

Chapter 15.22

Outdoor

Lighting

Section 15.22.010 Short Title. This Ordinance may be cited as the “Outdoor Lighting Ordinance” of the City of Cambridge (the “City”).

Section 15.22.020 Purpose. The purpose of this Outdoor Lighting Ordinance is to regulate outdoor lighting, as defined in this Ordinance, in the City, the intent being to permit an amount of outdoor lighting that is appropriate to allow for the safe use and enjoyment of outdoor areas, while also mitigating potential nuisance in the form of light trespass and glare to abutters and the public at large, reducing light pollution, and promoting energy conservation.

Section 15.22.030 Definitions.

- A. **Architectural lighting** means lighting designed to reveal architectural beauty, shape and/or form and for which lighting for any other purpose is secondary.
- B. **Building envelope** means the separator between the interior and exterior of a building. Components of the envelope are typically: walls, floors, roofs, fenestrations and doors.
- C. **Correlated color temperature (“CCT”)** means a specification of the color appearance of the light emitted by a lamp, relating its color to the color of light from a reference source when heated to a particular temperature, measured in Kelvin (K).
- D. **Emergency lighting** means lighting that is only activated during an emergency; lighting for illuminating the path of egress solely during a fire or other emergency situation or, lighting for security purposes used solely during an alarm.
- E. **Fully shielded light fixture** means a light fixture constructed, installed in such a manner that all light emitted by the light fixture, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the light fixture, is projected below the horizontal plane through the light fixture's lowest light-emitting part.
- F. **Glare** means lighting entering the eye directly from luminaires or indirectly from reflective surfaces that causes visual discomfort or reduced visibility.

- G. **High Intensity Discharge (“HID”)** means a discharge lamp where the emitted energy (light) is produced by the passage of an electric current through a gas. HID includes mercury, metal halide, and high pressure sodium (“HPS”) lamps.
- H. **Illuminance** means the density of the luminous flux incident on a surface; it is the quotient of the luminous flux by the area of the surface when the latter is uniformly illuminated.
- I. **Lamp means** a source of optical radiation, often called a “bulb” or “tube,” such as incandescent, fluorescent lamps, high-intensity discharge (“HID”) lamps, and low pressure sodium (“LPS”) lamps, as well as light-emitting diode (“LED”) modules and arrays.
- J. **Landscape lighting** means lighting of trees, shrubs, or other plant material as well as ponds and other landscape features.
- K. **Light bulb. See “Lamp.”**
- L. **Light fixture. See “Luminaire”** means a complete lighting unit consisting of one or more light bulbs together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power supply. Sometimes this includes ballasts or drivers, and photocells. For the purpose of this Ordinance, light fixture shall be synonymous with luminaire.
- M. **Light trespass** means lighting that falls beyond the boundaries of the property it is intended to illuminate.
- N. **Lighting** means electric, man-made, or artificial lighting. See lighting equipment.
- O. **Lighting equipment** means equipment specifically intended to provide gas or electric illumination, including but not limited to, lamp(s), luminaire(s), ballast(s), poles, posts, lens(es), electrical wiring, and related structures or other necessary or auxiliary components.
- P. **Lighting plan** means a site plan depicting the property lines of all properties for which lighting is proposed, the location and specification of all exterior light fixtures to be installed within the property, their lumen values, mounting heights, shielding and directionality, controls and the location of all adjacent streets, the uses of abutting properties and properties located directly across a street, any relevant project site conditions, vertical illuminance calculations, and any additional information required to demonstrate compliance with applicable standards.
- Q. **Lighting pollution** means adverse effects of lighting, as defined in this Ordinance, including, but, not limited to, glare, light trespass, sky glow, energy waste, compromised safety and security, and impacts on the nocturnal environment.
- R. **Lighting Zone (“LZ”)** means an overlay zoning system establishing legal limits for lighting

for particular parcels, areas, or districts in a community. Lighting Zone 3 includes the following applicable zoning districts: Residence C-3, C-3A or C-3B; Office 2, 2A or 3; Business B or C; Industry B, B-1, B-2 or C; Special Districts 1, 3, 4, 4A, 5, 6, 7, 8, 11, 15 and any other Special District whose general zoning limitations derive from one of the previously listed base zoning districts; Mixed-Use Development District: Kendall Square (MXD) and Cambridgeport Revitalization Development District (CRDD); all Planned Unit Development (PUD) districts and Alewife Overlay Districts (AOD). Lighting Zone 2 includes the zoning districts not listed under Lighting Zone 3.

