



17366 - WFC3 IR Grism Wavelength Calibration

Cycle: 31, Proposal Category: CAL/WFC3

(Availability Mode: RESTRICTED)

INVESTIGATORS

| <i>Name</i> | <i>Institution</i> |
|---------------------------------------|--|
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VISITS

| <i>Visit</i> | <i>Targets used in Visit</i> | <i>Configurations used in Visit</i> | <i>Orbits Used</i> | <i>Last Orbit Planner Run</i> | <i>OP Current with Visit?</i> |
|--------------|------------------------------|-------------------------------------|--------------------|-------------------------------|-------------------------------|
| 01 | (1) VY2-2 | WFC3/IR | 1 | 10-Aug-2023 09:00:18.0 | yes |

1 Total Orbits Used

ABSTRACT

This program will observe PN VY2-2 near the center of the field (-20, 0) and at additional positions using the WFC3 IR G102 and G141 grisms. The data will be used to calculate wavelength solutions for the grisms, and will be compared with those derived from previous programs:

17017

16582

16407

15727

15586

14993

14543

14385

14023

13582

13580

13093

12703

12356

to monitor for potential time evolution of the calibration.

OBSERVING DESCRIPTION

Observations of wavelength calibrator VY2-2. Observations taken at the center of the field (-20, 0) as well as with postargs of (-30,+30) and (-30,-30) in F098M, F105W, F140W, F160W, G102 and G141

Proposal 17366 - G102 and G141 (01) - WFC3 IR Grism Wavelength Calibration

| | | | | | | |
|---|--|--------------------------------|--|---|---------------|-----------------------|
| Visit | Proposal 17366, G102 and G141 (01) Thu Aug 10 13:00:19 GMT 2023 | | | | | |
| | Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: BETWEEN 01-APR-2024:00:00:00 AND 01-JUL-2024:00:00:00 | | | | | |
| Fixed Targets | # | Name | Target Coordinates | Targ. Coord. Corrections | Fluxes | Miscellaneous |
| | (1) | VY2-2 Alt Name1: PK045-02D1 | RA: 19 24 22.2390 (291.0926625d) Dec: +09 53 56.26 (9.89896d) Equinox: J2000 | Proper Motion RA: -20.263 mas/yr Proper Motion Dec: -6.921 mas/yr Epoch of Position: 2000 | V=13.8 | Reference Frame: ICRS |
| Comments: Category=STAR Description=[PLANETARY NEBULA CENTRAL STAR] | | | | | | |

