

Pandora Data Processing Center  
NIRDA PSF Requirements Test Report

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Package Versions:

- pandora\_requirements: 0.1.2
  - pandorapsf: 0.7.0
  - pandorasat: 0.12.2
  - astropy: 6.0.1

Detector Characteristics:

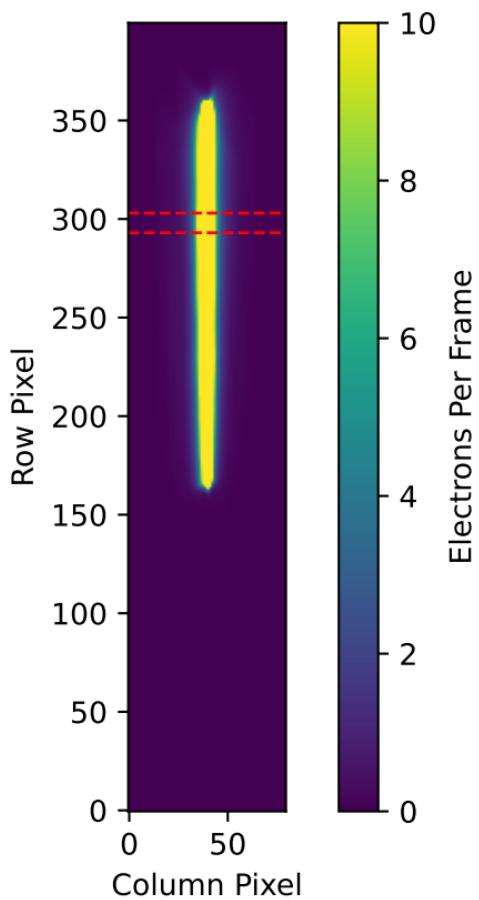
zodiacal\_background\_rate: 4.0 electron / (pix s)  
stray\_light\_rate: 2.0 electron / (pix s)  
thermal\_background\_rate: 10.0 electron / (pix s)  
dark: 1.0 electron / (pix s)  
readnoise: 12.727922061357855 electron / pix

Test Requirements:

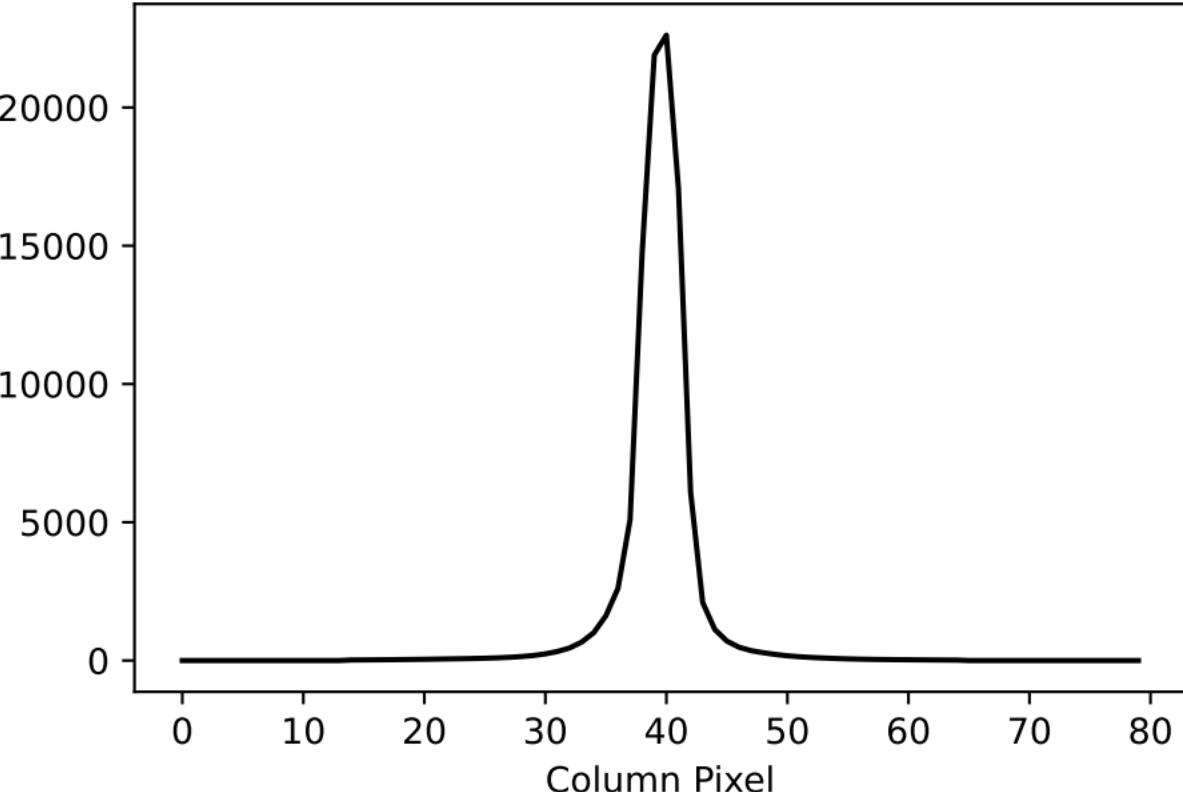
- Target Test j band Magnitude: 9.0
  - Target Test  $T_{eff}$ : 3500.0 K
- Required Number of Integrations: 900
  - Required SNR: 6000.0
- Required Wavelength: 1.3 micron micron
  - Required R: 30.0