- S. **Low-Pressure Sodium (“LPS”)** means a discharge lamp where the light is produced by radiation from sodium vapor at a relatively low partial pressure (about 0.001 torr). LPS is a “tube source” and is monochromatic light.
- T. **Lumen** means the unit of measure used to quantify the amount of light produced by a lamp or emitted from a luminaire or light fixture (as distinct from “watt” or other measure of a lamp’s power consumption).
- U. **Luminaire. See “Light Fixture”** means a complete lighting fixture, consisting of a lamp, or lamps and ballast(s) (when applicable), together with the parts designed to distribute the light from the fixture (i.e., reflector, lens, diffuser), to position and protect the fixture, and to connect the fixture to the power supply.
- V. **Lux** means the SI unit of illuminance. One lux is one lumen per square meter. 1 Lux is a unit of incident illuminance approximately equal to 1/10 footcandle.
- W. **New lighting** means lighting for areas not previously illuminated, or newly installed lighting of any type, except for replacement lighting or lighting repairs.
- X. **Outdoor or exterior lighting** means lighting equipment installed within the property line and outside the building envelope of a subject property, whether attached to poles, building structures, the earth, or any other location, and any associated lighting control equipment.
- Y. **Partly shielded light fixture** means a light fixture with opaque top and translucent or perforated sides, designed to emit most light downward.
- Z. **Replacement lighting** means lighting installed in order to replace existing lighting
- AA. **Seasonal lighting** means holiday lighting in use for not longer than a consecutive four week period in any calendar year.
- BB. **Shielded directional light fixture** means a light fixture that includes an adjustable

Commented [CA1]: no one knows what SI means. This rewrite is in alignment with the definition for lumen, above.

Commented [BC2]: “SI” means International System of Units. Removed CLA’s edit but will discuss proposed text and grammatical changes with Law Dept. and Parsons Brinckerhoff. Put back the MLO definition of “Lux”.

Commented [L3]: Can’t make a change here without changing zoning.

Commented [BC4]: Peter Calkins proposes to extend the seasonal lighting to 6 weeks to allow for the customary period between Thanksgiving and the weekend after New Years Day.

mounting device allowing aiming in more than one direction and that also contains a shield, hood, cowl, louver, or baffle to reduce direct view of the lamp.

CC. Substantial rehabilitation means work area defined in construction documents is 50% or more of the gross floor area of the building.

DD. **Sky glow** means the brightening of the nighttime sky that results from scattering and reflection of artificial light by moisture and dust particles in the atmosphere, caused by light directed or reflected upwards or sideways, and which reduces ability to view the night sky.

EE. **Temporary lighting** means lighting not covered under an electrical permit issued by the City's Inspectional Services Department and installed and operated for periods up to 30 days, and thereafter, completely removed and not operated again for a period of at least 630 days. Additional restrictions may apply in zoning districts specified in Article 7, Section 7.20 of the Cambridge Zoning Ordinance.

FF. **Unshielded light fixture** means a light fixture capable of emitting light in any direction.

GG. **Vertical illuminance** means illuminance measured or calculated in a plane perpendicular to the property boundary or property line of a subject property.

Section 15.22.040 Effective Date This Ordinance shall take effect on three (3) months from the date of enactment.

Section 15.22.050 General Requirements.

A. Conformance with all Applicable Codes. Except as otherwise provided in this Ordinance, all outdoor lighting, as defined in this Ordinance, shall be installed and maintained in conformance with all applicable federal, state, and local laws, rules, and regulations, including, but not limited to, applicable sections of the Massachusetts Building Code, the Cambridge Zoning Ordinance, and the Cambridge Municipal Code. Provisions in the Cambridge Zoning Ordinance Article 7.20 regarding lighting in residential zones A, B, C, and C1 shall remain in force alongside provisions in this Ordinance. Provisions in the Cambridge Zoning Ordinance Articles 6.41, 6.46, and 6.93 regarding lighting parking areas and loading bays remain in force alongside provisions in this ordinance. Nothing in this Ordinance shall be construed to override provisions in the Cambridge Zoning Ordinance Article 7.0 on Signs and Illumination.

