

Table 30 — Industrial activities and crafts – Rolling mills, iron and steel works

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
30.1	Production plants without manual operation	50	-	0,40	20	-	-	-	-	Safety colours shall be identifiable.
30.2	Production plants with occasional manual operation	150	200	0,40	40	28	50	50	30	
30.3	Production plants with continuous manual operation	200	300	0,60	80	25	50	50	30	
30.4	Slab Store	50	-	0,40	20	-	-	-	-	Safety colours shall be identifiable.
30.5	Furnaces	200	300	0,40	20	25	50	50	30	Safety colours shall be identifiable.
30.6	Mill train; coiler; shear line	300	500	0,60	40	25	75	75	30	
30.7	Control platforms; control panels	300	500	0,60	80	22	75	75	30	
30.8	Test, measurement and inspection	500	750	0,60	80	22	150	150	100	
30.9	Underfloor man-sized tunnels; belt sections, cellars, etc.	50	-	0,40	20	-	-	-	-	Safety colours shall be identifiable.
^a required: minimum value										

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
^b modified: considers common context modifiers in 5.3.3										

Table 31 — Industrial activities and crafts – Textile manufacture and processing

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
31.1	Work stations and zones in baths, bale opening	200	300	0,60	60	25	50	50	30	
31.2	Carding, washing, ironing, devilling machine work, drawing, combing, sizing, card cutting, pre-spinning, jute and hemp spinning	300	500	0,60	40	22	100	100	50	
31.3	Spinning, plying, reeling, winding	500	750	0,60	40	22	150	150	75	Prevent stroboscopic effects.
31.4	Warping, weaving, braiding, knitting	500	750	0,60	60	22	150	150	75	Prevent stroboscopic effects.
31.5	Sewing, fine knitting, taking up stitches	750	1 500	0,70	80	22	150	150	100	
31.6	Manual design, drawing patterns	750	1 500	0,70	90	22	150	150	100	4 000 K $\leq T_{cp} \leq$ 6 500 K
31.7	Finishing, dyeing	500	1 000	0,60	80	22	150	150	100	
31.8	Drying room	100	-	0,40	60	28	50	50	30	
31.9	Automatic fabric printing	500	-	0,60	90	25	100	100	50	
31.10	Burling, picking, trimming	1 000	1 500	0,70	80	19	150	150	100	
31.11	Colour inspection; fabric control	1 000	1 500	0,70	90	19	150	150	100	4 000 K $\leq T_{cp} \leq$ 6 500 K

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
31.12	Invisible mending	1 500	2 000	0,70	90	19	150	150	100	$4\,000\text{ K} \leq T_{cp} \leq 6\,500\text{ K}$
31.13	Hat manufacturing	500	750	0,60	80	22	150	150	75	
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 32 — Industrial activities and crafts – Vehicle construction and repair

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
32.1	Press shop - large parts	300	500	0,60	80	25	100	50	30	
32.2	Press shop - visual inspection	500	750	0,60	80	22	150	50	30	
32.3	Body work and assembly - automatic line	300	500	0,60	80	25	100	50	30	
32.4	Body work and assembly - manual welding	500	750	0,60	80	22	150	50	30	
32.5	Painting, spraying chamber, polishing chamber	750	1 000	0,70	80	22	150	150	30	
32.6	Painting, inspection, touch-up and polishing	1 000	1 500	0,70	90	19	150	150	30	$4\,000\text{ K} \leq T_{cp} \leq 6\,500\text{ K}$
32.7	Upholstery manufacture (manual)	1 000	1 500	0,70	80	19	150	50	30	

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
32.8	Detailing: - Subparts assembly (doors, dashboard, upholstery) - Underchassis assembly - Motor and mechanical assembly - Final assembly conveyor line	750	1 000	0,70	80	22	150	50	30	
32.9	Detailing: - work with electronics	750	1 000	0,60	90	22	150	50	30	4 000 K $\leq T_{cp}$ $\leq$ 6 500 K for recognition of colours
32.10	Final inspection	1 000	1 500	0,70	90	19	150	150	30	
32.11	General vehicle services, repair and testing	500	750	0,60	80	22	100	50	30	Consider local lighting.
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 33 — Industrial activities and crafts – Wood working and processing

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
33.1	Automatic processing, e.g. drying, plywood manufacturing	50	-	0,40	40	28	-	-	-	
33.2	Steam pits	150	200	0,40	40	28	50	50	30	

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
33.3	Saw frame	300	500	0,60	60	25	100	100	50	Prevent stroboscopic effects.
33.4	Work at joiner's bench, gluing, assembly	300	500	0,60	80	25	100	100	50	
33.5	Polishing, painting, fancy joinery	750	1 000	0,70	80	22	150	150	100	
33.6	Work on wood working machines, e.g. turning, fluting, dressing, rebating, grooving, cutting, sawing, sinking	500	750	0,60	80	19	150	150	75	Prevent stroboscopic effects.
33.7	Selection of veneer woods	750	1 000	0,70	90	22	150	150	100	$4\,000\text{ K} \leq T_{cp} \leq 6\,500\text{ K}$
33.8	Marquetry, inlay work	750	1 000	0,70	90	22	150	150	100	$4\,000\text{ K} \leq T_{cp} \leq 6\,500\text{ K}$
33.9	Quality control, inspection	1 000	1 500	0,70	90	19	150	150	100	$4\,000\text{ K} \leq T_{cp} \leq 6\,500\text{ K}$
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 34 — Offices

