

## Practical Considerations

- ◆ Be a good neighbor. Respect adjacent land uses/activities when designing site lighting.
- ◆ Carefully evaluate proposed lighting with adjacent existing lighting (e.g. street lights) during site planning. A potential benefit could be less lighting, thereby reducing costs.
- ◆ The idea that more light always results in better safety and security is a myth. One needs only the right amount of light, in the right place, at the right time. More light often means wasted light and energy.
- ◆ Use the lowest wattage of lamp that is feasible. The maximum wattage for most commercial applications should be 250 watts of high intensity discharge lighting, but less is usually sufficient. In residential areas, 26 watt compact fluorescent or 100 watt incandescent is encouraged.
- ◆ Whenever possible, turn off the lights or use motion sensor controlled lighting.
- ◆ Balance height of lighting without increasing glare. In other words, don't increase the number of light poles to light an area when a few taller ones would do.
- ◆ Incorporate curfews (i.e. turn lights/signs off automatically after a certain hour when businesses close or traffic is minimal). This is an easy and fast way to initiate dark sky practices. The Plan Commission may require curfews in certain situations.

\*\*\***Important**\*\*\* This brochure will be updated to reflect changes but may not be updated immediately. Check with the Development Services Department for the most current standards.

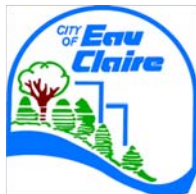
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# City of Eau Claire

## City Outdoor Lighting Regulations



Development Services Division  
Department of Community Development  
Eau Claire, Wisconsin

Tel: 715.839.4914 ◀

## Outdoor Lighting Regulations

### Purpose

- ◆ To permit reasonable uses of outdoor lighting for nighttime safety, utility, security, and enjoyment.
- ◆ Preserve the ambiance of the night.
- ◆ Curtail and reverse any degradation of the nighttime visual environment and the night sky.
- ◆ Minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary.
- ◆ Conserve energy and resources to the greatest extent possible.
- ◆ Help protect the natural environment from the effects of night lighting.

### Ordinance

- ◆ Effective January 1st 2010, all new or replaced outdoor lighting shall conform to the provisions as stated herein and as found in the City of Eau Claire's Building and Construction Ordinance (16.26) and Zoning Code (Section 18.45.050, G.).

**Maximum Pole Heights.** All lighting installed on poles shall not exceed 40 feet in height as measured from the grade level. Pole heights should be optimally chosen to the extent possible to provide effective lighting and not create off-site glare. Pole heights shall not exceed 25 feet in height when within or adjacent to a residential district.

**Fixture Type.** All lighting installations shall be designed and installed to be fully shielded (full cut-off or recessed) mounted facing 90° to the horizontal plane. In residential zoned areas, or for properties adjacent to residential

zoned areas, light should be shielded such that the lamp element is not directly visible outside the perimeter of the property. Light glare shall be shielded from any street or public way.

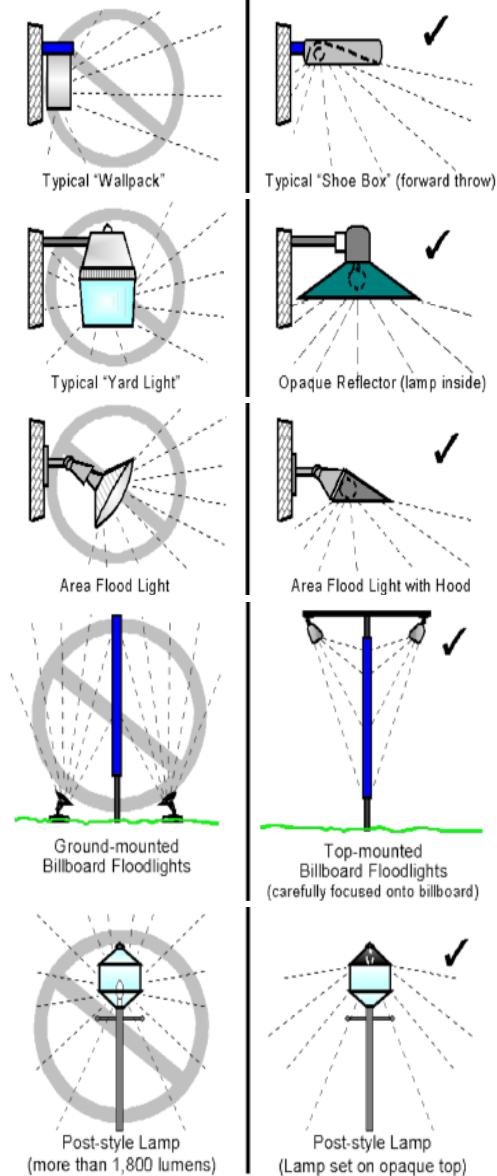
**Canopy Lighting.** Canopy lighting for service station pump islands or similar areas shall be fully recessed into the lower surface of the canopy and shall be fully shielded utilizing flat lenses.

