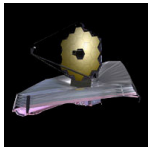

1479 - LW Grism Spectral Calibration

Cycle: 1, Proposal Category: CAL/NIRCAM

INVESTIGATORS

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OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Redesign Feb 2023				
	1	Mod B GRISMC+R lower right	NIRCam Engineering Imaging	(1) SMP-LMC-58
	3	ModB GRISMR upper right	NIRCam Engineering Imaging	(1) SMP-LMC-58
	4	Mod B GRISMC lower left	NIRCam Engineering Imaging	(1) SMP-LMC-58
	5	Mod A GRISMC+R lower left	NIRCam Engineering Imaging	(1) SMP-LMC-58
	7	ModA GRISMR upper left	NIRCam Engineering Imaging	(1) SMP-LMC-58
	8	Mod A GRISMC lower right	NIRCam Engineering Imaging	(1) SMP-LMC-58
	9	Mod A GRISMC lower right	NIRCam Engineering Imaging	(1) SMP-LMC-58

ABSTRACT

This program will calibrate and characterize the long wavelength (LW) grism, including spectral calibration and the line-spread function (LSF) characterization. The wavelength solution will be determined by observing 1 JWST spectral calibration source. This will likely be a planetary nebula, since PNe have a weak continuum and a rich set of strong spectral lines. The PN should also be sufficiently compact (e.g., sources in M31) to enable the LSF to be measured. Wavelength calibrator SMP LMC 58 (K = 14.5 mag) can be observed with MEDIUM8 readout, 7 groups, and 3 exposures/dithers to achieve S/N up to 200 per wavelength in grism mode with both F322W2 and F444W.

This calibration program is provisional and may change in response to system developments and the final science program.

OBSERVING DESCRIPTION

These observations will be collected for both grisms in each module using observations designed with the Engineering Imaging Template. Grism exposures will be collected through the F322W2 and F444W filters, which together provide overlapping spectral coverage from 2.4-5 microns and cover the bandpasses for the other allowed filters (F277W and F356W). The F405N filter is used for direct images since it is closest to the non-dispersed wavelength at 3.95 microns.

Proposal 1479 - Targets - LW Grism Spectral Calibration

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-58	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000		

Comments: Placeholder for wavelength calibrator (an LMC PN)
Kmag = 14.5
Category=Calibration
Description=[Planetary nebulae]

Observation

Proposal 1479, Observation 1: Mod B GRISMC+R lower right

Mon Aug 07 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Engineering Imaging

Diagnostics

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-58	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000		

Comments: Placeholder for wavelength calibrator (an LMC PN)
Kmag = 14.5
Category=Calibration
Description=[Planetary nebulae]

Template

Module	Subarray
B	FULL

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEX	4	STANDARD		1

Spectral Elements

#	Short Pupil	Long Pupil	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	CLEAR	F405N	F212N	F444W	RAPID	5	1	4	4	214.735	
2	CLEAR	GRISMR	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
3	CLEAR	GRISMC	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
4	CLEAR	GRISMR	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	
5	CLEAR	GRISMC	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	

Special Requirements

Offset 48.0 arcsec, -38.0 arcsec

Observation

Proposal 1479, Observation 3: ModB GRISMR upper right

Mon Aug 07 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Engineering Imaging

Diagnostics

(Visit 3:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-58	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000		

Comments: Placeholder for wavelength calibrator (an LMC PN)
Kmag = 14.5
Category=Calibration
Description=[Planetary nebulae]

Template

Module	Subarray
B	FULL

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEX	4	STANDARD		1

Spectral Elements

#	Short Pupil	Long Pupil	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	CLEAR	F405N	F212N	F444W	RAPID	5	1	4	4	214.735	
2	CLEAR	GRISMR	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
3	CLEAR	GRISMR	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	

Special Requirements

Offset 48.0 arcsec, 46.0 arcsec

Observation

Proposal 1479, Observation 4: Mod B GRISMC lower left

Mon Aug 07 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Engineering Imaging

Diagnostics

(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-58	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000		

