OHS Requirements for Workplace Lighting & Illumination

OHS Requirements for Workplace Lighting

(Definition: "IES Handbook" means Lighting Handbook–Reference and Application, published by the Illuminating Engineering Society of North America)

FEDERAL	
Normal Lighting	Average lighting must meet workplace-specific, task-level based Schedule: *Office Areas: Schedule I *Indust. Areas: Schedule II *General Areas: Schedule III *Visual Display Terminal Work: Schedule IV *Aerodrome aprons: 10 lx *Aircraft stand: 20 lx
Emergency Lighting	Emergency lighting: *Required in building (a) exits + corridors; (b) main access routes to exits in open floor areas; + (c) floor areas where employees normally congregate *(Except in grain elevators)Must: (a) operate automatically if regular power supply interrupted; (b) provide average light of at least 10 lx; + (c) be independent of regular power source *Generator inspection, testing + maintenance must meet National Fire Code, Sec. 6.7 *Central storage battery system or battery unit of self-contained emergency lighting unit must be tested: (a) monthly by hand; + (b) annually under simulated power failure or electrical fault conditions *Test results must be in writing + retained for 2 years
Other Requirements/Comments	To determine average lighting level for task position or area, employer must: *Make 4 measurements at different places representing lighting level at task position or, in area, representative of level of lighting 1 m above floor of area + *Divide aggregate measurement results by 4
ALBERTA	

Normal Lighting	*Lighting at work site must be sufficient to enable work to be done safely *Light source above working or walking surface must be protected against damage
Emergency Lighting	*Must be emergency lighting at work site where failure of normal lighting would endanger workers *Emergency lighting must generate enough light to enable workers to: (a) leave site safely; (b) start emergency shut-down procedures; + (c) restore normal lighting
Other Requirements/Comments	OHS Code doesn't specify lighting type or minimum levels but Guidelines: *Recommend standards of IES Handbook (9th Ed.) *Say emergency lighting must meet *Alberta Building Code*
BRITISH COLUMBIA	
Normal Lighting	*Minimum 22 lux in low activity areas + basement areas housing machinery, but which aren't regular task areas *Minimum 54 lux in high activity areas *Levels set out in Table 4-1 for tasks requiring ability to distinguish detail
Emergency Lighting	*Must be emergency lighting system for workplace + exit routes if lighting system failure would endanger workers *Emergency lighting must be sufficient for: (a) performing emergency shutdown procedures; + (b) evacuating workers from premises *Emergency lighting system in fixed facility must meet section 3.2.7 *BC Building Code* requirements for: (a) illumination level; (b) use of recessed fixtures; (c) duration of emergency lighting; (d) use of self-contained emergency lighting units; + (e) emergency electrical power supply *Inspection, testing + maintenance of emergency lighting must meet *BC Fire Code*, Sec. 6.5
Other Requirements/Comments	*As far as practicable, workplace must be designed + maintained so as to control: (a) brightness ratios; (b) reflectance values; + (c) glare *Measurements must follow IES Handbook (8th Ed.) *Photometer used to measure illumination levels must be colour- + cosine- corrected
MANITOBA	
Normal Lighting	*Workplace must have lighting sufficient for workers to work safely *Minimum 5 decalux in all parts of workplace where a worker passes

