

Gemini Integration Time Calculator

GMOS version 4.0

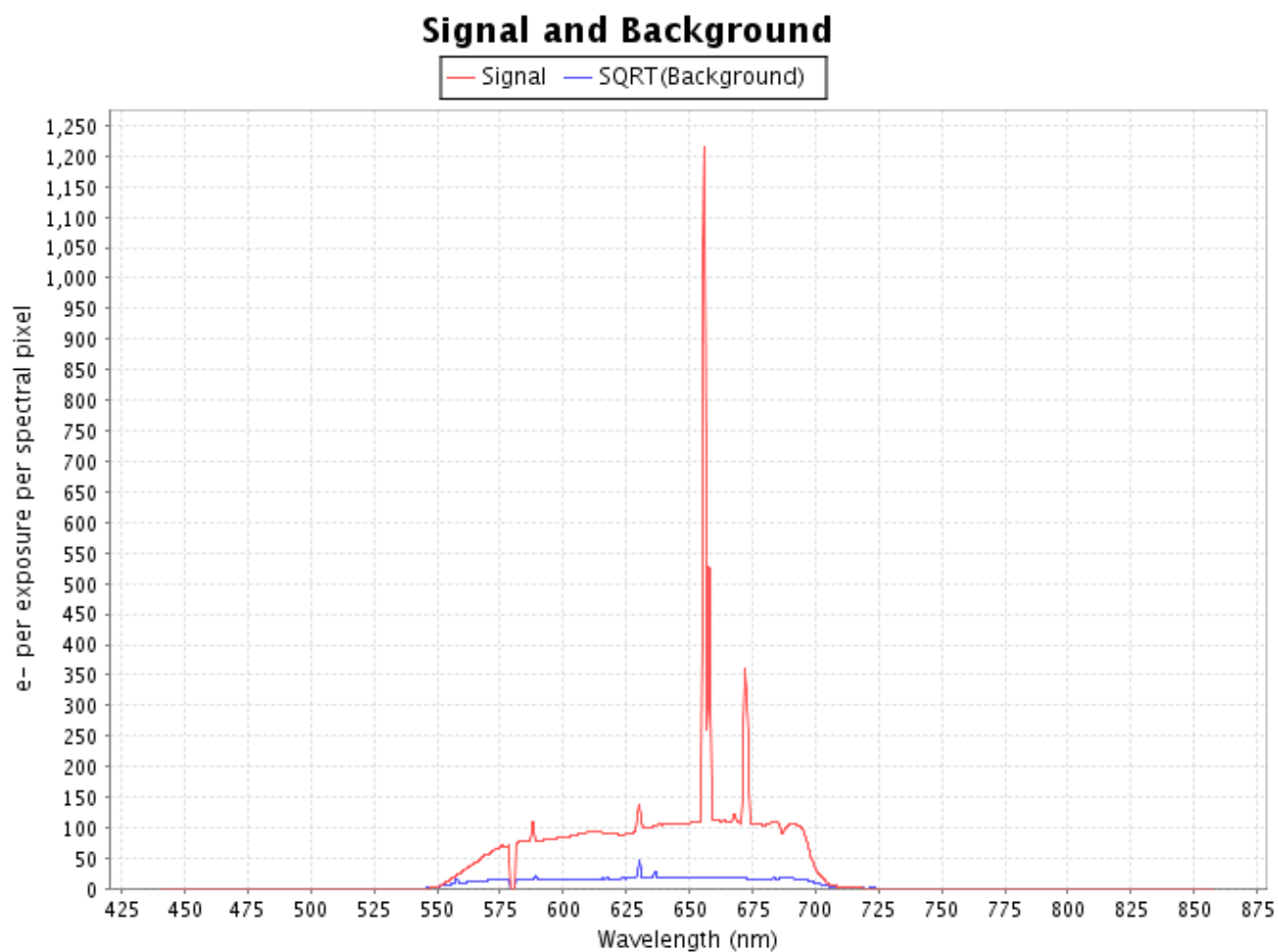
[Click here for help with the results page.](#)

Read noise: 4.1

derived image size(FWHM) for a point source = 0.99arcsec

Sky subtraction aperture = 5.0 times the software aperture.