Proposal 17366 - G102 and G141 (01) - WFC3 IR Grism Wavelength Calibration

| Exposures | # | Label | Target | Config,Mode,Aperture | Spectral Els. | Opt. Params. | Special Reqs. | Groups | Exp. Time (Total)/[Actual Dur.] | Orbit |
|-----------|------------------|-------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|--|--|---|-------|
| | 1 | In Center F0 98M | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID ; NSAMP=2 | POS TARG -20,0 | Sequence 1-3 Non-Int in G102 and G141 (01) | 5.864582 Secs (5.865 Secs) [==>] | [1] |
| | 2 | In Center F1 05W | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID ; NSAMP=1 | POS TARG -20,0 | Sequence 1-3 Non-Int in G102 and G141 (01) | 2.932291 Secs (2.932 Secs) [==>] | [1] |
| | 3 | In Center G 102 | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS 25; NSAMP=5 | POS TARG -20,0 | Sequence 1-3 Non-Int in G102 and G141 (01) | 102.934351 Secs (102.934 Secs) [==>] | [1] |
| | 4 | In -30 +30 F 098M | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID ; NSAMP=2 | POS TARG -30,+30 | Sequence 4-6 Non-Int in G102 and G141 (01) | 5.864582 Secs (5.865 Secs) [==>] | [1] |
| | 5 | In -30 +30 F 105W | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID ; NSAMP=1 | POS TARG -30,+30 | Sequence 4-6 Non-Int in G102 and G141 (01) | 2.932291 Secs (2.932 Secs) [==>] | [1] |
| | 6 | In -30 +30 G102 | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS 25; NSAMP=5 | POS TARG -30,+30 | Sequence 4-6 Non-Int in G102 and G141 (01) | 102.934351 Secs (102.934 Secs) [==>] | [1] |
| | 7 | In -30 -30 F 098M | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F098M | SAMP-SEQ=RAPID ; NSAMP=2 | POS TARG -30,-30 | Sequence 7-9 Non-Int in G102 and G141 (01) | 5.864582 Secs (5.865 Secs) [==>] | [1] |
| | 8 | In -30 -30 F 105W | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F105W | SAMP-SEQ=RAPID ; NSAMP=1 | POS TARG -30,-30 | Sequence 7-9 Non-Int in G102 and G141 (01) | 2.932291 Secs (2.932 Secs) [==>] | [1] |
| | 9 | In -30 -30 G 102 | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | G102 | SAMP-SEQ=SPARS 25; NSAMP=5 | POS TARG -30,-30 | Sequence 7-9 Non-Int in G102 and G141 (01) | 102.934351 Secs (102.934 Secs) [==>] | [1] |
| | 10 | In Center F1 60W | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID ; NSAMP=2 | POS TARG -20,0 | Sequence 10-12 Non-Int in G102 and G141 (01) | 5.864582 Secs (5.865 Secs) [==>] | [1] |
| | 11 | In Center F1 40W | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID ; NSAMP=1 | POS TARG -20,0 | Sequence 10-12 Non-Int in G102 and G141 (01) | 2.932291 Secs (2.932 Secs) [==>] | [1] |
| | 12 | In Center G 141 | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS 25; NSAMP=5 | POS TARG -20,0 | Sequence 10-12 Non-Int in G102 and G141 (01) | 102.934351 Secs (102.934 Secs) [==>] | [1] |
| | 13 | In -30 +30 F 160W | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID ; NSAMP=2 | POS TARG -30,+30 | Sequence 13-15 Non-Int in G102 and G141 (01) | 5.864582 Secs (5.865 Secs) [==>] | [1] |
| | 14 | In -30 +30 F 140W | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID ; NSAMP=1 | POS TARG -30,+30 | Sequence 13-15 Non-Int in G102 and G141 (01) | 2.932291 Secs (2.932 Secs) [==>] | [1] |
| | 15 | In -30 +30 G141 | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS 25; NSAMP=5 | POS TARG -30,+30 | Sequence 13-15 Non-Int in G102 and G141 (01) | 102.934351 Secs (102.934 Secs) [==>] | [1] |
| 16 | In -30 -30 G 141 | (1) VY2-2 | WFC3/IR, MULTIACCUM, GRISM1024 | G141 | SAMP-SEQ=SPARS 25; NSAMP=5 | POS TARG -30,-30 | Sequence 16-18 Non-Int in G102 and G141 (01) | 102.934351 Secs (102.934 Secs) [==>] | [1] | |

Proposal 17366 - G102 and G141 (01) - WFC3 IR Grism Wavelength Calibration

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|----|--------------------------------|-----------------------------------|-------|---|--|-------------------------------------|-----|
| 17 | In -30 -30 F (1) VY2-2 140W | WFC3/IR, MULTIACCUM, GRISM1024 | F140W | SAMP-SEQ=RAPID POS TARG -30,-30 ; NSAMP=1 | Sequence 16-18 Non-Int in G102 and G141 (01) | 2.932291 Secs (2.932 Secs) [==>] | [1] |
| 18 | In -30 -30 F (1) VY2-2 160W | WFC3/IR, MULTIACCUM, GRISM1024 | F160W | SAMP-SEQ=RAPID POS TARG -30,-30 ; NSAMP=2 | Sequence 16-18 Non-Int in G102 and G141 (01) | 5.864582 Secs (5.865 Secs) [==>] | [1] |

