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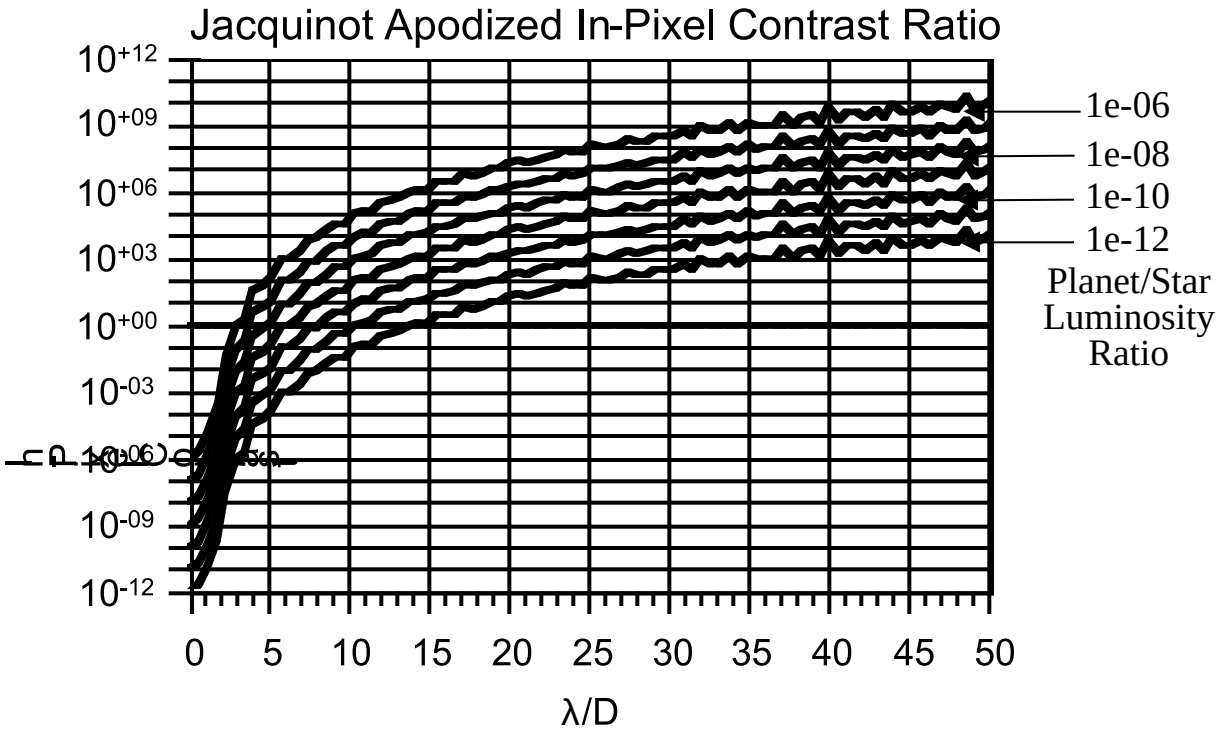

Figure 3 - *Jacquinot Apodized In-Pixel Contrast Ratio vs Angular Separation*
Shown are 8 log-linear traces for the diagonal in-pixel contrast ratio versus planet to stellar angular separation for a Jacquinot apodized filled aperture telescope. Each of the traces is for a differing *luminosity ratio* (planet to stellar brightness) with the range varying from 1.0e-6 to 1.0e-12. The dotted line represents where the contrast exceeds unity Simulations are for λ/Δλ~3, and PSF sampling ~0.3 λ/D. These results do not contain the effects of wavefront error or speckle.

