16096 - ULLYSES LMC O9-B1 stars COS

Cycle: 27, Proposal Category: GO/DD

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
1C	(1) HV5622	COS/FUV	2	12-Oct-2020 11:00:30.0	yes
AC	(1) HV5622	COS/FUV	1	12-Oct-2020 11:00:31.0	yes
2C	(2) LH9-89	COS/FUV	2	12-Oct-2020 11:00:33.0	yes
3C	(3) N206-FS-170	COS/FUV	2	12-Oct-2020 11:00:34.0	yes
4C	(4) SK-70D16	COS/FUV COS/NUV	3	12-Oct-2020 11:00:37.0	yes
5C	(5) VFTS-66	COS/FUV	3	12-Oct-2020 11:00:38.0	yes
5D	(5) VFTS-66	COS/FUV	3	12-Oct-2020 11:00:39.0	yes

16 Total Orbits Used

ABSTRACT

The Space Telescope Science Institute (STScI) Director has decided to devote up to 1000 orbits of Director's Discretionary time in observing Cycles 27-29 to a new Hubble Ultraviolet Legacy program focused on star formation and associated stellar physics. This new program, ULLYSES (UV Legacy Library of Young Stars as Essential Standards), will provide a UV spectroscopic reference sample of young (< 10 Myr) high- and low-mass stars. It will target over ~150 OB stars in the Magellanic Clouds and lower metallicity galaxies in the Local Group, and ~40 T Tauri stars and brown dwarfs in the Milky Way. In addition, ULLYSES will monitor 4 typical T Tauri stars over different rotational phases through at least three rotation periods, and over timescales of months to years. The resulting library will provide template spectra of massive stars at metallicities substantially

below the well studied, while the low mass sample will cover a wide range of ages, accretion rates, and masses, including objects down to well below 0.5 M_sun. The legacy of this large UV dataset on the first 10 Myr of stellar evolution will be enhanced by complementary datasets obtained by the scientific community. In addition to the core goals of the program related to stellar astrophysics of low and high mass stars, this data will also enable exciting science in the fields of ISM, CGM, jets, and exoplanets. ULLYSES will be modeled after the Frontier Fields program: all data obtained will be non-proprietary. The implementation team at STScI is developing high-level science data products and a sophisticated database and website for disseminating data from the ULLYSES program and ancillary datasets for the ULLYSES target sample from space and ground-based facilities.

OBSERVING DESCRIPTION

This proposal includes a subset of the massive ULLYSES stars being observed in the Magellanic clouds.

Depending on target brightness, the main FUV spectral range will generally use either the STIS E140M setting or the combination of the COS c1291 + c1611 settings. Sufficiently bright stars without good FUSE data in the archive will also be observed with the COS c1096 setting to provide coverage at shorter wavelengths. Where time permits, stars of type O9 or later will also be observed with STIS E230M/1978, while for supergiants of spectral type B5 or later E230M/2707 may also be included. Where possible, targets of a given spectral type were selected to span both a range in extinction and in rotation rates to support a variety of stellar and ISM studies.

Signal-to-noise requirements used to determine the desired exposures times were defined as follows:
COS/G130M/c1096: 20 / nine-pixel resel at 1080 A
COS/G130M/c1291: 30 / six-pixel resel at 1150 A
COS/G160M/c1611: 30 / six-pixel resel at 1590 A
COS/G185M/c1953: 30 / three-pixel resel at 1860 A
COS/G185M/c1986: 30 / three-pixel resel at 1980 A
STIS/E140M/c1425: 20 / two-pixel resel at 1200 A
STIS/E230M/c1978: 20 / two-pixel resel at 1800 A
STIS/E230M/c2707: 20 / two-pixel resel at 2800 A
The actual implemented exposure times may be adjusted to efficiently use HST orbits, but should always provide at least 80% of the desired time as defined by the above requirements.

Additional details about the scientific motivation and technical implementation strategy of the ULLYSES observations can be found at

http://www.stsci.edu/stsci-research/research-topics-and-programs/ullyses. The ULLYSES program is based on the recommendations of a working group led by Sally Oey; the full text of that group's report can be found at http://www.stsci.edu/files/live/sites/www/files/home/stsci-research/research-topics-and-programs/ullyses/_documents/HSTUV-report-ULLYSES.pdf.

