

Emigration Canyon Metro Township

DARK SKY ORDINANCE | UPDATE OF MUNICIPAL CODE:
19.73.110 NIGHT LIGHTING

GREATER SALT LAKE COUNTY MUNICIPAL SERVICES DISTRICT | PLANNING
AND DEVELOPMENT SERVICES

(Draft) 8/30/2022

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Purpose

The purposes of this chapter are to:

- Encourage outdoor lighting practices that will minimize light pollution, glare, light trespass, and sky glow to curtail the degradation of the night sky visual environment.
- Encourage lighting practices that promote energy conservation.
- Maintain nighttime safety, utility, and security and prevent unnecessary or inappropriate outdoor lighting and lighting nuisances on properties.
- Maintain the rural atmosphere and community character of the Metro Township. (Ord., 3-10-2016)

Definitions

For the purpose of this chapter, certain words, phrases and terms used herein shall have the meanings assigned to them by this section:

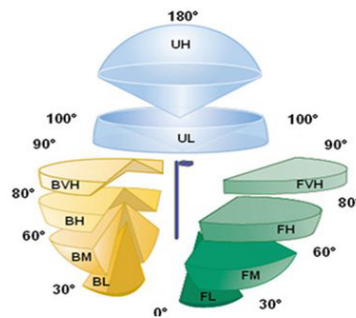
Accent or Architectural Lighting: Lighting of building surfaces, landscape features, statues, and similar items for the purpose of decoration or ornamentation; or lighting that does not contribute to the safety or security of residents, guests, employees, or customers on a property.

Backlight: All the light emanating behind a luminaire.

B.U.G. Rating: A BUG Rating stands for backlight, uplight, and glare. Backlight (B) is the light directed behind the fixture, uplight (U) is any light directed upward above the horizontal plane of the luminaire, and glare (G) is the amount of light emitted from the luminaire at high angles.

ActiveLED Update

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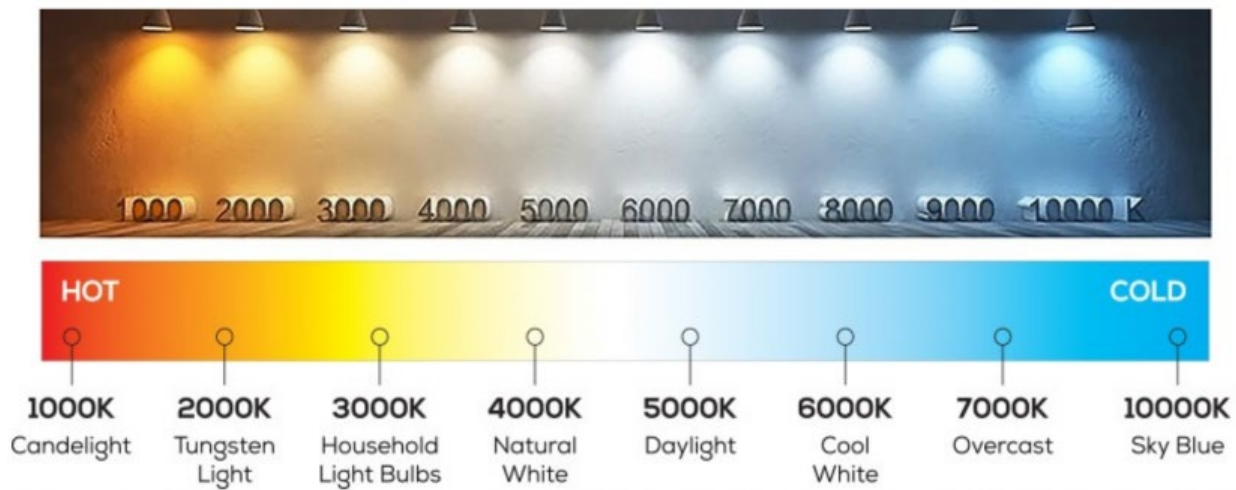
Application of BUG ratings for Dark Skies

- **Bx-U0-Gx** – Must have a “U” rating of “0” resulting in NO uplight
- The appropriate glare rating is determined by the community.

Figure 1: Explanation of BUG Ratings

Correlated Color Temperature (CCT): 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 degrees kelvin (K).

Figure 2: Correlated Color Temperature

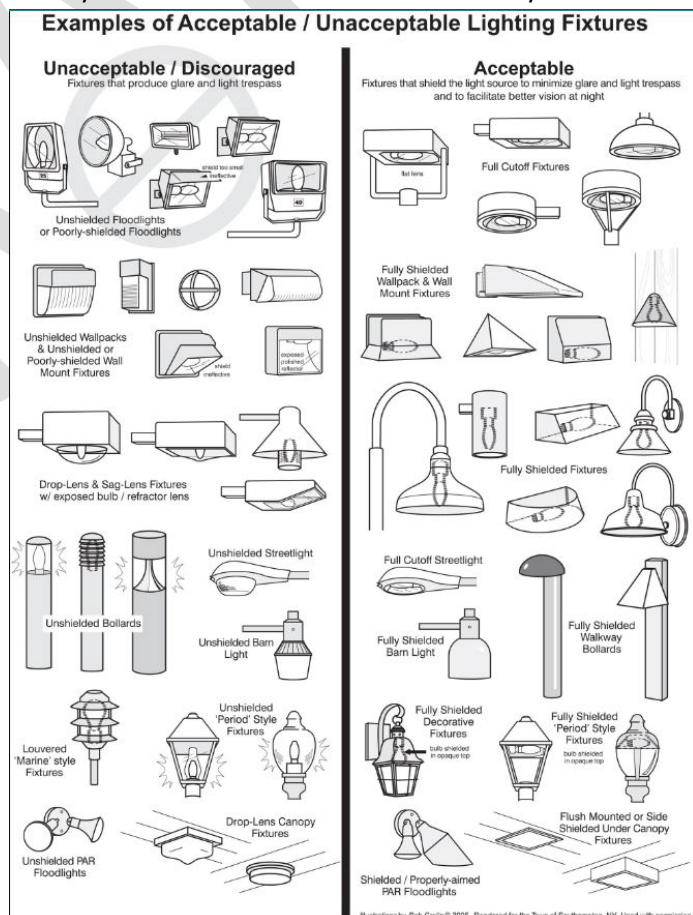


Direct Illumination: Illumination resulting from light emitted directly from a lamp, luminary, or reflector. This does not include light reflected from other surfaces, such as the ground or building faces.

