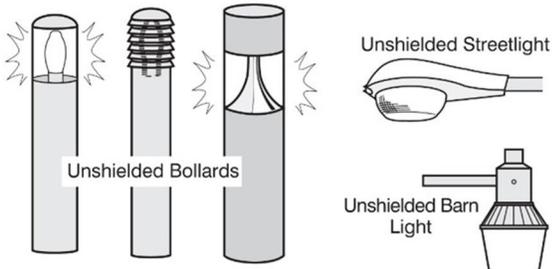
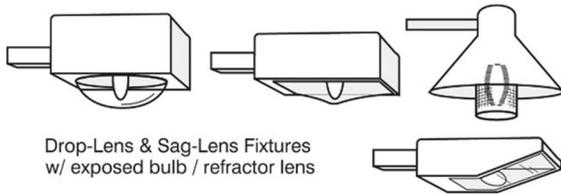
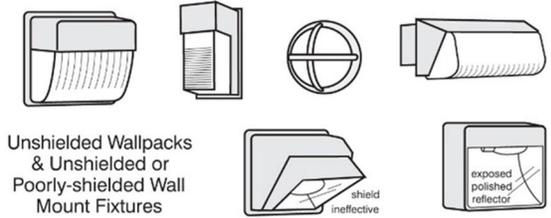
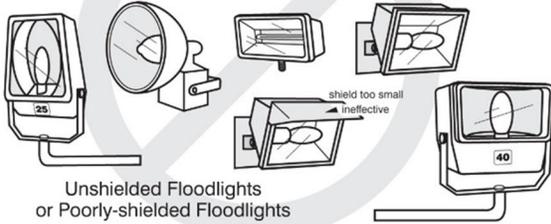
(Lumens = Foot Candles x 10.76)

- (c) When parking lots are within 15 feet of a property line, the placement cutoff light fixtures shall be designed to maintain the illumination levels at the property line as cited in Table 3.3-2.
- (d) Wall packs on buildings may be used at entrances to a building to light unsafe areas. They are not intended to draw attention to the building or provide general building or site lighting. "Wall Packs" on the exterior of the building shall be fully shielded so the light source is not visible and will (~~true cut-off type bulb or light source not visible from off-site~~) to direct the light vertically downward.
- (e) Lighting Fixtures. Examples of acceptable and unacceptable lighting fixtures are shown below. This is not meant to be an exhaustive list, but to emphasize that lighting shall be fully shieldedshielded, and light fixtures shall emit light downward regardless of the location of the bulb or plastic covering that may emit light outward.

# Examples of Acceptable / Unacceptable Lighting Fixtures

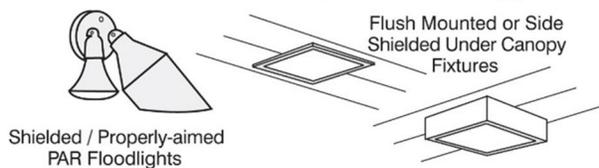
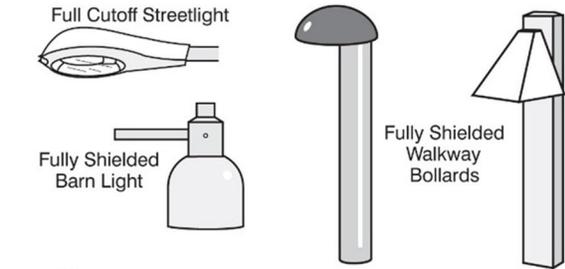
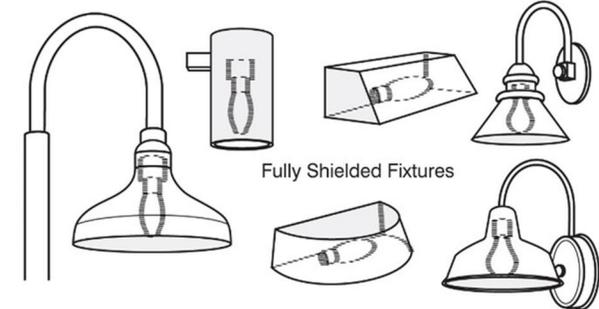
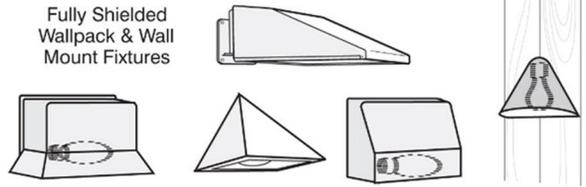
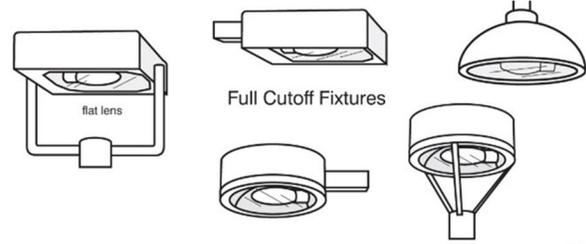
## Unacceptable

