Oshawa

Public Report

To:	Safety and Facilities Services Committee
From:	Adam Grant, Commissioner, Safety and Facilities Services Department
Report Number:	SF-26-11
Date of Report:	March 4, 2026
Date of Meeting:	March 9, 2026
Subject:	Benchmarking Standards of Soffit Lighting and Residential Properties
Ward:	All Wards
File:	D-2200

1.0 Purpose

The purpose of this report is to respond to Council's October 27, 2025, direction (SF-25-48) by providing information on soffit lighting design standards and municipal benchmarking of soffit lighting regulations.

2.0 Recommendation

That the Safety and Facilities Services Committee recommend to City Council:

That Report SF-26-11 "Benchmarking Standards of Soffit Lighting and Residential Properties" dated March 4, 2026, be received for information.

3.0 Input From Other Sources

The following were consulted in the preparation of this report:

- Building Services
- Planning Services
- Parks and Road Operations Services
- Electrical Safety Authority
- Local Electricians
- Corporate Security

Additionally, staff conducted a review of the following municipalities' by-laws:

Outside of Durham Region

- Brampton
- Burlington
- Gravenhurst
- Kingston
- Huntsville
- Mississauga
- Richmond Hill
- Toronto

Within Durham Region

- Ajax
- Brock
- Clarington
- Pickering
- Scugog
- Uxbridge
- Whitby

4.0 Analysis

4.1 Background

At its April 14, 2025, meeting, the Safety and Facilities Services Committee ("Committee") received correspondence and a delegation (SF-25-27) outlining concerns about residential soffit lighting and the potential for these fixtures to create nuisances when light shines into neighbouring homes. This issue builds on earlier work initiated in 2019, when at its April 8, 2019, meeting, Council directed staff to examine options for regulating scattered or excessive lighting, review approaches used in other municipalities and consider how advancements in L.E.D. technology have increased the brightness and impact of exterior lighting. Following that review, Council adopted the recommendations in Report CORP1979 and amended Property Standards Bylaw 12002 ("Property Standards By-law") to require that all exterior lighting be installed and maintained so that the light source does not shine directly into a dwelling.

This report provides an analysis of intrusive soffit lighting and relevant exterior lighting standards and responds to Council's direction (SF-25-48) of October 27, 2025, appended as **Attachment 1**. Council directed staff to review and report back on appropriate benchmarking standards to inform a potential by-law update related to intrusive soffit lighting and exterior illumination, including:

- recommended maximum lumen intensity levels,
- guidance on the typical number and placement of soffit-mounted lights,
- acceptable maximum durations for continuous illumination, and
- a comparison of Oshawa's current standards and exemptions with those used in municipalities outside Durham Region.

4.1.1 What is Soffit Lighting?

Exterior façade residential lighting encompasses a broad range of lighting fixtures installed on or around a dwelling. While often used for aesthetic appeal, many residents also install exterior lighting to improve visibility, safety, and security. From a security standpoint, homeowners commonly view exterior lighting as a way to deter trespassing or vandalism and to increase visibility around doors, garages, and other access points. Common forms of exterior façade lighting on residential properties include, but are not limited to, porch and entryway lights, wall-mounted fixtures, garage and driveway lighting, pathway and landscape lighting, security or flood lighting, and decorative or architectural lighting.

Soffit lighting refers specifically to lighting fixtures installed into or attached to the soffit, which is the underside of a roof overhand along the exterior of a building (please see **Attachment 2** for images of soffit lighting). In residential settings, soffit lighting is most commonly used to provide downward illumination along building façades, entryways, walkways, or driveways, and is most commonly used for architectural accent lighting.

Soffit lighting fixtures can take various forms, including recessed fixtures, surface-mounted fixtures (e.g., Christmas lights, light strips), and adjustable fixtures (i.e., fixtures that can be tilted, angled). With advances in light technology, soffit lighting is now frequently installed using high-output Light Emitting Diode (L.E.D.) products, including fixtures that are dimmable or capable of colour-changing and programmable operation (e.g., time duration).