Floodlight: A specific partially or fully shielded form of lamp or fixture designed to direct its output in a specific direction. Such lamps are often designated by the manufacturer and are commonly used in residential outdoor lighting.

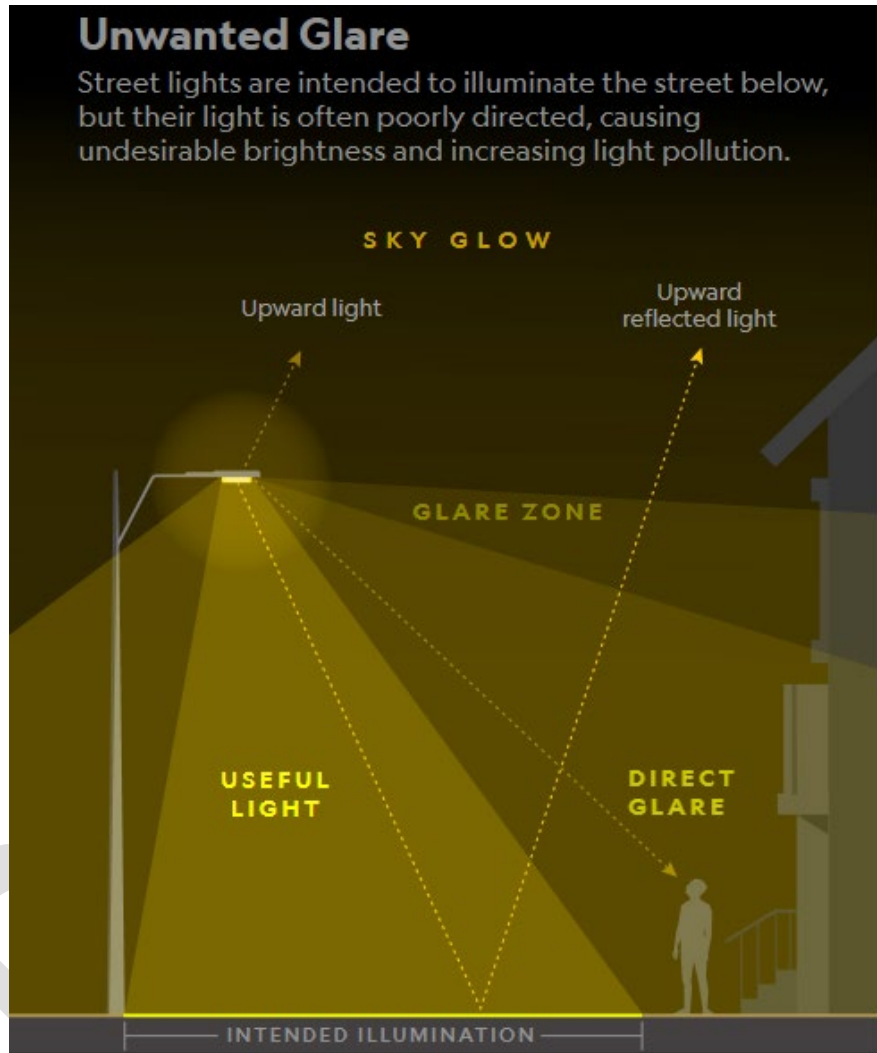
Fully Shielded Fixture: An outdoor light fixture constructed and mounted so that the installed fixture emits no light above the horizontal plane. Where a light manufacturer provides a BUG rating, the uplight rating (U) must equal zero (0). Fully shielded light fixtures must be shielded in and of themselves. Surrounding structures, like canopies, are not to be considered when determining if the fixture is fully shielded. Fully shielded fixtures must be appropriately mounted so that the shielding prevents light from escaping above the horizontal and all light is directed downward.

Figure 3: Types of Light Fixtures



Glare: the visual sensation caused by excessive brightness, and which causes annoyance, discomfort, or a disability loss in visual performance or visibility.

Figure 4: Types of Glare



Hardscape: Shall mean any non-living horizontal site element, including but not limited to patios, decks, walkways, sidewalks, driveways, and steps.

Indoor Lighting: Any lamp, pendant, or fixture used to illuminate the interior of any structure.

Internally Illuminated: As it relates to signs, any sign which has a light source entirely enclosed within the sign and not directly visible.

Light Pollution: Any adverse effect of manmade light. Often used to denote “sky glow” from cities or towns, but also includes glare, light trespass, visual clutter, and other adverse effects of lighting.



Figure 5: Gradient of Light Pollution in the Form of Sky Glow

Light Source: The part of a lighting fixture that produces light, e.g. the bulb, lamp, or chips on board.

Light Trespass: Light falling where it is not wanted or needed. Spill light falling over property lines that illuminates adjacent grounds or buildings in an objectionable manner.



Figure 6: Light trespass Compared to Adequate Shielding

Lumen: A unit of luminous flux equal to the light emitted by a uniform point source of one candle intensity. Lumens refers to the amount of light emitted by a bulb (a bulb with higher lumens outputs brighter light).