Additional Information:

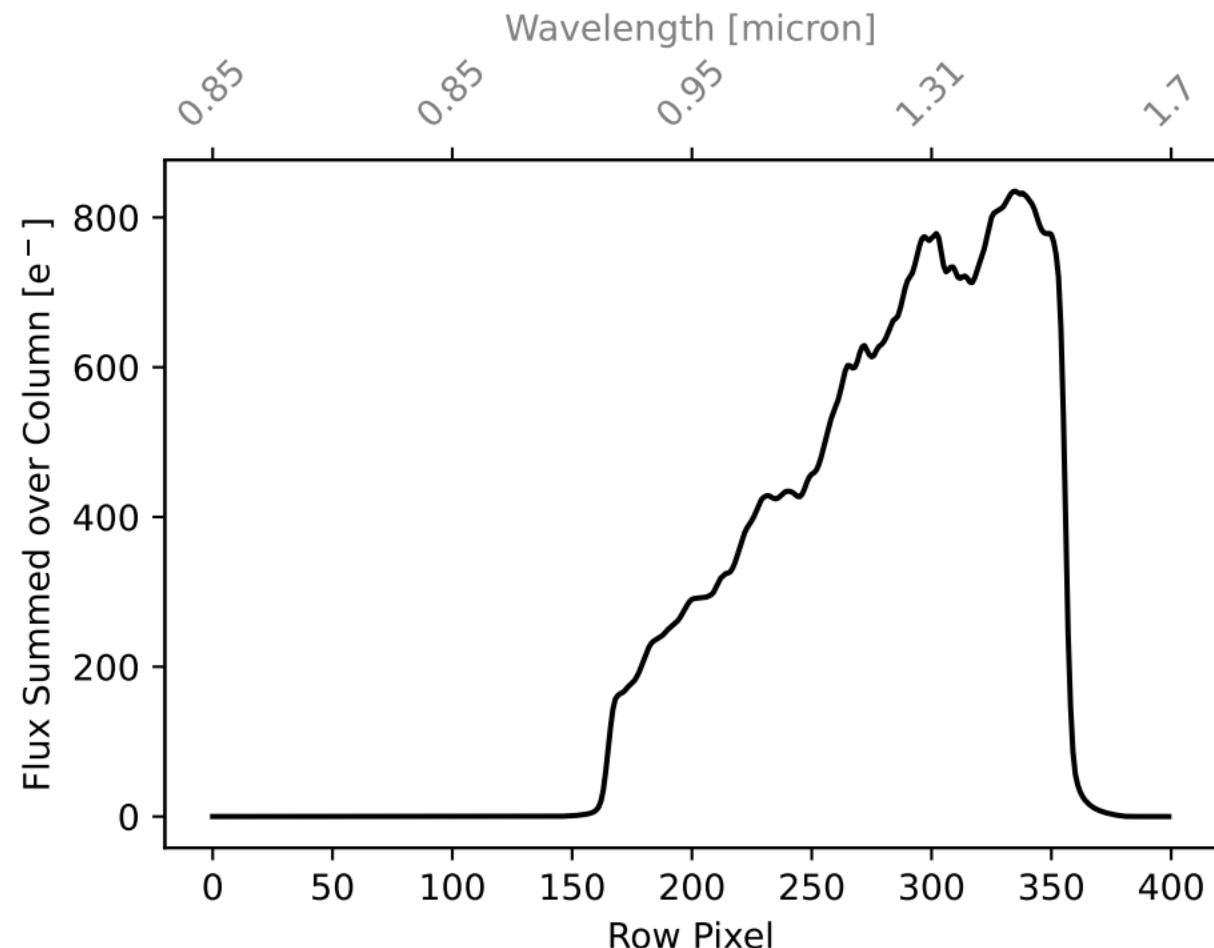
- This document contains test results for a target star on the NIRDA.
- Generated using automated tests and visualizations.
  - This test uses CBE for all Pandora parameters
  - This test assumes no jitter motion between frames.



