

International Energy Conservation Code / Wisconsin Commercial Building Code

Safety and Buildings Division of the Wisconsin Department of Safety and Professional Services

Project Name

**Energy Efficiency Worksheets** (Check-mark as appropriate)

- L-1 Index Sheet - Energy Conservation
- L-2 Mandatory Control Locations and Types
- L-3 Installed Interior Lighting Power
- L-4 Interior Lighting Power Allowance
- L-5 Exterior Lighting Power Worksheet

**Supplemental Information:**

Other lighting plan review information is at <http://dsps.wi.gov/SB/SB-CommBldgPlanRevMoreInfo.html#General>.

Worksheet L-2 or similar information is required on the drawings or on a separate form for all lighting energy submittals.

Worksheets L-3 to L-5 are optional. The information may be included on the drawings, or as part of COMcheck\* calculations.

Additional worksheets may be added if needed.

Per SPS 361.20(2), plans, specifications, and calculations require the original signature and seal of a Wisconsin Registered Architect, Professional Engineer, or Electrical Designer per SPS 361.31(1), or an original signature and credential identification number of the Master Electrician who designs and installs the system.

Please print name and telephone number of signer

**Ink signature and either registration stamp  
or Master Electrician credential number**

\*COMcheck is a federal Department of Energy computer program that can be used to demonstrate energy conservation code compliance online. The program may be downloaded to individual computers. The most recent version of COMcheck must be used to demonstrate IECC compliance with lighting in Wisconsin.

COMcheck may be found at: <http://www.energycodes.gov/comcheck/index.stm>





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**Interior Lighting Power Allowance IECC 505.5.2 based on Area Method**

Note: If using ASHRAE 90.1, allowable watts/sq ft will vary. Use Ashrae 90.1 - Table Section 9.6.2 and revise as needed depending on use of area method or space-by-space method.

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>Building Area Type</b>	<b>Watts/ft<sup>2</sup></b>	<b>Area (sq. ft)</b>	<b>Allowed Watts</b>
Automotive Facility	0.9		
Convention Center	1.2		
Court House	1.2		
Dining: Bar Lounge/Leisure	1.3		
Dining: Cafeteria/Fast Food	1.4		
Dining: Family	1.6		
Dormitory 1.0			
Exercise Center	1.0		
Gymnasium 1.1			
Healthcare-Clinic 1.0			
Hospital 1.2			
Hotel 1.0			
Library 1.3			
Manufacturing Facility	1.3		
Motel 1.0			
Motion Picture Facility	1.3		
Multi-Family 0.7			
Museum 1.1			
Office 1.0			
Parking Garage	0.3		
Penitentiary 1.0			
Performing Arts Theater	1.6		
Police/Fire Station	1.0		
Post Office	1.1		
Religious Building	1.3		
Retail 1.5			
Retail Display(floor area)	1.6		
Retail Display(display case/shelf area)	3.9		
School/University 1.2			
Sports Arena	1.1		
Town Hall	1.1		
Transportation 1.0			
Warehouse 0.8			
Workshop 1.4			
<b>TOTALS</b>			

**Ft<sup>2</sup> Area**

**Watts/1000 = kW**

**Total Allowed Interior Power Allowance \_\_\_\_\_ kW > Proposed Interior Lighting \_\_\_\_\_ kW**

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**Exterior Lighting Power Allowance IECC 505.6.2**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>Area Description</b>	<b>Allowance (Table 505.6.2)</b>	<b>Area or Linear Feet in Proposed Design</b>	<b>Total (B X C)</b>
<b>Tradable Surfaces</b>			
Parking lots & drives	0.15 W/ft <sup>2</sup>		
Walkways less than 10 ft wide	1.0 watts/linear foot		
Walkways 10 ft wide or greater, plaza areas & special feature areas	0.2 W/ft <sup>2</sup>		
Stairways 1.0	W/ft <sup>2</sup>		
Main entries	30 W/linear foot of door width		
Other doors	20 W/linear foot of door width		
Canopies (free standing & attached and overhangs)	1.25 W/ft <sup>2</sup>		
Open sales areas (includes vehicle lots)	0.5 W/ft <sup>2</sup>		
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 (lit surface only)	0.2 W/ft <sup>2</sup> or 5.0 W/Linear foot		
Automated tell machines & night depositories	270 watts per location plus 90 watts per additional ATM per location		
Entrances & gatehouse inspection stations at guarded facilities	1.25 W/ft <sup>2</sup>		
Loading areas for law enforcement, fire, ambulance & other emergency service vehicles	0.5 W/ft <sup>2</sup>		
Drive-up windows	400 watts per drive-through		
Parking near 24-hour retail entrances	800 watts per main entry		
<b>Sum of Column D</b>			
<b>Total ELPA = 1.05 X Total Above</b>			

**Proposed Installed Exterior Lighting Power IECC 505.6**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
<b>Fixture Type</b>	<b>Number of Luminaires Installed</b>	<b>Watts per Luminaire (including ballast)</b>	<b>Installed Watts (B X C)</b>

**Total Allowed Exterior Power Allowance \_\_\_\_\_ kW > Proposed Exterior Lighting \_\_\_\_\_ kW**