

CONSTRUCTION PROCEDURES HANDBOOK

SECTION VIII	SUBSECTION G	DATE
Work Zone Safety	Illuminance Testing and Visibility Requirements During Night Operations	03/07/2023

Night operations comprise work performed from 30 minutes before sunset to 30 minutes after sunrise. At least 24 hours before beginning night operations, the Contractor will demonstrate, to the RE, the method of meeting the specified illuminance levels and visibility requirements for workers and equipment, for each planned operation. Do not allow night operations to begin until the RE approves the method of meeting the specified illuminance levels and visibility requirements for workers and equipment.

Illuminance

The minimum illuminance levels for night operations are as specified in subsection 108.06 table 108.06-1 and as may be modified by the Special Provisions including the minimum lighting area. For moving operations, ensure that lighting and illuminance requirements are maintained where the work is in progress and that lighting keeps pace with the operation.

Using the light meter provided by the Contractor as specified in subsection 155.03.01 7. of the Special Provisions, determine illuminance levels by taking readings horizontally to the road surface facing the light source at an elevation of 20" above the road surface. Record the readings on [Form DC-108](#). Submit the Form to the RCE Monthly.

If at any time minimum illuminance levels are not met, cease night operations until the required illuminance levels are attained.

NOTE: Do not allow conventional vehicle headlights to meet illuminance requirements.

Visibility

Workers are required to wear a 360° high-visibility retroreflective safety garment meeting ANSI/ISEA Class 3, Level 2 standards.

Do not allow equipment that does not meet the following:

- Hopper, auger, and screed areas of pavers as well as the operator's controls on all machines are uniformly lit.
- Moving lighting equipment used for night operations has lights directed ahead and behind the equipment.
- Moving equipment is equipped with 2 inch wide, alternating red and white, conspicuity tape meeting the National Highway Transportation Safety

Administration standards.

- Off-road equipment is equipped with conspicuity tape along the full length of all 4 sides.
- On-road vehicles, including trailers and trailer-mounted devices, are equipped with conspicuity tape along the full length of both sides, excluding the cab, and across the rear of the vehicle.

Direct the Contractor to perform glare control, which may require relocating, aiming, or adjusting lights or providing screens, shields, visors, or louvers on lights, or a combination of these measures.