

# Temporary lighting

List temporary lighting locations on site:

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Adequate lighting must be provided in areas where workers are present. Additional task lighting must also be considered. Entrance and exit spaces must also be illuminated.

## Explain dangers

- Electricians have been electrocuted while setting up temporary lighting.
- Frequent relocation of circuits can loosen connections, break insulation, and create other shock or electrocution hazards.
- Steel door frames can become electrified when doors close on wires.
- Ladders, pipe, scaffold frames, and other objects can bump stringers, leading to electrical contact and shock.
- Dead, missing, or low-wattage bulbs, inadequate power, and blown fuses can leave stairwells, basements, and other areas poorly lit or with no lighting at all, increasing the risk of injury.

## Identify controls

- Remember that lighting levels should be at least 55 lux (5-ft. candles). That means 150-watt bulbs that are:
  - Suspended 2.4 m (8 ft.) high and 7.5 m (25 ft.) apart OR
  - Suspended 3 m (10 ft.) high and 6 m (20 ft.) apart.
- Suspend lights at least 2.4 m (8 ft.) off the floor. Do not hang lights by the cord unless they are designed that way.

- Use plastic straps or insulated wiring instead of metal (e.g., nails, bare wire, etc.) to secure the lights.
- Install bulbs so that they light as large an area as possible.
- Do not remove bulbs for personal use or task lighting
- Protect lights against damage by accidental contact. Use plastic cages to protect the bulbs.
- Keep branch lighting circuits that feed temporary lighting entirely separate from power circuits.
- Protect branch lighting circuits by a breaker or fuse with a 15-amp rating. An electrician should connect the circuits directly into a distribution panel. Make sure lockout/tagging procedures are followed before connecting the wiring to the panel.
- Use a ground fault circuit interrupter (GFCI) when temporary lighting is outside or in wet locations.
- Do not use temporary lighting circuits as extension cords. If a fuse blows, finding your way to the panel in the dark can be dangerous.
- Make sure that wires do not contact steel doors or steel door frames. Ensure that wires cannot be pinched or cut by doors.

## Demonstrate

With your crew, review the following checklist:

- Are work areas well lit?
- Are burned-out bulbs promptly replaced?
- Are they replaced with new bulbs or bulbs taken from another location?
- Are stringers promptly relocated when bulbs are blocked by the installation of new ceilings, ducts, piping, and other features?
- Are lamp holders hard-usage type?
- Are cords for sockets supported every 1.4 m (4 ft., 6 in.)?