B. Applicability. Except as set forth in this Ordinance, all outdoor lighting installed after the effective date of this Ordinance shall comply with the requirements of this Ordinance. This includes, but is not limited to, new lighting, replacement lighting, or any other lighting whether

Commented [CA5]: This would limit it to four rather than 6 months a year.

Commented [CA6]: Why is this here? This is just a list of definitions, not rules about lighting in the city.

Commented [BC7]: Removed suggested edit but will discuss proposed text and grammatical changes with Law Dept. and Parsons Brinckerhoff.

Commented [JCR8]: I'd advise against calling out specific parts of the zoning ordinance since they could be modified independently of this ordinance. My recommendation would be simply this:

"Requirements in the Cambridge Zoning Ordinance applicable to lighting shall remain in force alongside provisions in this Ordinance and shall not be superseded by this Ordinance."

attached to structures, poles, the earth, or any other location, including lighting installed by any third party that receives an electrical permit from the City's Inspectional Services Department. Except as otherwise provided in this Ordinance, all outdoor lighting installed prior to the effective date of this Ordinance shall be altered or replaced so as to comply with these requirements within five (5) years of the effective date of this Ordinance.

Commented [CA9]: What does this mean with respect to properties large enough for LEED LPC? Do they have to do LEED retroactively or do they get a free pass?

Commented [BC10]: After 5 years of the effective date; properties must either follow the Performance Standard or the Prescriptive Standard.

Commented [BC11]: Glenn Heinmiller's comment: "So if a property owner has four outdoor light fixtures and replaces one, they are forced to replace the others, even if they are perfectly good and not causing any light pollution and their property is in compliance with the ordinance? This makes no sense. You don't need this. The ordinance requires that property owners of existing buildings comply within 5 years. Compliance might require replacement of fixtures, or might not. That is the property owners problem. I don't think you need this whole provision #3 at all, since there is no longer any "grandfathering" in the ordinance. This clause is used when existing lighting is grandfathered, but you want to make sure that if a fixture is replaced you do not repeat existing bad lighting."

B.C. Replacement of Light Fixtures and Light Bulbs. When any outdoor light fixture is replaced, the replacement light fixture shall comply with this Ordinance. Where a light bulb is replaced within an existing non-compliant light fixture, and the light fixture itself is not replaced or repaired aside from the replacement of the light bulb, the light fixture may remain provided that the replacement light bulb is compliant with the applicable initial lumen standards or vertical illuminance standards set forth in this Ordinance, and provided that the light fixture is not otherwise altered to be in greater non-compliance with the requirements of this Ordinance. Any replacement of 25% or more of existing outdoor light fixtures shall require all existing outdoor light fixtures to be brought into conformance with this Ordinance.

Commented [BC12]: 1) I believe that the intent of the complaint driven system was to only impact property owners that received complaints. This will require property owners to comply with the Prescriptive Standard when pulling a permit for any installation, even if a complaint has not been filed.

2) All fixtures will be expected to comply with ordinance after 5 years, regardless of replacement percentage. T...

D.E. Interim Modifications. Within six months of the effective date of this Ordinance, property owners shall make improvements where possible to eliminate or substantially ameliorate light trespass onto adjacent lots by: (1) replacing a light bulb within an existing light fixture to be in conformance with the lumen standards of this Ordinance, and/or (2) changing the direction of an existing fixture to be directed downward or away from abutting properties.

Commented [CA13]: We added this because the "significant rehabilitation" only refers to building renovation, not specifically to outdoor lighting. Kelly reminded us that this 25% mandate is in many lighting ordinances.

D.E. Light Color.

a) Correlated color temperature of any outdoor light source shall not exceed 3500 Kelvins.

Commented [L14]: This seems heavy handed since we already have a substantial renovation trigger and Interim Modifications. After 5 years, everyone will need to comply anyway.

F. Prescriptive Standards.

Exterior lighting that meets the standards set forth in the table below shall be permitted in the City; however, for any new construction, or any substantial rehabilitation of an existing building for an existing or new use, that totals 10,000 square feet of Gross Floor Area or more in Lighting Zone 2, or 25,000 square feet of Gross Floor Area or more in Lighting Zone 3 that occurs on a property after the effective date of this Ordinance, then that property shall be required to meet the Performance Standards set forth in this Ordinance. Any other lighting that does not meet the standards set forth in the table below may be permitted in the City if it meets the Performance Standards set forth in this Ordinance.