Emergency Lighting	*Workplace must have adequate emergency lighting that operates if regular lighting system fails *Emergency lighting must be sufficient to enable workers to: (a) perform emergency shut-down procedures; (b) leave workplace safely; + (c) restore regular lighting system
Other Requirements/Comments	
NEW BRUNSWICK	
Normal Lighting	Employer must: *Provide lighting sufficient for type of work considering illumination's: (a) quantity; + (b) quality, including reflectances, direct glare + reflected glare *Use one of the following ANSI standards to determine sufficient lighting: (a) ANSI/IES RP-7 1991, "American National Standard Practice for Industrial Lighting"; (b) ANSI/IES RP3 – 1988, "Guide for Educational Facilities Lighting"; or (c) ANSI/IESNA RP-1-1992, "American National Standard Practice for Office Lighting"
Emergency Lighting	Employer must ensure emergency lighting: *Is available if failure of normal lighting system may endanger an employee *Is independent of the normal lighting source *Provides a minimum of 50 lux of lighting so as to enable an employee to leave the place of employment safely *Is frequently tested to ensure it will work in an emergency
Other Requirements/Comments	Requirements don't apply to a firefighter engaged in structural fire-fighting
NEWFOUNDLAND AND LABRADOR	
Normal Lighting	*Must be sufficient + suitable lighting in all parts of workplace while a worker is present *Illumination must meet ANSI, IES or other acceptable standards *Artificial light source or reflective surface must be positioned, screened or have a shade to prevent glare or discomfort or shadows causing eyestrain or accident or injury risk *Employer must take corrective actions if smoke, steam or other conditions limit work area visibility

Emergency Lighting	*Must be emergency lighting system for workplace + exit routes if failure of a lighting system may endanger workers *Emergency lighting system must provide dependable illumination while primary lighting system is off to enable all emergency measures to be carried out, including: (a) emergency shutdown procedures; + (b) evacuation of workers
Other Requirements/Comments	*Fluorescent bulbs must be handled, stored + disposed of in accordance with manufacturers' instructions *Fluorescent bulbs must be stored in suitable containers *Crushing or compacting disposal of fluorescent bulbs must be done in adequately ventilated area + workers must be furnished appropriate PPE
NOVA SCOTIA	
Normal Lighting	Employer must: *Provide lighting sufficient for type of work considering illumination's: (a) quantity; + (b) quality, including reflectance, direct glare + reflected glare *If reasonably practicable, use latest version of one of following ANSI standards to determine sufficient lighting: (a) ANSI/IES-RP-7, "American National Standard Practice for Industrial Lighting"; or (b) ANSI/IESNA RP-1, "American National Standard Practice for Office Lighting"
Emergency Lighting	Employer must ensure emergency lighting is available if failure of normal lighting system may endanger any person
Other Requirements/Comments	
ONTARIO	
Normal Lighting	Industrial Establishments *Employer must provide artificial lighting if natural lighting is inadequate to ensure worker safety *Shadows + glare must be reduced to a minimum Construction Projects: *Adequate lighting required in: (a) areas where worker is present; (b) means of access to + egress from those areas; + (c) a public way *Light bulb used in temporary lighting system must be enclosed by mechanical protection device

Emergency Lighting	Construction Projects *Tunnels or shafts + airlocks + work chambers for compressed air work must have emergency lighting system: (a) connected to electrical supply that turns on automatically if electrical supply fails; (b) with a testing switch, if system is battery-powered; + (c) that's tested at least as often as the manufacturer recommends to ensure it will function in an emergency
Other Requirements/Comments	Health Care Facilities *Workplace lighting must meet Part 3 of *Ontario Building Code* *Brightness levels + ratios, glare, contrast + shadows must be kept at nonhazardous levels *Hazardous glare + reflection must be limited as far as practicable *Hazardous glare from direct lighting source must be shielded by louvres, lenses, lens covers or diffusers *Workers required to use video display terminal continuously for 1 hour or more must get at least 5 minutes free time per hour *Disposal of fluorescent tubes by crushing or compacting must be done in adequately ventilated area + workers must be provided with proper PPE *Burned-out light bulbs + fluorescent tubes must be replaced promptly *Lighting equipment must be serviced + maintained at regular intervals
PRINCE EDWARD ISLAND	
Normal Lighting	Minimum lighting at a point 762 mm (30 in.) above floor: *Seldom Used Areas: 100 lux *Frequently Used Areas: 300 lux *Continuously Used Areas: 500 lux *Offices: 650 lux
Emergency Lighting	*Emergency lighting of at least 10 lux required at all means of egress normally used during periods of darkness *Emergency lighting also required in building area where failure of regular lighting system might endanger any person in building, which must: (a) turn on automatically when regular lighting fails; (b) be independent of regular lighting source; (c) provide adequate lighting for evacuation of area; + (d) be tested at least every 3 months to ensure system will function in emergency (unless manufacturer recommends more frequent testing)
Other Requirements/Comments	
QUÉBEC	

