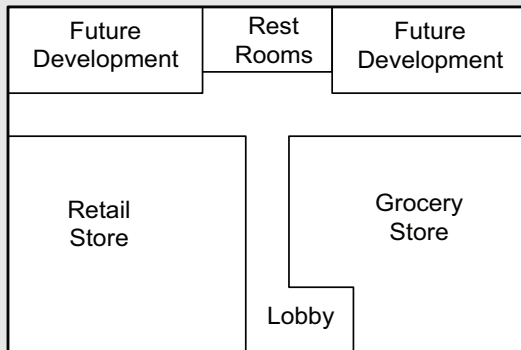


Example 5-15

Question

A 10,000-ft² multi-use building is to be built consisting of:

- A) 500 ft² main entry lobby,
- B) 2,000 ft² corridors and restroom,
- C) 3,000 ft² grocery store,
- D) 2,500 ft² retail, and
- E) 2,000 ft² future development.



What is the allowed lighting power under the area category method?

Answer

Space	LPD	Area	Allowed Watts
A) Main Entry	1.5 W/ft ²	500 ft ²	750
B) Corridors and Restrooms	0.6 W/ft ²	2,000 ft ²	1,200
C) Grocery Sales	1.6 W/ft ²	3,000 ft ²	4,800
D) Retail Store	1.6 W/ft ²	2,500 ft ²	4,000
TOTAL		8,000 ft ²	10,750

with 2,000 ft² for future development.

Example 5-16

Question

What is the wattage allowance for a 10 ft³ chandelier with 5-50 W lamps in a 300 ft² bank entry lobby?

Answer

The wattage based on the task space is $1 \text{ W/ft}^2 \times 300 \text{ ft}^2 = 300 \text{ W}$

The wattage based on actual design watts is 250 W.

The wattage allowance for the chandelier is the smaller of the two values, or 250 W.

Table 5-3 – (Standards Table 146-F) Area Category Method – Lighting Power Density Values (Watts/ft²)

Primary Function		Allowed Lighting Power (W/ft ²)	Primary Function		Allowed Lighting Power (W/ft ²)
Auditorium		1.5 ¹	Laboratory, Scientific		1.4 ⁴
Auto Repair		0.9 ²	Laundry		0.9
Beauty Salon		1.7	Library	Reading areas	1.2
Civic Meeting Place		1.3 ¹		Stacks	1.5
Classrooms, lecture, training, vocational room		1.2	Lobbies	Hotel lobby	1.1 ¹
Commercial and industrial storage (conditioned & unconditioned)		0.6		Main entry lobby	1.5 ¹
Commercial and industrial storage (refrigerated)		0.7	Locker/dressing room		0.8
Convention, conference, multipurpose and meeting centers		1.4 ¹	Lounge/recreation		1.1
Corridors, restrooms, stairs, and support areas		0.6	Malls and atria		1.2 ¹
Dining		1.1 ¹	Medical and clinical care		1.2
Electrical, mechanical, telephone rooms		0.7 ²	Offices	> 250 ft ²	0.9
Exercise center, gymnasium		1.0		≤ 250 ft ²	1.1
Exhibit, museum		2.0	Parking garage	Parking Area	0.2
Financial transactions		1.2 ¹		Ramps and Entries	0.6
General commercial and industrial work	Low bay	1.0 ²	Religious worship		1.5 ¹
	High bay	0.9 ²	Retail merchandise sales, wholesale showrooms		1.6
	Precision	1.2 ³	Tenant lease space		1.0
Grocery sales		1.6	Theaters	Motion picture	0.9 ¹
Hotel function area		1.5 ¹		Performance	1.4 ¹
Housing, Public and Commons Areas	Multi-family, Dormitory	1.0	Transportation Function		1.2
	Senior Housing	1.5	Waiting area		1.1 ¹
Kitchen, food preparation		1.6	All other		0.6

FOOTNOTES

1. The smallest of the following values may be added to the allowed lighting power for ornamental chandeliers and sconces that are in addition to and switched or dimmed on circuits different from the circuits for general lighting:
 - a. One watt per square foot times the area of the task space that the chandelier or sconce is in; or
 - b. The actual design wattage of the chandelier or sconce.
2. The smallest of the following values may be added to the allowed lighting power for specialized task work
 - a. 0.5 watt per square foot times the area of the task space required for an art, craft assembly or manufacturing operation, or
 - b. The actual design wattage of the luminaire(s) providing illuminance to the specialized task area.

For spaces employing this allowance, the plans shall clearly identify all task spaces using these tasks and the lighting equipment designed to illuminate these tasks. Tasks that are performed less than two hours per day or poor quality tasks that can be improved are not eligible for this specialized task work allowance.
3. The smallest of the following values may be added to the allowed power for precision commercial and industrial work:
 - a. One watt per square foot times the area of the task space required for the precision work; or
 - b. The actual design wattage of the luminaire(s) providing the illuminance to the precision task area.

For spaces employing this allowance, the plans shall clearly identify all task spaces using these tasks and the lighting equipment designed to illuminate these tasks. Tasks that are performed less than two hours per day or poor quality tasks that can be improved are not eligible for this precision task work allowance.
4. The smallest of the following values may be added to the allowed lighting power for specialized task work:
 - a. 0.2 watt per square foot times the area of the task space required for a lab in a school, or
 - b. The actual design wattage of the luminaire(s) providing illuminance to the specialized task area.