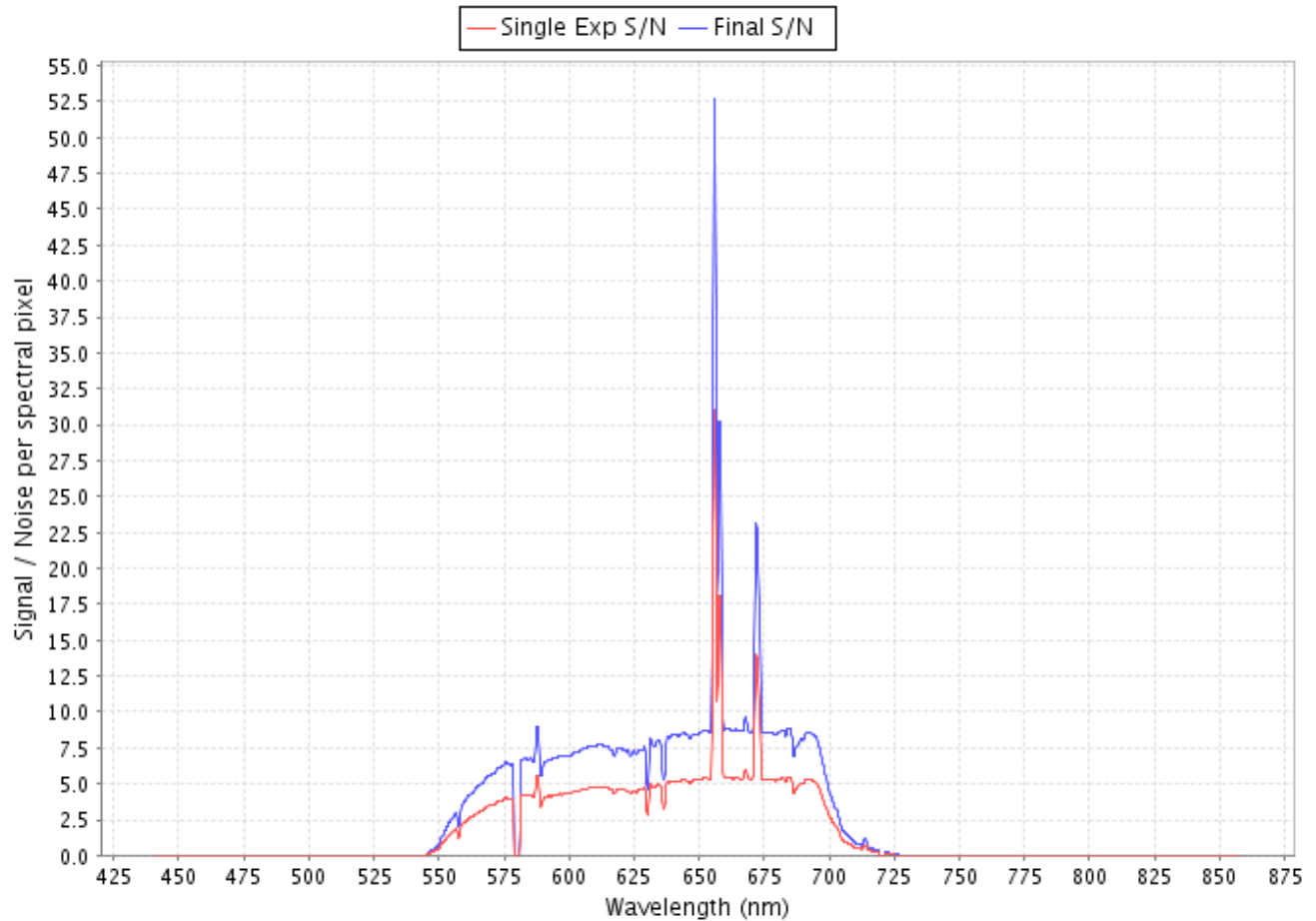
Requested total integration time = 2700.00 secs, of which 2700.00 secs is on source.



[Click here for ASCII signal spectrum.](#)

[Click here for ASCII background spectrum.](#)

Intermediate Single Exp and Final S/N



[Click here for Single Exposure S/N ASCII data.](#)

[Click here for Final S/N ASCII data.](#)

Input Parameters:

Instrument: GMOS-S

Source spatial profile, brightness, and spectral distribution:

The Source is a $1.0\text{E-}16$ ergs_{fd_wavelength_per_sq_arcsec} spiral-galaxy at R.

Instrument configuration:

Optical Components:

- Filter: r_G0303
- Fixed Optics
- IFU Transmission
- Grating Optics: R400_G5305
- Detector - GMOS South CCDs
- Focal Plane Mask: ifu

Central Wavelength: 650.0 nm

Spatial Binning: 4

Spectral Binning: 4

Pixel Size in Spatial Direction: 0.288arcsec

Pixel Size in Spectral Direction: 0.2692nm

IFU is selected, with a single IFU element at 0.0arcsecs.

Telescope configuration:

- silver mirror coating.
- side looking port.
- wavefront sensor: oiwfs

Observing Conditions:

- Image Quality: 70.00%
- Sky Transparency (cloud cover): 70.00%
- Sky transparency (water vapour): 100.00%
- Sky background: 80.00%

Frequency of occurrence of these conditions: 39.19%

Calculation and analysis methods:

- mode: spectroscopy
- Calculation of S/N ratio with 3 exposures of 900.00 secs, and 100.00 % of them were on source.
- Analysis performed for aperture that gives 'optimum' S/N and a sky aperture that is 5.00 times the target aperture.

Output:

- Spectra autoscaled.