

ANNEXURE-1: RECOMMENDED ILLUMINANCE LEVELS

INDUSTRIAL BUILDINGS & PROCESSES	Average Illuminance
i) General Factory Areas	
a) Canteens	150
b) Clock-rooms	100
c) Entrances, corridors, strairs	100
ii) Factory Outdoor Areas	
Stockyards, main entrances and exit roads, car parks, internal factory roads	20
iii) Aircraft Factories and Maintenance Hangars	
a) Stock parts productions	450
b) Drilling, riveting, screw fastening sheet aluminium layout and template work, wing sections, cowling welding, sub-assembly, final assembly and inspection	300
c) Maintenance and repair (bangars)	300
iv) Assemble Shops	
a) Rough work, for example, frame assembly and assembly of heavy machinery	150
b) Medium work, for example, machine parts, engine assembly, vehicle body assembly.	300
c) Fine work, for example, radio and telephone equipment, typewriter and office machinery assembly	700
d) Very fine work, for example, assembly of very small precision mechanisms and instrument	1500
vi) Boiler House (Industrial)	
a) Coal and ash handling	100
b) Boiler rooms :	
1) Boiler fronts and operating areas	100+
2) Other areas	20 to 50
c) Ourdoor plants :	
1) Cat-walks	20
2) Platforms	50
vii) Breweries and Distrilleries	
a) General working areas	150
b) Brewhouse, bottling and canning plants	200
c) Bottle inspection	Special lighting
viii) Chemical Works	
a) Hand furnaces, boiling tanks stationery driers, stationery or gravity crystallizers, mechanical driers, evaporators, filtration plants, mechanical crystallizing, bleaching, extractors, percolators nitrators and electrolytic cells	150
b) Controls, guages, valves, etc	100

c) Control rooms :	
1) Vertical control panels	200 to 300
2) Control desks	300
ix) Chocolate and Confectionery Factories	
a) Mixing , blending and boiling	150
b) Chocolate husking, winnowing, fat extraction, crushing and refining, feeding, bean cleaning, sorting, milling and cream making	200
c) Hand decorating, inspection wrapping and packing	300
XI) GLASS WORKS AND PROCESSES	
a) Furnace rooms, bending, annealing lehrs	100
b) Mixing rooms, forming (blowing, drawing, pressing and rolling)	150
c) Cutting to size, grinding, polishing and roughening	200
d) Finishing (bevelling, decorating, etching and silvering)	300
e) Brilliant cutting	700
f) Inspection:	
1) General	200
2) Fine	700
XII) INSPECTION SHOPS (ENGINEERING)	
a) Rough work, for example, counting and rough checking of stock parts, etc.	150
b) Medium work, for example, 'go' and 'no go' gauges and sub-assemblies	300
c) Fine work, for example, radio and telecommunication equipment, calibrated scales, precision mechanisms and instruments	700
d) Very fine work, for example, gauging and inspection of small intricate parts	1500
e) Minute work, for example, very small instruments	3000*
Iron and Steel Works	
a) Marshalling and outdoor stockyards	10to 20
b) Stairs, gangways, basements, quarries and loading docks	100
c) Slabyards, melting shops, ingot strippling, soaking pits, blast-furnace working areas picking and cleaning lines, mechanical plant and pump houses	100
d) Mould preparation, rolling and wire mills, mill motor rooms, power and blower houses	150
e) Slab inspection and conditioning cold strip mills, sheet and plate finishing, tinning, galvanizing, machine and roll shops	200
f) Plate inspection	300
g) Tinplate inspection	Special lighting

xiii) Laboratories and Test Rooms	
a) General laboratories and balance rooms	300
b) Electrical and instrument laboratories	450
Lundries and Drycleaning Works	
a) Receiving, sorting, washing, drying, ironing (calendering) and despatch	200
b) Drycleaning and bulk machine work	200
c) Fine hand ironing, pressing, inspection, mending and spotting	300
Leather Dressing	
a) Vats, cleaning, tanning, stretching, cutting, fleshing and stuffing	150
b) Finishing, staking, splitting and scarfing	200
XIV) MACHINE AND FITTING SHOPS	
a) Rough bench and machine work	150
b) Medium bench and machine work, ordinary automatic machines, rough grinding, medium buffing and polishing	300
c) Fine bench and machine work, fine automatic machines, medium grinding, fine buffing and polishing	700
XV) MOTOR VEHICLE PLANTS	
a) General sub-assemblies, chassis assembly and car assembly	300
b) Final inspection	450
c) Trim shops, body sub-assemblies and body assembly	300
d) Sprey booths	450
Paint Works	
a) General, automatic processes	200
b) Special batch mixing	450
c) Colour matching	700*
Paint Shops and Spraying Booths	
a) Dipping, firing and rough spraying	150
b) Rubbing, ordinary painting, spraying and finishing	300
c) Fine painting, spraying and finishing	450
d) retouching and matching	700*
XVI) PAPERS WORKS	
a) Paper and board making :	
1) Machine houses, calendering, pulp mills, preparation plants, cutting, finishing and trimming	200
2) Inspection and sorting (over hauling)	300
b) Paper converting processes :	
1) Corrugated board, cartons, containers and paper sack manufacturer, coating and laminated processes	200

