



Application Information Details EXTERIOR INFORMATION

All information in Section 1 is required:

1) Project Name: _____ Rep. Agency Name: _____

Project Address: _____

Phone: _____ Email: _____

For prompt and accurate lighting layouts, please provide as much information as you have available:

2) A scaled or dimensioned site plan or floor plan with dimensions to ensure correct scale

- We accept CAD files with xrefs bound, PDF files, or image files.
- CAD files are preferred and provide the quickest turnaround when submitted with unnecessary layers removed, frozen, or turned off.
- Layouts which require the site plan or floor plan to be traced will require a longer turnaround time.
- Please clearly mark the area or areas to be considered in the layout.

3) Luminaire type(s): Specify each luminaire type on your project or send copies of marked cut sheets and/or IES files

Each manufacturer: _____

Source: HPS PSMH CF LED (mA): _____ Other: _____

Light loss factor (LLF): _____ IES files to be provided by: LAS Client

Wattage: _____ Required or Maximum

4) Footcandle criteria: Specify fc criteria for each different area here (Recommendations on Page 2)

Average: _____ Max: _____ Min: _____ Max/Min: _____ Other criteria: _____

5) Exterior Application Information - Please fill out all that applies per luminaire type.

<p>Is this a LEED project: If yes, please specify which version:</p> <p><input type="checkbox"/> LEED 2009</p> <p><input type="checkbox"/> LEEDv4</p>	<p>Lighting Zones (see Page 2 for information on the zones):</p> <p><input type="checkbox"/> LZ0 <input type="checkbox"/> LZ1</p> <p><input type="checkbox"/> LZ2 <input type="checkbox"/> LZ3</p> <p><input type="checkbox"/> LZ4</p>	<p>Luminaire B ___ U ___ G ___ desired.</p> <p>Spill light / Property line issues:</p> <p>In order to be considered, property line must be clearly marked in CAD or PDF file:</p> <p>_____</p> <p>_____</p> <p>Owner or code requirements:</p> <p>_____</p> <p>Object Reflectance (Ex: benches, walls, canopies, or columns in the area):</p> <p>_____</p>
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Luminaire Type: _____ Pole Mounting Height: _____ <input type="checkbox"/> <i>Required</i> or <input type="checkbox"/> <i>Not to Exceed</i> Wall: Mounting Height: _____ Bollard: Mounting Height: _____ Pole Location: <input type="checkbox"/> <i>Use Existing</i> <input type="checkbox"/> <i>Place as Needed</i> Type of Activity: _____ Readings Take: <input type="checkbox"/> <i>At Grade</i> <input type="checkbox"/> <i>___ Above Grade</i>	Luminaire Type: _____ Pole Mounting Height: _____ <input type="checkbox"/> <i>Required</i> or <input type="checkbox"/> <i>Not to Exceed</i> Wall: Mounting Height: _____ Bollard: Mounting Height: _____ Pole Location: <input type="checkbox"/> <i>Use Existing</i> <input type="checkbox"/> <i>Place as Needed</i> Type of Activity: _____ Readings Take: <input type="checkbox"/> <i>At Grade</i> <input type="checkbox"/> <i>___ Above Grade</i>
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6) Revisions

- Mark up the previous lighting layout using Adobe PDF, CAD, or handwritten notes, then send the document to us electronically; include the job's reference number in the subject of the email.

7) Other Project Information:

A.I.D. TIPS

IES RECOMMENDATIONS FOR SPECIFIED AREAS:

These tips are a condensed and simplified version of IES Recommended Practice for quick reference. Refer to the IES recommended practice.

Exterior Lighting

Parking Lots: *IES RP-20-14*, page 16, Table 2. Recommendations are for minimum maintained fc levels from curbline to curbline. Horizontal readings taken at grade.

Applications and Tasks - Drive Aisles/Parking Areas (all activity levels)	Recommended Maintained Illuminance (fc)		Maximum	
	Horizontal (E_h) Targets [Min]	Vertical (E_v) Targets [Min]	Avg:Min	Max:Min
PARKING LOTS - All Ages, R4 (Asphalt)	Open parking facilities, for all activity levels. Use motion sensing to control post-curfew. For top of parking garage (open level), treat as parking lot.			
LZ4, LZ3, LZ2, LZ1				
Pre-curfew	.5	.25	4:1	15:1
Post-curfew	.2	.1	4:1	15:1

Lighting should address drive aisles and adjacent parking with mixed pedestrian and vehicular activity. E_h @grade; E_v @1.5 meters (5 feet) AFG in at least the two primary directions of vehicular travel. The vertical calculation is to account for the visibility of the pedestrian face, and is defined by an imaginary vertical plane oriented perpendicular to the primary direction of vehicular travel. Illuminance on each side of the place are assessed separately.

Values cited are to be maintained over time on the area of coverage.

Parking Lots: If personal security or vandalism is a likely and/or severe problem, a significant increase of the Basic level may be appropriate. Many Retailers prefer even higher levels, with a specification of 1 fc as the minimum value.

Security Lighting

Guide for Security Lighting for People, Property, and Critical Infrastructure, Page 4 IES G-1-16

Security Lighting, as part of a well-balanced security plan, should have the following objectives:

- Facilitate the visual ability of those performing security or enforcement functions
- Provide a clear view of an area from a distance, and enable anyone moving in or immediately around it to be easily seen and recognized
- Remove potential hiding places
- Permit facial identification at a distance of at least 9.1 m (30 ft), and create the perception that those in the area are identifiable
- Complement or enable other security devices
- Through fear of detection, deter persons from committing crimes or terroristic acts
- Aid in the apprehension of criminals, combatants, and terrorist suspects

Lighting for Parking Facilities, page 6, RP-20-14

LEED Lighting Zones	
LZ0	No ambient lighting - Areas where the natural environment will be seriously and adversely affected by lighting. Little or no lighting.
LZ1	Low ambient lighting - Areas where lighting might adversely affect flora and fauna or disturb character of the area.
LZ2	Moderate ambient lighting - Vision of human residents and users is adapted to moderate light levels. Lighting may typically be used for safety and convenience but is not necessarily uniform or continuous.
LZ3	Moderately high ambient lighting - Vision of human residents and users is adapted to moderately high ambient lighting. Lighting is generally desired for safety, security, and/or convenience and it is often uniform and/or continuous.
LZ4	High ambient lighting - Vision of human residents and users is adapted to highest levels. Lighting is necessary for safety, security, and is mostly continuous.

***LZ2, LZ3, and LZ4:** For LEED project boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the LEED project boundary