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
34.1	Filing, copying, etc.	300	500	0,40	80	19	100	100	75	
34.2	Writing, typing, reading, data processing	500	1 000	0,60	80	19	150	150	100	DSE-work, see 5.9 Room brightness, see 6.7 and Annex B Lighting should be controllable, see 6.2.4. For smaller cellular offices the wall requirement applies to the front wall. For other walls a lower requirement of minimum 75 lx could be accepted.
34.3	Technical drawing	750	1 500	0,70	80	16	150	150	100	DSE-work, see 5.9 room brightness, see 6.7
34.4	CAD work stations	500	1 000	0,60	80	19	150	150	100	DSE-work, see 5.9.
34.5.1	Conference and meeting rooms	500	1 000	0,60	80	19	150	150	100	Lighting should be controllable, see 6.2.4.
34.5.2	Conference table	500	1 000	0,60	80	19	150	150	100	Lighting should be controllable, see 6.2.4.
34.6	Reception desk	300	750	0,60	80	22	100	100	75	If reception desk includes regular work station tasks these should be lit accordingly.
34.7	Archiving	200	300	0,40	80	25	75	75	50	
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 35 — Retail premises

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
35.1	General sales area	300	750	0,40	80	22	75	75	30	Ensure sufficient vertical illuminance on shelves.
35.2	Till area	500	1 000	0,60	80	19	100	75	30	
35.3	Wrapper table	500	1 000	0,60	80	22	100	-	50	
35.4	Storage area	300	500	0,40	80	25	50	-	-	
35.5	Dressing/fitting room	300	500	0,4	90	-	-	-	-	Consider vertical illuminance and modelling in front of mirror.
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 36 — Places of public assembly – General areas

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
36.1	Entrance halls	100	200	0,40	80	22	50	50	30	R_{UGL} only if applicable
36.2	Cloakrooms	200	300	0,40	80	25	75	75	50	
36.3	Lounges	200	300	0,40	80	22	75	75	50	
36.4	Ticket offices	300	500	0,60	80	22	75	75	50	
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 37 — Places of public assembly – Restaurants and hotels

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
37.1	Reception/cashier desk, porters desk	300	500	0,60	80	22	100	100	75	
37.2	Kitchen	500	1 000	0,60	80	22	100	100	75	There should be a transition zone between kitchen and restaurant.
37.3	Restaurant, dining room, function room	-		-	80	-	-	-	-	The lighting should be designed to create the appropriate atmosphere.
37.4	Self-service restaurant	200	300	0,40	80	22	75	75	50	
37.5	Buffet	300	500	0,60	80	22	75	75	50	
37.6	Conference rooms	500	1 000	0,60	80	19	150	150	100	Lighting should be controllable, see 6.2.4. Room brightness, see 6.7
37.7	Corridors	100	150	0,40	80	25	50	50	30	During night-time lower levels are acceptable. Illuminance on floor level
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 38 — Places of public assembly – Theatres, concert halls, cinemas, places for entertainment

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
38.1	Practice rooms	300	500	0,60	80	22	100	100	75	
38.2	Dressing rooms	300	500	0,60	90	22	100	100	75	Lighting at mirrors for make-up shall be “glare-free”. Disability glare should be avoided at mirrors for make-up.
38.3	Seating areas – maintenance, cleaning	200	500	0,50	80	22	50	50	30	Illuminance at floor level.
38.4	Stage area rigging	300	500	0,40	80	25	75	75	30	Illuminance at floor level.
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 39 — Places of public assembly – Trade fairs, exhibition halls

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
39.1	General lighting	300	500	0,40	80	22	50	50	30	
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 40 — Places of public assembly – Museums

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
40.1	Exhibits, insensitive to light	-	-	-	80	-	-	-	-	Lighting is determined by the display requirements.
40.2	Exhibits sensitive to light	-	-	-	80	-	-	-	-	1. Lighting is determined by the display requirements. 2. Protection against damaging radiation is paramount.
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 41 — Places of public assembly – Libraries

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
41.1	Bookshelves	200	300	0,40	80	19	-	-	-	Vertical illuminance on shelves. For dedicated bookshelf lighting the R_{UGL} value does not apply.
41.2	Reading area	500	750	0,60	80	19	100	100	50	Pleasant atmosphere should be achieved
41.3	Counters	500	750	0,60	80	19	150	150	50	
41.4	General lighting	300	500	0,40	80	22	75	75	50	
^a required: minimum value										
^b modified: considers common context modifiers in 5.3.3										

Table 42 — Places of public assembly – Car parks (indoor)

Ref. no.	Type of task/activity area	$\bar{E}_m$ lx		U_o	R_a	R_{UGL}	$\bar{E}_{m,z}$ lx	$\bar{E}_{m,wall}$ lx	$\bar{E}_{m,ceiling}$ lx	Specific requirements
		required ^a	modified ^b				$U_o \geq 0,10$			
42.1	Entry/exit ramps (during daylight hours)	300	500	0,40	40	25	75	75	50	1. Illuminance level to extend 5 m into parking floor 2. Illuminances at floor level.
42.2	Entry/exit ramps (at night)	75	100	0,40	40	25	50	50	30	1. Illuminances at floor level.