

Bright pupil: coaxial illumination causes retro-reflection at retina

The major challenges are:

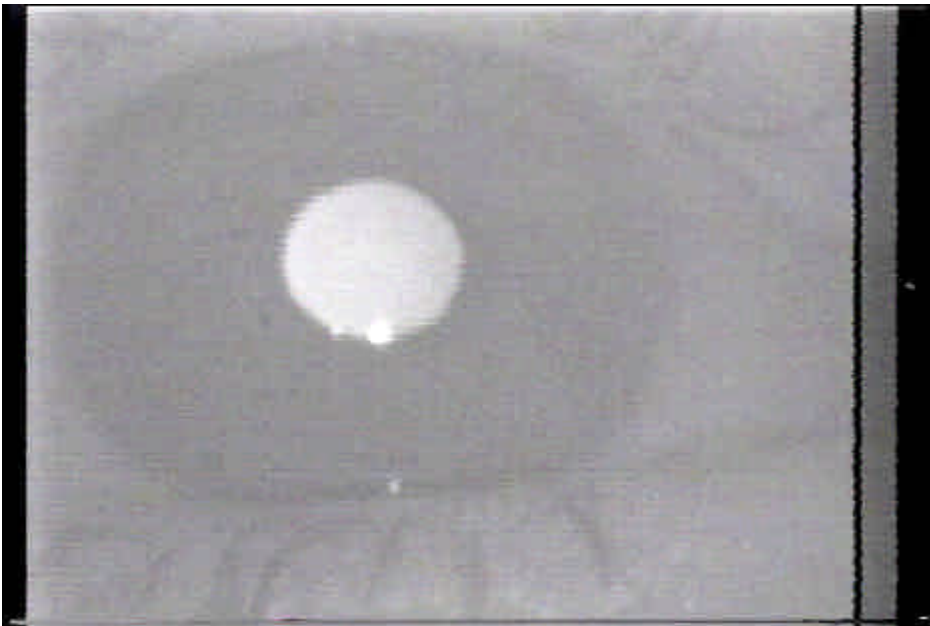
thresholding reliably at two levels – pupil and corneal reflection (CR)

dealing with reflections off the sclera that may interfere with detection of the real corneal reflection.

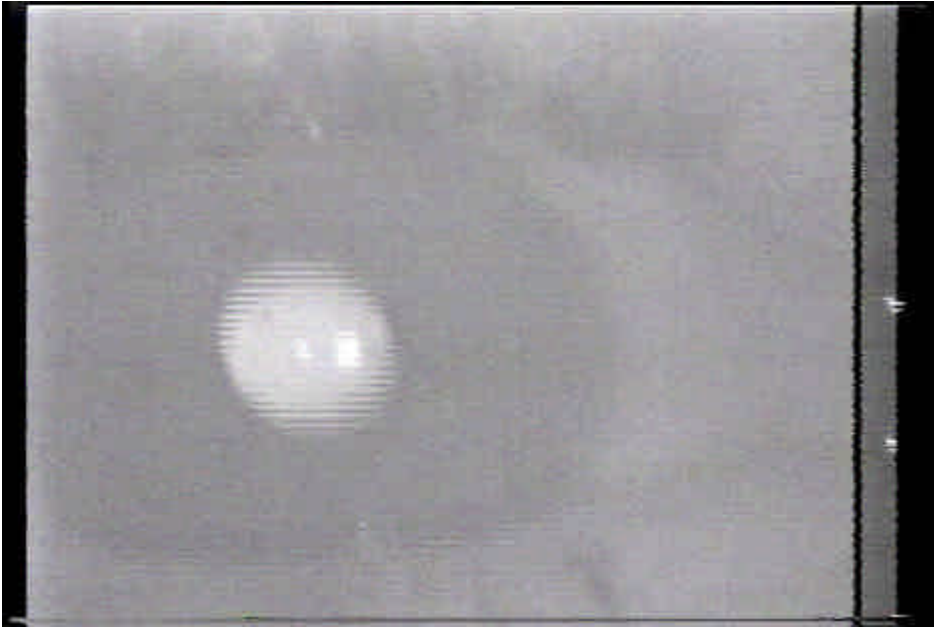
Dealing with motion blur and interlace artifacts



