

APPENDIX A – RECOMMENDED ILLUMINATION LEVELS OF THE ILLUMINATING ENGINEERING SOCIETY OF
NORTH AMERICA (IES)

PARKING LOTS:

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

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.

LEVEL OF ACTIVITY GUIDELINES

	Level of Activity
Regional shopping centers containing retail space of 200,000 square feet or greater	HIGH
Sports Arenas	HIGH
Community shopping centers containing retail space of 4,000 to 199,000 square feet.	MEDIUM
Neighborhood shopping containing retail space of less than 4,000 square feet.	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 7500 W MH
 Service Stations: Pump Island 20 fc (200,000 lumens for a single light)² 2500 W MH
 Service Area 3 fc (50,000 lumens for a single light)¹ 625 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

² Assumes a canopy height of 15 feet.

³ Assumes light at a height of 10 feet.