

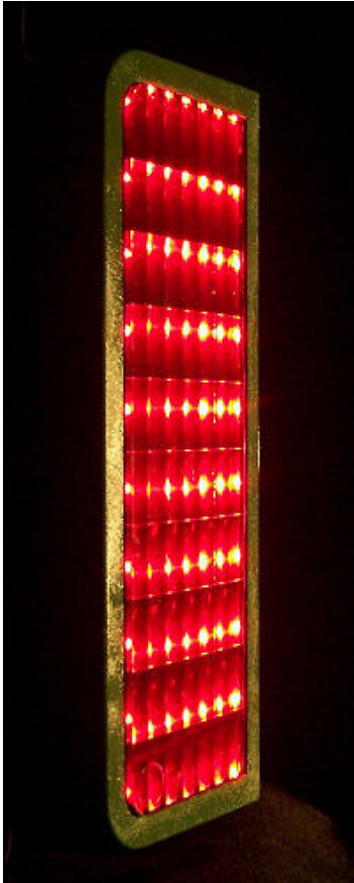
Analysis of the Light Coming from STRIETER-LITE Deer Warning Highway Reflectors



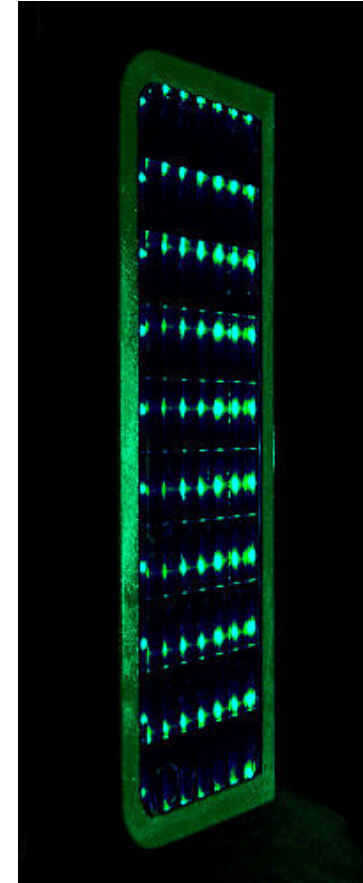
Research conducted by other scientists indicates that deer cannot see red light because they do not have red cones in their retina. If this is true, it suggests that deer would not be able to see red deer reflectors. Yet, there is ample evidence that red reflectors are effective in warning deer of oncoming vehicles.

To determine exactly how the various colored reflectors look to deer, four *STRIETER-LITE* reflectors were illuminated with white light and photographed with a Kodak Z612 digital camera at a distance of two feet. The reflectors are made with plastic that is colored red, cyan (blue-green), amber and white.

Each photograph was then processed with a photo editing program to remove all of the red light. These processed photographs therefore simulate what deer would see.



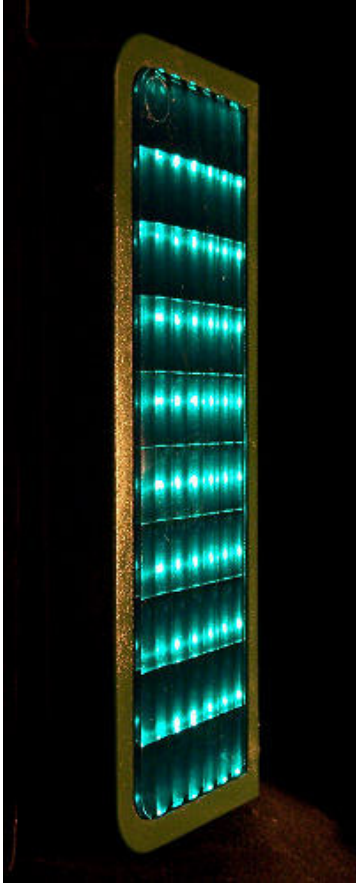
Red Reflector
Illuminated with white light