Figure 7: Comparison of Bulbs with Light Output and Cost

YOU USED TO BUY		YOUR CHOICES NOW			
LEAST EFFICIENT		MOST EFFICIENT			
Standard Incandescents		New Halogen Incandescents	CFLs	LEDs	
LESS BRIGHT → MORE BRIGHT	450 lumens	40 W \$5.34/yr	29 W \$3.87/yr	10 W \$1.34/yr	5 W \$0.67/yr
	800 lumens	60 W \$8.02/yr	43 W \$5.74/yr	13 W \$1.74/yr	10 W \$1.34/yr
	1100 lumens	75 W \$10.02/yr	53 W \$7.08/yr	16 W \$2.14/yr	15 W \$2.00/yr
	1600 lumens	100 W \$13.36/yr	72 W \$9.62/yr	20 W \$2.67/yr	19 W \$2.54/yr (limited availability)
TYPICAL LIFE = 1 year*		TYPICAL LIFE = 1-2 years		TYPICAL LIFE = 10 years	TYPICAL LIFE = 15-25+ years

* rated life is based on 3 hours of use per day

<https://georgebrazilplumbingelectrical.com/how-to-choose-the-best-light-bulb-for-your-home/>

The lux: (symbol: lx) is the unit of illuminance, or luminous flux per unit area.

Figure 8: Candela, Lumen, and Lux compensation

Manufacturer's Catalog

Cuts: A publication or other printed material of a lamp or lighting manufacturer offering visual and technical information about a lighting fixture or lamp.

Outdoor Light Fixture (Outdoor Lighting):

An outdoor, electric, or solar powered, illuminating lamp or similar device used for lighting structures, parking lots, pathways, service canopies, recreational areas, signs, or other similar outdoor uses. These lighting fixtures may be attached to a building, parking structure, or sign, or may stand on their own.

Partially Shielded Light Fixture: An outdoor light fixture constructed and mounted so that the installed fixture emits most of its light below the horizontal plane. Light emitted at or above the horizontal plane (sideways or upwards) shall arise solely from incidental decorative elements or strongly colored or diffusing materials, such as colored glass or plastic. Fixtures using spot or flood lamps are considered partially shielded if the lamps are aimed no higher than forty-five (45) degrees above the vertical plane beneath the fixture.

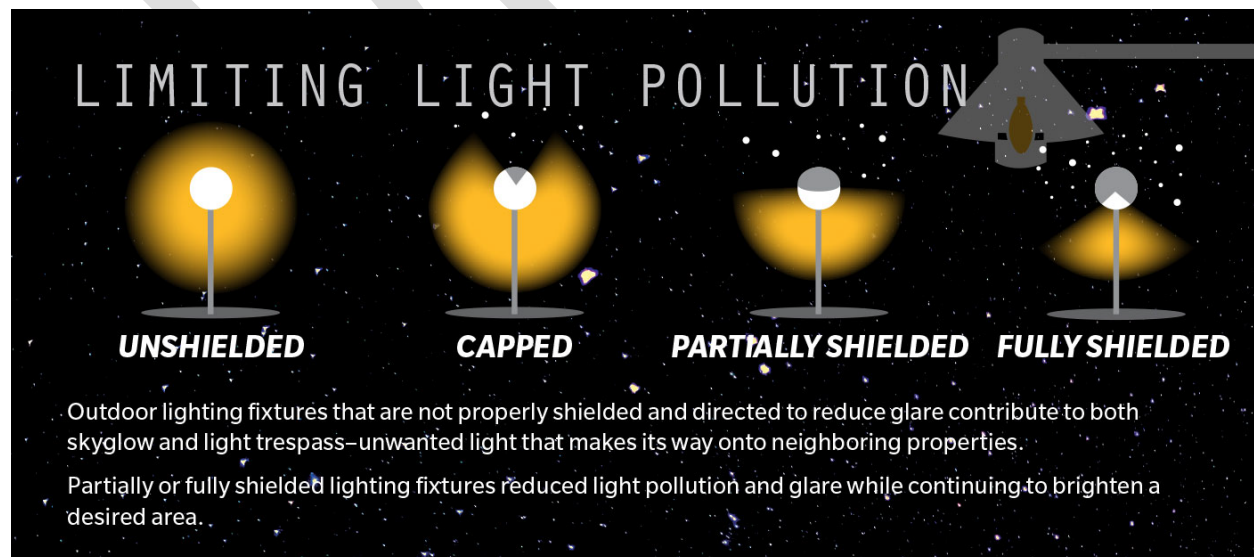
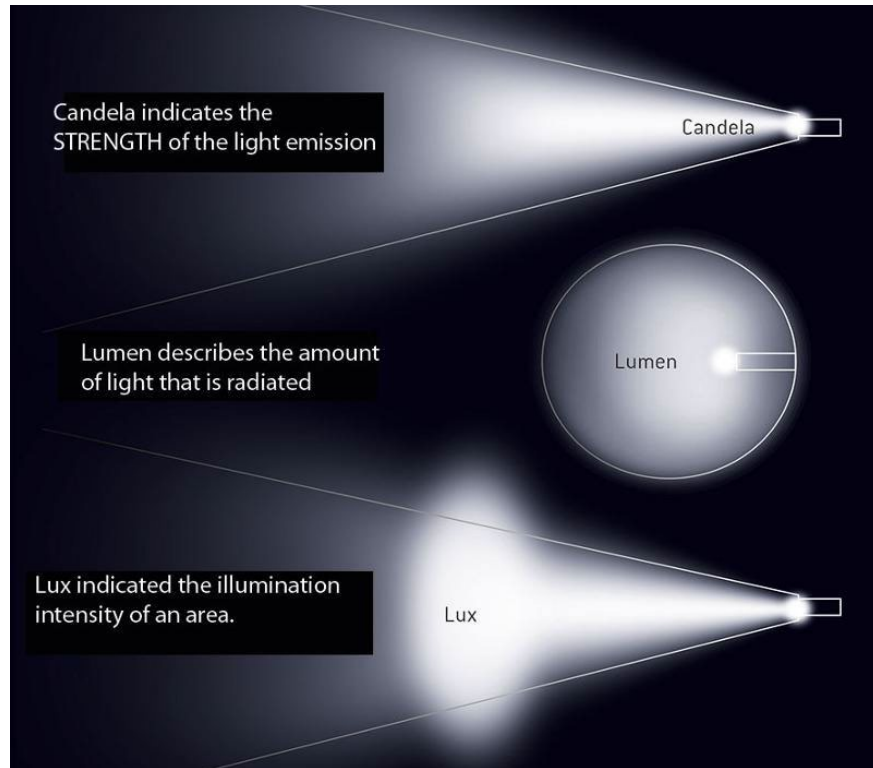


Figure 8: Unshielded versus Shielded Light Fixtures

Recreational Lighting: Lighting used to illuminate sports fields, ball courts, playgrounds, or similar outdoor recreational facilities.