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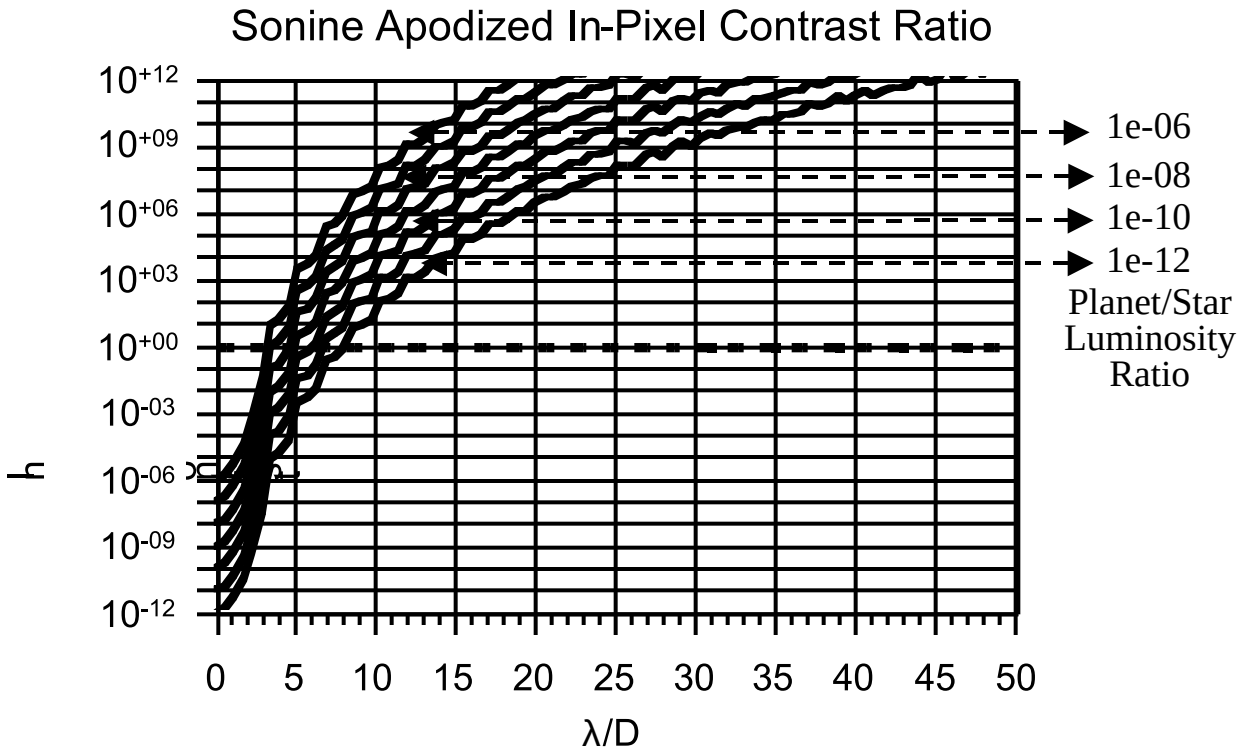

Figure 4 - *Sonine Apodized In-Pixel Contrast Ratio vs Angular Separation*
Shown are 8 log-linear traces for the diagonal in-pixel contrast ratio versus planet to stellar angular separation for a Sonine apodized filled aperture telescope. Each of the traces is for a differing *luminosity ratio* (planet to stellar brightness) with the range varying from 1.0e-6 to 1.0e-12. The dotted line represents where the contrast exceeds unity. Simulations are for $\lambda/\Delta\lambda \sim 3$, and PSF sampling ~0.3 λ/D. These results do not contain the effects of wavefront error or speckle.

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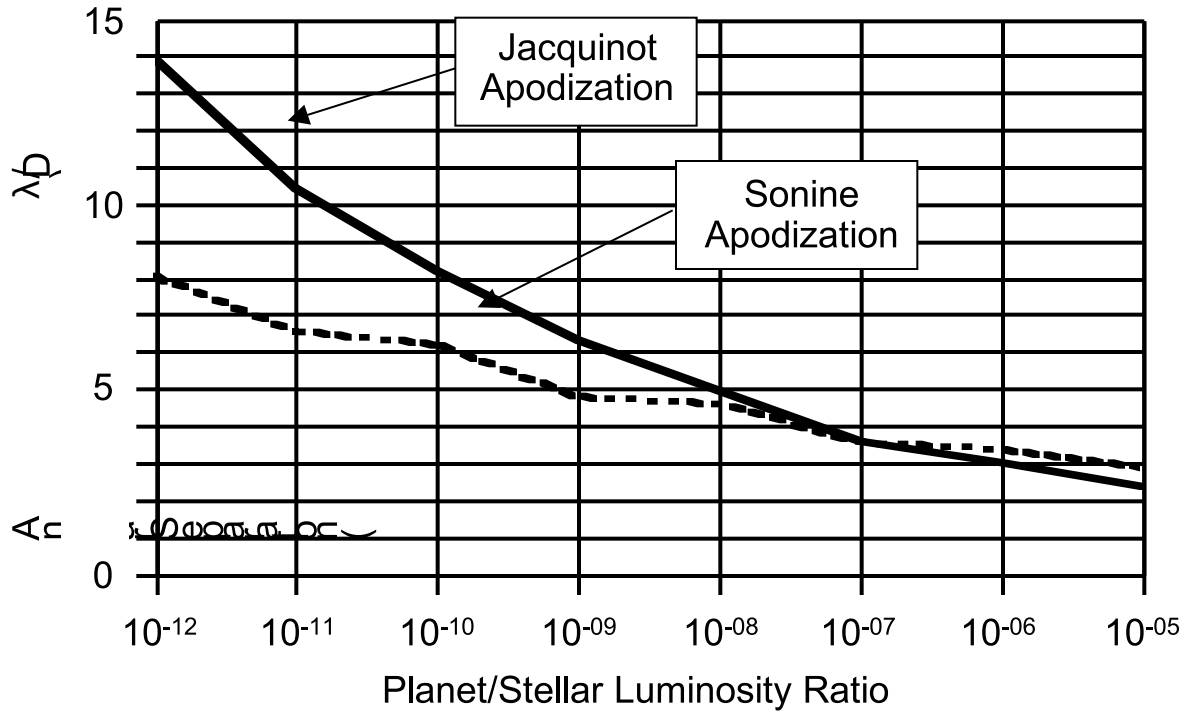