Commented [L15]: For substantial renovation, please think about the size of the building at 50% you want to trigger. I don't want to trigger 10KSF buildings with on 5KSF of work being done to use the Performance Standard

Commented [BC16]: There are 2 parts to this trigger requirement for existing buildings under rehabilitation:

1)It must be a substantial rehabilitation; and

Commented [BC17]: Glenn Heinmiller's comment: "IF you add an illuminance limit to the "prescriptive" method, then these requirements for mandatory use of the performance method are probably pointless and should be deleted. This is because the "prescriptive" ...

Commented [BC18]: This is the proposed revision to this section based on comments at the last Task Force meeting but before comments from DRAFT submitted by CLA that move this section under Applicability.

Outdoor Lighting Category	Maximum -Allowed Lumens Per Light Fixture	Maximum Height	Shielding and Direction
Unshielded or partly shielded light fixture for entries, work areas, or walkways, placed not less than 4 feet apart (general)	315	12 feet above the surface of the area to be illuminated	Not applicable
Unshielded or partly shielded light fixtures located in a front yard between the building and street in one main entry area, placed not less than 4 feet apart.	630	12 feet above the surface of the area to be illuminated	Not applicable
Fully shielded or shielded directional light fixtures for entries and walkways, placed not less than 4 feet apart, open spaces or buildings.	1,050	12 feet above the surface of the area to be illuminated	All light fixtures shall be located, aimed, and shielded so as to minimize light pollution and light trespass across property boundaries. In LZ2, light trespass of more than 1 lux of vertical luminance shall not be allowed. Must be fully shielded or directed away from all properties that are abutting or located directly across a street
Fully shielded or Fully shielded directional light fixtures and for architectural and landscape lighting.	1,260	Not applicable	All light fixtures shall be located, aimed, and shielded so as to minimize light pollution and light trespass across property boundaries. In LZ2, light trespass of more than 1 lux of vertical luminance shall not be allowed.

Commented [BC19]: Paul Lutkevich and Glenn Heinmiller feel it adds unnecessary protection and complexity but isn't too burdensome so are OK with the change if the Task Force feels it is necessary.

Commented [BC20]: Proposed edit submitted by CLA limits any uplighting to entries, work areas, and walkways. This eliminates architectural and landscape up-lighting in this category. Distance between fixtures needs to be discussed by Task Force.

Commented [L21]: Deleting "one" so we don't miss multifamily and multi-storefront buildings with separate entrances

Commented [BC22]: Does not take into consideration multifamily or multi-storefront buildings with separate main entrances.

Commented [BC23]: Glen Heinmiller's comment: "You better be sure this is the right number before you put it into law. At 1 lux you might have the majority of properties in the city in violation on the day the ordinance goes into effect. An ordinance that is too stringent and difficult to comply with and enforce will just be ignored and fought, leaving you worse off than you are today. Carol Lynn mentioned in her email that "few of us walk around with light meters", but that is exactly what you should be doing. You need to measure many properties around the city in LZ 2 and see what you learn. It won't be easy to decide what t ...

Commented [BC24]: Paul Lutkevich stated that incorporating a numerical lux limit in the Prescriptive Standard would require that the property owner have a light meter and general knowledge of lighting design. This higher expectation is the reason why it was removed from ...

Commented [BC25]: This proposed "back-stop" makes the Prescriptive Standard VERY complicated and EXTREMELY difficult to meet. It will be difficult for any property owner to isolate the light source at the property boundary when lighting from adjacent areas (street lights, neighboring ...

Commented [L26]: This is an unenforceable and burdensome standard. I can't see supporting this based on recommendations from both Glenn and consultants from PB. This is unenforceable and burdensome standard. You can't legally require people to meet a standard they can't ...

Commented [BC27]: Glenn Heinmiller's comment: "IF you add an illuminance limit to the "prescriptive" method, then these requirements for mandatory use of the performance method are probably pointless and should be deleted. This is because the "prescriptive" ...

Commented [BC28]: Paul Lutkevich and Glenn Heinmiller raised concerns that outlining detailed categories under the Prescriptive Standard will cause unintended consequences. By eliminating unshielded lighting of 315 lumens in open areas under the first category the common low-voltage ...

Commented [L29]: This is an unenforceable and burdensome standard. I can't see supporting this based on recommendations from both Glenn and consultants from PB. This is unenforceable and burdensome standard. You can't legally require people to meet a standard they can't ...