Visit

Proposal 16096, HV5622-COS (1C), failed Mon Oct 12 15:00:40 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 100%

Comments: vstatus; 1C; HV5622; P/COS approved for submission; P/WF 12/03/20 ; intrev: completed ; P/CP 14/05/20
vcheck; Enter targ name & Inst. & Resp. Sci.; HV5622 ; COS ; WF
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; dispersed 1291
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; yes. BOT finds 2 safe stars, 0 unknown, 0 unsafe in GSC2 check
vcheck; Visual BOT check for stars not in catalog?; no objects of concern ...
The GSC2 doesn't include a lot of the stars in this field, but the brighest field object in the PSA macro aperture is well below any BOP limits as B/V = 19/17.1 in Zaritsky catalog and G=16.85 in Gaia.
vcheck; Orbit packing finalized?; yes ...
Exposure times for both cenwaves exceed request by 3%, FP-POS 1 of c1611 is split between orbits to keep times equal
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; n/a
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 2, used = 2

Diagnostics

(HV5622-COS (1C)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HV5622 Alt Name1: MACHO79-4779 Alt Name2: MACHO-79.4779.34	RA: 05 09 29.2076 (77.3716983d) Dec: -68 55 2.61 (-68.91739d) Equinox: J2000	Proper Motion RA: 0 sec of time/yr Proper Motion Dec: 0 arcsec/yr	V=14.85 SpT=B0V; E(B-V)=0.06; U=14.1; B=14.6; V=14.8; F1160=1.64e-13; F1360=1.48e-13; F1700=1.01e-13; F2200=5.39e-14	Reference Frame: ICRS

Comments: HV5622 : MACHO79-4779, MACHO79_4779, MACHO 79.4779.34
Previous name : MACHO79-4779
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (MACHO 79.4779.34): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=MACHO+79.4779.34&submit=submit+id
SpT = B0V
COS/G130M/c1096 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1160 +- 30.0A flux=1.6e-13 Flam)
COS/G130M/c1291 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1360 +- 30.0A flux=1.5e-13 Flam)
COS/G160M/c1611 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam)
COS/G185M/c1921 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam)
COS/G185M/c1953 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam)
COS/G185M/c1986 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux2200 +- 5.0A flux=5.4e-14 Flam)
STIS/E140M/c1425 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1360 +- 30.0A flux=1.5e-13 Flam)
STIS/E230M/c1978 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux2200 +- 5.0A flux=5.4e-14 Flam)
STIS/E230M/c2707 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux2200 +- 5.0A flux=5.4e-14 Flam)
Coordinate pedigree: Gaia
Calculation performed 2020-02-24T17:49:22, v0.4
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tstatus; HV5622; P/COS approved for submission; S/ins N/A; P/WF 27/02/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; HV5622 ...; WF 27/02/20
aka MACHO79-4779, MACHO79_4779, MACHO 79.4779.34
tcheck; Target info verification status?; complete ; WF 27/02/20
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero; WF 27/02/20
tcheck; Adopted SED compared to Observations?; OK - good match at cenwaves to be observed; WF 27/02/20
Category=EXT-STAR
Description=[B0-B2 V-IV]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/PEAKXD (1416086)	(1) HV5622	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	CENTER=FLUX-WT; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	***[1]***
2	ACQ/PEAKD (1416086)	(1) HV5622	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	***[1]***
3	G130M/1291-3 (1416078)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=268; FP-POS=3			646 Secs (646 Secs) *[==>]*	***[1]***

Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1360 +- 30.0A flux=1.5e-13 Flam); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0V --> B0 V
SED = HV5622_COS_G130M_c1291_sed.fits
For exptime=1249.3 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3161.3 cts/s/segment
brightest pixel: 0.051 cts/s/pix at 1395.0 A
Calculation performed 2020-02-24T17:49:25, v0.4

4	G130M/1291-4 (1416078)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=268; FP-POS=4			646 Secs (646 Secs) *[==>]*	***[1]***

Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1360 +- 30.0A flux=1.5e-13 Flam); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0V --> B0 V
SED = HV5622_COS_G130M_c1291_sed.fits
For exptime=1249.3 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3161.3 cts/s/segment
brightest pixel: 0.051 cts/s/pix at 1395.0 A
Calculation performed 2020-02-24T17:49:25, v0.4

5	G160M/1611-1a (1416083)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=412; FP-POS=1			522 Secs (522 Secs) *[==>]*	***[1]***

Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0V --> B0 V
SED = HV5622_COS_G160M_c1611_sed.fits
For exptime=2693.0 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1668.5 cts/s/segment
brightest pixel: 0.028 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:28, v0.4

6	G160M/161 1-1b (1416083)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=719; FP-POS=1	171 Secs (171 Secs) *[==>]*	 ***[2]***

Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0V --> B0 V
SED = HV5622_COS_G160M_c1611_sed.fits
For exptime=2693.0 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1668.5 cts/s/segment
brightest pixel: 0.028 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:28, v0.4

7	G160M/161 1-2 (1416083)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=583; FP-POS=2	693 Secs (693 Secs) *[==>]*	 ***[2]***

Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0V --> B0 V
SED = HV5622_COS_G160M_c1611_sed.fits
For exptime=2693.0 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1668.5 cts/s/segment
brightest pixel: 0.028 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:28, v0.4

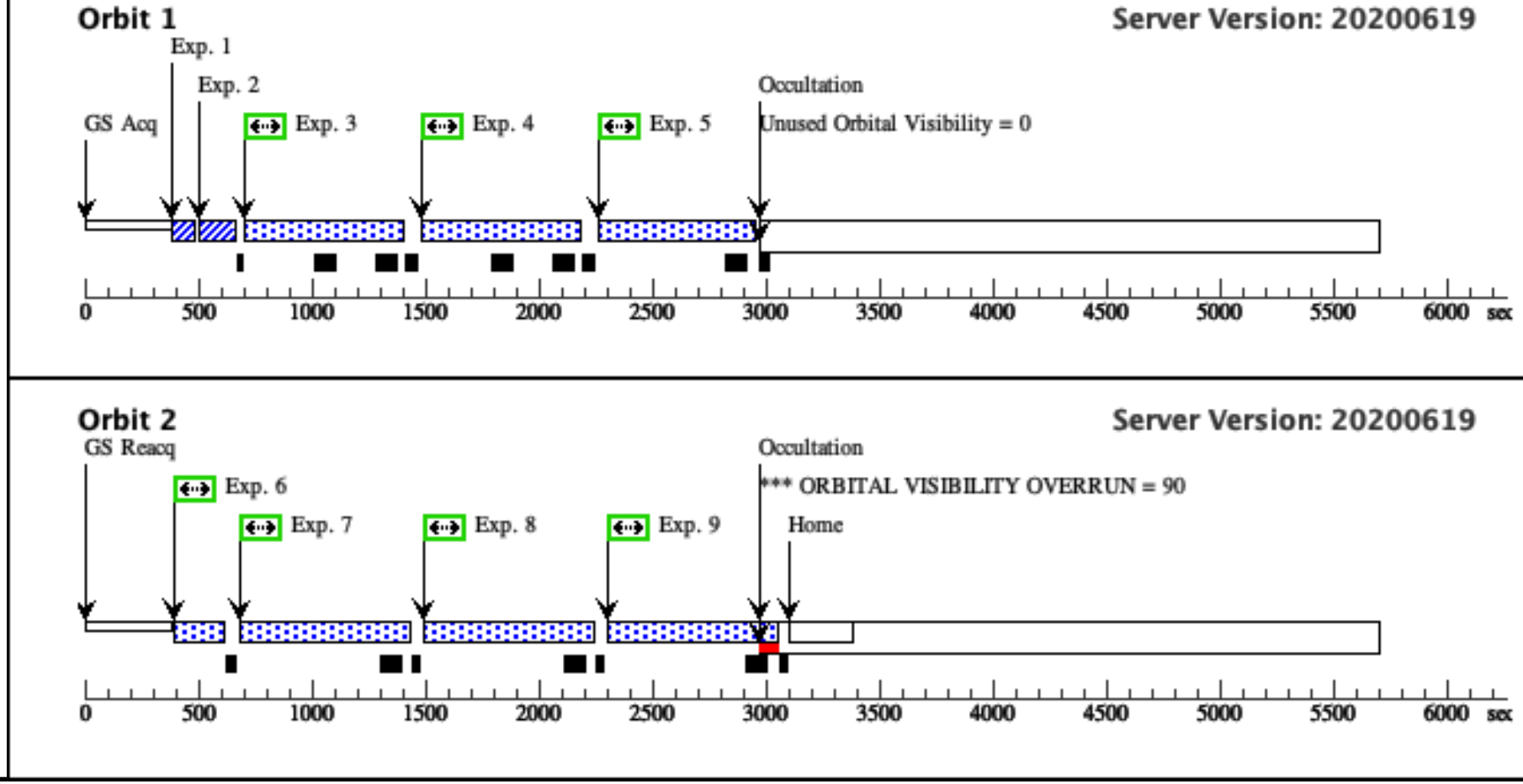
8	G160M/161 1-3 (1416083)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=583; FP-POS=3	693 Secs (693 Secs) *[==>]*	 ***[2]***

Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0V --> B0 V
SED = HV5622_COS_G160M_c1611_sed.fits
For exptime=2693.0 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1668.5 cts/s/segment
brightest pixel: 0.028 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:28, v0.4

9	G160M/161 1-4 (1416083)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=583; FP-POS=4	693 Secs (693 Secs) *[==>]*	 ***[2]***

Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0V --> B0 V
SED = HV5622_COS_G160M_c1611_sed.fits
For exptime=2693.0 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1668.5 cts/s/segment
brightest pixel: 0.028 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:28, v0.4

Orbit Structure



Visit

Proposal 16096, HV5622-COS (AC) Mon Oct 12 15:00:40 GMT 2020

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/FUV

Special Requirements: SCHED 100%

Comments: vstatus; AC; HV5622; P/COS approved for submission; P/WF 12/03/20 ; intrev: completed ; P/CP 14/05/20
vcheck; Enter targ name & Inst. & Resp. Sci.; HV5622 ; COS ; WF
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; dispersed 1291
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; yes. BOT finds 2 safe stars, 0 unknown, 0 unsafe in GSC2 check
vcheck; Visual BOT check for stars not in catalog?; no objects of concern ...
The GSC2 doesn't include a lot of the stars in this field, but the brighest field object in the PSA macro aperture is well below any BOP limits as B/V = 19/17.1 in Zaritsky catalog and G=16.85 in Gaia.
vcheck; Orbit packing finalized?; yes ...
Exposure times for both cenwaves exceed request by 3%, FP-POS 1 of c1611 is split between orbits to keep times equal
This is a repeat of the second orbit of visit 1C. See notes in the target's Box folder for details about how the orbit was set up.
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; n/a
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 2, used = 2

Fixed Targets

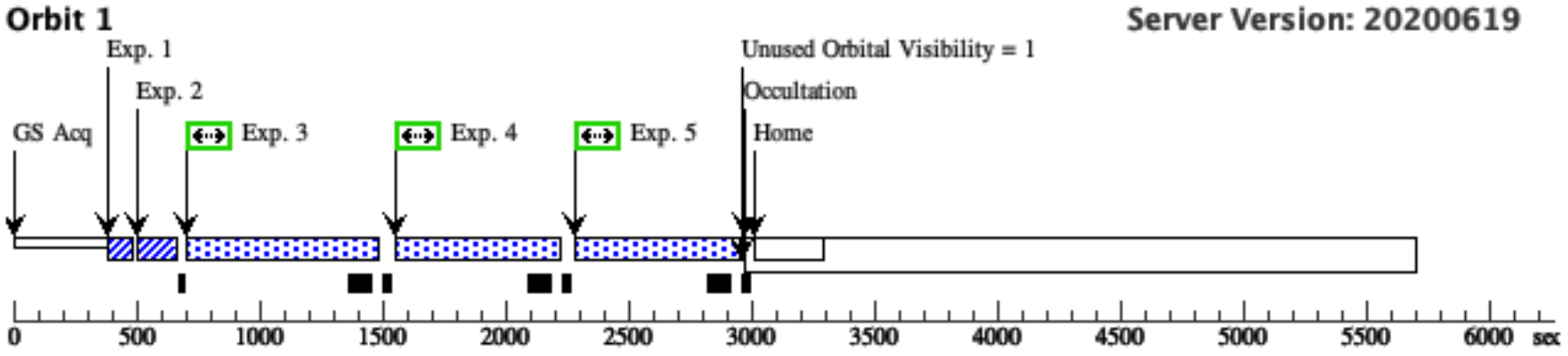
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HV5622 Alt Name1: MACHO79-4779 Alt Name2: MACHO-79.4779.34	RA: 05 09 29.2076 (77.3716983d) Dec: -68 55 2.61 (-68.91739d) Equinox: J2000	Proper Motion RA: 0 sec of time/yr Proper Motion Dec: 0 arcsec/yr	V=14.85 SpT=B0V; E(B-V)=0.06; U=14.1; B=14.6; V=14.8; F1160=1.64e-13; F1360=1.48e-13; F1700=1.01e-13; F2200=5.39e-14	Reference Frame: ICRS

