



## Frequently Asked Questions Outdoor Agricultural Operations During Hours of Darkness

The California Health & Safety Standards Board has adopted a [new standard](#) for “Outdoor Agricultural Operations During Hours of Darkness.” The standard takes effect July 1, 2020.

This standard has been the subject of stakeholder meetings going back to 2013. As initially introduced as a regulation in 2019, the standard would have required excessive and expensive light towers. CAWG, as part of an ag industry coalition, successfully pushed for amendments that make this standard workable.

### *How Much Light Is Needed For Vineyard Operations?*

**Table 1 – Illumination Levels**

Foot-Candles	Lux	Operations, Areas or Tasks
3	32.29	Meeting area and meal/rest area.
5	53.82	Outdoor agricultural operations except where otherwise specified in this table.  Pathways leading to and around restrooms and drinking water. Inside restroom facilities. Storage areas accessed by employees.
10	107.64	Intermittently exposed or exposed point of operation Equipment, covered under Group 8. Points of Operation and Other Hazardous Parts of Machinery.  Operationally visible moving parts of machinery covered under Group 6.  Power Transmission, Prime Movers, and Machine Parts of the General Industry Safety Orders. Task lighting for agricultural operations that involve the use of tools that can potentially cause cuts, lacerations, or punctures.
20	215.3	Task lighting for maintenance work on equipment.



### ***What Is A Foot-Candle and What Is A Lux?***

A foot-candle is how bright the light is one foot away from the source. Lux is a standardized unit of measurement of light level intensity, which is commonly referred to as “illuminance” or “illumination.” Light instruments are rated by the manufacturer as providing a specified level of light measured in foot-candles or lux or both. Some manufacturers measure light in lumens as well.

### ***How Will Light Be Measured?***

Outdoor agricultural operations taking place between sunset and sunrise must be measured as follows:

- Illumination levels for task lighting is measured at the task/working surface, in the plane in which the task/work surface is present.
- Illumination levels for area lighting is measured at approximately 30 inches above the floor or other horizontal, vertical or sloped surface on or through which the employee walks, works or gains access to a work area.

### ***Do Employers Need To Purchase A Light Meter?***

Employers whose employees work at night were already providing adequate lighting before this standard was adopted. However, some employers may not be using a light meter to measure light. As specific levels of lighting are now required, it is advised that employers use a light meter to assure they are in compliance in real time.

It is our understanding that Cal/OSHA has indicated that their staff intend to use the following three brands of light meters when conducting enforcement activities.

- Extech
- Davis Instruments
- Sper Scientific

These light meters are typically available on line for around \$160.00 and can be used periodically throughout a shift to assure compliance.



### ***How Can Light Be Provided?***

- The illumination levels required in Table 1 may be provided by one or more light source (e.g. lamp mounted on equipment, vehicles, or personal hands free portable lighting) or a combination of methods.
- The employer must provide and maintain hands-free portable personal lighting or area lighting or both to employees.
- All tractors, or self-propelled farm equipment, and trucks used between sunset and sunrise must be equipped with at least one headlight which must be used to that will illuminate the area in front of the equipment or truck at least 50 feet. There must be at least one rear light which must illuminate equipment at the rear.
- Adequate means of access must be provided so that employees can safely reach the top of the load for manual loading or unloading of high loads.

### ***What About Glare?***

Area lighting should be set up in a manner that minimizes glare to the workers (selection of lamps, shielding, proper adjustment of the beam angle, glare avoidance screens). In order to prevent glare while vehicles are traveling on farm roads, additional lighting installed to meet Table 1 does not need to be activated.

### ***Is Safety Gear Required?***

The employer must provide and require workers to wear Class 2 high visibility garments conforming to specifications of American National Standard for High-Visibility Safety Apparel and Accessories, (ANSI/ISEA) 107-2015, for work activities between sunset and sunrise. These garments must be of such design, fit and durability as to provide adequate protection against the hazards for which they are designed. They must be reasonably comfortable and cannot unduly encumber the employee's movements necessary to perform his or her work.



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### ***Are Safety Meetings Required?***

Supervisory employees are required to conduct a safety meeting at the beginning of each shift to inform employees of the location of the restrooms, drinking water, designated break areas, nearby bodies of water, and high traffic areas. These safety meetings are part of the worker safety communications already required of the Injury and Illness Prevention Program.

### ***Most Employers Are Already Doing This. Is That Right?***

It is highly likely that for most employers, their Injury and Illness Prevention Program, both in print and in practice, already contains the elements of this standard. When this standard was being considered, CAWG argued that this standard is not needed as the Health & Safety Standards Board could not demonstrate that agricultural employees are not already provided adequate lighting at night. Consequently, we believe that most if not all vineyard operations are already in compliance with this standard prior to it taking effect.

However, it is advised that for any specific workplace situation, employers should consult with their human resources professional and legal counsel to assure compliance with this standard.

For additional information, please contact Michael Miiller, Director of Government Relations at [Michael@CAWG.org](mailto:Michael@CAWG.org).

### ***DISCLAIMER***

*This document is intended to provide general information about the Cal/OSHA standard titled "Outdoor Agricultural Operations During Hours of Darkness." It is not intended to provide legal advice in any way whatsoever. Employers should consult with their HR professional and legal counsel to assure compliance with this standard.*

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