Flux Summed over Row [ $e^-$ ]

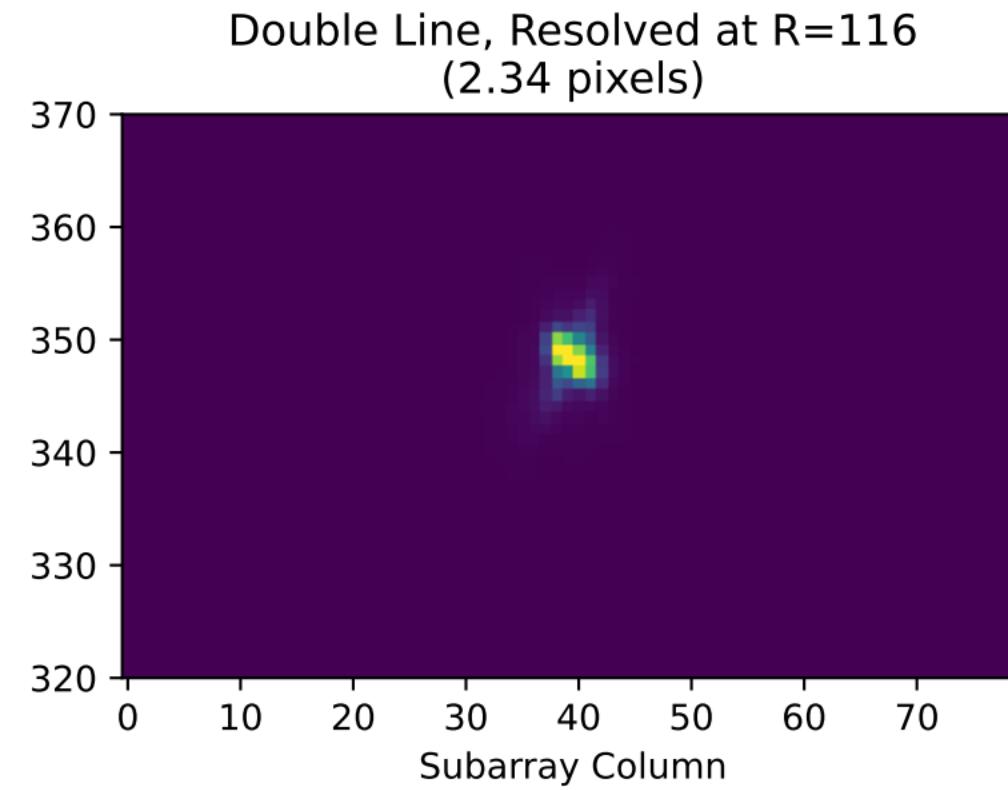
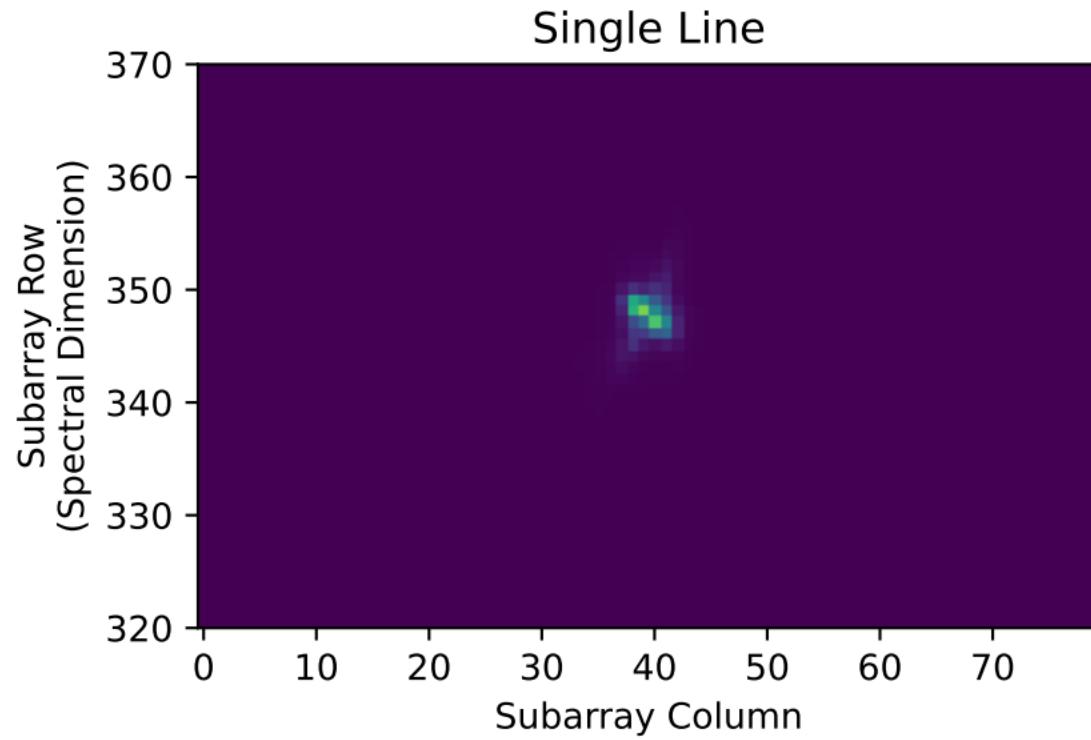


