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EFFECT OF BACKGROUND WAVELENGTH ON STEREOSCOPIC  
ACUITY AT SCOTOPIC AND PHOTOPIC  
ILLUMINATION LEVELS\*

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ABSTRACT

Equidistance settings were made for a pair of black vertical rods viewed against several colored backgrounds presented over a wide range of scotopic and photopic retinal illuminance levels. The data were found to be consistent with expectations based on the duplicity theory of vision and on the scotopic luminosity function of the human eye. When matched for brightness, background wavelength has no effect on equidistance settings at photopic (cone) levels.