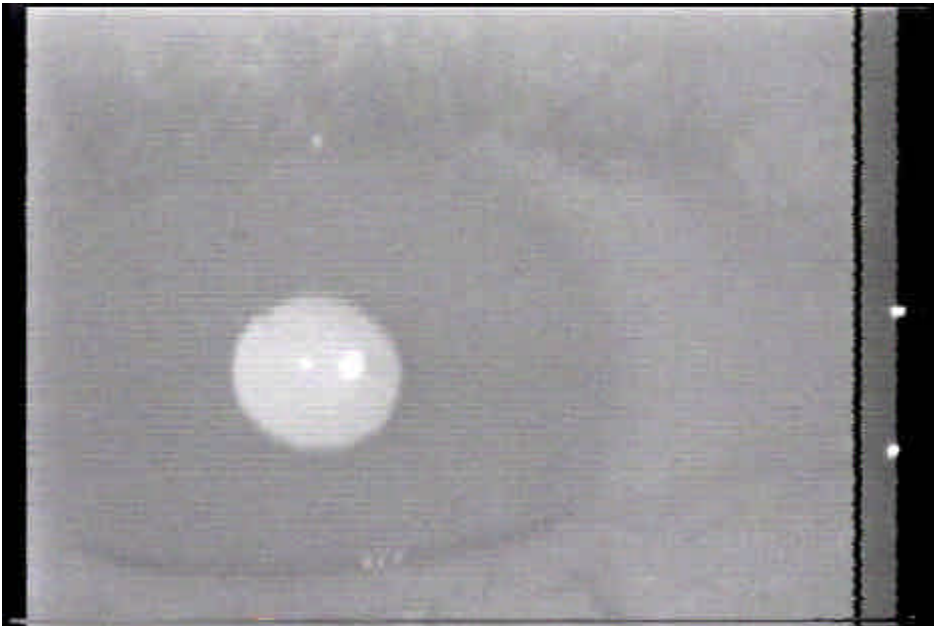
bright_1.jpg



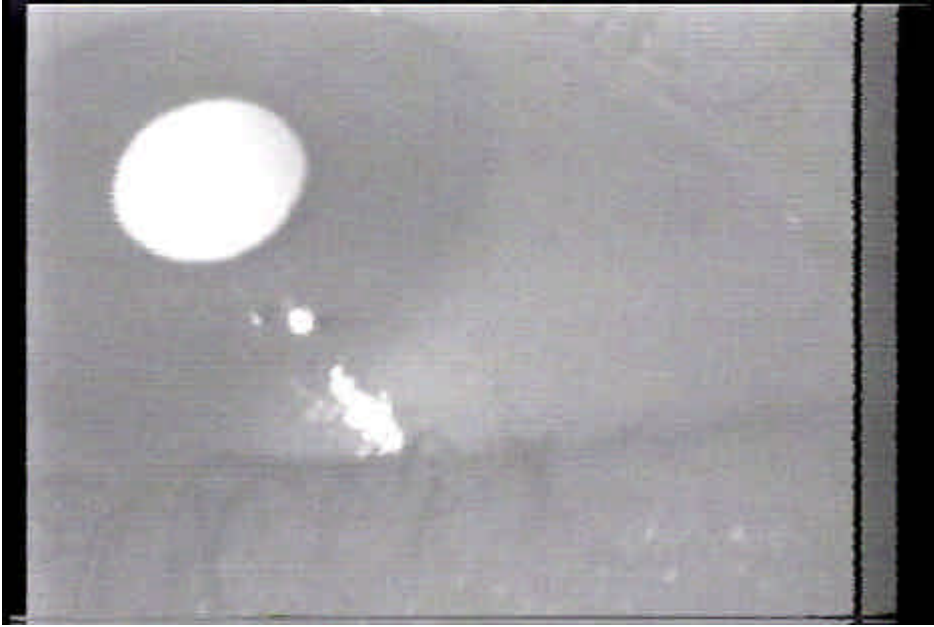
bright_2.jpg (uneven pupil luminance)



bright_3.jpg (vertical motion blur)

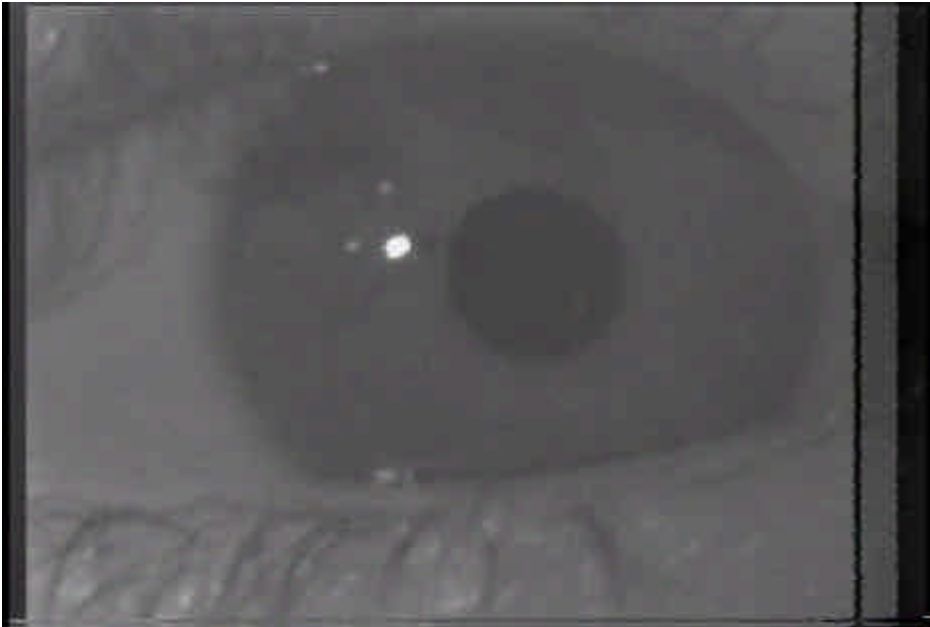


bright_4.jpg (multiple reflections over pupil)

