

SHINE A LIGHT ON SAFETY!

PROTECTING WORKERS FROM HARMFUL UV EXPOSURES

A Guide for Indoor Cannabis Grow Operations: Employers

Grow lamps used in indoor cannabis grow operations produce varying levels of ultraviolet (UV) light. Recent research from the University of Washington Department of Environmental and Occupational Health Sciences shows that some light bulbs may exceed health protective regulations for UV exposure. Over-exposure to UV light is known to cause skin cancer, premature aging, immune system suppression, and eye damage such as cataracts or pterygia.

WHEN DOES UV BECOME DANGEROUS?

The radiant exposure, a measure of an employee's dose, is the amount of energy received per unit area of surface, expressed as millijoules per square centimeter (mJ/cm^2).

The Washington State Division of Occupational Safety (DOSH) specifies a UV skin and eye permissible exposure limit (PEL) of 3 effective mJ/cm^2 per 8-hour work shift. [WAC 296-62-09005]

WHAT CAN I DO TO PROTECT MY EMPLOYEES?



Use grow lamps with lower UV intensities.



Position all light bulbs higher than 8ft off the ground.



Train all employers on how to take proper safety precautions with all bulbs.



Never use germicidal bulbs when workers are present. Rooms containing germicidal bulbs should be interlocked to prevent access while lamps are on.



Display warning signs in areas where UV-emitting bulbs are used.



Provide protective eye-wear appropriate for the specific wavelengths emitted by the bulbs in your facility.

HOW DO MY BULBS COMPARE?

This graph shows the average dose of effective UV light over an 8-hour shift from 5 different bulb types commonly used in growing facilities, in comparison to the DOSH PEL. Dose is estimated at 3ft away from the bulbs.