Flux Summed over Column [ $e^-$ ]

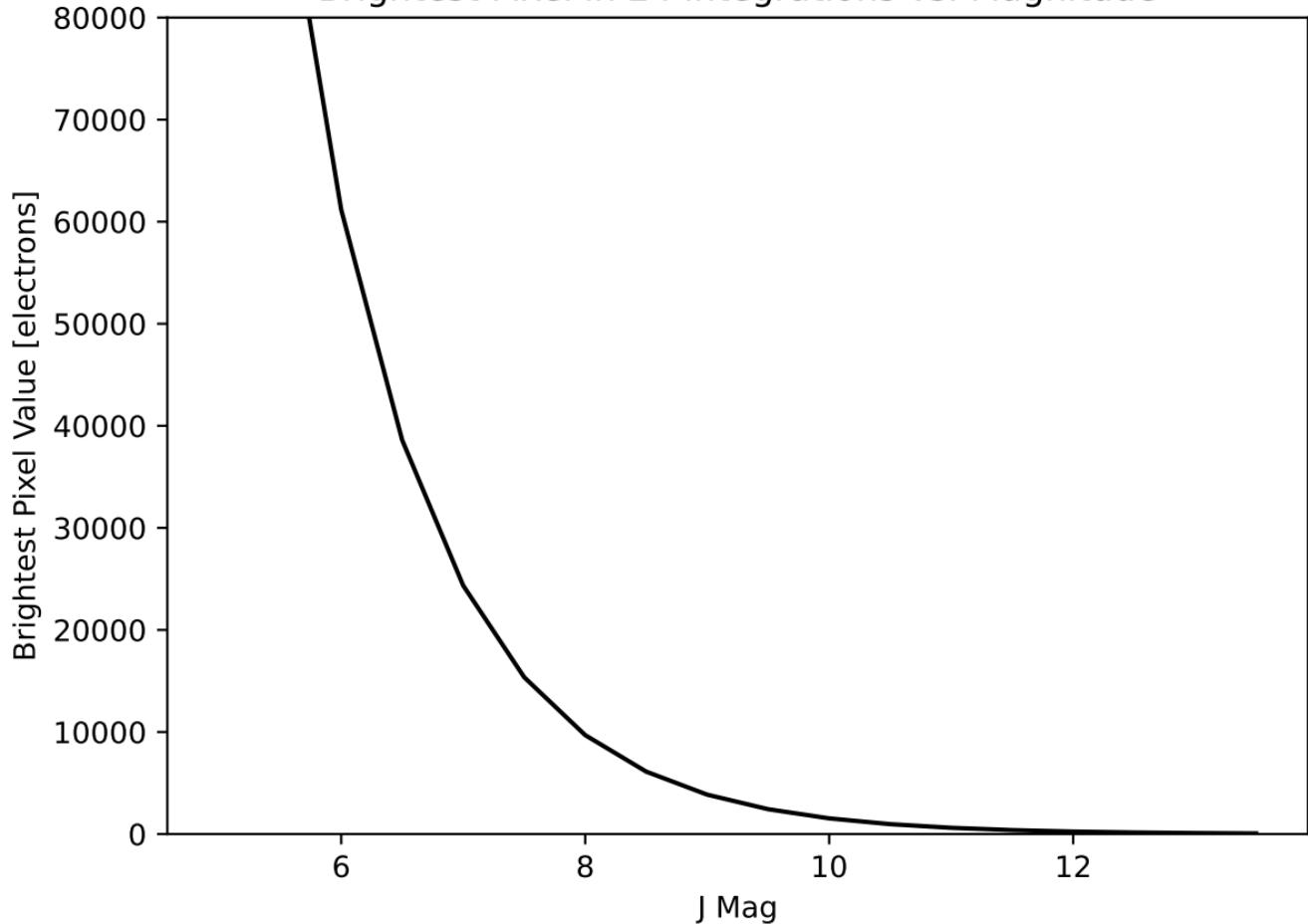


Wavelength [micron]