While exterior residential lighting includes a wide range of fixture types (e.g. Christmas lights, light strips, flood lights, etc.) and applications, this report is focussed on Soffit lighting. For the purpose of this report, soffit lighting refers to:

- Recessed or “pot light” fixtures installed into the soffit of a residential dwelling,
- Typically arranged in a series along the roofline, and
- Designed to project light downward along the exterior of the building.

The report does not examine exterior lighting mounted on walls, poles, or in landscaped areas, nor does it address temporary or seasonal lighting (e.g., Christmas lights).

4.1.2 Existing City of Oshawa Regulatory Framework

Property Standards By-law 1-2002

In Oshawa, concerns related to exterior residential lighting are addressed primarily through the Property Standards By-law article 5.11.7 Nuisance Lighting: “Exterior lighting fixtures shall be installed and maintained so as to prevent the light source from shining directly into a Dwelling.”

This standard was introduced in response to Council direction in 2019 (CORP-19-35). The amendment to the Property Standards By-law was designed specifically to address nuisance lighting that shines directly into a dwelling. It did not contemplate situations where light trespass occurs indirectly from a light source. The City’s Property Standards By-law continues to be consistent with those found in other Durham Lakeshore municipalities, including Pickering, Ajax, Whitby, and Clarington.

Enforcement under this framework is mainly complaint-driven and allows for site-specific assessment and mitigation, recognising that lighting impacts can vary based on fixture design, placement, and the built environment.

Current City Standards on Exterior Lighting

Complimenting the Property Standards By-law, the City's broader policy framework also addresses exterior lighting through planning and development process. As noted in CORP-19-79, the City's Official Plan supports reducing light pollution by encouraging dark-sky-friendly lighting. This helps save energy, protects views of the night sky, and still provides safe lighting for streets, sidewalks, cyclists, and buildings.

To prevent scattered or overly bright exterior lighting, the City reviews lighting plans for new developments that require site plan approval. Planning Services requires full cut-off or dark-sky-friendly fixtures and limits light spill to 0.1 footcandles (0.1 lumen or 1 lux) next to homes and natural areas. These fixtures must direct light downward, with restrictions on up-lighting. Slightly higher light levels are allowed for commercial or industrial sites or properties next to public streets.

Planning Services does not review exterior lighting on existing buildings. If a complaint involves a property with a site plan agreement that includes lighting requirements, Planning Services and Municipal Law Enforcement (M.L.E.) Services work with the owner to resolve the issue. Lighting concerns on private residential properties are addressed through the Property Standards By-law by M.L.E.

4.1.3 Electrical Safety Regulation and Scope

Residential soffit and exterior lighting installations are regulated by the Electrical Safety Authority (E.S.A.) under O. Reg. 164/99: Electrical Safety Code ("Ontario Electrical Safety Code") under Electricity Act, 1998, S.O. 1998, c. 15, Sched. A.

E.S.A.'s role is limited to electrical safety, such as proper wiring, moisture protection, and safe use of dimmers. The E.S.A. does not regulate how bright lights are, what colour they emit, where they are aimed, or how long they stay on. These aspects fall outside E.S.A.'s mandate and are not addressed through electrical permitting or inspection processes. As a result, compliance with electrical safety requirements does not necessarily equate to compliance with municipal standards related to nuisance impacts.

4.2 Nature of Nuisance Soffit Lighting Complaints in the City of Oshawa

A review of nuisance lighting complaints from 2020 to 2025 shows that overall volumes are low, with no sign of a widespread or growing issue (see **Table 1**). It is important to note that these complaints relate to residential exterior lighting generally and do not specifically identify soffit lighting.

Table 1 Complaint History

	2020	2021	2022	2023	2024	2025	Total
Number of Complaints	17	23	28	35	32	20	**155**

Of the above complaints, only 3% (5) were specific to soffit exterior lighting. The majority of complaints were closed with no violation identified or were resolved through voluntary compliance. The most common issues identified in complaints include:

- Light shining directly into bedroom windows or other habitable spaces.
- Excessive brightness or glare.
- Lighting that remains illuminated for extended periods overnight.