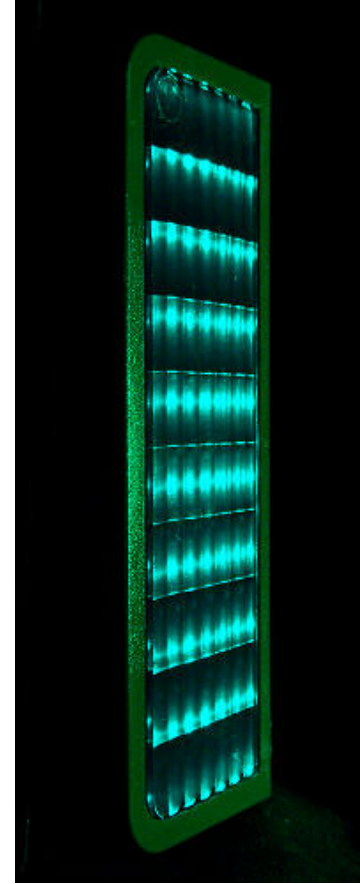
No light filtered out.
This is what humans see.

The red light has been filtered out.
This is what deer see.

This surprising result clearly shows that the plastic of the red reflector transmits both green and blue light so deer can indeed see them at night.



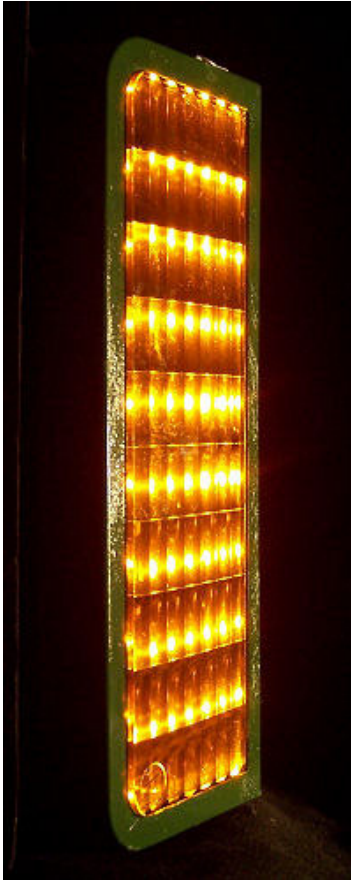
Cyan Reflector
(Blue-Green)
Illuminated with white light



No light filtered out.
What humans see.

The red light has been filtered out.
What deer see.

There is very little difference here, as expected.



Amber Reflector
Illuminated with white light



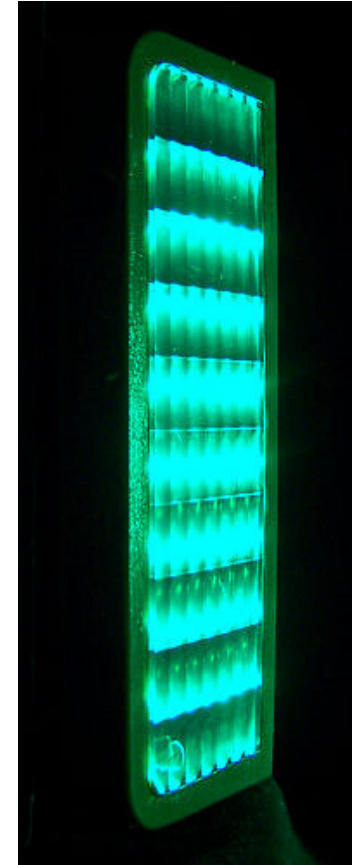
No light filtered out.
What humans see.

The red light has been filtered out.
What deer see.

**The plastic of the amber reflector does not transmit any blue light.
So filtering out the red light leaves green.**



White Reflector
Illuminated with white light

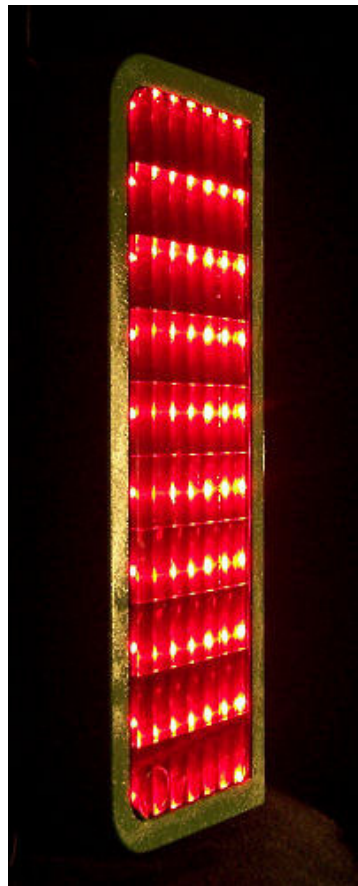


No light filtered out.
What humans see.

