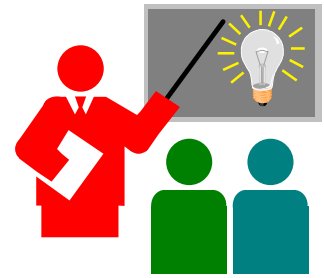


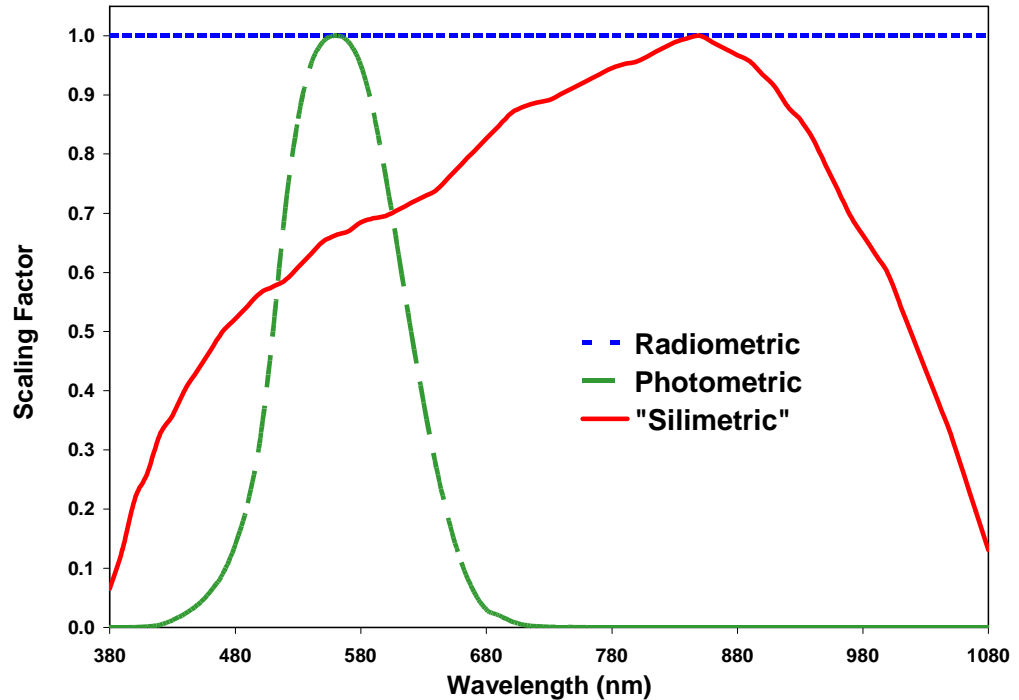


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Technical Note: 125

Question: *Which measurement units should I use?*



Answer: In order to select the proper units, one must determine the type of detector to be used in the final application. If the final detector is a human retina, then Photometric units are the proper units of measure. These units provide accurate comparative measurements between various sources and quantitatively determine the response expected on the average human eye.

Radiometric units are completely unbiased (see above graph), and are the preferred units if the final detector is not known at the time of measurement. However, if the final detector is a silicon based detector with a standard response characteristic like that shown above (most CCD and CMOS cameras) then the most relevant units are those that bias the results in the same manner. Since there are currently no standards, Illumination Technologies has created "Silimetric" units which allow users to make accurate quantitative comparisons of disparate lightsources which are closely correlated to the signals that would be generated in standard CCD or CMOS cameras.

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