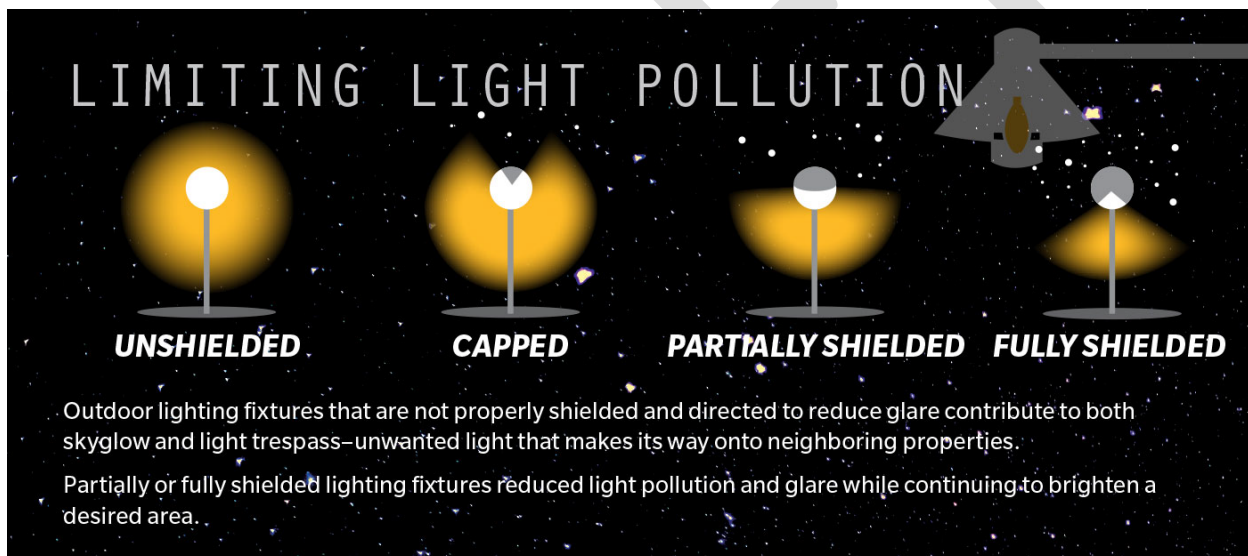
Security Lights: Lighting designed to illuminate a property or grounds for the purpose of visual security.

Skyglow: The brightening of the nighttime sky resulting from the scattering and reflection of artificial light by moisture and dust particles in the atmosphere. Skyglow is caused by light directed or reflected upwards or sideways and reduces one's ability to view the nighttime sky (Figure 5).

Spotlight: A fixture or lamp designed to light a small area very brightly. See definition of Floodlight.

Tower: Any monopole, antenna or the like that exceeds eighteen feet (18') in height.

Unshielded Fixture (lighting): A fixture that allows light to be emitted above the horizontal plane, either directly from the lamp or indirectly from the fixture or reflector. Any fixture not fully shielded. (Ord., 3-10-2016; amd. 2016 Code)



Vertical Illuminance: The amount of light falling on a vertical surface or plane.

Scope and Applicability

Compliance:

All outdoor lighting installed after the effective date hereof in all zones in the Metro Township shall conform to the requirements established by this chapter. This chapter does not directly apply to indoor lighting. However, light trespass from interior lighting that negatively impacts adjacent properties is prohibited.

Nonconforming Uses:

All existing outdoor lighting that does not meet the requirements of this chapter and is not exempt from the requirements of this chapter shall be considered a nonconforming use. The town will encourage

property owners to voluntarily bring nonconforming exterior lighting into compliance with this chapter. Where appropriate, the Metro Township may also provide information and expertise to homeowners in bringing their exterior lighting fixtures into compliance with this chapter.

Modifications:

Compliance Through Building Permit Process: The Metro Township may require exterior lighting fixtures to be brought into compliance, through the building permit process, if substantial modifications are made to the exterior of the building or if the footprint of the structure is enlarged.

In the event a nonconforming outdoor light fixture is destroyed, damaged, or modified by fifty percent (50%) or more, the replacement fixture shall conform with the provisions of this ordinance.

Change Of Ownership:

Properties that change ownership, whether residential or commercial, must bring exterior lighting into compliance with this chapter.

Conflicts:

Where any provision of federal, state, county, or city statutes, codes, or laws conflicts with any provision of this Code, the most restrictive shall govern unless otherwise regulated by law. If any provision of the Emigration Canyon Municipal Code should conflict with the provisions of this Chapter, this Chapter shall supersede and be the controlling and enforceable provision.

Outdoor Lighting Standards - Fully Shielded Fixture

Required:

Unless specifically exempted by this chapter, all outdoor lighting shall use fully shielded fixtures that are designed and constructed so that no light is emitted above the horizontal plane of the fixture. Interior and exterior lighting must be placed and/or directed at a location, angle, or height to prevent direct illumination outside the property boundaries where the light fixtures are located. Where a light manufacturer provides a BUG rating, the uplight rating (U) must equal zero (0).

Characteristics:

To qualify as a "fully shielded" fixture, the top and sides of a light fixture must be made of completely opaque material, such that light only escapes through the bottom of the fixture. Fixtures with translucent or transparent sides, or sides with perforations or slits, do not qualify as fully shielded. Any glass or diffuser on the bottom of the fixture must be flush with the fixture (no drop lenses). Merely placing a light fixture under an eave, canopy, patio cover or other similar cover does not qualify as fully shielded.