4.2.1 Challenges in Regulating Exterior Residential Lighting

Regulating exterior lighting on homes comes with several practical challenges. A light's lumen rating shows how much light it produces, but it does not show how that light will affect a neighbouring property. The actual impact depends on factors such as the direction of the light, how high it is mounted, whether it is shielded, and how close it is to another home (please refer to **Figure 1**). Because of this, two fixtures with the same lumen output can create very different impacts once installed.

Neighbourhoods also contain many different light sources such as streetlights, porch lights, and security lighting. These variety of light sources can make it difficult to identify which fixture is causing a concern. Light often travels beyond property lines, and in some cases, Municipal Law Enforcement Officers need to attend at night to properly assess the situation (please refer to **Figure 1**).

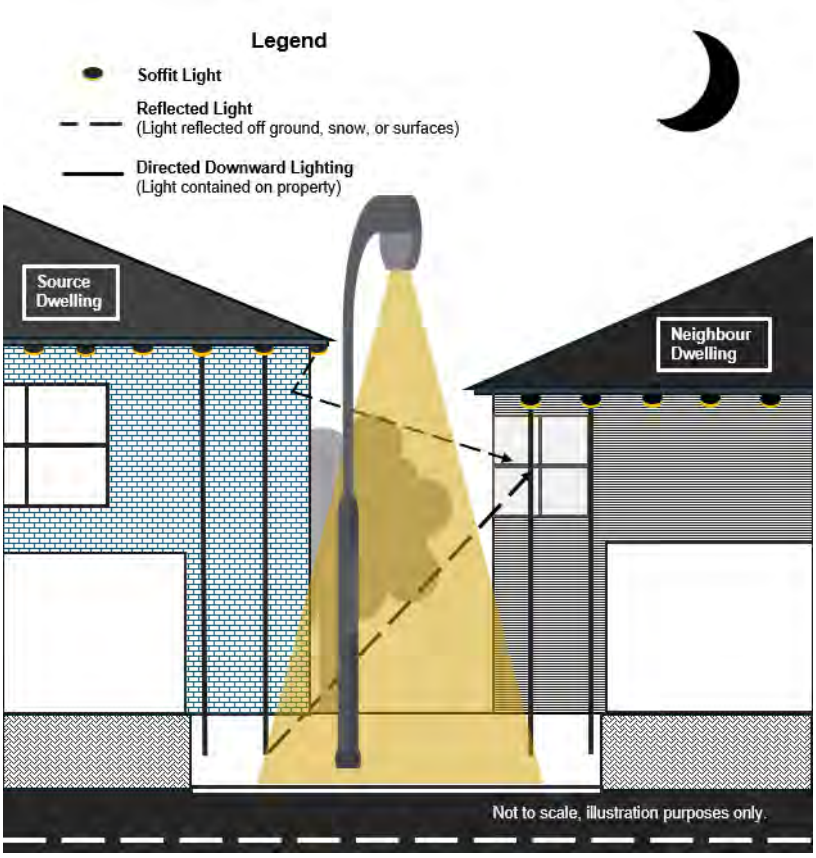

Figure 1 Illustrative Example of Direct and Reflected Light from Exterior Lighting

Perceptions of brightness and glare can also vary. What one person finds disruptive may seem acceptable to someone else. This makes it challenging to rely only on personal judgement.

4.3 Municipal Benchmarking: Soffit Lighting Regulations

Staff undertook a benchmarking review of municipal approaches beyond the Durham Region, including lower-tier and single-tier municipalities such as Toronto, Brampton, Mississauga, Burlington, Richmond Hill, and others (see **Attachment 3**). This review confirms most municipalities regulate exterior lighting through general nuisance or property standards by-laws, rather than through detailed technical lighting standards.

Across Ontario, several common themes have emerged. **Table 2** summarises these findings. Overall, the benchmarking review shows that Oshawa's current impact based Property Standards approach is consistent with what most other reviewed municipalities in Ontario use.

