

Outdoor Lighting Task Force Meeting

September 2015

CAMBRIDGE
CDD@344

Mission of Task Force

The goal of good lighting standards is to improve nighttime visibility, create a pleasant ambiance, maintain safety, be considerate of others and ensure security in Cambridge neighborhoods. Considerate exterior lighting should be the responsibility of all: City government, our businesses, our institutions, and our residents. By encouraging good practices that direct appropriate lighting where and when it is needed, we will use less energy, save money and be better neighbors.

Good outdoor lighting promotes safety, preserves and enhances neighborhood character, reduces or prevents light from spilling onto neighboring properties, promotes energy conservation, saves money, enhances the night-sky beauty, respects the need for safety and security in our neighborhoods, and improves the quality of life for people and wildlife.

Goals of an Outdoor Lighting Ordinance

- **Lighting for Public Safety** – Proper lighting provides better visibility at night and creates a sense of security for pedestrians. This safe environment allows residents and visitors to enjoy neighborhood activities without the fear of criminal activity that takes place in poorly lit areas.
- **Broader Environmental Impacts** – Excessive light uses energy in an inefficient manner. The City's campaign to reduce the community's carbon foot print includes energy conservation as a cornerstone for this environmental platform. Reducing light levels throughout the City conserves electricity which limits the use of fossil fuels and the production of greenhouse gases.
- **Protection of the Night Sky** – Light pollution is the scattering of artificial light in the night sky as a byproduct from an inefficient light fixture. Light emitted beyond the surface intended to be illuminated contributes to the cumulative glow that blocks the night from view in urban settings and causes negative impacts to wildlife that are disrupted by artificial light.

Timeline

1st OLTF meeting:
Discuss scope,
current zoning

2nd OLTF
meeting:
Walking Tour
▪ Proposed
mounting
height limits
and lumen
levels.

3rd OLTF
meeting:
Initial
proposal by
consultant
based on
walking tour
discussion.

4th OLTF meeting:
• 4,000K color
temp. proposed
• Phase-in of
existing lighting
• Using ordinance
instead of
zoning

5th OLTF
meeting:
Prescriptive and
Performance
standards
presented

6th OLTF
meeting:
Recommends
tying
Performance
Standard to US
Green Building
LEED

December
2013

January
2014

February
2014

April
2014

May 2014

August
2014

Timeline



Process going forward

- Task Force finalizes ordinance
- Provide report & ordinance to City Manager
- City Manager presents ordinance & report to City Council
- Council refers to Ordinance Committee
- Ordinance Committee makes a recommendation to Council, who will then vote on it.



Goals

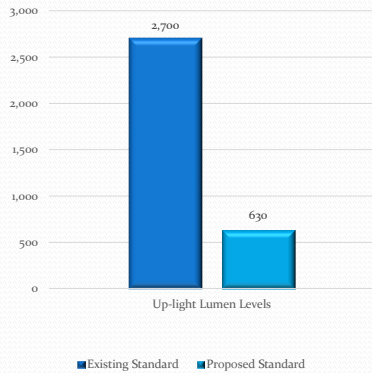
- Finalize the draft as presented, with changes suggested tonight incorporated into the final.
- Staff will write a report to City Manager/City Council which includes a copy of the draft ordinance and:
 - Executive Summary and Recommendations
 - Introduction and objectives (Mission/goals of Task Force)
 - History and community process to date
 - Report will note where there is not 100% agreement on issues so both the City Manager and City Council are made aware

Issues Remaining

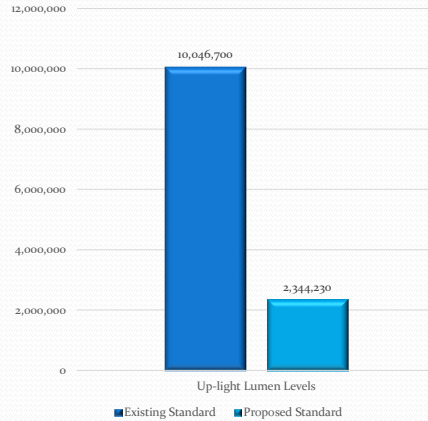
Issue	Concern
Model Lighting Ordinance's Lighting Zone designations across Cambridge	Question as to where the zones are located across city
Auto shut-off	Automatic shutoffs for outdoor lighting
4000K color temperature	Limit is too high.
Capacity of ISD/ISD review process	Concerned that ISD doesn't have the capacity to administer and enforce the rule and exemption process
5 year phase-in and 3-month notice period	Too long
8 lux level in Performance Standard	Concerns this level is too high.
Up-lighting/full shielding	Up-Lighting should not be allowed. All exterior lights shining into the night sky would be prohibited.