Fully shielded or shielded directional light fixtures for parking areas, driveways, or outdoor loading bays.	1260 and resulting in not more than 20 lux on any area of the surface being lit	14 feet above the surface of the parking area, driveway or loading bay	All light fixtures shall be located, aimed, and shielded so as to minimize light pollution and light trespass across property boundaries. In LZ2, light trespass of more than 1 lux of vertical luminance shall not be allowed, and lighting must also conform to Zoning Ordinance Article 6.41, 6.46, and 6.93 requirements.
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Commented [BC30]: Glen Heinmiller's comment: This is a bad idea. A 20 lux maximum light level at any point will easily be exceeded right below the fixtures by perfectly good lighting of driveways or parking areas. The ordinance should be regulating light trespass, not telling someone what the light levels need to be on their driveway.

Commented [BC31]: This is introducing Horizontal Lux INSIDE the property boundary. This makes it very difficult to monitor and enforce.

Commented [BC32]: Paul Lutkevich states that "the ordinance does not mandate light levels of the area being lit, only on light going beyond those areas. A maximum horizontal light level for parking areas should not be in a light trespass ordinance".

Commented [L33]: This is unenforceable and burdensome standard. You can't legally require people to meet a standard they can't possibly measure themselves, then when they are out of compliance, penalize them.

Commented [JCR34]: See above, I think it might be problematic to refer to sections of the Zoning Ordinance where it might be independently amended by the Council.

Commented [BC35]: This is the proposed revision to this section based on comments at the last Task Force meeting but before comments from DRAFT submitted by CLA that move this section under Applicability.

Proposed language for this section submitted by CLA is not included in this draft to allow for readability.

Commented [BC36]: Peter Calkins expressed concerns that the language under the Performance Standard could be interpreted to require all property owners meeting size thresholds in Lighting Zone 2 & 3 to prepare and submit a lighting plan to prove that their buildings comply with the LEED Light Pollution Reduction Credit; regardless if a complaint has been filed.

In particular, buildings in Lighting Zone 3 may have been designed based on higher FAR limits and surrounded by similar structures and are not offending the neighboring properties. These structures should not be required to comply with an "arbitrary" limit and be forced to change existing fixtures if a complaint is not filed.

Commented [c37]: Proposed addition of specific language under the LEED Light Pollution Reduction Credit as it would apply to the Cambridge Outdoor Lighting Ordinance. Additional definitions for terms used under this Performance Standard may be necessary to include at a later date.

G. Performance Standards.

Any exterior lighting installation that does not comply with the limitations set forth in the Prescriptive Standards in this Ordinance must comply with the Performance Standards in this Ordinance. As set forth above, for any new construction, or any substantial rehabilitation of an existing building for an existing or new use, that totals 10,000 square feet of Gross Floor Area or more in Lighting Zone 2, or 25,000 square feet of Gross Floor Area or more in Lighting Zone 3 that occurs on a property after the effective date of this Ordinance, then that property shall be required to meet the Performance Standards set forth below.

1. Standards.

The project must meet the requirements of the Cambridge Performance Standard as modeled after the Light Pollution Reduction credit of the U.S. Green Building Council's LEED v4 BD+C rating system. The Cambridge Performance Standard states:

Requirements

Meet uplight and light trespass requirements, using either the backlight-uplight-glare (BUG) method (Option 1) or the calculation method (Option 2). Projects may use different options for uplight and light trespass.

Meet these requirements for all exterior luminaires located inside the project boundary (except those listed under "Exemptions"), based on the following:

- the photometric characteristics of each luminaire when mounted in the same orientation and tilt as specified in the project design; and
- the lighting zone of the project property (at the time construction begins). Classify the project under one lighting zone using the lighting zones definition provided in this ordinance.

Uplight

Option 1. BUG rating method

Do not exceed the following luminaire uplight ratings, based on the specific light source installed in the luminaire, as defined in IES TM-15-11, Addendum A.

Table 1. maximum uplight ratings for luminaires

<u>Cambridge Lighting Zone</u>	<u>Luminaire uplight rating</u>
<u>LZ2</u>	<u>U2</u>
<u>LZ3</u>	<u>U3</u>

OR

Option 2. calculation method

Do not exceed the following percentages of total lumens emitted above horizontal.