Comments: HV5622 : MACHO79-4779, MACHO79_4779, MACHO 79.4779.34
Previous name : MACHO79-4779
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (MACHO 79.4779.34): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=MACHO+79.4779.34&submit=submit+id
SpT = B0V
COS/G130M/c1096 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1160 +- 30.0A flux=1.6e-13 Flam)
COS/G130M/c1291 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1360 +- 30.0A flux=1.5e-13 Flam)
COS/G160M/c1611 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam)
COS/G185M/c1921 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam)
COS/G185M/c1953 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam)
COS/G185M/c1986 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux2200 +- 5.0A flux=5.4e-14 Flam)
STIS/E140M/c1425 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1360 +- 30.0A flux=1.5e-13 Flam)
STIS/E230M/c1978 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux2200 +- 5.0A flux=5.4e-14 Flam)
STIS/E230M/c2707 : rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux2200 +- 5.0A flux=5.4e-14 Flam)
Coordinate pedigree: Gaia
Calculation performed 2020-02-24T17:49:22, v0.4
---
tstatus; HV5622; P/COS approved for submission; S/ins N/A; P/WF 27/02/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; HV5622 ...; WF 27/02/20
aka MACHO79-4779, MACHO79_4779, MACHO 79.4779.34
tcheck; Target info verification status?; complete ; WF 27/02/20
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero; WF 27/02/20
tcheck; Adopted SED compared to Observations?; OK - good match at cenwaves to be observed; WF 27/02/20
Category=EXT-STAR
Description=[B0-B2 V-IV]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/PEAK XD (1416086)	(1) HV5622	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	CENTER=FLUX-WT; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	***[1]***
2	ACQ/PEAK D (1416086)	(1) HV5622	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	***[1]***
3	G160M/1611-2 (1416083)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=506; FP-POS=2			616 Secs (616 Secs) *[==>]*	***[1]***
Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None) *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: B0V --> B0 V* *SED = HV5622_COS_G160M_c1611_sed.fits* *For exptime=2693.0 s, spectral region:* *1590.0 +- 0.5 A achieves SNR=30.0/resel* *global countrate (brightest segment): 1668.5 cts/s/segment* *brightest pixel: 0.028 cts/s/pix at 1442.0 A* *Calculation performed 2020-02-24T17:49:28, v0.4*									
4	G160M/1611-3 (1416083)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=506; FP-POS=3			616 Secs (616 Secs) *[==>]*	***[1]***
Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None) *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: B0V --> B0 V* *SED = HV5622_COS_G160M_c1611_sed.fits* *For exptime=2693.0 s, spectral region:* *1590.0 +- 0.5 A achieves SNR=30.0/resel* *global countrate (brightest segment): 1668.5 cts/s/segment* *brightest pixel: 0.028 cts/s/pix at 1442.0 A* *Calculation performed 2020-02-24T17:49:28, v0.4*									
5	G160M/1611-4 (1416083)	(1) HV5622	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=506; FP-POS=4			616 Secs (616 Secs) *[==>]*	***[1]***
Comments: rn-max(WM-Basic(B0 V, Z=0.008, Teff=30200, log_lum=4.80, log_g=4.00) (extinction lmcavg=0.060), flux1700 +- 5.0A flux=1e-13 Flam); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None) *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: B0V --> B0 V* *SED = HV5622_COS_G160M_c1611_sed.fits* *For exptime=2693.0 s, spectral region:* *1590.0 +- 0.5 A achieves SNR=30.0/resel* *global countrate (brightest segment): 1668.5 cts/s/segment* *brightest pixel: 0.028 cts/s/pix at 1442.0 A* *Calculation performed 2020-02-24T17:49:28, v0.4*									

Orbit Structure



Visit

Proposal 16096, LH9-89-COS (2C), completed Mon Oct 12 15:00:40 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 100%