Restrictions On Total Amount of Unshielded Lighting:

Outdoor lighting that is exempt from the shielding requirement in this chapter shall not exceed .1 lumen per square foot of hardscape including the square footage of the footprint of any structures for commercial properties and .05 lumens per square foot of hardscape including the square footage of the footprint of the primary residence for residential properties.

All residential and commercial outdoor lighting fixtures shall be fully shielded when installed within twenty-five (25) feet of adjacent residential property lines.

YOU USED TO BUY		YOUR CHOICES NOW			
LEAST EFFICIENT					MOST EFFICIENT
Standard Incandescents		New Halogen Incandescents	CFLs	LEDs	
450 lumens	40 W \$5.34/yr	29 W \$3.87/yr	10 W \$1.34/yr	5 W \$0.67/yr	energy use energy cost per year
800 lumens	60 W \$8.02/yr	43 W \$5.74/yr	13 W \$1.74/yr	10 W \$1.34/yr	energy use energy cost per year
1100 lumens	75 W \$10.02/yr	53 W \$7.08/yr	16 W \$2.14/yr	15 W \$2.00/yr	energy use energy cost per year
1600 lumens	100 W \$13.36/yr	72 W \$9.62/yr	20 W \$2.67/yr	19 W \$2.54/yr	energy use energy cost per year
	TYPICAL LIFE = 1 year*	TYPICAL LIFE = 3-5 years	TYPICAL LIFE = 10 years	TYPICAL LIFE = 15-25+ years	

*rated life is based on 3 hours of use per day

General Conditions and Standards

Minimum Necessary:

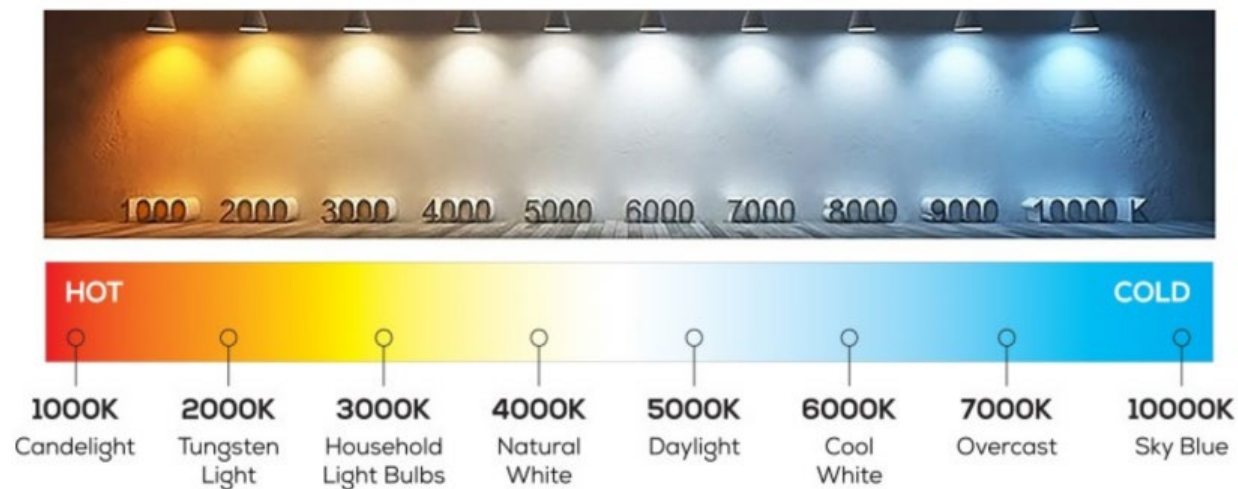
Outdoor lighting shall be the minimum necessary to provide for safety and functionality. The lowest wattage light source necessary for a lighting application shall be used.

All lighting should be **purpose driven**:

- **Useful:** All light used should have a clear purpose.
- **Targeted:** Light should be directed only to where needed.
- **Low Light Levels:** Light should be no brighter than necessary.
- **Controlled:** Light should be used only when it is useful.
- **Color:** Use warmer color lights where possible.

Maximum Color Temperature of All Lighting Fixtures:

The correlated color temperature of any outdoor lighting fixture shall not exceed three thousand degrees kelvin (3000°K).



Total Light Output:

- **Commercial Properties** - The total amount of outdoor lighting, whether shielded or unshielded, shall not exceed 1 lumen per square foot of hardscape including the square footage of any structures on the site.
- **Residential Properties** - The total amount of outdoor lighting, whether shielded or unshielded, shall not exceed .5 lumen per square foot of hardscape including the square footage of the primary residential structure on the site. Residential units used for overnight accommodations or other commercial uses shall comply with the residential standards for total light output.
- **Multi-Family Residential Properties** - The total amount of outdoor lighting, whether shielded or unshielded, shall not exceed .75 lumen per square foot of hardscape including the square footage of any structures on the site.

Allowable Applications:

Outdoor lighting shall only be allowed in the following applications:

- To illuminate the **entrances** to buildings (including garage entrances).
- To illuminate **pathways** and **walkways**.
- To illuminate **parking areas** and parking area **access lanes**.
- To illuminate outdoor **gathering areas**, such as patios, pool and hot tub areas, outdoor dining areas and recreation areas.
- For **security** purposes, provided all the following conditions are met:
 - The lighting is activated by **motion sensors** and shuts off, within or before, fifteen (15) minutes after each disturbance or when the activity involved is completed.
 - The lighting is placed and directed such that **no direct illumination falls outside the property boundaries** where the security lighting is placed.
- To illuminate **signage**.
- For **architectural** lighting, provided all the following conditions are met:
 - The property where the architectural lighting is placed is on a property designated as **commercial** by the township.
 - The architectural lighting is **compatible** with the purposes of this chapter as determined by the planning commission.
 - All architectural lighting is mounted on and directed onto the **front of a commercial building** facing the street.
 - The architectural lighting is **sufficiently shielded** such that the light source is not visible beyond the property boundaries.
 - The architectural lighting is directed such that all **light falls on** the front of the building, and not on the adjacent ground or into the night sky.
 - The architectural lighting uses **low wattage** light sources.
 - The architectural lighting is **not used** to illuminate landscape, statues, or other similar features.
- To illuminate outdoor **water features**, provided all the following conditions are met:
 - The lighting is **angled** below the horizontal plane.
 - The lighting is placed underneath or behind the water such that the water **diffuses** the light from all points where the light is visible.

