

**LAMP RATING CODES FOR CLEARANCE AND SIDE MARKER LIGHTS**

Clearance and side marker lamps can be designed to meet two different sets of photometric angles (light angles) depending on the application of the lamp(s).

Generally side marker lamps are mounted on the sides of the trailers (parallel to the centerline of the vehicle). The lamp is required by Federal regulations to have light emitted at an angle 45 degrees toward the front of the vehicle and 45 degrees toward the rear of the vehicle. There are also up and down angles of 10 degrees. At all these angles the light must emit .62 candela for a yellow light and .25 candela for a red light. The lamp must comply with SAE J592e per FMVSS-108.

The requirements for a clearance lamp mounted on the front of the trailer with the lamp at 90 degrees to the centerline of the vehicle is the same as for the side marker lamp above.

Both of the lamps described above would be rated as "P2" lamps according to SAE marking requirements SAE J759. The P2 designation means that the lamp can be used as either a side marker lamp or a clearance lamp, but not both at the same time.

SAE J592e also allows a lamp to be classified as a combination clearance and side marker lamp with a rating code of "PC". These types of lamps must have light angles of 180 degrees and are mounted on the vehicles at 45 degrees (such as the front corner of trailers). At such an angle the lamp will meet the light angularity requirements for both the clearance and side marker lamps simultaneously.

**Caution must be taken when replacing a lamp that is mounted at the 45 degree angle to make sure you are replacing it with a light with the same code rating the lamps performance (in this case a "PC" lamp). Replacing a "PC" rated lamp with a "P2" rated lamp means that the light angles will not be met and the vehicle is in noncompliance with Federal regulations and subject to citations.**

Lighting manufacturers mark their lamps with the applicable SAE codes to let the customer know what applications the lamp can be used for. The marking usually appears on the lens and possibly the lamp housing. It may look like this **SAE P2 PC 80**. This marking tells you that the lamp meets SAE requirements for both a P2 lamp and a PC lamp and that the lamp was certified in 1980. **It should be noted that a "PC" rated lamp may be used in place of a "P2" rated lamp, but not vice versa.**

(Grote R538022)  
Field Service Department - UTM