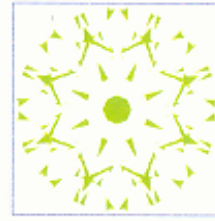


The American Gem Society's Angular Spectrum Evaluation Tool (ASET™) helps you evaluate a stone's "optical performance." For each of a stone's facets, it shows the direction of the incoming light that determines the brightness of that facet. This is important because people generally view diamonds in situations in which the brightest light comes from the ceiling above, and less intense light comes from the walls to the side. The brightness of each facet thus depends on whether the light seen coming from each facet comes directly from overhead light sources, or is first reflected from the room's walls. AGS studies show that light coming from the ceiling immediately above a diamond is obscured by the viewer's head and shoulders, and never reaches the diamond, so it cannot contribute to the diamond's brightness. The contributions of these different light sources all affect that diamond's optical performance and appearance. The AGS ASET uses color codes to illustrate the light performance based on the light source that contributes most to each facet's brightness.



## What the Colors Mean:

Red indicates light that comes directly from overhead, the most intense source. It contributes the most to the brightness of a diamond. Green represents reflected light, which is dimmer and can therefore contribute less to the diamond's brightness. Light which is obscured by the viewer never reaches the diamond and thus cannot contribute to the diamond's brightness. The AGS ASET shows this as blue. Black or white indicate areas of the stone where light leaks out of the pavilion.

The brightest diamonds with the most fire have a pattern similar to that shown at the right. Good contrast between light and dark areas creates brilliance. Diamonds whose cut does not make good use of incident light have much less red and much more green or blue in their patterns, as shown in the image on the left.



Two places to order an ASET Scope

<https://products.gemappraisers.com/pc-35-1-ags-aset-scope.aspx>

[http://www.ideal-scope.com/cart\\_order.asp](http://www.ideal-scope.com/cart_order.asp)