The red light has been filtered out.
What deer see.

This reflector provides the most blue-green light. Since deer have acute night vision, this reflector may actually be too bright.

This compares the four reflectors and shows how they look to humans. The amount of white light illuminating each reflector was the same.



Red Reflector



Cyan Reflector

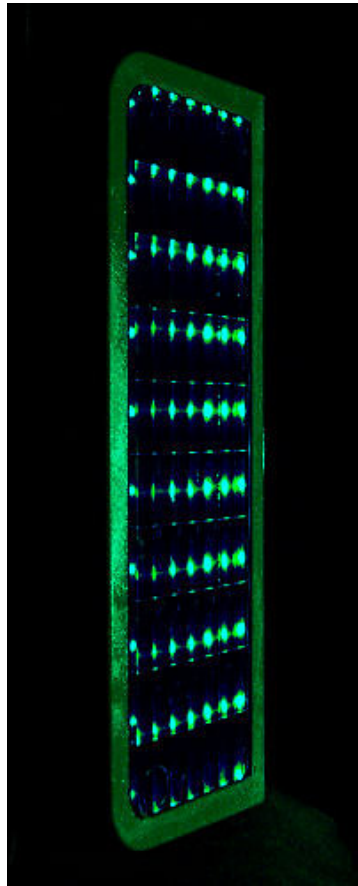


Amber Reflector

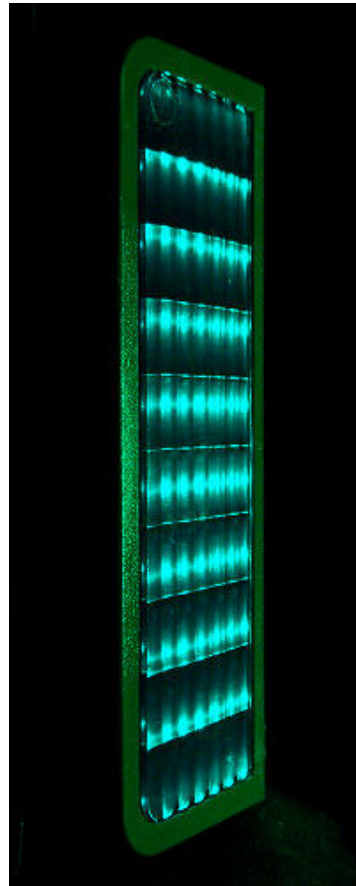


White Reflector

This compares the four reflectors with the red light filtered out.
This clearly illustrates that deer see all four types.



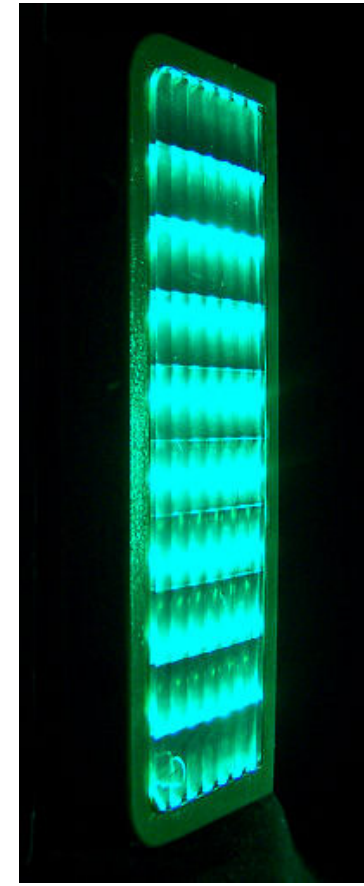
Red Reflector



Cyan Reflector



Amber Reflector



White Reflector

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