Comments: Placeholder for wavelength calibrator (an LMC PN)
Kmag = 14.5
Category=Calibration
Description=[Planetary nebulae]

Template

Module	Subarray
B	FULL

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEX	4	STANDARD		1

Spectral Elements

#	Short Pupil	Long Pupil	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	CLEAR	F405N	F212N	F444W	RAPID	5	1	4	4	214.735	
2	CLEAR	GRISMC	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
3	CLEAR	GRISMC	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	

Special Requirements

Offset -38.0 arcsec, -38.0 arcsec

Observation

Proposal 1479, Observation 5: Mod A GRISMC+R lower left

Mon Aug 07 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Engineering Imaging

Diagnostics

(Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-58	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000		

Comments: Placeholder for wavelength calibrator (an LMC PN)
Kmag = 14.5
Category=Calibration
Description=[Planetary nebulae]

Template

Module	Subarray
A	FULL

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEX	4	STANDARD		1

Spectral Elements

#	Short Pupil	Long Pupil	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	CLEAR	F405N	F212N	F444W	RAPID	5	1	4	4	214.735	
2	CLEAR	GRISMR	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
3	CLEAR	GRISMC	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
4	CLEAR	GRISMR	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	
5	CLEAR	GRISMC	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	

Special Requirements

Offset -42.0 arcsec, -34.0 arcsec

Observation

Proposal 1479, Observation 7: ModA GRISMR upper left

Mon Aug 07 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Engineering Imaging

Diagnostics

(Visit 7:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-58	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000		

Comments: Placeholder for wavelength calibrator (an LMC PN)
Kmag = 14.5
Category=Calibration
Description=[Planetary nebulae]

Template

Module	Subarray
A	FULL

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEX	4	STANDARD		1

Spectral Elements

#	Short Pupil	Long Pupil	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	CLEAR	F405N	F212N	F444W	RAPID	5	1	4	4	214.735	
2	CLEAR	GRISMR	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
3	CLEAR	GRISMR	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	

Special Requirements

Offset -42.0 arcsec, 44.0 arcsec

Observation

Proposal 1479, Observation 8: Mod A GRISMC lower right

Mon Aug 07 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Engineering Imaging

Diagnostics

(Visit 8:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-58	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000		

Comments: Placeholder for wavelength calibrator (an LMC PN)
Kmag = 14.5
Category=Calibration
Description=[Planetary nebulae]

Template

Module	Subarray
A	FULL

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEX	4	STANDARD		1

Spectral Elements

#	Short Pupil	Long Pupil	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	CLEAR	F405N	F212N	F444W	RAPID	5	1	4	4	214.735	
2	CLEAR	GRISMC	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
3	CLEAR	GRISMC	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	

Special Requirements

Offset 37.0 arcsec, -34.0 arcsec

Observation

Proposal 1479, Observation 9: Mod A GRISMC lower right

Mon Aug 07 23:00:28 GMT 2023

Diagnostic Status: Warning

Observing Template: NIRCam Engineering Imaging

Diagnostics

(Visit 9:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	SMP-LMC-58	RA: 05 24 20.7650 (81.0865208d) Dec: -70 05 1.52 (-70.08376d) Equinox: J2000		

Comments: Placeholder for wavelength calibrator (an LMC PN)
Kmag = 14.5
Category=Calibration
Description=[Planetary nebulae]

Template

Module	Subarray
A	FULL

Dithers

#	Primary Dither Type	Primary Dithers	Subpixel Dither Type	Dither Size	Subpixel Positions
1	INTRAMODULEX	4	STANDARD		1

Spectral Elements

#	Short Pupil	Long Pupil	Short Filter	Long Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	CLEAR	F405N	F212N	F444W	RAPID	5	1	4	4	214.735	
2	CLEAR	GRISMC	F212N	F444W	BRIGHT1	5	1	4	4	386.524	
3	CLEAR	GRISMC	F212N	F322W2	BRIGHT1	5	1	4	4	386.524	

Special Requirements

Offset 37.0 arcsec, -34.0 arcsec