

Standard Guidelines for Product Review

Flagger Station Lighting

Section 00225.17

11-10-08

00225.17 – Temporary Flagger Station Lighting

General – ODOT maintains a list of products that will sufficiently illuminate a flagger and their flagging station area without creating glare for oncoming motorists, yet meet the mobility requirements of the operation. The lighting stations should be on the same side of the roadway as the flagger. Desirably, the lighting devices should be located 5 to 10 feet from the edge of the travel lane, with the light bulbs 14 to 21 feet above the ground. The flagger should be visible and discernable as a flagger from a distance of 1000 feet. Below is a list of requirements for trailer-mounted, tripod-mounted, and cart-mounted units.

Other documents you may find useful are:

ODOT Standard Specifications for Highway Construction:

<http://www.oregon.gov/ODOT/HWY/SPECS/>

ODOT Standard Drawings:

http://www.oregon.gov/ODOT/HWY/ENGSERVICES/standard_drawings_home.shtml

Process – Submit the following:

- [Preliminary Information for Product Evaluation Form](#).
- Brochures (3 copies)
- Spec Data Sheet.
- Documentation showing compliance with Specifications and Requirements listed below.
- [Crashworthiness Approval as shown below](#).
- Detailed installation instructions.
- List of Limitations and Precautions.

General Specifications –

- 2000 watts total maximum output
- Use high intensity discharge (H.I.D.) lamps, such as high pressure sodium or metal halide, or halogen lamps.
- The system shall be able to provide a lighted area of at least 40 feet diameter at ground level.
- The systems shall provide shielding to prevent light from being directed toward traffic.
- The system should be able to illuminate the roadway surface throughout the designated flagging area, with at least 5 foot-candles; or, at least two times the amount of illumination provided by other light sources without the light equipment used to illuminate the flagger present, whichever is greater.
- The *veiling luminance* (glare) experienced by motorists when approaching and passing through the flagging area should be as low as possible, but not greater than 0.25 candelas, or 1/3 of the average pavement luminance, whichever is less.
- The unit should include an ID plate showing the manufacturer's name, model number, and serial number of all components of the assembly.
- The unit shall be stable during operation in winds up to 60 miles per hour.

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Controller and Cabinet Requirements:

- The controller shall be housed in a lockable, weatherproof cabinet to prevent access by unauthorized personnel.
- The cabinet shall be painted with lead free orange, yellow, or other highly visible paint.
- The controller shall provide short circuit and overcharge protection.

Power System Requirements:

- The user shall be able to adjust the luminaire supports for easy transport and maximizing lighting during operation.
- The unit shall be powered from a conventional 110-120 v AC, 60 Hz source(s); but, also be able to be powered by a diesel generator.

Crash Worthiness:

- Trailer Mounted Lighting supports will be exempt from crash testing until FHWA releases additional requirements for Category 4 devices.
- Tripod Mounted Lighting supports require NCRHP 350 Category 2* approval from FHWA, but will be allowed on a case-by-case basis without specific testing until January 1, 2011, if they are deemed acceptable by ODOT.
- Cart Mounted (non-roadworthy) Lighting supports require NCHRP 350 Category 2* approval from FHWA, but will be allowed on a case-by-case basis without testing until January 1, 2011, if they are deemed acceptable by ODOT.

* or other testing as required by FHWA.

Please forward your information and/or questions to:

Oregon Department of Transportation
Attn: Product Evaluation Coordinator (503) 986-3059
800 Airport Rd SE
Salem Or 97301-4798

[HTTP://WWW.OREGON.GOV/ODOT/HWY/CONSTRUCTION/QPL/QPINDEX.SHTML](http://www.oregon.gov/odot/hwy/construction/qpl/qpindex.shtml)