Table 2. maximum percentage of total lumens emitted above horizontal, by lighting zone

<u>Cambridge lighting zone</u>	<u>Maximum allowed percentage of total luminaire lumens emitted above horizontal</u>
<u>LZ2</u>	1.5%
<u>LZ3</u>	3%

AND

Light trespass

Option 1. BUG rating method

Do not exceed the following luminaire backlight and glare ratings (based on the specific light source installed in the luminaire), as defined in IES TM-15-11, Addendum A, based on the mounting location and distance from the lighting boundary.

Table 3. maximum backlight and glare ratings

<u>Luminaire mounting</u>	<u>Cambridge lighting zone</u>		
	<u>LZ2</u>	<u>LZ3</u>	
	<u>Allowed backlight ratings</u>		

> 2 mounting heights from lighting boundary		B4	B5
1 to 2 mounting heights from lighting boundary and properly oriented		B3	B4
0.5 to 1 mounting height to lighting boundary and properly oriented		B2	B3
< 0.5 mounting height to lighting boundary and properly oriented		B0	B1
Allowed glare ratings			
Building-mounted > 2 mounting heights from any lighting boundary		G2	G3
Building-mounted 1–2 mounting heights from any lighting boundary		G1	G1
Building-mounted 0.5 to 1 mounting heights from any lighting boundary		G0	G1
Building-mounted < 0.5 mounting heights from any lighting boundary		G0	G0
All other luminaires		G2	G3

[The lighting boundary is located at the property lines of the property but can be modified under the following conditions:](#)

- [When the property line abuts a public area that includes, but is not limited to, a walkway, bikeway, plaza, or parking lot, the lighting boundary may be moved to 5 feet \(1.5 meters\) beyond the property line.](#)
- [When the property line abuts a public street, alley, or transit corridor, the lighting boundary may be moved to the center line of that street, alley, or corridor.](#)
- [When there are additional properties owned by the same entity that are contiguous with each other and have the same or higher numbered Cambridge lighting zone designation, the lighting boundary may be expanded to include all those properties.](#)

[Orient all luminaires less than two mounting heights from the lighting boundary such that the backlight points toward the nearest lighting boundary line. Building-mounted luminaires with the backlight oriented toward the building are exempt from the backlight rating requirement.](#)

OR

Option 2. calculation method

Do not exceed the following vertical illuminances at the lighting boundary (use the definition of lighting boundary in Option 1). Calculation points may be no more than 5 feet (1.5 meters) apart. Vertical illuminances must be calculated on vertical planes running parallel to the lighting boundary, with the normal to each plane oriented toward the property and perpendicular to the lighting boundary, extending from grade level to 33 feet (10 meters) above the height of the highest luminaire.

Table 4. maximum vertical illuminance at lighting boundary, by lighting zone

<u>Cambridge lighting zone</u>	<u>Vertical illuminance</u>
<u>LZ2</u>	<u>0.10 fc (1 lux)</u>
<u>LZ3</u>	<u>0.20 fc (2 lux)</u>

AND

Exemptions from uplight and light trespass requirements.

The following exterior lighting is exempt from the requirements, provided it is controlled separately from the nonexempt lighting:

Lighting that is used solely for façade and landscape lighting in Cambridge lighting zone 3, and is automatically turned off from midnight until 6 a.m.

- 2. Application Requirements.** In order to apply the ~~Alternative~~ Performance Standards, a lighting plan as defined in this Ordinance or as required to meet LEED LPR credit certification must be prepared by a registered architect or professional engineer licensed in the Commonwealth of Massachusetts, and submitted to the Inspectional Services Department with accompanying calculations certifying that the lighting depicted in the lighting plan shall conform to the ~~Alternative~~ Performance Standards set forth in this Ordinance. The ~~Alternative~~ Performance Standards shall not be applied unless such a lighting plan has been approved by the Commissioner of Inspectional Services or her/his designee. Nevertheless, should the lighting as installed and maintained fail to meet the minimum LEED LPR credit requirements and be determined to be in violation of the light trespass protections

afforded in the LEED LPR system, than that lighting shall be considered in violation of this Ordinance.

Commented [JCR38]: This entire section may require more detail as to what LEED means, what USGBC means, and how compliance is demonstrated and certified.

Commented [BC39]: Law Department might decide to include the language of the LEED-LPRC in the ordinance rather than referring to the USGBC's version.

