

# Lenses for Night Driving

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•VARIOUS experiments with lenses have been used in night driving. Many of these lenses have been developed in the past and have been categorized as gimmicks. It was the author's desire to try to develop a scientifically sound lens for use in night driving that would not encompass any tint directly over the pupil, but would cause a shadow effect to fall across the pupil to eliminate the oncoming glare of headlights when driving at night on the highway. It is the author's purpose to consider the principle of the lens rather than the exact tint established for research purposes.

The "Nite-Site" lens consists of a calobar green slab-off on a white lens. These lenses must be fitted on prescription so that the line of demarcation between the white and the green falls 3 mm to the left side of the night pupil. The pupil area measurements are taken in dim illumination for accuracy. When the driver looks straight ahead while driving on the highway at night a shadow is cast across the pupil, eliminating peripheral retinal shock. As already observed, patient indoctrination is very important when fitting this lens. At no time is the driver to turn his head to any great degree to eliminate the glare of the oncoming light, but rather to look straight ahead and the lens will take care of the oncoming glare on the highway. The lens, however, is not designed for use in driving in the city at night because of the conflicting light coming from the right side.

Any refractionist can prescribe the lens and any optical laboratory can make it up to his prescription. There are no patents to be concerned—this is merely an attempt to solve part of the night driving problem, particularly for commercial drivers.

This lens has been researched for five years and there are over 200 of the author's patients wearing this lens with a great deal of satisfaction. These people consist mostly of commercial drivers, members of the Colorado State Patrol, members of the Denver Police Department, and several of the driver examiners of the State of Colorado.

The truck and bus drivers have reported the effectiveness of the lens in eliminating glare from their outside rear-view mirror coming from the headlights of cars to the rear of their vehicles. Also, many truck drivers and State patrol members have been impressed with the lens because it eliminates the peripheral scattering of light reflected from snow flakes when driving in a snow storm. The general acceptance of the lens on the individuals fitted has been encouraging.

Future plans for research of this lens will be to incorporate a mirrored surface into the lens in place of the tint and see if this relieves the objection to the tinted portion as far as the Night Visibility Committee members are concerned.

To summarize, this lens appears the best answer in lens construction and in principle.