

Pandora Data Processing Center  
NIRDA PSF Requirements Test Report

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Package Versions:

- pandora\_requirements: 0.1.1
- pandorapsf: 0.5.0
- pandorasat: 0.8.3
- astropy: 5.3.4

Detector Characteristics:

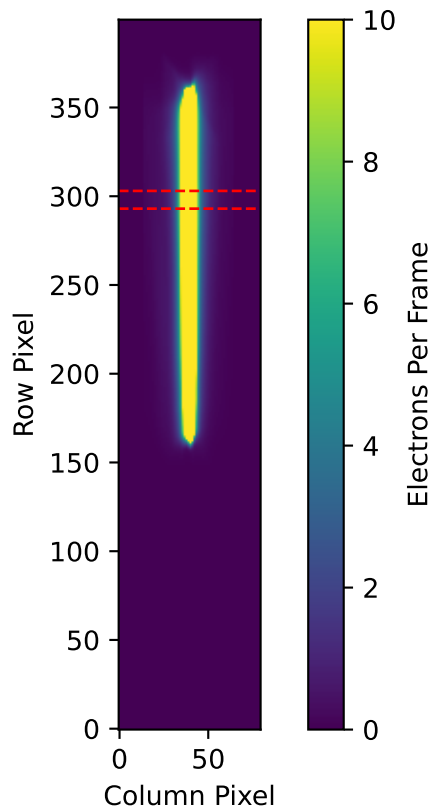
zodiacal\_background\_rate: 4.0 electron / (pix s)  
stray\_light\_rate: 2.0 electron / (pix s)  
thermal\_background\_rate: 10.0 electron / (pix s)  
dark\_rate: 1.0 electron / (pix s)  
read\_noise: 12.727922061357855 electron / pix

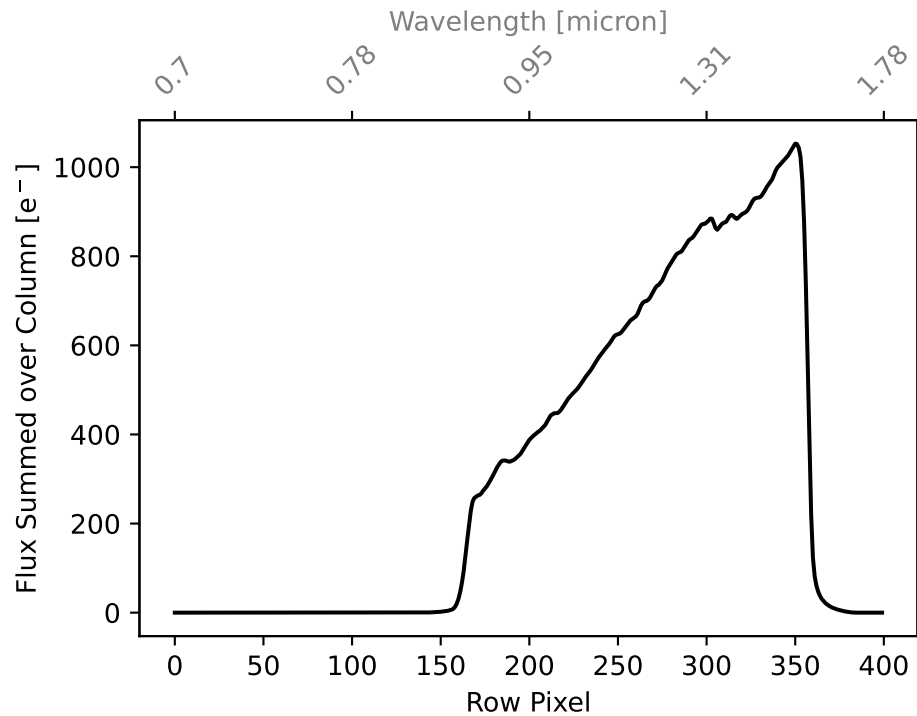
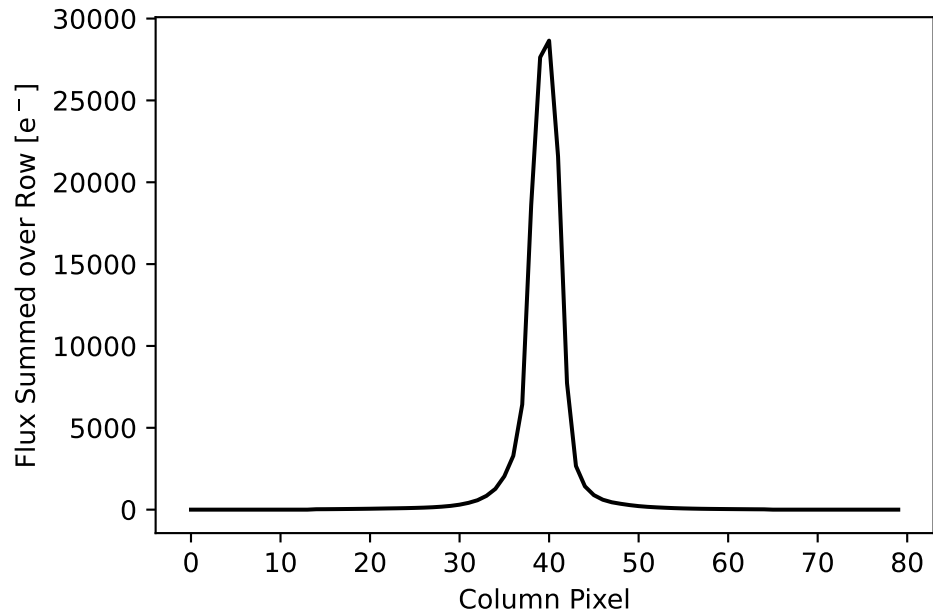
Test Requiriements:

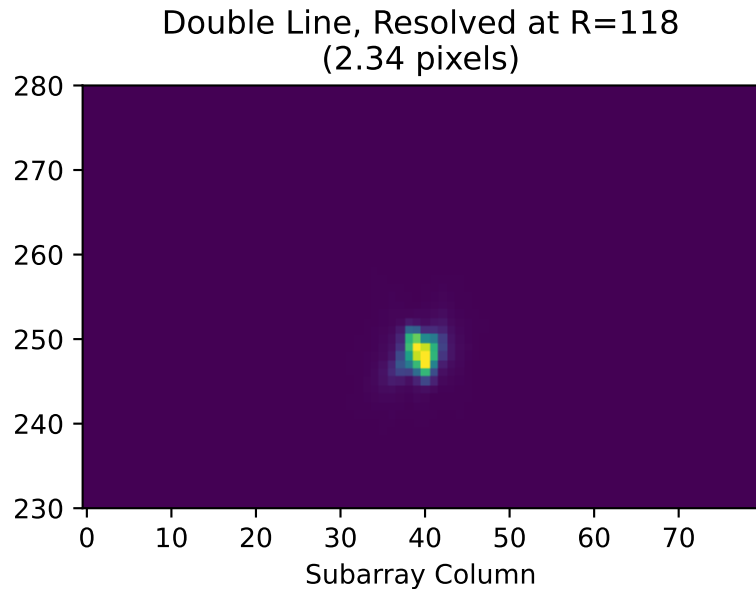
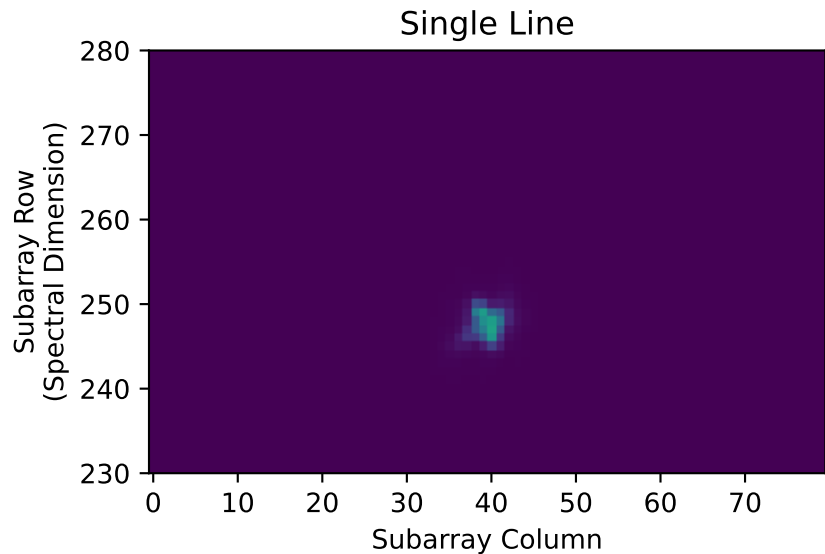
- Target Test j band Magnitude: 9.0
- Target Test  $T_{eff}$ : 3500.0 K
- Required Number of Integrations: 900
- Required SNR: 6000.0
- Required Wavelength: 1.3 micron
- Required R: 30.0

Additional Information:

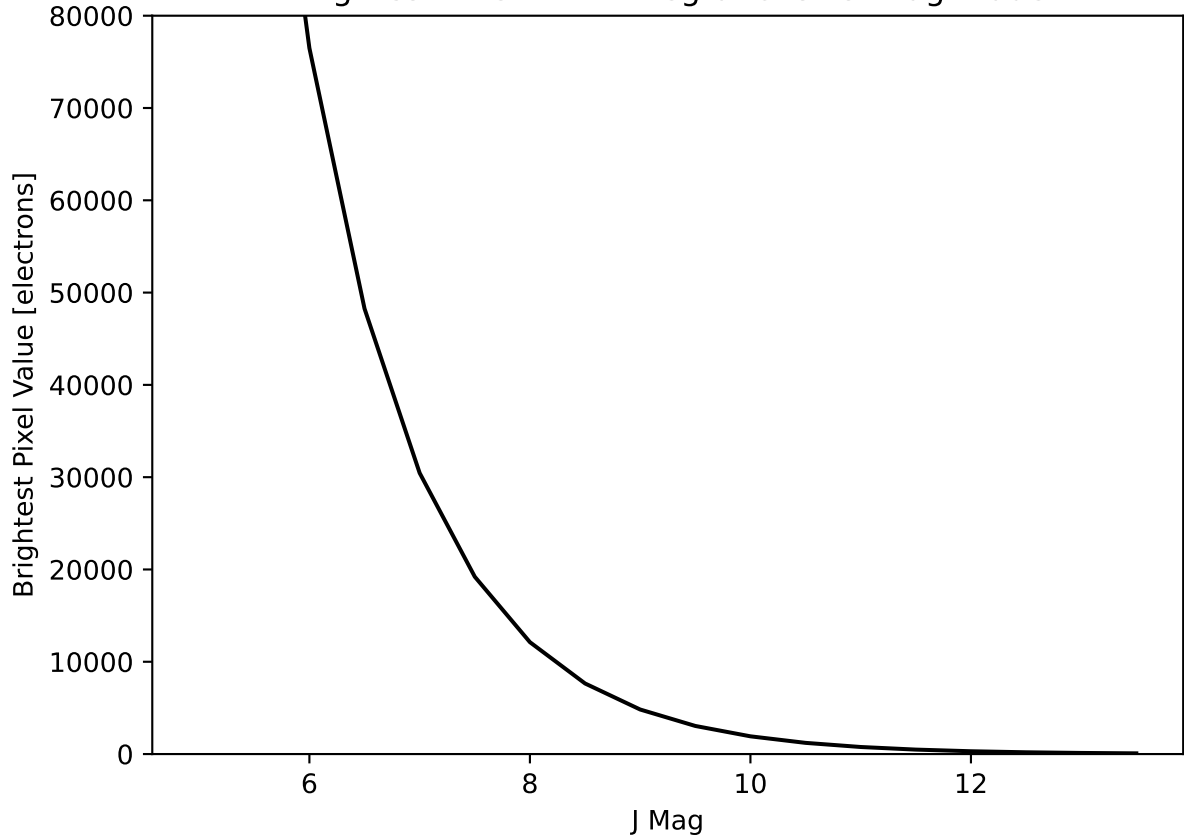
- This document contains test results for a target star on the NIRDA.
  - Generated using automated tests and visualizations.
    - This test uses CBE for all Pandora parameters
  - This test assumes no jitter motion between frames.