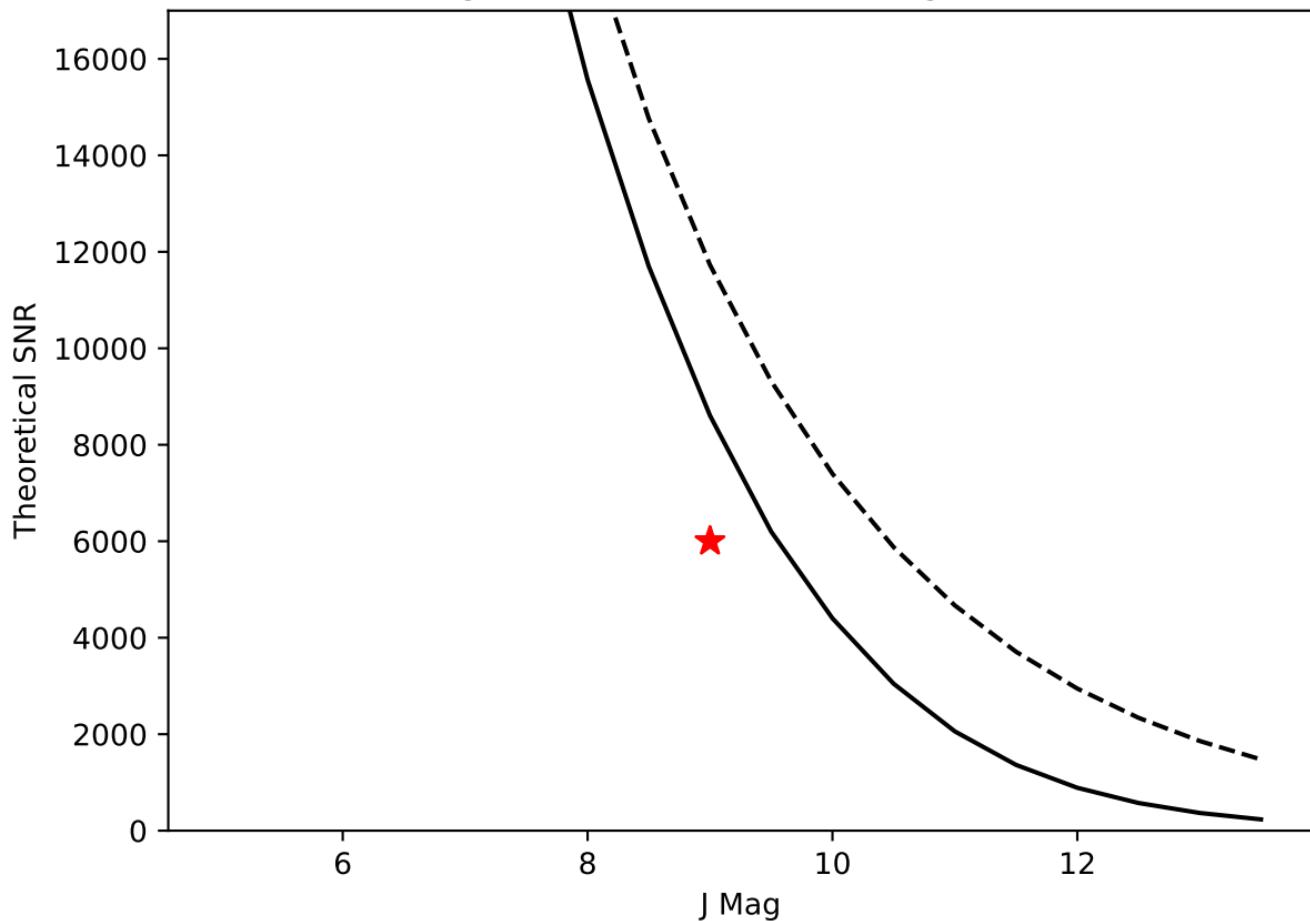
0.85  
0.85  
0.95  
1.31  
1.7



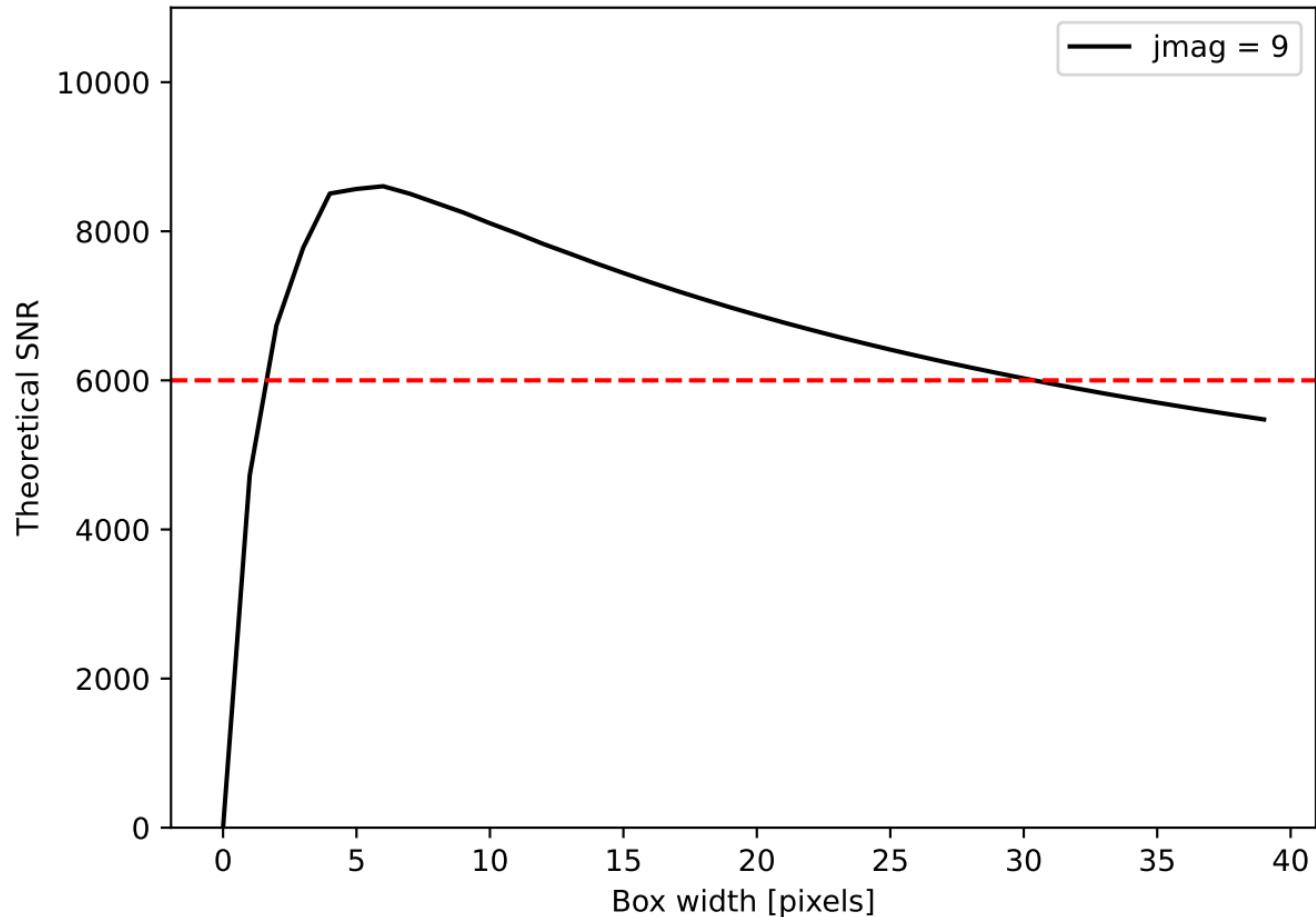
### Brightest Pixel in 24 integrations vs. Magnitude



## Signal to Noise Ratio vs. Magnitude



## Signal to Noise Ratio vs. Aperture Size



## NIRDA Spectral Resolution