- Each light source has a **total light output** of one thousand (1000) lumens or less and the total lighting is not greater than necessary to achieve the desired artistic effect.

Light Curfews:

Commercial Establishments: shall turn off all outdoor lighting, except those listed below, within one hour after closing. (For the purposes of this section, motels and hotels are considered open twenty-four (24) hours per day when they are open for the season.)

- Lighting to illuminate the entrance to the commercial establishment.
- Parking lot and pathway lighting required for the safety of guests.

Recreational lighting (residential and commercial): shall be turned off by ten o'clock (10:00) P.M. ending the following morning at 6:00 am, except to conclude a community approved sporting event that is underway.

Specialized Outdoor Lighting

Roadway/Streetlights:

Roadway and streetlights are prohibited, unless recommended by the city engineer or required by UDOT to provide public safety. When deemed necessary, streetlights shall utilize lamp types that are fully shielded luminaires that minimize sky glow, light trespass, and other unintended impacts of artificial lighting. All streetlights shall utilize the lowest illuminance levels accepted by the City Engineer and/or UDOT.

Parking Lots:

- Spot or flood lighting of parking lots from a building or other structure is prohibited.
- The overall height of any light post used to illuminate parking lots in commercial zones shall not exceed fourteen feet (14'). All post-mounted parking lot lights shall be set back from property lines a distance equal to two and one-half (2.5) times the height of the pole, unless an internal or external shield prevents the fixture being visible from outside the property boundaries.
- The overall height of any light post used to illuminate parking lots in residential zones shall not exceed six feet (6').
- All parking lot lighting shall use fully shielded fixtures. Internal or external shields shall prevent the light source being visible from outside the parking lots.

Recreational Lighting:

The planning commission shall review all requests for new recreational lighting fixtures for fields or courts. The planning commission shall approve such requests only after finding:

- The recreational lighting has provisions for minimizing glare, spill light, and uplight using louvers, hoods, or shielding.
- The recreational lighting does not exceed illumination levels for class IV sports lighting set by the Illuminating Engineering Society of North America.

- The recreational lighting only illuminates the field or court area and is shielded to prevent illumination falling outside of those areas.
- The light source for the recreational light is not visible from adjacent properties.

Pole mounted recreational lighting:

Pole mounted recreational lighting shall be limited to eighteen feet (18') in height. Pole mounted recreational lighting must be set back an appropriate distance from neighboring properties as determined in consultation with the planning commission.

The **lighting for non-field and non-court areas** shall conform to all provisions of this chapter.

Amphitheater Lighting:

Outdoor amphitheaters may use illumination to light the performance area of the amphitheater and provide public safety. The following standards apply to all amphitheater lighting:

- Lighting used to illuminate the performance area must be either directed spotlighting or fully shielded lighting. If directed spotlighting, the light source must be located and designed such that it is not visible beyond the property boundaries.
- Lighting used to illuminate the performance area may only be turned on during performances or rehearsals.
- Lighting used to illuminate the seating areas, pathways, and other areas of the amphitheater must meet all standards of this chapter.

Signs:

Signs may be unlighted, lighted externally, lighted internally or backlit. All sign lighting must be designed, directed, and shielded in such a manner that the light source is not visible beyond the property boundaries where the sign is located. Lighting for signs must be directed such that only the sign face is illuminated. All lighted signs must have stationary and constant lighting. **(Note: For additional information on sign lighting standards, please refer to the town sign ordinance, chapter 3 of this title.)**

Standards for Externally Illuminated Signs:

Lighting for externally illuminated signs must be aimed and shielded so that light is directed only onto the sign face and does not intrude onto adjacent streets, roads, or properties or into the night sky.

Lighting for externally illuminated signs must be mounted at the top of the sign (or within two (2) feet of the top of a building mounted sign), except for freestanding monument style signs which may be illuminated by ground mounted lighting.

Standards for Internally Illuminated Signs

Lighting Is Visible on Both Sides of Sign:

Only sign copy areas and logos may be illuminated on an internally illuminated sign.

Internally illuminated signs shall use semi-opaque materials for sign copy such that the light emanating from the sign is diffused. Transparent or clear materials are not allowed for sign copy. Non-copy portions of the sign (e.g., background and graphics) shall be made of completely opaque material.

Standards for Backlit Signs

Only One Side of Sign Is Lit:

Backlit signs shall be designed such that the light source is not visible.

Backlit signs shall be designed such that harsh, direct illumination does not emanate out of the sign. Rather, the backlighting shall only allow indirect illumination to emanate from the sign. For example, signs that create a "halo" effect around sign copy are allowed.

Backlit signs shall use low wattage light sources.

Illuminated Window Signage:

Illuminated window signs positioned to be primarily visible outside the business structure are allowed only if there are no more than two (2) signs per business space and each sign measures less than three and one-half ($3\frac{1}{2}$) square feet in area. Such signs must not be illuminated when the business is closed.

(Ord., 3-10-2016)

Prohibited Lighting

The following are prohibited:

- **Uplighting** to illuminate buildings and other structures, or vegetation, except as allowed by other provisions in this chapter.
- **Flashing, blinking, intermittent** or other lights that move or give the impression of movement, not including holiday lighting between November 15 and January 15.
- **Floodlights or spotlights affixed to buildings** for the purpose of lighting parking lots or sales display lot areas.
- Searchlights, laser source lights or any similar **high intensity light**.
- Except when used in window signage pursuant to subsection 9-4-7F4 of this chapter, neon or luminous tube lighting, either when outdoor mounted or indoor mounted if visible beyond the property boundaries. (Ord., 3-10-2016)

Hillsides, Ridgelines and Special Cases

In certain cases (such as, but not limited to, properties on or near ridgelines or hillsides), additional shielding may be required to mitigate glare or light intrusion. The need for additional shielding will be considered as part of the review process performed by the planning commission prior to approval of any business or residence.

