

## APPENDIX 24

### ILLUMINATION GUIDELINES FOR STREET, PARKING, AND PEDESTRIAN AREAS

Illumination of streets, parking areas, and pedestrian ways shall be provided as specified in the following table:

#### A. Street Illumination

Street Hierarchy	<u>Commercial</u>		Area Classification <u>Intermediate</u>		<u>Residential</u>	
	Lux	Footcandles	Lux	Footcandles	Lux	Footcandles
Collector	13	1.2	10	0.9	6	0.6
Minor - Residential Subcollector	10	0.9	6	0.6	4	0.4
Local	6	0.6	4	0.4	4	0.4

#### B. Parking Illumination (Open Parking Facilities)

Level of Activity	<u>Vehicular Traffic</u>		Illumination Objective <u>Pedestrian Safety</u>		<u>Pedestrian Security</u>	
	Lux	Footcandles	Lux	Footcandles	Lux	Footcandles
Low Activity	5	0.5	2	0.2	9	0.8
Medium Activity	11	1	6	0.6	22	2
High Activity	22	2	10	0.9	43	4

#### C. Pedestrian Way Illumination

Walkways & Bikeway Classification	<u>Minimum Average Level</u>		<u>Average Levels for Special Pedestrian Security</u>			
	Lux	Footcandles	Mounting Heights 3 to 5 meters (9 to 15 feet)		Mounting Heights 5 to 10 meters (15 to 30 feet)	
			Lux	Footcandles	Lux	Footcandles
Sidewalks (roadside) and Type A Bikeways						
Commercial Areas	10	0.9	22	2.0	43	4.0
Intermediate Residential Areas	6	0.6	11	1.0	22	2.0
Residential Areas	2	0.2	4	0.4	9	0.8
Walkways distant from roadways and Type B bikeways						
Park walkways and bikeways	5	0.5	6	0.6	11	1.0
Pedestrian tunnels	43	4.0	54	5.0	--	--
Pedestrian overpasses	3	0.3	4	0.4	--	--
Pedestrian stairways	6	0.6	9	0.8	--	--

## APPENDIX 24 (Continued)

IES Lighting Handbook definitions:

1. Area Classification:

1. Commercial

That portion of a municipality in a business development where ordinarily there are large numbers of pedestrians during business hours.

2. Intermediate

That portion of a municipality often characterized by a moderately heavy nighttime pedestrian activity such as in blocks having libraries, community recreation centers, large apartment buildings or neighborhood retail stores.

3. Residential

A residential development, or a mixture of residential and commercial establishments, characterized by a few pedestrians at night. This definition includes areas with single family homes, townhouses and/or small apartment buildings.

2. Activity Level:

High Activity

Major league athletic events, major cultural or civic events, and major regional shopping centers.

Medium Activity

Fast food facilities, area shopping centers, hospital parking areas, transportation parking (airports, etc.), cultural, civic or recreational events, and residential complex parking.

Low Activity

Local merchant parking, industrial employee parking, educational facility parking.

3. Bikeway Classification

1. Type A bikeway - a strip within or adjacent to a public roadway or shoulder, used for bicycle travel.
2. Type B bikeway - an improved strip identified for public bicycle travel and located away from a roadway or its adjacent sidewalk system.

Source: Illuminating Engineering Society of North America, IES Lighting Handbook (New York, NY: IES, 1981)