Fixtures that produce glare and light trespass



## Acceptable

Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



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**(E) Temperature of Lamps.** ~~To minimize the amount of harmful blue light in the nighttime environment, Lighting sources, or lamps (bulbs), shall not exceed a maximum Correlated Color Temperature (CCT) of 3,000 degrees Kelvin (as listed on the packaging or manufacturer specifications).~~

**(F) Lighting Controls.** This provision applies to zoning districts C1, C2, I1, PI-S, and CD-S.

~~(1) Outdoor lighting shall be extinguished by at least 50 percent at or before 11pm and continuing until dawn or the start of business, whichever is sooner. The reduction shall be determined as an overall average for a site. When possible, the lighting system should be turned off entirely, and indoor lighting visible through a glass wall [is there a better way to cover building like the Weitz?] shall utilize motion sensors, timers and/or programmable controllers. Time of outdoor lighting reduction shall be 11:00 pm. After such time, total outdoor brightness (lumens) shall be reduced by at least 50% or turned off. It is recommended that outdoor lighting be turned off when no one is present to use the light.~~

~~(2) Lighting reductions are NOT required for any of the following: Under the following circumstances, lighting need not adhere to the lighting standards in Section Xx.XX (F) applicable after 11 PM.~~

~~(a) Outdoor lighting consisting of only one light fixture.~~

~~(b) Lighting required by the Building Code for steps, stairs, walkways and building entrances.~~

~~(c) Lighting governed by special use permit in which times of operation are specifically identified. If normal business operations extend beyond 11PM. In those cases, the lighting reduction standards applicable after 11PM shall apply upon closing.~~

~~(d) Businesses that operate on a 24-hour basis Permitted 24 hour operations.~~

~~(e) Where, as determined by the City, lighting levels must be maintained for safety reasons or special events.~~

~~(f) Lighting for one- and two-family structures.~~

**(5) Exemptions.**

A) Outdoor athletic facilities developed on property zoned CD-S College Development Zone and other zones where athletic facilities are a permitted or accessory use shall be exempt from the lighting standards of this section except that lighting for such facilities shall adhere to these standards after 12:00 a.m.

B) Temporary seasonal lighting provided that individual lamps are less than ten watts and 70 lumens.

C) Temporary lighting for theatrical, television and performance areas.

A)D) Lighting within right-of-way.

**(6) Nonconforming Outdoor Lighting.**

(a) The nonconforming use of lighting may continue until the luminaire structure or fixture (total fixture, not just the bulb) is replaced, at which point the lighting shall be subject to all the standards of this subsection with the exception of the maximum height.

(b) When a nonconforming lighting fixture, including the pole or support, is removed, the lighting fixture shall lose its legal nonconforming status and all new lighting shall be subject to all standards of this subsection.

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## II. Amendment to the Northfield City Code, Chapter 16, Art. 2 (Northfield Property Maintenance Code)

### Sec. 16-23. - Amendments.

The IPMC is adopted with the following amendments:

(1) *Section 101.1. Title.* Amended to read: These regulations shall be known as the Property Maintenance Code of the City of Northfield, hereinafter referred to as "this code."

...

(4) *Section 302.4. Weeds.* Amended to read: All premises and exterior property shall be maintained free from weeds or plant growth in excess of twelve inches in height. All noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs provided; however, this term shall not include cultivated flowers and gardens. ...

(5) *Added after Section 302.9: Section 302.10:* All outdoor lighting shall be maintained to conform to the applicable standards of Chapter 34, Article 3.3.4 with regard to shielding, maximum illumination, color temperature, lighting controls, and trespass.

## III. Amendment to the Northfield City Code, Chapter 46 (Nuisances)

### Section 46-5

~~(17) Reflected glare or light from private exterior lighting not consistent with the regulations found in Chapter 34 Article 3.3.4. not exceeding 0.5 footcandles as measured on the property line of the property where the lighting is located when abutting any residential parcel, and one footcandle when abutting any commercial or industrial parcel.~~

### Sec. 46-6: Light pollution

~~1) No person shall cause light trespass constituting an unreasonable interference with the common and usual use of a neighboring property or with the public's opportunity to observe the night sky within the limits of the city of Northfield. Any such trespass is hereby declared to be a public nuisance, which is prohibited by this section.~~

~~2) It shall be the duty of the city administrator to give notice to any person violating this section to remove or abate the nuisance forthwith. If the owner or occupant of any premises on which a nuisance is situated shall neglect to remove or abate the nuisance within 24 hours, it shall be lawful for the city administrator to cause the nuisance to be removed or abated and, for that purpose or for the purpose of enforcing this section, may enter any building or go upon any lot or premises in the city.~~

~~3) City staff or designee shall perform audits of all outdoor lighting in the city. The first audit shall be completed by [date]. Subsequent audits shall take place at intervals determined by the city administrator but no less than once every 10 years. These audits shall identify all lighting that does not conform to the~~

~~standards of Chapter 34, Article 3.3.4 with regard to shielding, maximum illumination, color temperature, and trespass. The results of these audits shall be made available to the public.~~