2) Associated printing	300
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XVII) PHARMACEUTICALS AND FINE CHEMICAL WORKS	
a) Raw material storage	200
b) Control laboratories and testing	300
c) Pharmaceuticals manufacturing :	
1) Grinding, granulating, mixing and drying, tableting, sterilizing and washing, preparation of solutions and filling, labelling, capping, cartoning and wrapping and inspection	300
d) Fine chemical manufacture :	
1) Plant processing	200
2) Fine chemical finishing	300
XVIII) PLASTIC WORKS	
a) Manufacture (see Chemical Works)	
b) Processing :	
1) calendering and extrusion	300
2) Moulding- compression and injection	200
3) Sheet fabrication :	
I) Shaping	200
II) Trimming, machining, polishing	300
iii) Cementing	200
XIX) ELECTROPLATING SHOPS	
a) vat and baths, buffing, polishing and burnishing	150
b) Final buffing and polishing	Special lighting
Pottery and Clay Products	
a) Grinding, filter pressing, kiln rooms, moulding, pressing, cleaning, trimming, glazing and firing	150
b) Enamelling, colouring, decorating	450
XX) SHEET METAL WORKS	
a) Bench work, scribing, pressing, punching, shearing, stamping, spinning and folding	200
b) Sheet inspection	Special lighting
XXI) TEXTILE MILLS (COTTON OR LINEN)	
a) Bale breaking, blowing, carding, roving, slubbing, spinning (ordinary counts), winding, heckling, spreading and cabling	150
b) Warping, slashing, dressing and dyeing, doubling (fancy) and spinning (fine counts)	200
c) Healding (drawing-in)	700
d) weaving :	

1) Patterned cloths and fine counts, dark	700
2) Patterned cloths and fine counts, light	300
3) Plain grey cloth	200
e) Cloth inspection	700

XXII) TEXTILE MILLS (SILK OR SYNTHETICS)	
a) Soaking, fugitive tinting, conditioning or setting or twist.	200
b) Spinning	450
c) Winding, twisting, rewinding and coining, quilting and slashing :	
1) Light thread	200
2) Dark thread	300
d) Warping	300
e) Healding (drawing-in)	700
f) Weaving	700
g) Inspection	1000
XXIII) TEXTILE MILLS (WOOLEN)	
a) Scouring, carbonizing, teasing, preparing, raising, brushing, pressing, back-washing, gilling, crabbing and blowing	150
b) Blending, carding, combing (white), tentering, drying and cropping	200
c) Spinning, roving, winding, warping, combing (coloured) twisting	450
d) Healding (drawing-in)	700
e) Weaving :	
1) Fine worsted	700
2) Medium worsteds and fine woollens	450
3) Heavy woollens	300
f) Burling and mending	700
g) Perching :	
1) Grey	700
2) Final	2000
XXIV) WAREHOUSES AND BULK STORES	
a) Large material loading bays	100
b) Small material racks	150
c) Packing and dispatch	150
Commercial buildings	
Offices	
General Offices	300

Deep Plan General Offices	500
Computer Works Station	300
Conference Rooms, Executive Offices	300
Computer and Data Preparation Rooms	300
Filing Rooms	200
Drawing Offices	
General	300
Drawing Boards	500
Print Rooms	200
Counter, Office Area	300
Public Area	200
Retailing	
Small Shops with counters	300
Small Self Service Shops with Island Displays	300
Super Markets – Hyper-Markets	300
General	300
Checkout	300
Showrooms for large objects, for example, cars, furniture	300
Shopping precincts and arcades	100
Hospitals	
Anesthetic Rooms	
General	200
Local	750
Consulting Area	
General	200
Examination	750
Corridors	
General	100
Ward Corridors	
Day, Screened from Bays	150
Day, open to nature light	150
Cubicles	
General	200
Treatment	750
Examinations	
General	200
Local Inspection	750
Intensive Therapy	
Bed Head	30
Circulation Between Bed ends	50
Observation	200
Local Observation	750
Staff base (day)	200
Staff base (Night)	30
Laboratories	
General	200
Examination	300
Nurses 's stations	
Morning/Day/evening	200
Night desks	30
Night, Medical Trolleys	50
Operating Theatres	
General	300

Local	10000
Hotels	
Entrance Halls	50
Receptions, Cashiers & Porter's desks	200
Bars, Coffee base, dining rooms, Grill rooms, Restaurants, Lounges	50
Cloak Rooms, Baggage Rooms	50
Bed Room	30
Bath Rooms	50
Food Preparation & Stores, cellars, Lifts and corridors	100
Transport	
Air ports	150
Ticket Counters, Checking, desks and information desks	300
Departure Lounges, other waiting Areas	150
Baggage reclaim	150
Baggage Handling	50
Customers & Immigration halls	300
Concourse	150
Railway Stations	
Ticket Office	300
Information Office	300
General	50
Counter	150
Waiting Rooms	150
Concourse	150
Time Table	150
Ticket Barriers	150
Platforms (Covered)	30
Platforms (Open)	20