Low-Beam Headlamp Illumination at Very High Angles

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Information about headlamp illumination at high angles is important for assessing visibility of overhead retroreflective traffic signs at near distances and veiling luminance caused by scatter in inclement weather such as fog. This study was designed to provide photometric information for very high angles for a sample of U.S. low beams of recent vintage. The sample included 24 pairs of left and right lamps for 1999 and 2000 model year vehicles. The lamps were photometered in 0.2° steps from 10° up to 90° up, and from 60° left to 60° right. The report documents both the median and maximum luminous intensities at each test point.

key words: headlighting, low beams, high angles, inclement weather, fog, traffic signs, retroreflective signs, veiling luminance, photometric data.