H. Exemptions from Applicability.

1. Lighting within public ways for the principal purpose of illuminating public ways. No exemption shall apply to any lighting within a public way when the purpose of the luminaire or light fixture is to illuminate areas outside the public way, other than as provided in this Ordinance.
2. Lighting for public parks or public art that is commissioned, owned, or operated by a city, state, or federal entity, or that is required by the City, by special permit, or otherwise by law to be accessible to the general public.
3. Lighting for public monuments, statuary, or the national flag.
4. Architectural lighting that has received a Certificate of Appropriateness from the Cambridge Historical Commission or neighborhood conservation district commission.
5. Architectural lighting of structures or buildings listed on the National Register of Historical Places.
6. Lighting solely for signs as regulated under Article 7 of the Cambridge Zoning Ordinance.
7. Temporary Lighting for theatrical or television production, or performance areas, if an electrical permit has been received from the City's Inspectional Services Department.
8. Temporary Lighting for work areas at construction sites, if an electrical permit has been received from the City's Inspectional Services Department.
9. Underwater lighting in swimming pools and other water features.
10. Temporary lighting or seasonal lighting as defined in this Ordinance.
11. Lighting for hospital emergency departments, including associated helipads.
12. Lighting that is only used under emergency conditions.
13. Lighting required by federal, state, or local laws, rules or regulations.

Commented [CA40]: Temporary lighting in this ordinance can last 30 days. Theatrical lighting is intense and should be short-term.

Commented [BC41]: Requesting that Law Department remove "Temporary" from this exemption.

Commented [BC42]: Requesting that Law Department remove "Temporary" from this exemption.

Commented [BC43]: CLA proposed that "Temporary" be deleted from this exemption. However, "Temporary" is a separate definition from "Seasonal" and covers lighting that may not require a permit from ISD.

Commented [L44]: We cannot legally stipulate this.

Section 15.22.060 Administrative Exemption. The Commissioner of Inspectional Services shall have the authority to grant a partial or complete waiver of the requirements of this Ordinance where the property owner has submitted an Application for Administrative Exemption demonstrating that: 1) bringing the source of light for which the administrative exemption is sought into compliance with this Ordinance would constitute a demonstrably unreasonable hardship on the applicant, as balanced against the potential hardships impacts on abutters and others affected by the lighting; or 2) bringing the source of light for which the administrative

Commented [JCR45]: I'm not sure if "hardships on abutters" is an established concept, hardship usually means that for some reason an individual is unduly constrained by having to follow the regulation.

Maybe the intention is meant to be "impacts on abutters" which is more typical as a way to justify the regulation.

exemption is sought into compliance with this Ordinance would result in conditions that are detrimental to public health, safety, or welfare. The property owner seeking the administrative exemption shall file the Application for Administrative Exemption with the Inspectional Services Department demonstrating one of the two requirements for an administrative exemption listed above. ~~The ISD shall give fair notice to abutters and others affected by the lighting and provide an opportunity for them to state their case. All decisions on administrative exemptions shall state the reasons clearly and be available as public records of the property applying for an Administrative Exemption.~~

Other persons contesting the exemption may be asked to submit any information the Commissioner may reasonably require. In granting or denying the exemption, the Commissioner will place on public file a copy of the decision and the reasons for granting or denying the exemption.

Commented [L46]: Example from the Noise Ordinance.
Added an abutter notification

Section 15.22.070 Enforcement.

- A. Enforcement Officials.** The Commissioner of Inspectional Services or her/his designee shall be the authorized enforcement personnel charged with the enforcement of the provisions of this Ordinance.
- B. Violations.** Authorized enforcement personnel may order and specify remedial actions to be taken by a violator of this Ordinance to achieve compliance, or issue citations, pursuant to G. L. c. 40, § 21D, for violations of these provisions, assessing fines of three hundred dollars for each such violation. Each day such a violation continues shall constitute a separate offense. Additionally, any person found to be in violation of any of the provisions of this Ordinance may be prosecuted for a misdemeanor and upon conviction thereof shall be fined three hundred dollars for each such misdemeanor.
- C. Injunction.** As an additional remedy, any outdoor lighting installed or maintained in violation of any provision of this Ordinance may be subject to abatement summarily by a restraining order or injunction issued by a court of competent jurisdiction.
- D. Suspension or Revocation of Permit.** As an additional remedy, any enforcement official hereunder may summarily suspend, and after a hearing may revoke, any license or permit, including a building, demolition, or electrical permit.