

Study Description

An **Illumination Study** demonstrates that a proposed development will not have any negative impact on adjacent parcels and roadways in terms of lighting and demonstrates compliance with Dark Sky Policies. An **Illumination Study** comprises a *lighting plan*, which demonstrates the location, height, and type of lighting fixtures on the site and proposed buildings, including the location of electrical supply, and a *photometric plan*, which demonstrates the lighting fixture locations and illumination levels.

Purpose

- To demonstrate a proposed development's conformity with the applicable policies of the Official Plan and regulations of City by-laws
- To demonstrate adherence to relevant urban design guidelines, standards, and feedback provided at the pre-consultation meeting

Who should prepare this?

An engineer qualified in exterior, roadway, and parking lot lighting. All reports and drawings must be stamped, signed and dated by a qualified professional, licensed in the Province of Ontario.

When is this required?

In support of an application for Site Plan Control

Required ContentsLighting Plan:

- The location of all existing and proposed exterior lighting fixtures
- The mounting height of all existing and proposed fixtures (from adjacent grade to underside of the fixture)
- The site areas and/or building elements intended to be illuminated
- That the lighting fixtures, electrical conduit, and areas to be illuminated do not conflict with existing or proposed vegetation
- Notations that all exterior lighting fixtures are full cut-off to direct illumination downward and dark sky compliant to reduce light pollution, sky glare, and light trespass onto neighbouring properties
- Manufacturer's data demonstrating the specifications for all proposed lighting fixtures, including the photometric data, designation as IESNA "full cut-off" fixtures, and other descriptive information related to the fixtures

Photometric Plan:

- Provide all illumination levels in lux
- Demonstrate illumination levels of 0.0 lux measured at all property lines
- Provide readings that extend 6.0m beyond the property lines of the subject site

What else should we know?

The information on the *lighting plan* must be coordinated with all other required submission materials and drawings and must follow the standards as outlined in the Illuminating Engineering Society (IES) Standards.

What other resources are available?

Professional Engineers Ontario - To hire a professional engineering consultant, consult the directory:

<http://forum.peo.on.ca/cgi-bin/CED/CEDSearch.cgi>

Section 5.0 Lighting (Dark Sky) of the Urban Design Manual:

<https://www.barrie.ca/City%20Hall/Planning-and-Development/Documents/UrbanDesignManual-DevelopmentProcess.pdf#search=urban%20design%20manual>

Illuminating Engineering Society (IES) Standards:

<https://www.ies.org/standards/joint-standards/>

Notes

If the proposed development is revised, the study/report shall reflect the revisions by an updated report or letter from the author indicating the recommendations and conclusions are the same.

Please note that a peer review may be required. The cost of the peer review will be borne by the applicant.

Please note that the requirements of this study may vary depending on the nature of the proposal. This will be determined through the pre-consultation process and in consultation with any applicable external agencies.

If the submitted study is incomplete, is authored by an unqualified individual, or does not contain adequate analysis, the application will be considered incomplete and returned to the applicant.