Figure 5 - *Angular Separation for In-Pixel Contrast =1.0 vs Luminosity Ratio*
Shown are 2 linear-log for the diagonal planet to star angular separation versus planet to stellar luminosity ratio for both Jacquinot and Sonine apodized filled aperture telescopes. Simulations are for λ/Δλ~3, and PSF sampling ~0.3 λ/D.
These results do not contain the effects of wavefront error or speckle.

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Normalized Signal-to-Noise Ratio

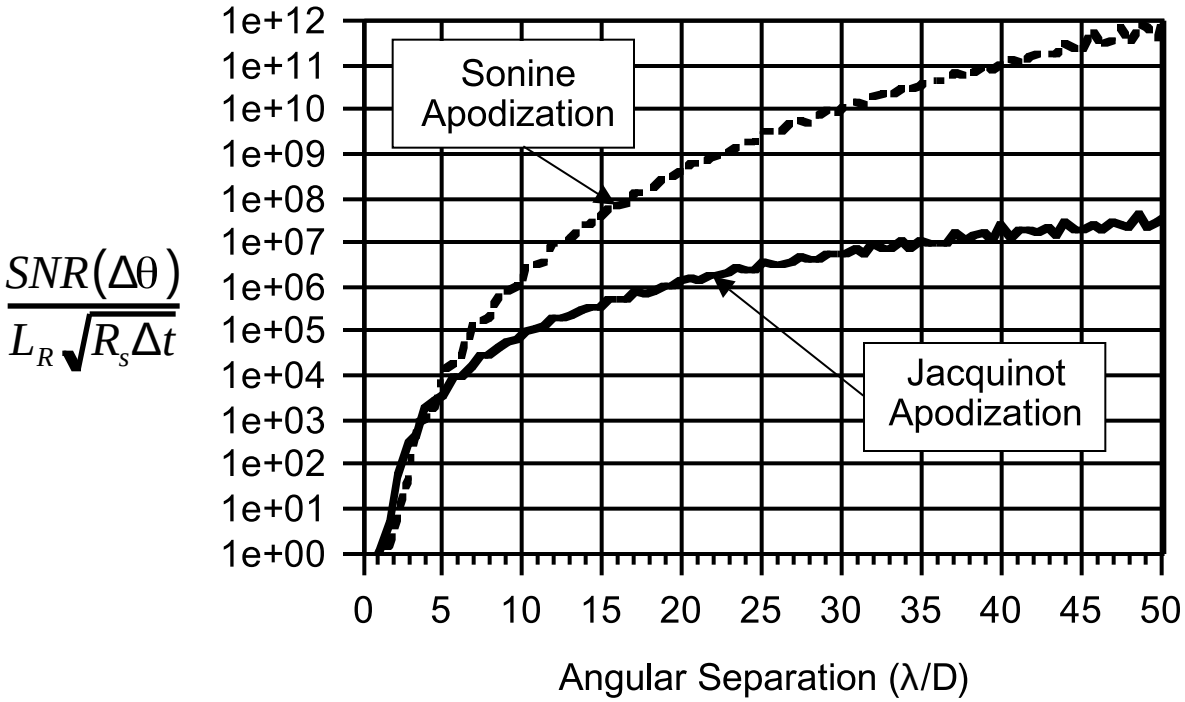

Figure 6 - *Normalized Signal-to-Noise Ratio vs Angular Separation*
Shown are 2 log-linear plots for the normalized SNR ratio vs diagonal planet to star angular separation for both Jacquinot and Sonine apodized filled aperture telescopes. Simulations