Appendix: Comparison – Existing v. Proposed example only

Estimated Single-Family Residential Property Up-light Lumen Level - for two unshielded porch lights



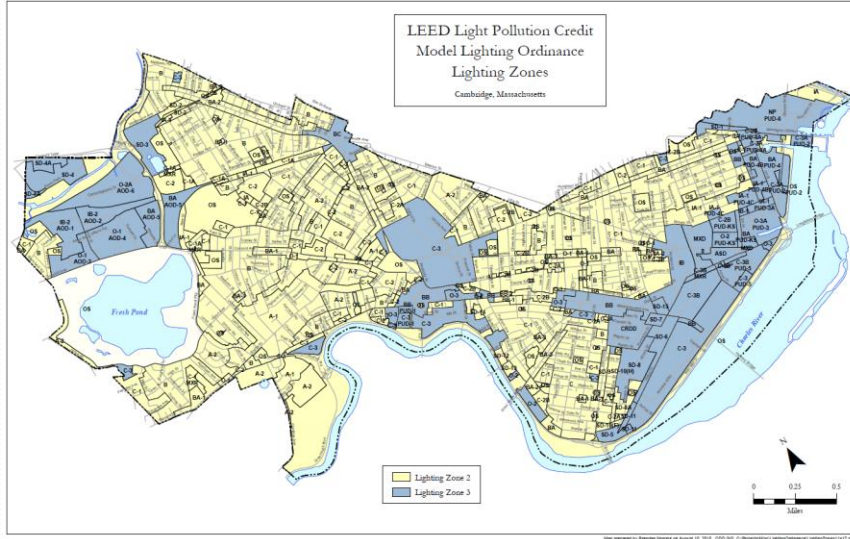
Estimated Up-light Lumen Levels for all Single-Family Residential Properties - for two unshielded porch lights



Appendix: Municipal Comparison example only

City/Area	Cambridge	Newton	Arlington	Lexington	Laguna Beach	Boulder	San Diego	Tucson
Zoning/Ordinance	Ordinance	Ordinance	Ordinance	Zoning	Ordinance	Ordinance	Ordinance	Ordinance
Lumen level defined/max	Yes	3.5 lux at 5 ft beyond property line for trespass;	No; only uses "reasonable" as a standard	> 2000 lumens fully shielded, excludes 1/2 family homes	>750 lumens fully shielded or motion controlled safety lights < 2400 lumens	Based on zoning district: Residential-900 lumens unshielded & 1 Lux at Property Line	None but full-shielding required for fixtures > 4,050 lumens	Lumen Cap per acre and based on lighting zones/prescriptive option for small residences limits number of fixtures
Process	Complaint	Complaint	Complaint	Unknown	Complaint	Building Permit Verification	Unknown	Complaint
Enforcement	ISD	ISD	ISD	ISD	Community Dev Dept	ISD/Land Use	Building Dept.	Building Dept.
Variations allowed?	ISD	No	No	(SPGA) special permit granting authority	Community Dev Dept	Yes	Temporary Exemptions for no more than 30 days.	Temporary Exemption for 30 days.
Residential/commercial Lighting Plan Required	Different	Different	Same	Same	Same	Different	Different between areas near major astronomical observatories.	6 different lighting zone designations.
Phase in	Sometimes	No	No	All	No	Yes multifamily and commercial	No	Yes
Color Temperature Limit	5 years (2020)	Yes; 10 years (2015)	Yes; 1 year	None. Existing lighting grandfathered.	90 days after complaint	Yes; 15 years (2018)	No, but applies to new and replacement fixtures.	No, applies to new and replacement (25%) fixtures.
Color Temperature Limit	4000 K	No	No	No	3000 K for unshielded/no limit for shielded.	No	4000 K	3500 K

Appendix: Lighting Zone



Appendix: Historic and Neighborhood Conservation Districts