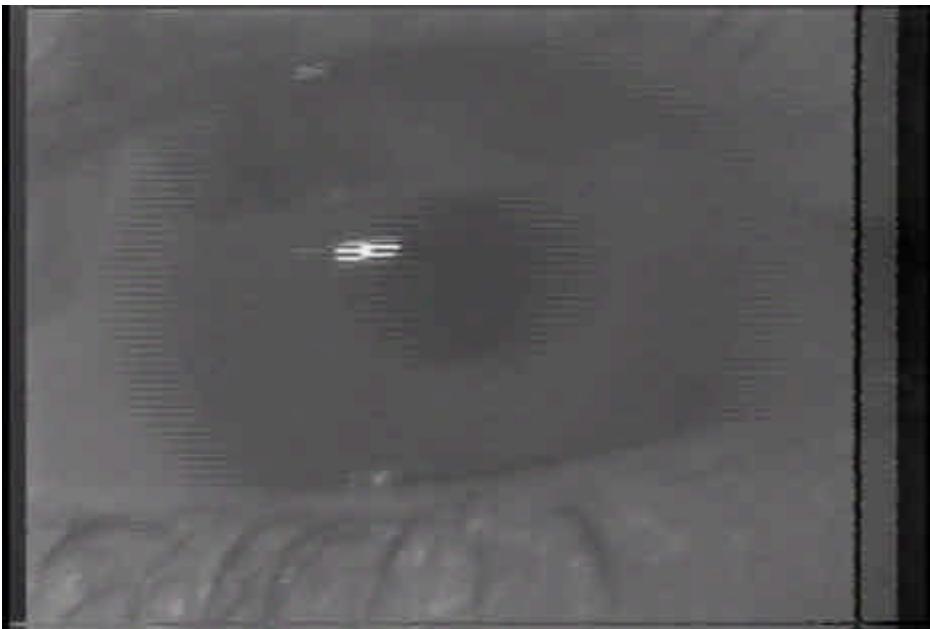


bright_sclera.jpg (scleral reflections should be excluded)

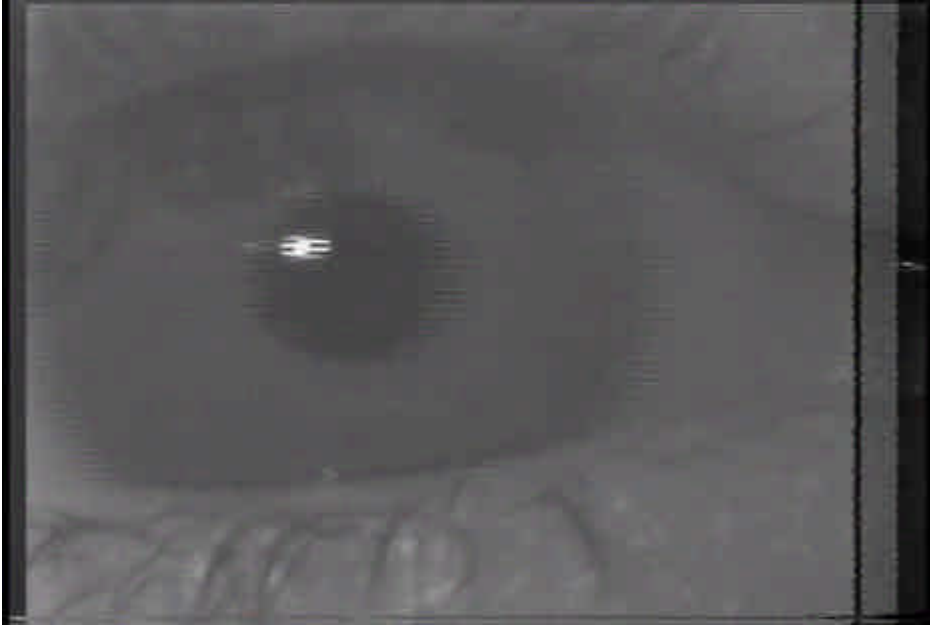
Dark pupil: off-axis illumination causes dark pupil and bright corneal reflection (CR)



dark_1.jpg



dark_2.jpg (large horizontal interlace artifact)



dark_3.jpg (horizontal interlace artifact)



dark_4.jpg (dark pupil, clear CR in pupil)