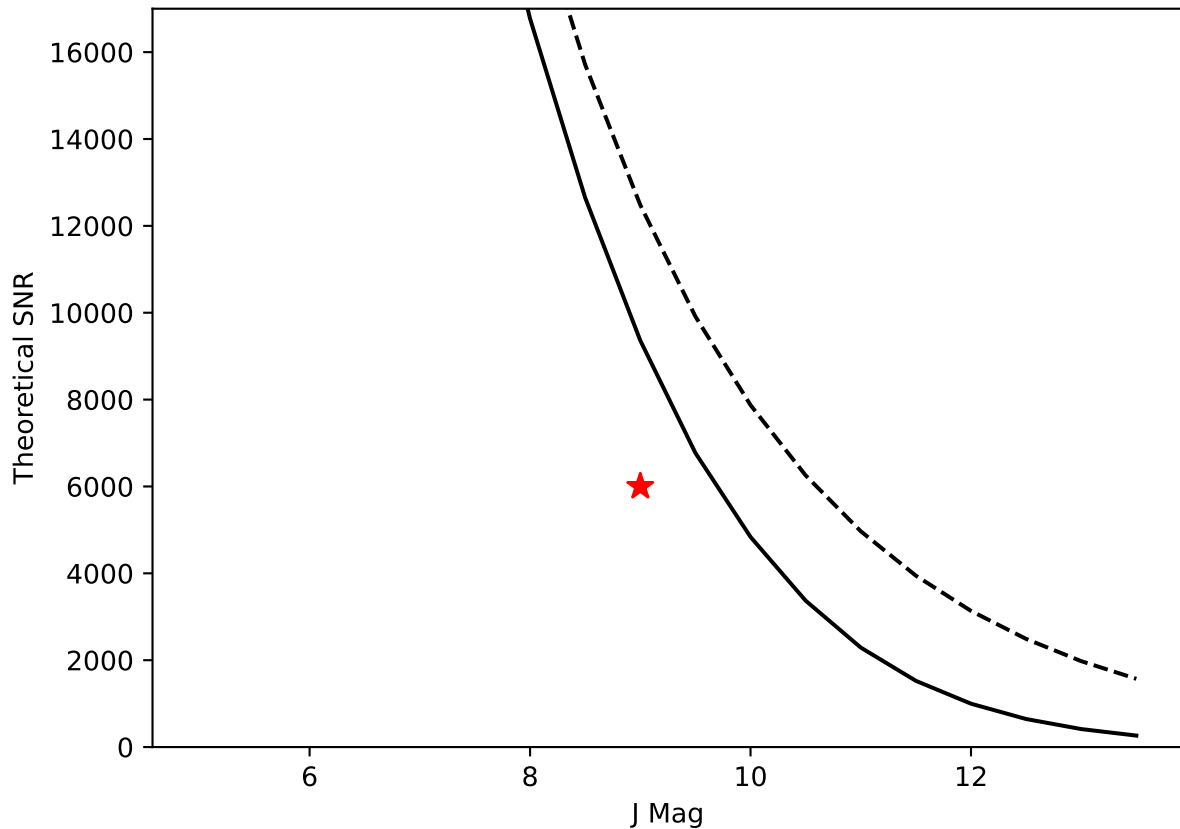




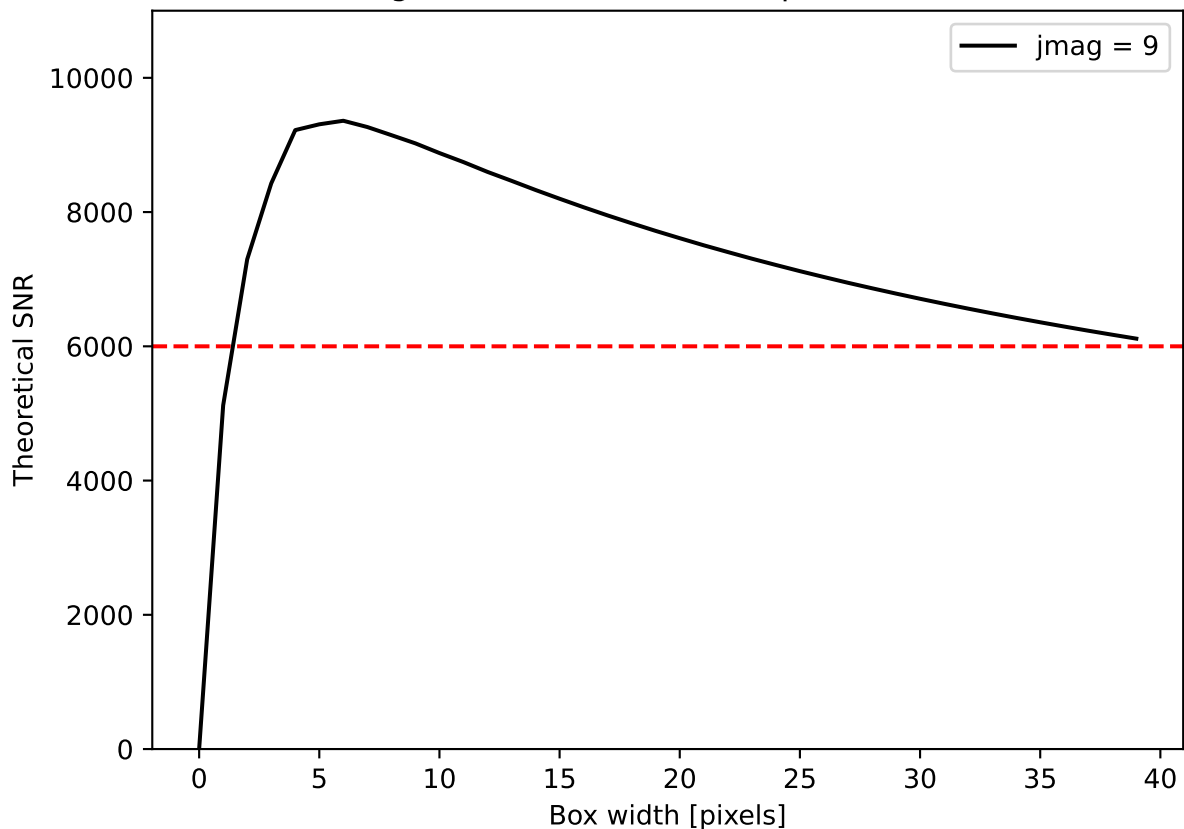
Brightest Pixel in 24 integrations vs. Magnitude



Signal to Noise Ratio vs. Magnitude



Signal to Noise Ratio vs. Aperture Size



# NIRDA Spectral Resolution