are for λ/Δλ~3, and PSF sampling ~0.3 λ/D. These results do not contain the effects of wavefront error or speckle.

$$SNR(\Delta\theta) = \frac{R_p \Delta t\, PSF(0)}{\sqrt{R_s \Delta t\, PSF(\Delta\theta)}} = L_R\sqrt{R_s \Delta t}\,\frac{PSF(0)}{\sqrt{PSF(\Delta\theta)}}$$

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Angular Detection Zone

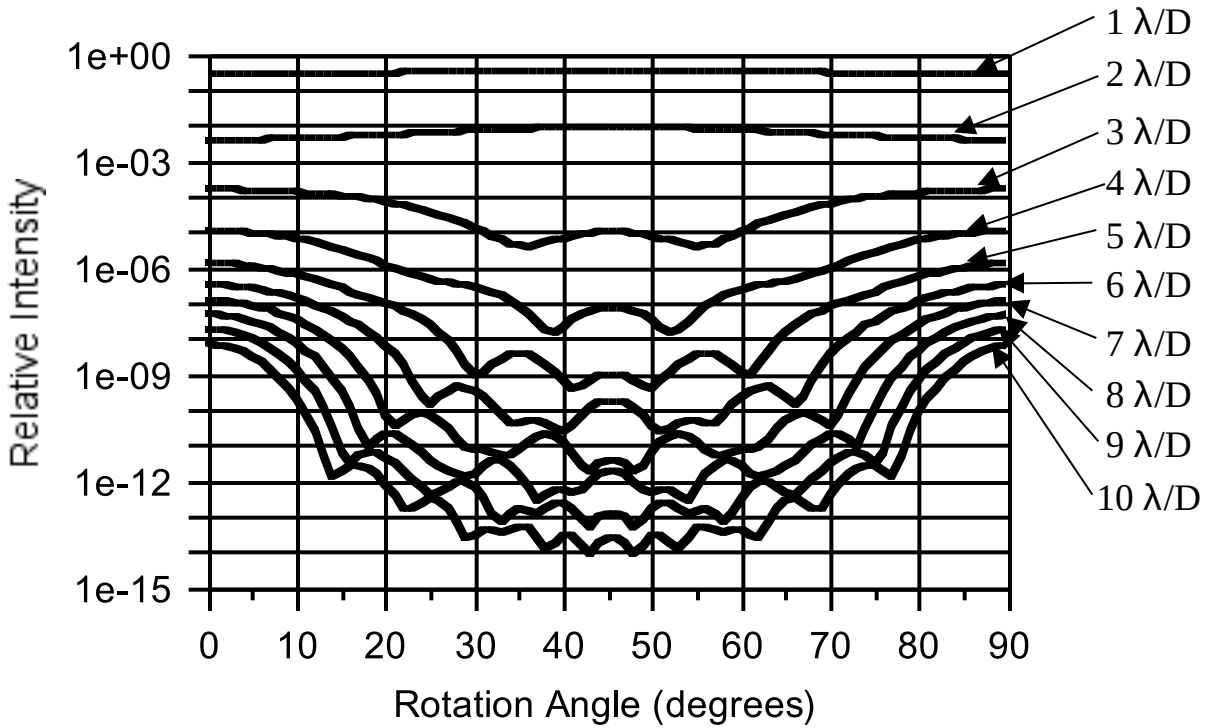

Figure 7 - *Angular Detection Zone vs Angular Separation*
Shown are 10 log-linear plots for the relative PSF intensity vs angular rotation of the PSF for angular separations that vary from 1 to 10 λ/D. These simulations are for λ/Δλ~3, and PSF sampling ~0.3 λ/D with 4 order Sonine Apodization and do not contain the effects of wavefront error or speckle.