

ZONING

98 Attachment 2

City of Lake Geneva

Appendix A

Appendix A – Recommended Illumination Levels of the Illuminating Engineering Society of North America

PARKING LOTS:

Level of Activity	Examples	General Parking & Pedestrian			Vehicle Use Only		
		Average	Minimum	Uniformity (Ave./Min.)	Average	Minimum	Uniformity (Ave./Min.)
HIGH	Major League Athletic Events	3.6 fc	0.9 fc	4:1	1.8 fc	0.6 fc	3:1
	Major Cultural or Civic Events	60,000 lu ¹	15,000 lu ¹		30,000 lu ¹	10,000 lu ¹	
	Regional Shopping Centers	750 W MH	185 W MH		375 W MH	125 W MH	
		750 W HPS	185 W HPS		375 W HPS	125 W HPS	
		375 W LPS	90 W LPS	375 W LPS	65 W LPS		
MEDIUM	Community Shopping Centers	2.4 fc	0.6 fc	4:1	0.9 fc	0.3 fc	3:1
	Cultural, Civic, or Recreational Events	40,000 lu ¹	10,000 lu ¹		15,000 lu ¹	5,000 lu ¹	
		500 W MH	125 W MH		185 W MH	60 W MH	
	Office or Hospital Parking	500 W HPS	125 W HPS		185 W HPS	60 W HPS	
	Transportation Parking (Airports, Commuter Lots, Etc.)	250 W LPS	65 W LPS		90 W LPS	30 W LPS	
		Fast Food Facilities					
Residential Complex Parking							
LOW	Neighborhood Shopping	0.9 fc	0.18 fc	4:1	0.45 fc	0.12 fc	3:1
	Industrial Employee Parking	15,000 lu ¹	3,000 lu ¹		7,500 lu ¹	2,000 lu ¹	
	Educational Facility Parking	185 W MH	35 W MH		90 W MH	25 W MH	
	Church Parking	185 W HPS	35 W HPS		90 W HPS	25 W HPS	
		90 W LPS	18 W LPS	45 W LPS	15 W LPS		

Level of Activity Guidelines:

	Level of Activity
Regional shopping centers containing retail space of 200,000 SF or greater	HIGH
Sports Arenas	HIGH
Community shopping centers containing retail space of 4,000 SF to 199,000 SF	MEDIUM
Neighborhood shopping containing retail space of less than 4,000 SF	LOW
Fast Food Facilities	MEDIUM
Automotive Dealerships	MEDIUM
Entertainment Theaters	MEDIUM
Restaurants	MEDIUM
Hotels/Motels	MEDIUM
Security Lighting	LOW

Other Recommendations:

Automotive Dealership Display Lots:	35 fc (600,000 lumens for a single light) ¹	7,500 W MH
Service Stations:	Pump Island 20 fc (200,000 lumens for a single light) ²	2,500 W MH
	Service Area 3 fc (50,000 lumens for a single light) ²	625 W MH
Entrance Doorways:	Active 5 fc (11,000 lumens) ³	135 W MH, 135 W HPS, 75 W LPS
	Inactive 1 fc (2,000 lumens) ³	25 W MH, 25 W HPS, 15 W LPS

¹ Assumes light is at a height of 20 feet. If light is at 30 feet the lumens needs to be doubled to achieve the same fc at the ground.

² Assumes a canopy height of 15 feet.

³ Assumes light at a height of 10 feet.