

FROM THE PRESIDENT'S OFFICE

Spectral Quality of Light

A publisher's representative called on me a few days ago to learn if I was interested in placing an advance order for a copy of Volume 4, by Duke Elder, price \$18.50. Of course, I was. I am anticipating a great deal of pleasure in adding Volume 4 to Volumes 1, 2, 2 and 3, and incidentally learn what is new in Ophthalmology.

Speaking of books reminds me of the "The Science of Seeing" by Luckiesh and Moss, 1937, Reprint 1938, Nostrand Co., Inc. Publishers. Chapter 11 in said book deals with "Spectral Quality of Light" a subject of vital interest and importance to the Optometric Profession and particularly so to the Practitioners using the Syntonic Technique.

Here are a few quotations: "Spectral quality of light can only be expressed by a table or graph representing the relative amounts of radiant energy of different wave lengths within the limits of the visible spectrum. These limits, expressed in Angstrom units, are approximately 3900 at the border of the ultra-violet spectrum and 7600 at the border of the infra-red spectrum. The invisible radiant energy - - ultra-violet and infra-red - - which usually accompanies visible energy or light, may or may not be harmful and, as far is known, it's not useful everyday seeing."

"THE SPECTRAL QUALITY OF ALL ILLUMINANT MAY BE DUE TO THE LIGHT-SOURCE ITSELF OR TO A MODIFICATION OF THE LIGHT BY A COLORED FILER PLACED OVER THE LIGHT SOURCE OR IN FRONT OF THE EYES."

"A difference in color between two illuminants always means a difference in spectral quality. However, the reverse is not necessarily true, for two colors or illuminants may appear of the same hue but may differ markedly in spectral quality. For example, under a given illuminant. One is the usual type which transmits no spectral yellow at all. The latter transmits green, orange and red lights, but may appear to be the same yellow as a physical characteristic quite apart from the visual sense and that color is a sensation resultng from the synthesis of the simultaneous stimulation of the visual sense by energy of various wave lengths." Get that one will you. Riley has shown you this effect with two blue filters.

I shall not attempt to elaborate on the above quotations except to repeat what Spitler has emphasized for twenty years, Namely, it is not the quantity but the quality of light which Optometric Practitioners are interested in.