# 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** | |
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| **Normal Lighting** | Average lighting must meet workplace-specific, task-level based Schedule:<br>*Office Areas: Schedule I<br>*Indust. Areas: Schedule II<br>*General Areas: Schedule III<br>*Visual Display Terminal Work: Schedule IV<br>*Aerodrome aprons: 10 lx<br>*Aircraft stand: 20 lx |

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| **Emergency Lighting** | Emergency lighting:<br>*Required in building (a) exits + corridors; (b) main access routes to exits in open floor areas; + (c) floor areas where employees normally congregate<br>*(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<br>*Generator inspection, testing + maintenance must meet National Fire Code, Sec. 6.7<br>*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<br>*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:<br>*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<br>+<br>*Divide aggregate measurement results by 4 |

| ALBERTA | |
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| **Normal Lighting** | *Lighting at work site must be sufficient to enable work to be done safely<br>*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<br>*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:<br>*Recommend standards of IES Handbook (9th Ed.)<br>*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<br>*Minimum 54 lux in high activity areas<br>*Levels set out in Table 4-1 for tasks requiring ability to distinguish detail |

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| **Emergency Lighting** | *Must be emergency lighting system for workplace + exit routes if lighting system failure would endanger workers<br>*Emergency lighting must be sufficient for: (a) performing emergency shutdown procedures; + (b) evacuating workers from premises<br>*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<br>*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<br>*Measurements must follow IES Handbook (8th Ed.)<br>*Photometer used to measure illumination levels must be colour- + cosine- corrected |
| **MANITOBA** | |

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| **Normal Lighting** | *Workplace must have lighting sufficient for workers to work safely<br>*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<br>*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** | |

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| **Normal Lighting** | Employer must:<br>*Provide lighting sufficient for type of work considering illumination's: (a) quantity; + (b) quality, including reflectances, direct glare + reflected glare<br>*Use one of the following ANSI standards to determine sufficient lighting:<br>(a) ANSI/IES RP-7 1991, "American National Standard Practice for Industrial Lighting";<br>(b) ANSI/IES RP3 – 1988, "Guide for Educational Facilities Lighting"; or<br>(c) ANSI/IESNA RP-1-1992, "American National Standard Practice for Office Lighting" |
| **Emergency Lighting** | Employer must ensure emergency lighting:<br>*Is available if failure of normal lighting system may endanger an employee<br>*Is independent of the normal lighting source<br>*Provides a minimum of 50 lux of lighting so as to enable an employee to leave the place of employment safely<br>*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** | |

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| **Normal Lighting** | *Must be sufficient + suitable lighting in all parts of workplace while a worker is present<br>*Illumination must meet ANSI, IES or other acceptable standards<br>*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<br>*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<br>*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<br>*Fluorescent bulbs must be stored in suitable containers<br>*Crushing or compacting disposal of fluorescent bulbs must be done in adequately ventilated area + workers must be furnished appropriate PPE |

| NOVA SCOTIA | |
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| **Normal Lighting** | Employer must:<br>*Provide lighting sufficient for type of work considering illumination's: (a) quantity; + (b) quality, including reflectance, direct glare + reflected glare<br>*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** | |

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| **Normal Lighting** | Industrial Establishments<br>*Employer must provide artificial lighting if natural lighting is inadequate to ensure worker safety<br>*Shadows + glare must be reduced to a minimum<br>Construction Projects:<br>*Adequate lighting required in: (a) areas where worker is present; (b) means of access to + egress from those areas; + (c) a public way<br>*Light bulb used in temporary lighting system must be enclosed by mechanical protection device |
| **Emergency Lighting** | Construction Projects<br>*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 |

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| **Other Requirements/Comments** | Health Care Facilities<br>*Workplace lighting must meet Part 3 of *Ontario Building Code*<br>*Brightness levels + ratios, glare, contrast + shadows must be kept at nonhazardous levels<br>*Hazardous glare + reflection must be limited as far as practicable<br>*Hazardous glare from direct lighting source must be shielded by louvres, lenses, lens covers or diffusers<br>*Workers required to use video display terminal continuously for 1 hour or more must get at least 5 minutes free time per hour<br>*Disposal of fluorescent tubes by crushing or compacting must be done in adequately ventilated area + workers must be provided with proper PPE<br>*Burned-out light bulbs + fluorescent tubes must be replaced promptly<br>*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:<br>*Seldom Used Areas: 100 lux<br>*Frequently Used Areas: 300 lux<br>*Continuously Used Areas: 500 lux<br>*Offices: 650 lux |

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| **Emergency Lighting** | *Emergency lighting of at least 10 lux required at all means of egress normally used during periods of darkness<br>*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** | |
| **QU□BEC** | |
| **Normal Lighting** | *Minimum lighting levels listed in Schedule VI of OHS Reg. based on work + location<br>*Illumination must be measured at distance of 750 mm from floor on usable work surface, with a luxmeter corrected for incident light rays<br>*Minimum lighting of 250 lux for lunch room put at worker’s disposal (doesn’t apply to offices)<br>*250 lux for toilets |

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| **Emergency Lighting** | *Emergency lighting system required for exits and notices indicating exits, passageways, corridors + alleys leading directly to exits<br>*System must maintain illumination of 50 lux for period of at least 30 minutes at floor level + be inspected monthly<br>*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** | |

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| **Normal Lighting** | Employer, contractor or owner must:<br>*Provide lighting sufficient to protect workers' health + safety + suitable for work done at the worksite<br>*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** | |

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| **Normal Lighting** | Employer must:<br>*Provide lighting sufficient to protect workers' health + safety + suitable for work done at site<br>*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** | |

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| **Normal Lighting** | *Proper illumination must be provided + maintained in every workplace area used by employees or others<br>*Minimum illumination in workplaces must meet Table 1 of OHS Reg, unless govt. safety officer directs otherwise<br>*Minimum illumination in offices + shops must meet Table 4, unless govt. safety officer directs otherwise<br>*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 |

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| **Other Requirements/Comments** | *All lighting systems must be designed to allow for light depreciation in service so lighting doesn’t drop below required minimums<br>*Lighting source must be shielded to control discomfort glare + transverse shielding angle must be no less than 12 degrees<br>*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<br>*Employer must maintain any lighting fixture in good working order + in clean condition |