Table 2 Municipal Benchmarking Themes

Theme	Description
Impact-Based Regulation is the Main Approach	Most municipalities regulate exterior residential lighting based on whether it creates a nuisance (e.g., glare or light intrusion into a dwelling), rather than prescribing numeric standards such as maximum lumens, fixture counts, or duration limits.
Numeric Standards are Rare for Existing Dwellings	Where technical lighting standards exist, they are typically applied through development approval or site plan processes, particularly for commercial or multi-residential projects, not for existing residential dwellings.
Specific By-laws Reflect Local Context	Municipalities with detailed outdoor lighting by-laws have adopted those frameworks in response to local environmental and economic priorities, including dark sky preservation and tourism. These approaches are not representative of most municipal practices in urban and suburban settings.

However, the Towns of Huntsville and Gravenhurst represent notable exceptions. These municipalities have their own outdoor lighting by-laws with strict technical rules that set out things like what types of fixtures can be used, how bright they can be, and when they can be turned on. These municipalities are located in the Muskoka region, where night sky quality and natural landscaping preservation are closely connected to local economic activity.

4.4 Considerations and Standards Regarding the Number, Location, Brightness (Lumens), and Time-of-Use of Soffit Light Fixtures

In assessing whether standards exist for the number and placement of soffit lighting fixtures, staff reviewed industry design guidance, supplier recommendations, and government and municipal lighting best practices.

While no single standard governs residential soffit lighting in Ontario, there are widely accepted design principles that inform how soffit lighting is typically installed and managed. These principles relate primarily to spacing and placement, brightness, colour temperature, and time of use. **Table 3** outlines the key considerations that influence how soffit lighting is typically installed and managed in residential settings.

Table 3 Soffit Lighting Considerations and/or Standards

Consideration	Industry and/or Government Guidance	Implications for Nuisance Regulation
Spacing and Location	Residential soffit lighting is typically installed using spacing “rules of thumb” (often 4 to 6 feet apart) to achieve even	Fixture placement and aiming are more influential than fixture

Consideration	Industry and/or Government Guidance	Implications for Nuisance Regulation
	illumination. Fixtures are commonly positioned slightly inward to exterior walls to reduce glare and distribute light evenly.	quantity in determining nuisance impact. Regulating the number of fixtures along the soffit may not reliably address light trespass.
Brightness (Lumens)	Industry guidance commonly recommends selecting brightness or lumen levels appropriate to the mounting height and intended purpose of the lighting (e.g., general illumination vs. decorative accent lighting). Residential soffit lighting is typically designed to provide sufficient visibility without overwhelming the surrounding environment.	Numeric lumen caps may not effectively address nuisance impacts without also regulating light direction and distribution.
Colour Temperature	Warmer tones (generally 3,000 Kelvin or lower) are recommended for residential use, as they are perceived as softer and less harsh. Cooler tones (4,000 Kelvin and above) are more common in commercial or security settings.	Colour temperature may influence perceived brightness and glare, but is rarely regulated as a stand-alone requirement for residential lighting.
Duration and Time-Of-Use	Industry guidance does not usually set hours for when lights must be on or off. However, use of dimmers, timers, and motion sensors is widely encouraged to reduce unnecessary overnight illumination.	Time-of-use restrictions may mitigate impacts but can be difficult to enforce consistently in residential settings due to perceived safety and security reasons of residents. Additionally, residential soffit lighting is frequently installed for perceived safety and security purposes, in addition to aesthetic preferences. Homeowners may reasonably perceive exterior lighting as contributing to personal and property security.

Security Considerations and Crime Prevention Through Environmental Design

Many residents install soffit lighting for safety and security purposes, which is supported by Crime Prevention Through Environmental Design (C.P.T.E.D.) principles. C.P.T.E.D. emphasize the role of “natural surveillance,” which supports visibility of entrances, driveways, and building perimeters to enhance residents’ sense of safety and deter opportunistic crime. For many homeowners, exterior lighting contributes to both actual and perceived security.

