

## IES Footcandle Recommendations

The following footcandle ranges represent the Illuminating Engineering Society's (IES) current illuminance (light level) recommendations.

Individual applications will determine exact footcandle levels. To maximize energy savings, identify over- or underlit spaces and use IES recommendations to establish new light levels appropriate for your application.

Please refer to the IES Lighting Handbook for more detailed information. Unless otherwise stated, values shown represent horizontal range.

### Airplane Manufacturing

Drilling, riveting, screw fastening.....	75
Final assemble, hangar.....	100
Inspection.....	50-200
Welding.....	50

### Auditoriums

Social activities.....	5-10
Assembly only.....	10-20
Exhibitions.....	10-50

### Automobile Manufacturing

Final assembly, finishing, inspecting.....	200
Body & chassis assembly.....	100
Body parts manufacturing.....	100
Frame assembly.....	50

### Automotive

Showroom.....	25-100
Service area.....	25-100
Sales Lot (exterior)	
Lighting Zone 3 (urban).....	10-40
Lighting Zone 2 (suburban).....	7.5-30

### Banks

ATM.....	10-40
Lobby general.....	10-50
Writing areas.....	20-70
Teller stations, posting & keypunch.....	50-150

### Barber Shops

Beauty Parlors.....	50-100
Chemical Works.....	30
Laboratory (professional).....	75-120

### Clothing Manufacturer

Receiving, storing, shipping, winding, measuring.....	20-50
Pattern making, trimming.....	50-100
Shops, marking.....	50-200
Cutting, pressing.....	100-500(a)
Sewing, inspection.....	200-500(a)

### Electrical Equipment Manufacturing

Impregnating.....	20-50
Insulating coil winding, testing.....	50-100

### Exterior

Entrances.....	5
Safety.....	0.5-2

### Food Service Facilities

Dining areas	
Cashier.....	20-50
Cleaning.....	10-20
Dining.....	5-20
Food courts.....	30
Food displays.....	30-100
Kitchen/food prep.....	50-100

### Foundries

Annealing furnaces.....	20-50
Cleaning.....	20-50
Core making.....	50-200
Inspection	
Fine.....	100-500
Medium.....	50-100
Molding.....	50-200
Pouring, sorting.....	50-100

### Garages-Motor Vehicles

Storage.....	5
Traffic Lanes	
Parking garage.....	10
Parking (open)	
Zone 3 (urban).....	0.5-3
Zone 2 (suburban).....	0.5-2
Service garage.....	10-20
Entrances.....	50
Repair area.....	50-100

### Gas station.....

.....	10-15
Grocery, Supermarkets.....	25-100
Circulation.....	10-40

### Gymnasiums

Assemblies.....	10
General exercise & recreation.....	30
Locker room.....	10-30
Exhibitions, matches.....	50

### Hospitals, Healthcare

Rooms.....	10-30
Corridors, lobby.....	5-30
Emergency rooms.....	50-100
General nursing station.....	30
General waiting areas.....	10
Operating rooms.....	100-200
Stairways.....	10

## Hotels

Bathrooms.....	20-50
Bedrooms for reading.....	20-50
Corridors, elevators and stairs.....	10-20
Front desk.....	50-100
Linen room	
Sewing.....	100-200
General.....	10-20
Lobby	
General lighting.....	10-20
Reading and working areas.....	20-50

## Industrial/Manufacturing

Assembly & inspection (simple).....	15-60
Component manufacturer (large part).....	15-60
Component manufacturer (med. part).....	25-100
Assembly & inspection (difficult).....	50-200
Component manufacturer (fine part).....	50-200
Assembly & inspection (exacting).....	150-600

## Iron & Steel Manufacturing

Stock, hot top, checker cellar, calcining.....	10-30
Building, slag pits, stripping yard.....	20
Control platforms, repairs, mixer building.....	30
Rolling mills.....	30-50
Shearing.....	50
Tin plate.....	50
Motor room, machine room.....	30
Inspection.....	100

## Laundries

Washing.....	20-50
Ironing.....	20-100

## Library

Ordinary reading, stacks.....	20-50
Book repair and binding.....	20-50
Study & notes, cataloging, card files, check desk.....	20-100

## Machine Shops

Rough bench.....	20-50
Medium bench, rough grinding, buffing.....	50-100
Fine bench and work.....	200-500(a)

## Offices

Accounting.....	50-100
Audio-visual areas.....	20-50
Conference areas.....	20-70
Corridors, stairways.....	20(k)
Drafting.....	50-200
General and private offices.....	50-100
Lobbies, lounges, break rooms, and reception areas.....	0-30
Mail sorting.....	50-100

Off-set printing and duplicating area.....	20-50
Open office.....	30-50
Restroom.....	7.5-30
Spaces with VDT's.....	75
Whiteboard (reading).....	7.5-30
Whiteboard (presenting).....	15-60

## Paint Shop

Spraying, rubbing, hand art, stencil.....	20-50
Fine hand painting & finishing.....	50-100

## Paper Manufacturing

Beaters, grinding.....	20-50
Finishing, cutting.....	50-100
Hand cutting.....	50-100
Paper machine reel, inspection.....	100-200
Rewinder.....	100-200

## Printing

Photo engraving, etching, blocking.....	20-50
Color inspecting.....	100-200
Presses.....	50-100
Proofreading.....	100-200
Composing room.....	50-100

## Retail

Circulation area stockroom.....	10-30
Department store.....	20-80
Discount/Warehouse	
Drug/Convenience.....	25-100
Merchandising, serviced.....	30-100
Merchandising, self-service.....	200
Shopping mall.....	30

## Schools (Educational)

Auditorium.....	3-10
Dormitory.....	20-30
Cafeteria.....	20-30
Classroom (general).....	30-50
Corridor.....	10-40
Gymnasium	
Class I (pro of div. 1 college).....	100
Class II (div. 2 or 3 college).....	75
Class III (high school).....	50
Class IV (elementary).....	30
Laboratory (classroom).....	50-75
Lecture hall.....	100
Reading.....	20-100
Typing.....	20-100
Demonstrations.....	100-200
Sewing.....	200-100

## Sheet Metal Works

General.....	100
Tin plate inspection, galvanized, scribing.....	100-200

Stairways, Corridors	
General.....	5

### Textile Mills

Cotton picking, carding, roving, spinning.....	50
Beaming & slashing.....	150
Drawing.....	200
Others.....	100

Toilets, Washrooms.....	5
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### Warehousing, Storage

Inactive.....	5-10
Raw material processing (active)	
Rough bulky items.....	10-20
Small items.....	15-60
Medium.....	20
Fine.....	20-50
Cold storage.....	10-30
Open warehouse.....	10-30
Receiving/shipping dock.....	5-20
Receiving/staging.....	15-60
Warehouse w/aisles.....	10-30

### Materials Handling

Loading dock.....	10-30
Picking stock classifying.....	20-50
Wrapping, packing, labeling.....	20-50

### Assembly

Rough easy seeing.....	20-50
Rough difficult seeing.....	50-100
Medium.....	100-200
Fine.....	200-500(a)
Extra fine.....	500-1000(a)

### Welding

General.....	20-50
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### Woodworking

Rough sawing and bench work.....	20-50
Sizing, planing, rough sanding, medium quality machine and bench work, gluing, veneering, cooperage.....	20-50
Fine bench and machine work, fine sanding and finishing.....	50-100

Workshop.....	30-75
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#### Notes:

- (a) Obtained with a combination of general light plus specialized supplementary lighting
- (k) Or not less than 1/5 the level in adjacent areas