



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**SEP 27 2012**

1200 New Jersey Ave., SE  
Washington, D.C. 20590

In Reply Refer To:  
HOTO-1

Mr. William M. Marshall  
Chief Executive Officer  
Electrotechnics Corporation  
1310 Commerce Street  
Marshall, TX 75672

Dear Mr. Marshall:

Thank you for your letter of July 11 requesting an official interpretation regarding the dimming of Rectangular Rapid Flashing Beacons (RRFBs) during daytime hours.

While nighttime dimming can be a reasonable approach if the RRFB signal indications are so bright that they cause excessive glare during nighttime conditions, it is not acceptable to dim the RRFB signal indications during daytime conditions. The effectiveness of RRFBs depends upon the light output from the RRFB signal indications meeting the SAE J595 requirements for peak luminous intensity (candelas) for Class 1 at all times during daylight hours.

RRFB systems should be designed for sufficient autonomy under normal use. Accordingly, agencies should require power systems that will provide full service, day and night, for typical operating times, even with several days of limited power generation. For example, five days autonomy would mean that the system would generate and store sufficient energy during one day so that the power demands of the system can be met for five days. Depending on typical insolation values, agencies might ask for greater or lesser autonomy. Monthly tables of typical insolation values for locations within the United States are available and should be used to determine the minimum size of the system. For example, a solar-power system in Seattle, Washington will need to be larger than one in Phoenix, Arizona for equal power demands.

It is the FHWA's official interpretation that it is not acceptable to dim the RRFB signal indications during daytime conditions and that the light output from the RRFB signal indications must meet the SAE J595 requirements for peak luminous intensity (candelas) for Class 1 at all times during daylight hours.

For recordkeeping purposes, we have assigned the following official ruling number and title: "4(09)-24 (I) – Dimming of RRFBs during Daytime Hours." Please refer to this number and title in any future correspondence regarding this topic.

Thank you for your interest in improving the clarity of the provisions contained in the MUTCD.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Mark R. Kehrl". The signature is fluid and cursive, with a large initial "M" and "K".

Mark R. Kehrl  
Director, Office of Transportation  
Operations