FCOZ

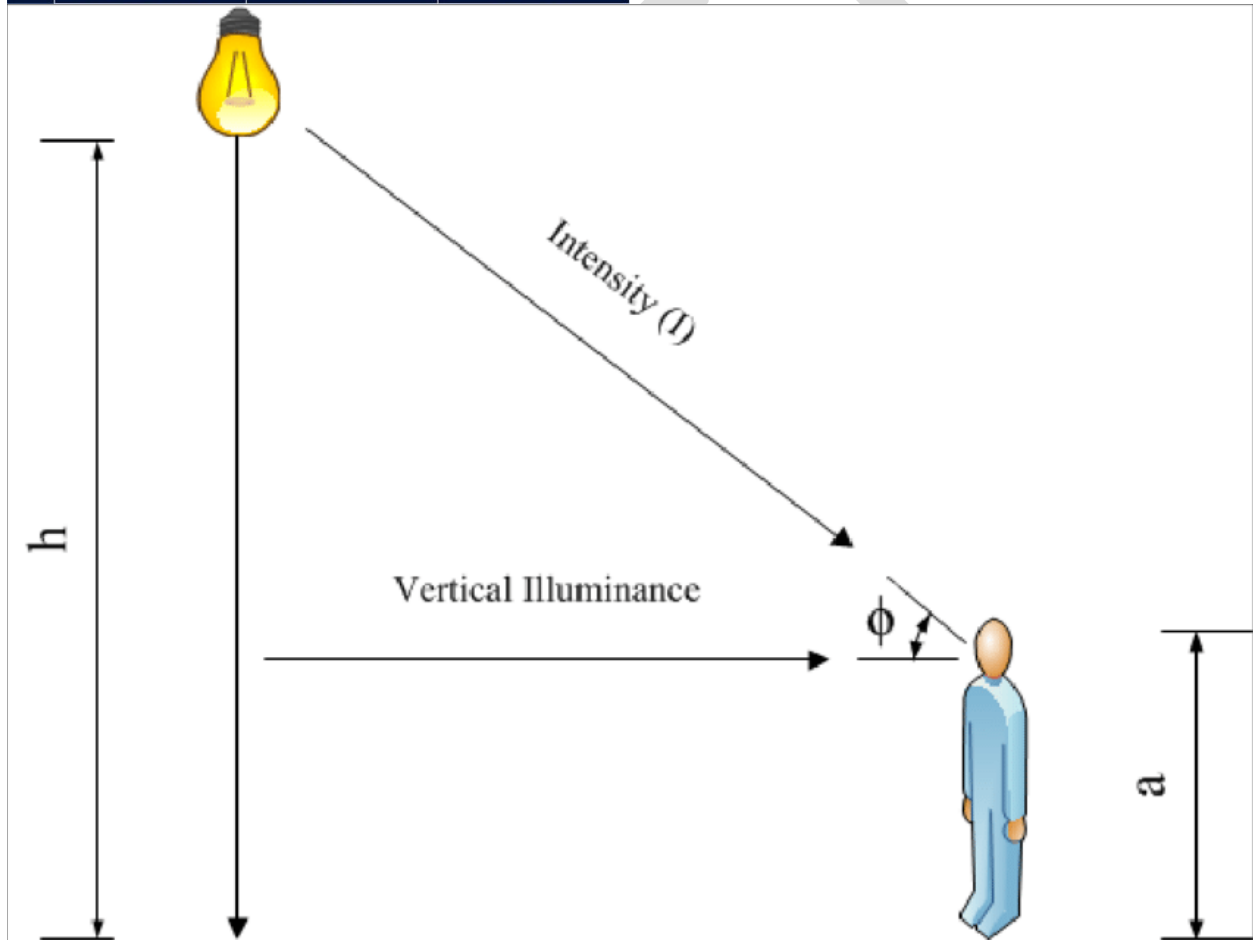
Lighting plans submitted with applications subject to FCOZ Development Approval Procedures shall include plans or drawings, and language, indicating efforts to ensure that no interior lighting intrudes outside of the property boundary.

This can be accomplished by controlling the vertical illuminance levels produce from any light source emitting from any structure on the property. To ensure that no indoor lighting is trespassing from the property, the lighting plan must demonstrate that no more than 10 lux can be seen at eye level 5'10" at the point along property line.

LUX RATING CHART

	Condition	Light Level (LUX)	Foot Candles (FC)
Day Time	Sunlight	107,527	10,000
	Daylight	10,752.70	1,000
	Overcast Day	1,075.30	100
	Very Dark Day	107.53	10
	Twilight	10.75	1
Night Time	Deep Twilight	1.08	0.1
	Full Moon	0.108	0.01
	Quarter Moon	0.0108	0.001
	Starlight	0.0011	0.0001
	Overcast Night	0.0001	0.00001

Vertical Illuminance on an object is defined as the horizontal component of the luminous intensity incident on the object divided by the distance between the light source and object. The distance between the light source or the luminaire and the object is given by subtracting the object height (a) from the mounting of the luminaire (h) dividing by the sine of the angle the object makes at the luminaire.



Towers

All **monopole, antenna, tower, or support facility lighting** not required by the federal aviation administration (FAA), the federal communications commission (FCC), Municipal Fire and Police, or radio towers is prohibited.

When lighting is required by the FAA or the FCC, such lighting **shall not exceed the minimum requirements** of those agencies. Collision markers should have a dual mode for day and night to minimize impact to the night sky and migrating birds.

All other lighting used on the property not regulated by the FAA or FCC **shall conform** to this chapter.

