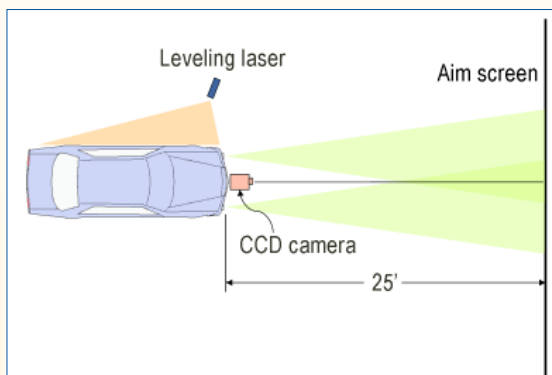


Assessing Headlamp Aim

Misaimed headlamps can be a serious problem on today's roadways, because they reduce the visibility for drivers who have them and may cause glare to other drivers. A 1992 study showed more than 50% of cars studied did not meet Society of Automotive Engineers (SAE) headlamp aim requirements. With advanced (e.g. visually/optically aimable) headlamp technologies available today, researchers must determine if headlamp misaim is still prevalent. This issue will become increasingly important as more vehicles use brighter (high intensity discharge) headlamps.



Experiment arrangement

Method

Researchers will assess headlamp misaim in a sample of different cars with different types of headlamps in the Albany, N.Y. area.

A CCD camera will record the image of the vehicles' headlamp illumination distribution as projected onto a vertical screen 25 feet away. The image will then be analyzed for misaim.

Sponsor

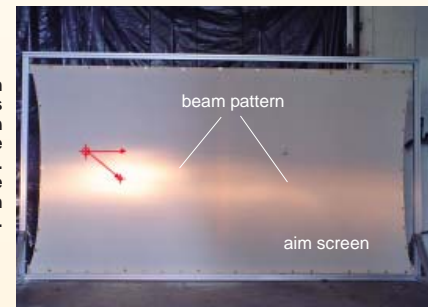
National Highway Traffic Safety Administration



Objective

The Lighting Research Center will conduct a pilot project to investigate the prevalence and severity of automobile headlamp misaim.

Headlamp aim screen shows light distribution and the degree of misalignment. Digital image analysis of aim shown in red.



What's next?

The LRC plans to verify the methodology of this study and enable its expansion throughout the U.S.. This will assist the National Highway Traffic Safety Administration (NHTSA) in potential rule-making activities involving headlamp aim regulation.

