

**Figure 54.** Currently recommended illuminance categories and illuminance values for lighting design—targeted maintained levels.

The following table is a consolidated listing of the IESNA's current illuminance recommendations. This listing is intended to guide the designer in selecting an appropriate illuminance.

Guidance is provided in two forms: (1), in Parts I, II and III as an *Illuminance Category*, representing a range of illuminances; and (2), in Parts IV, V and VI as an *Illuminance Value*. Illuminance categories are represented by letter designations A through I. Illuminance Values are given in *lux* with equivalents in *footcandles* and as such are intended as *target* values with deviations expected. These target values also represent maintained values.

This table has been divided into six parts for ease of use. Part I lists both Illuminance Categories and Illuminance Values for generic types of interior activities and normally is to be used when Illuminance Categories for a specific Area/Activity cannot be found in Parts II and III. Parts IV, V and VI provide target maintained Illuminance Values for outdoor facilities, sports and recreational areas, and transportation vehicles where special considerations apply as discussed.

In all cases the recommendations in this table are based on the assumption that the lighting will be properly designed to take into account the visual characteristics of the task.

**I. Illuminance Categories and Illuminance Values for Generic Types of Activities in Interiors**

Type of Activity	Illuminance Category	Ranges of Illuminances		Reference Work-Plane
		Lux	Footcandles	
Public spaces with dark surroundings	A	20-30-50	2-3-5	General lighting throughout spaces
Simple orientation for short temporary visits	B	50-75-100	5-7.5-10	
Working spaces where visual tasks are only occasionally performed	C	100-150-200	10-15-20	
Performance of visual tasks of high contrast or large size	D	200-300-500	20-30-50	Illuminance on task
Performance of visual tasks of medium contrast or small size	E	500-750-1000	50-75-100	
Performance of visual tasks of low contrast or very small size	F	1000-1500-2000	100-150-200	
Performance of visual tasks of low contrast and very small size over a prolonged period	G	2000-3000-5000	200-300-500	Illuminance on task, obtained by a combination of general and local (supplementary lighting)
Performance of very prolonged and exacting visual task	H	5000-7500-10000	500-750-1000	
Performance of very special visual tasks of extremely low contrast and small size	I	10000-15000-20000	1000-1500-2000	

**II. Commercial, Institutional, Residential and Public Assembly Interiors**

Area/Activity	Illuminance Category	Area/Activity	Illuminance Category
<b>Accounting (see Reading)</b>		<b>Churches and synagogues</b> .. (see figure 57)	
<b>Air terminals (see Transportation terminals)</b>		<b>Club and lodge rooms</b>	
<b>Armories</b> .....	C <sup>1</sup>	Lounge and reading .....	D
<b>Art galleries (see Museums)</b>		<b>Conference rooms</b>	
<b>Auditoriums</b>		Conferring .....	D
Assembly .....	C <sup>1</sup>	Critical seeing (refer to individual task)	
Social activity .....	B	<b>Court rooms</b>	
<b>Banks (also see Reading)</b>		Seating area .....	C
Lobby		Court activity area .....	E <sup>3</sup>
General .....	C	<b>Dance halls and discotheques</b> .....	B
Writing area .....	D	<b>Depots, terminals and stations</b>	
Tellers' stations .....	E <sup>3</sup>	(see Transportation terminals)	
<b>Barber shops and beauty parlors</b> .....	E		

For footnotes, see end of table.

Figure 54 (continued)

V. Continued					
Area/Activity	Lux	Footcandles	Area/Activity	Lux	Footcandles
Professional .....	2000	200	<b>Golf</b>		
Amateur .....	1000	100	Tee .....	50	5
Seats during bout .....	20	2	Fairway <sup>14</sup> .....	10-30	1-3
Seats before and after bout ..	50	5	Green .....	50	5
<b>Casting—bait, dry-fly, wet-fly</b>			Driving range		
Pier or dock .....	100	10	At 180 meters [200 yards] <sup>14</sup> ..	50	5
Target (at 24 meters [80 feet] for bait casting and 15 meters [50 feet] for wet or dry-fly casting) <sup>14</sup> .....	50	5	Over tee area .....	100	10
<b>Combination (outdoor)</b>			Miniature .....	100	10
Baseball/football			Practice putting green .....	100	10
Infield .....	200	20	<b>Gymnasiums (refer to individual sports listed)</b>		
Outfield and football .....	150	15	General exercising and recreation .....	300	30
Industrial softball/football			<b>Handball</b>		
Infield .....	200	20	Tournament .....	500	50
Outfield and football .....	150	15	Club		
Industrial softball/6-man foot- ball .....	200	20	Indoor—four-wall or squash ..	300	30
Infield .....	200	20	Outdoor—two-court .....	200	20
Outfield and football .....	150	15	Recreational		
<b>Croquet or Roque</b>			Indoor—four-wall or squash ..	200	20
Tournament .....	100	10	Outdoor—two-court .....	100	10
Recreational .....	50	5	<b>Hockey, field</b> .....	200	20
<b>Curling</b>			<b>Hockey, ice (indoor)</b>		
Tournament			College or professional .....	1000	100
Teas .....	500	50	Amateur .....	500	50
Rink .....	300	30	Recreational .....	200	20
Recreational			<b>Hockey, ice (outdoor)</b>		
Teas .....	200	20	College or professional .....	500	50
Rink .....	100	10	Amateur .....	200	20
<b>Fencing</b>			Recreational .....	100	10
Exhibitions .....	500	50	<b>Horse shoes</b>		
Recreational .....	300	30	Tournament .....	100	10
<b>Football</b>			Recreational .....	50	5
Distance from nearest side- line to the farthest row of spectators			<b>Horse shows</b> .....	200	20
Class I Over 30 meters [100 feet] .....	1000	100	<b>Jai-alai</b>		
Class II 15 to 30 meters [50 to 100 feet] .....	500	50	Professional .....	1000	100
Class III 9 to 15 meters [30 to 50 feet] .....	300	30	Amateur .....	700	70
Class IV Under 9 meters [30 feet] .....	200	20	<b>Lacrosse</b> .....	200	20
Class V No fixed seating facilities .....	100	10	<b>Playgrounds</b> .....	50	5
It is generally conceded that the distance between the spectators and the play is the first consideration in deter- mining the class and lighting requirements. However, the potential seating capacity of the stands should also be considered and the following ratio is suggested: Class I for over 30,000 spectators; Class II for 10,000 to 30,000; Class III for 5000 to 10,000; and Class IV for under 5000 spectators.			<b>Quoits</b> .....	50	5
<b>Football, Canadian—rugby (see Football)</b>			<b>Racing (outdoor)</b>		
<b>Football, six-man</b>			Auto .....	200	20
High school or college .....	200	20	Bicycle		
Jr. high and recreational .....	100	10	Tournament .....	300	30
			Competitive .....	200	20
			Recreational .....	100	10
			Dog .....	300	30
			Dragstrip		
			Staging area .....	100	10
			Acceleration, 400 meters [1320 feet] .....	200	20
			Deceleration, first 200 meters [660 feet] .....	150	15
			Deceleration, second 200 meters [660 feet] .....	100	10
			Shutdown, 250 meters [820 feet] .....	50	5
			Horse .....	200	20
			Motor (midget of motorcycle) ..	200	20

For footnotes, see end of table.