At the same time, C.P.T.E.D. guidance recognises that lighting should be purposeful, directed, and proportionate. Overly bright or poorly shielded fixtures may create glare and shadowing that reduce visibility and contribute to light trespass into neighbouring dwellings. Effective security lighting is not based solely on intensity, but on appropriate placement, direction, and uniformity.

4.5 Needs Assessment

Staff reviewed complaint data, municipal benchmarking, and enforcement considerations to assess whether amendments to City by-laws (e.g., Property Standards By-law) are warranted at this time.

Complaint data indicates that soffit lighting represents a relatively small proportion of overall nuisance lighting complaints (approximately 3%). The review also considered the option of amending Section 5.11.7 of the Property Standards By-law in a manner similar to wording include as follows in bold:

> “5.11.7 Exterior lighting fixtures shall be installed and maintained so as to prevent the light source from shining directly into a Dwelling, **or indirectly into a Dwelling in a manner that is excessive and causes unreasonable interference with the use and enjoyment of the Dwelling**.”

While this could broaden the scope, there are several practical concerns:

- **Lack of a clear enforcement threshold**: most exterior lighting produces some degree of reflected or diffused light, making it difficult to define when indirect light becomes excessive.
- **Difficulty applying the standard consistently**: determining whether indirect light is excessive would rely heavily on the investigating officer’s perception of glare or reflection at the time of inspection. This may make consistent application across different properties and circumstances more challenging.
- **Environmental variability**: reflected light can vary depending on snow cover (i.e., light reflecting off snow and into the home), weather conditions, and surface materials, meaning compliance may appear different at different times of year.
- **Difficulty attributing the source**: there may be multiple lighting sources present (e.g., streetlights, neighbouring properties etc.), complicating efforts to identify which source is responsible.
- **Uncertainty for homeowners**: broader wording may make it more difficult for residents to understand what level of lighting is permitted.

- **Security considerations**: exterior lighting is commonly installed for safety and security purposes, and broader wording could unintentionally restrict lighting that residents reasonably view as protective. Oshawa's current by-law framework aligns with C.P.T.E.D. principles by supporting visibility and safety objectives while encourage lighting that is directed and compatible with surrounding properties.

Based on the low number of complaints and the enforcement considerations outlined, the current by-law framework appears to be functioning effectively. At this time, no changes to the Property Standards By-law related to soffit lighting are recommended.

5.0 Financial Implications

There are no financial implications directly related to the recommendations in this report.

6.0 Relationship to the Oshawa Strategic Plan

This report responds to the Oshawa Strategic Plan Priority Area "Lead: Governance and Service Excellence" with the goal to offer community engagement activities that enhance transparency and bring diverse voices and perspectives into decision-making processes.

Phil Lyon, Director,
Municipal Law Enforcement and Licensing Services

Adam Grant, Commissioner,
Safety and Facilities Services Department

Item: SF-26-11
Attachment 1

Excerpts from the Minutes of the City Council Meeting held on October 27, 2025

That Report SF-25-48 be referred back to staff with the direction to investigate the process for benchmarking standards available for a by-law enhancement concerning intrusive soffit lighting and standards for exterior lighting, including:

a. the criteria for a lumen maximum intensity; and
b. the number and location of soffit lumen projecting lights that would be considered standard; and,
c. the lumen maximum duration for staying lit uninterrupted over a period of time deemed standard; and,
d. determination of Oshawa's standards and exemptions compared with other municipalities beyond Durham Region; and
e. the Report be returned to committee for further consideration at a Safety and Facilities Committee meeting in the first quarter of 2026.

