Sunex

Excellence in Digital Imaging Optics

Summary

In digital imaging systems, Infrared (IR) filters are used to reduce a color shift that is created by the infrared sensitivity of digital sensors. The effect of an IR cutoff filter on standard CMOS or CCD sensors is most noticeable in the presence of a Near-IR source such as the sun. Images taken in the daylight appear bleached without an IR filter, as seen in Figure 1.A.). This effect is not as drastic in indoor settings because most fluorescent lights do not emit light with wavelength greater than 800 nm. For optimal use of lenses in both day and night situations, we recommend using an IR cutoff filter with an IR bandpass such as the Sunex IRC40 and Sunex IRC41 filters. These filters allow sensors to have good color contrast in the day while still allowing IR floodlights to be used during the nighttime.



Figure 1. Matrix Comparison of IR Filters. Images taken with a OVT 5630 5MP sensor.

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Daylight

Curves