Normal Lighting	*Minimum lighting levels listed in Schedule VI of OHS Reg. based on work + location *Illumination must be measured at distance of 750 mm from floor on usable work surface, with a luxmeter corrected for incident light rays *Minimum lighting of 250 lux for lunch room put at worker's disposal (doesn't apply to offices) *250 lux for toilets
Emergency Lighting	*Emergency lighting system required for exits and notices indicating exits, passageways, corridors + alleys leading directly to exits *System must maintain illumination of 50 lux for period of at least 30 minutes at floor level + be inspected monthly *Emergency lighting must be ensured by recharging generators or accumulators that go into operation + maintain current during power failure
Other Requirements/Comments	*Requirements at left apply to "establishments," i.e., all installations + equipment grouped on one site + organized under authority of one person or related person for producing or distributing goods or services, except a construction site; *"Establishment" includes a school, construction enterprise + lodging, eating or recreational facilities put at disposal of workers by employer, (except private lodging facilities)
SASKATCHEWAN	
Normal Lighting	Employer, contractor or owner must: *Provide lighting sufficient to protect workers' health + safety + suitable for work done at the worksite *Ensure at least 5 decalux for all parts of place of employment where workers pass (other than underground at a mine)
Emergency Lighting	Employer, contractor or owner must provide appropriate emergency lighting of at least 5 decalux for worksite + exit routes from worksite if failure of regular lighting system is likely to endanger workers
Other Requirements/Comments	Employer, contractor or owner must ensure: (a) light fixtures, windows + skylights are, where practicable, kept clean + free from obstruction, except for special treatment of light fixtures, windows or skylights to reduce heat or glare; + (b) artificial light sources + reflective surfaces are positioned, screened or provided with a shade, where practicable, to prevent glare or shadows creating discomfort or risk of accident
NORTHWEST TERRITORIES AND NUNAVUT	

Normal Lighting	Employer must: *Provide lighting sufficient to protect workers' health + safety + suitable for work done at site *Ensure at least 50 lux for all parts of a work site where a worker could work
Emergency Lighting	Employer must provide appropriate emergency lighting of at least 50 lux for work site if failure of regular lighting system is likely to endanger workers
Other Requirements/Comments	Employer must ensure that: (a) light fixtures, windows + skylights are, if reasonably possible, kept clean + free from obstruction, other than for special treatment of light fixtures, windows or skylights to reduce heat or glare; and (b) artificial light sources + reflective surfaces are positioned, screened or provided with a shade, if reasonably possible, to prevent glare or shadows that cause discomfort
YUKON	
Normal Lighting	*Proper illumination must be provided + maintained in every workplace area used by employees or others *Minimum illumination in workplaces must meet Table 1 of OHS Reg, unless govt. safety officer directs otherwise *Minimum illumination in offices + shops must meet Table 4, unless govt. safety officer directs otherwise *Govt. safety officer may create written standard for quality of illumination, including emergency lighting, standby lighting + exterior lighting, in any workplace
Emergency Lighting	Emergency lighting system must be installed + maintained at workplace used during hours of darkness or where a source of natural light isn't available, and must: (a) provide adequate level of illumination for area, but no less than 10.8 lux (1 foot□candle) at all exits; (b) be powered by a source independent of the general lighting system; (c) be controlled by an automatic device that activates the secondary source of power; and (d) be inspected and maintained annually

Other Requirements/Comments	*All lighting systems must be designed to allow for light depreciation in service so lighting doesn’t drop below required minimums *Lighting source must be shielded to control discomfort glare + transverse shielding angle must be no less than 12 degrees *Lighting source must supply upward component of no less than 10%, or auxiliary units must be provided to direct a comparable amount of light upward, unless a Chief Industrial Safety Officer or Chief Mines Safety Officer directs otherwise *Employer must maintain any lighting fixture in good working order + in clean condition