Figure 1 Soffit Lighting Example

Figure 2 Soffit Lighting Example, Closeup

Table 1 Non-Durham Region Municipalities

Municipality	By-law	Technical Measurement Standards?	Example of Standards
Brampton	Property Standards	No	"All residential exterior lighting shall be directed in a manner that will minimize the glare and undue intrusion of light onto adjacent or adjoining properties, Dwellings, and streets. All lighting on commercial, industrial, agricultural and institutional properties shall conform to the approved site plan and shall not be directed towards lands zoned for residential use."
Burlington	Nuisance and Noise Control	No	"No strong light or moving or twinkling lights shall be used so that an unusual quantity or type of light shines upon the land of others so as to be or to cause a nuisance to the public generally or to others residing or carrying on a manufacture, trade or business in the vicinity"
Gravenhurst	Dark Sky and Property Standards	No	Dark Sky: “All artificial lighting for yards and parking areas shall be arranged so as to minimize unnecessary light trespass.” Property Standards: “Outdoor lighting shall be placed and maintained, or have a barrier placed and maintained, so as to prevent or block direct illumination of the interior of a dwelling or dwelling unit on adjoining property regardless of whether such dwelling or dwelling unit has or may have shades, drapes or other interior window coverings.”
Huntsville	Outdoor Lighting	Yes, time-of-use: 11 p.m. to sunrise, Max Lumen, type of lights	“All architectural lighting and building lighting shall be mounted such that the light is aimed down. There shall be no light pollution emanating from the fixture in accordance with fully shielded design.”
Kingston	Property Standards	No	"Lighting shall not be positioned so as to cause any impairment of the use or enjoyment of neighbouring properties."
Mississauga	Nuisance Lighting	No	"No Direct Lighting or Indirect Lighting shall be used so that an unusual quantity or type of light creates a Glare or Light Trespass upon the land of others so as to be or to cause a Nuisance to the public

Municipality	By-law	Technical Measurement Standards?	Example of Standards
			generally or to others residing or carrying on a business or trade in the vicinity."
Richmond Hill* *__Note__: Observatory located in municipality	Clean Neighbourhood	Yes, time-of-use: 11 p.m. Light levels: 16.4 Lux or 1.5 footcandles.	“No owner shall permit: a) The use of Direct Lighting or Indirect Lighting which creates Light Trespass onto another Residential Property or the use of Flood Lights, Spot Lights, laser source light, signal beacons, flashing lights, hardscape lighting, or any similar high intensity luminaire which creates Light Trespass onto another Residential Property; b) Light levels on a Residential Property that exceed an average of 16.14 Lux (1.5 foot candles); c) The use of strobe, twinkling or chasing (marque style) lights on a Residential Property.”
Toronto	Toronto Municipal Code, Property Standards, Chapter 629	No	"Property that, because of its use, occupancy or other reasons, creates a nuisance to other properties in the neighbourhood shall be buffered from these properties so as to minimize the effect of the nuisance by the provision and maintenance of: a barrier or deflectors to prevent lighting and vehicle headlights from shining directly into a dwelling unit."

Table 2 Durham Region Municipalities

Municipality	By-law	Technical Measurement Standards?	Example of Standards
Ajax	Property Standards	No	"Exterior lighting fixtures shall be installed and maintained so as to prevent the light source from shining directly into a dwelling unit."
Brock	Public Nuisance	No	"Installing, using, positioning or permitting to be installed, used or positioned any lighting so as to cause any impairment of use or enjoyment of a neighbouring Property."
Clarington	Property Standards	No	"Residential exterior lighting fixtures shall be installed and maintained so as to prevent the light from being pointed directly at any other property."
Pickering	Property Standards	No	“Exterior lighting shall be installed and maintained so as to prevent the light source from being intentionally directed into a Dwelling Unit.”

Municipality	By-law	Technical Measurement Standards?	Example of Standards
Scugog	Property Standards	No	"No lighting shall be positioned so as to cause any impairment of the use or enjoyment of neighbouring Properties."
Uxbridge	Public Nuisance	No	"'Public Nuisance' means actions occurring within the Municipality and which, by reason of the conduct of a Person, results in one, or more, of the following activities: xviii. install, use, position or permit to be installed, used or positioned any lighting so as to cause any impairment of use or enjoyment of a neighbouring Property."
Whitby	Property Standards	No	"Every owner of a property shall provide and maintain effective barriers to prevent light from exterior lights and light standards from shining directly into a dwelling unit on neighbouring properties."