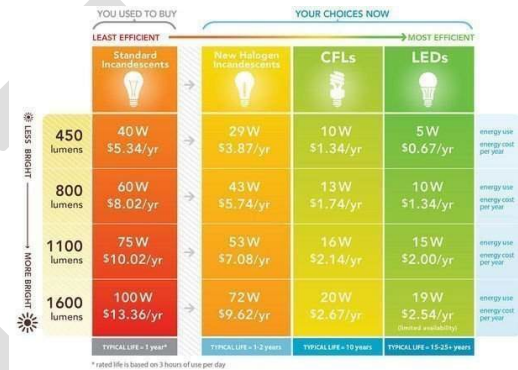
Exemptions

Exemptions To Fully Shielded Fixture Requirements:

All lights exempt from the requirements of this section shall be included in the calculation of total light output for a residential or commercial property.

Fixtures having a total light output less than one thousand (1000) lumens (approximately equal to a 60-watt incandescent, 43-watt halogen, 13-watt compact fluorescent, or a 10-watt LED bulb) are exempt from the fully shielded requirement provided:

- The fixture has a **top** that is completely opaque such that no light is directed upward.
- The fixture has **sides** that completely cover the light source and are made of opaque or semi opaque material. Fixtures with opaque sides may have incidental decorative perforations that emit small amounts of light. Semi opaque material, such as dark tinted glass or translucent plastic, may be used if the light source is not discernable behind the material. Completely transparent materials, such as lightly tinted or clear glass, are not allowed.
- The **light source** (light bulb or filament) must not be visible from any point outside the property on which the fixture is located.



Spotlights:

Spotlights controlled by motion sensors having a light output less than one thousand (1000) lumens per lamp (allowing a maximum of a 60-watt incandescent, 43-watt halogen, 13-watt compact fluorescent, or a 10-watt LED bulb) are exempt from the fully shielded requirement, provided:

- The fixture is a spotlight or other type of directed light that shall be directed at a forty-five-degree (45°) angle or less, where the zero (0) angle is pointing straight down, and
 - The fixture must not be placed in such a manner that results in light trespass, and
 - The lights controlled by motion sensors shall not be triggered by movement or activity located off the property on which the light is located.
- The fixture is hooded or shielded to the extent necessary to prevent glare on adjacent properties or roadways.

Pathway lights:

Lights less than eighteen inches (18") in height are exempt from the fully shielded fixture requirement if:

- The total light output from each pathway light is less than three hundred (300) lumens; and
- The lights have opaque caps that direct light below the horizontal plane.

Architectural Lights, Water Feature Illumination, and Sign Illumination:

Architectural lights, water feature illumination and sign illumination are all exempted from the fully shielded fixture requirement, provided no more than .05 lumens per square foot of hardscape including the square footage of the footprint of the primary residence are utilized per lot, identified within an approved lighting plan, and such illumination meets all other applicable standards of this chapter.

Temporary exterior lighting:

Temporary exterior lighting intended as holiday or seasonal decorations displayed between December 1 and the following January 3, provided that individual lamps do not exceed 70 lumens and the lighting does not cause light intrusion and do not interfere with the reasonable use and enjoyment of surrounding properties.

Traffic control signals and traffic safety devices:

Temporary emergency lighting in use by law enforcement or government agencies or at their direction.

Temporary emergency lighting:

Temporary emergency lighting in use by law enforcement or government agencies, or at their direction.

Pool Lighting

Underwater lighting fixtures providing illumination to all underwater areas of the pool.

Planning Commission Review:

The planning commission, as part of its review as outlined in this chapter, **may approve lighting that does not conform** to these standards if need is established. An applicant requesting such lighting is required to provide proof of requirements of property insurance or findings of competent research demonstrating the need for the requested lighting. The planning commission may attach other conditions to the approval of such lighting that will make the lighting comply with the spirit of this chapter. (Ord., 3-10-2016)

Application and Review Procedures

Lighting Plans Required:

All sign permit applications, building permit applications and design/development review applications within any zoning district shall include a lighting plan that shows evidence that the proposed lighting fixtures and light sources will comply with this chapter.

Lighting Plan shall include the following:

- Plans or drawings indicating the proposed location of lighting fixtures, height of lighting fixtures on the premises, and type of illumination devices, lamps, supports, shielding and reflectors used and installation and electrical details.
- Illustrations, such as contained in a manufacturer's catalog cuts, of all proposed lighting fixtures. For commercial uses, photometric diagrams of proposed lighting fixtures are also required. In the event photometric diagrams are not available, the applicant must provide sufficient information regarding the light fixture, bulb wattage, and shielding mechanisms for the planning commission to be able to determine compliance with the provisions of this chapter.

- A table showing the total amount of proposed exterior lights, by fixture type, wattage, lumens, and lamp type.
- Lighting plans submitted with applications subject to FCOZ Development Approval Procedures shall include plans or drawings, and language, indicating efforts to ensure that no interior lighting intrudes outside of the property boundary. (Reference: Hillsides, Ridgelines and Special Cases)

Approval Procedure:

- The lighting plan for all new development shall be submitted for approval concurrent with the associated application process. (Ord., 3-10-2016)
- A certificate of occupancy shall not be issued until such time as the property is subject to a post installation nighttime inspection by the building inspector. (Ord., 3-10-2016; amd. 2016 Code)

Violations

The following constitute violations of this chapter:

- The **installation, maintenance, or operation** of any lighting fixture not in compliance with the provisions of this chapter if such fixture is installed after the date when this chapter is formally adopted.
- The **alteration** of outdoor lighting fixtures after a certificate of occupancy has been issued without the review and approval of the planning commission when such alteration does not conform to the provisions of this chapter.
- **Failure** to shield, correct or remove lighting that is installed, operated, maintained, or altered in violation of this chapter.
- In the event a nonconforming outdoor light fixture is **destroyed, damaged, or modified** by fifty percent (50%) or more, the replacement fixture shall conform with the provisions of this ordinance.
- **Amortization:** All exterior lighting fixtures which do not conform to the following standards shall be brought into conformance no later than 10 years from the adoption of this ordinance.