

Use of Red LED Flashlights

by Melissa Tanner, TnT Paranormal Investigators LLC

On our investigations we use flashlights with either red LEDs or have a red filter attached. This tradition started with the first time I went to Waverly Hills Sanatorium for an investigation and the onsite staff told us about using them. He told us that they are easier on the eyes and as a new investigator I didn't question it. This guy does this day in and day out, so he must know what he is talking about. Well guess what? He DID!

The primary reason is that the red light does not interfere with your eye's ability to see at night. The red light helps you have the ability to see, but not affect the eye in a way that you are "blinded" temporarily like a white light will.

The eye's Retina detects light and provides us with the ability to see. The Retina is built of two basic structures, Cones and Rods. The Cones are what detect color and brightness of light. The Rods do not detect color and are sensitive to light (functioning only in low levels of light). The Cones allow us to see during the day and the Rods allow us to see at night. When exposed to a bright light Rods can take between 15 to 30 minutes to adjust back to the dark. This adjustment is true for even a brief exposure and is what results in night blindness when a light is shown in your face. The reason that red lights do not affect our eyes is the fact that Rods do not detect red light, but we can still see since the Cones can detect the red light.

A word of caution is to be careful on how bright of a flashlight you use. If the light is too bright it can cause something called "afterimage". "Afterimage" is a phenomenon where someone will still see an image long after the presence of the image is gone. The exposure to bright light in the dark can cause this phenomenon. You will need to experiment with and find a light that is powerful enough for you to see with, but not so powerful that you experience "afterimage". Please note that this phenomenon is true no matter what color of light you use.

On a side note, we have observed that the red lights have another benefit on an investigation. They don't interfere with the equipment like the white lights do. They don't cause the same glare affect, aren't as bright, and their beams do not go as far as a white light will. Therefore, if shown toward a camera it does not have the same impact that a white light will.

You can learn more on this topic at the following sites:

<http://www.buzzle.com/articles/when-to-use-a-red-green-or-blue-led-light.html>

<http://www.flashlightreviews.com/qa/nightvision.htm>

<http://www.red-ledflashlight.com/>

<http://en.wikipedia.org/wiki/Afterimage>