**Sign Lighting.** Signs are regulated by the Sign Code, (Section 16.16.070, B.).

**Exceptions.** The following lighting is exempt from these standards:

- ◆ Public roadway lighting shall be exempt but follow best practices of the IESNA.
- ◆ Lighting within swimming pools and other water features.
- ◆ Exit signs and other illumination required by building codes.
- ◆ Lighting for stairs and ramps, as required by the building code.
- ◆ Holiday and temporary lighting.
- ◆ Football, baseball, and other field lighting, subject to Plan Commission approval and that steps have been taken to minimize glare and light trespass, and utilize sensible curfews.
- ◆ Low voltage pedestrian, landscape and building lighting, but such lighting should be shielded in such a way as to eliminate glare and light trespass.
- ◆ Public monuments, national, corporate, and institutional flags.
- ◆ Other situations as specified in adopted electrical codes.

## Good Outdoor Lighting



Courtesy NELPAG

### Ordinance cont...

**Wattage per Square Foot Maximums.** All lighting installations are limited to the watts per square foot allowances for the given activity as stated in the Lighting Power Densities for Building Exteriors Table. This Table is from the 2006 International Energy Conservation Code and the American Society of Heating, Refrigerating, and Air Conditioning Engineers 2004 Code, which are part of the State Energy Code. Refer to these codes for more detailed information. Wattage density numbers in codes may be amended from time to time.

**Lighting Allowances.** The total exterior lighting power allowance for all exterior building applications is the sum of the individual lighting power allowances based on the densities permitted in the Table plus an additional unrestricted allowance of 5 percent of that sum. Tradeoffs are allowed only among exterior lighting applications listed in the Table.

**Exterior building grounds lighting.** All exterior building grounds luminaries that operate at greater than 100 watts shall contain lamps having a minimum efficacy of 60 lumens per watt unless the luminary is controlled by a motion sensor or qualifies for one of the exceptions under code.

### Submittal Requirements

- ◆ Wattage calculation sheets
- ◆ Fixture and technical specifications sheets
- ◆ Basic lighting plan in plan view
- ◆ Photometric plans (when required by Building Inspector or Zoning Administrator).

### Inspection & Enforcement

Requirements contained herein are enforced before permit issuance and at times of inspection. Violations and penalties are noted in chapter 16.26.030.

TABLE - LIGHTING POWER DENSITIES FOR BUILDING EXTERIORS	
APPLICATIONS	LIGHTING POWER DENSITIES
<b>Tradable Surfaces</b> (Lighting Power Densities for uncovered parking areas, building grounds, building entrances and exits, canopies and overhangs, and outdoor sales areas may be traded.)	
<b>Uncovered Parking Areas</b>	
Parking Lots and drives	0.15 Watts per square foot
<b>Building Grounds</b>	
Walkways less than 10 feet wide	1.0 Watts/linear foot
Walkways 10 feet wide or greater, plaza areas and special feature areas	0.2 Watts per square foot
Stairways	1.0 Watts per square foot
<b>Building Entrances and Exits</b>	
Main entries	30 Watts/linear foot of door width
Other doors	20 Watts/linear foot of door width
<b>Canopies and Overhangs</b>	
Canopies (free standing & attached and overhangs)	1.25 Watts per square foot
<b>Outdoor Sales</b>	
Open areas (including vehicle sales lots)	0.5 Watts per square foot
Street frontage for vehicle sales lots in addition to "open area" allowance	20 Watts/linear foot
<b>Non tradable Surfaces</b> (Lighting Power Density calculations for the following applications can be used only for the specific application and cannot be traded between surfaces or with other exterior lighting. The following allowances are in addition to any allowance otherwise permitted in the Tradable Surfaces section of this table.)	
Building facades	0.2 Watts per square foot for each illuminated wall or surface or 5.0 Watts/linear foot for each illuminated wall or surface length
Automated teller machines and night depositories	270 Watts per location plus 90 watts per additional ATM per location
Entrances and gatehouse inspection stations at guarded facilities	1.25 Watts per square foot of uncovered area (covered areas are included in the Canopies and Overhangs section of Tradable Surfaces)
Loading areas for law enforcement, fire, ambulance and other emergency service vehicles	0.5 Watts per square foot of uncovered area (covered areas are included in the Canopies and Overhangs section of Tradable Surfaces)
Drive-up windows at fast food restaurants	400 Watts per drive-through
Parking near 24-hour retail entrances	800 Watts per main entry
<i>Information cited from The 2006 International Energy Conservation Code, Section 505.6.2</i>	