



Lighting and Illumination

Much of the work that we perform in the construction industry is outside during the day. And under that condition lighting is not a problem.

But frequently we have to work inside and permanent lighting hasn't been installed yet, or we may have night shifts. This is when lighting becomes important. It is difficult to work safely if you can't see what you are doing.

OSHA has a chart listing the required foot candles of illumination for various types of work. This doesn't mean much to us without a light meter that measures foot candles but it does show us how the required foot candles increase depending on the task that is being performed.

General Construction such as concrete placement and excavation requires 3 foot candles. You should be able to read plans at this level.

The next level includes activities in which equipment is moving and there is higher activity. 5 foot candles are required here as well as the next level. (Tunnels require 10 foot candles under certain situations.)

We double the foot candles to 10 for batch plants, screening plants and other similar areas as well as for highway work. .

First Aid Stations, infirmaries and offices require 30 foot candles of illumination.

This chart indicates The more activity or the higher risk tasks need to be illuminated better.

Work in low light will make a task more hazardous, which means we have to light up the work area to reduce or eliminate the hazard.

We also need to remember that even with good lighting in the work area shadows and glare can affect the way you see things, Try using more than just one source of light to reduce shadows and position the lights to reduce glare into workers eyes and the driving public that may be adjacent to the work area.

Table from OSHA

Minimum Illumination in Foot Candles	
Foot Candles	Area of Operation
5	General construction area lighting.
3	General construction areas, concrete placement, excavation and waste areas, access ways, active storage areas, loading platforms, refueling, and field maintenance areas.
5	Indoors, warehouses, corridors, hallways, and exit-ways
5	Tunnels, shafts, and general underground work areas: (Exception: minimum of 10 foot-candles is required at tunnel and shaft heading during drilling, mucking, and scaling. Bureau of Mines approved cap lights shall be acceptable for use in the tunnel heading)
10	General construction plant and shops (e.g., batch plants, screening plants, mechanical and electrical equipment rooms, carpenter shops, rigging lofts and active store rooms, mess halls, and indoor toilets and workrooms.)
30	First-aid stations, infirmaries, and offices

Meeting Conducted By: _____

Date: _____

Comments: _____

Attendees:

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