Comments: vstatus; 2C; LH9-89; P/COS approved for submission; P/WF 09/04/20 ; intrev: completed ; P/CP 14/05/20
vcheck; Enter targ name & Inst. & Resp. Sci.; LH9-89 ; COS ; WF
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; dispersed 1291
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; yes. BOT finds 6 safe stars, 2 unknown, 0 unsafe in GSC2 check ...
One unknown is the target, cleared with ETC. The other is in the BOA radius and 19th mag in Gaia, so safe.
vcheck; Visual BOT check for stars not in catalog?; no objects of concern
vcheck; Orbit packing finalized?; yes ...
Exposure times for both cenwaves exceed request by 99%, FP-POS 1 of c1611 is split between orbits to keep times equal
would need to cut exp times by about 30% to fit in one orbit
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; n/a
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 2, used = 2

Diagnostics

(LH9-89-COS (2C)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	LH9-89	RA: 04 56 11.0224 (74.0459267d)	Proper Motion RA: 0 sec of time/yr	V=13.68	Reference Frame: ICRS
	Alt Name1: N11-033	Dec: -66 28 24.37 (-66.47344d)	Proper Motion Dec: 0 arcsec/yr	SpT=B0 IIIn; E(B-V)=0.14; B=13.5; V=13.7; U=12.58; B=13.531; V=13.645	
	Alt Name2: N11-33	Equinox: J2000			

Comments: LH9-89 : N11-033, N11_33, [ELS2006] N11 033
Previous name : N11-033
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link ([ELS2006] N11 033): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=[ELS2006]+N11+033&submit=submit+id
SpT = B0 IIIn
COS/G130M/c1096 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
COS/G130M/c1291 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
COS/G160M/c1611 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
COS/G185M/c1921 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
COS/G185M/c1953 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
COS/G185M/c1986 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
STIS/E140M/c1425 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
STIS/E230M/c1978 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
STIS/E230M/c2707 : rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag)
Coordinate pedigree: Gaia
v sin i = 256
Calculation performed 2020-02-24T17:48:57, v0.4
---
tstatus; LH9-89; P/COS approved for submission; S/ins not started; P/WF 30/03/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; LH9-89 '[L72] LH 9-89' ...; WF 30/03/20
aka PGMW 1005, [ELS2006] N11 033, [HKN2006] OB 140
tcheck; Target info verification status?; complete ; WF 30/03/20
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero ...; WF 30/03/20
Gaia coords differ from these by 0.06 arcsec, this was judged not to warrant updating
tcheck; Adopted SED compared to Observations?; OK - but only B and V phot exist; WF 30/03/20
Category=EXT-STAR
Description=[B0-B2 III-I]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/PEAKXD (1437378)	(2) LH9-89	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	CENTER=FLUX-WT; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	*[1]*
2	ACQ/PEAKD (1437378)	(2) LH9-89	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	*[1]*
3	G130M/1291-3 (1437379)	(2) LH9-89	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=163; FP-POS=3			765 Secs (765 Secs) *[==>]*	*[1]*

Comments: rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0 IIIn --> B0 III
SED = LH9-89_COS_G130M_c1291_sed.fits
For exptime=767.3 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 5138.6 cts/s/segment
brightest pixel: 0.086 cts/s/pix at 1266.0 A
Calculation performed 2020-02-24T17:49:00, v0.4

4	G130M/1291-4 (1437379)	(2) LH9-89	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=163; FP-POS=4			765 Secs (765 Secs) *[==>]*	*[1]*

Comments: rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0 IIIn --> B0 III
SED = LH9-89_COS_G130M_c1291_sed.fits
For exptime=767.3 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 5138.6 cts/s/segment
brightest pixel: 0.086 cts/s/pix at 1266.0 A
Calculation performed 2020-02-24T17:49:00, v0.4

5	G160M/1611-1a (1437380)	(2) LH9-89	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=351; FP-POS=1			228 Secs (228 Secs) *[==>]*	*[1]*

Comments: rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0 IIIn --> B0 III
SED = LH9-89_COS_G160M_c1611_sed.fits
For exptime=1211.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3363.0 cts/s/segment
brightest pixel: 0.055 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:02, v0.4

6	G160M/161 1-1b (1437380)	(2) LH9-89	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=265; FP-POS=1	375 Secs (375 Secs) *[==>]*	***[2]***

Comments: rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0 IIIn --> B0 III
SED = LH9-89_COS_G160M_c1611_sed.fits
For exptime=1211.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3363.0 cts/s/segment
brightest pixel: 0.055 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:02, v0.4

7	G160M/161 1-2 (1437380)	(2) LH9-89	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=246; FP-POS=2	603 Secs (603 Secs) *[==>]*	***[2]***

Comments: rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0 IIIn --> B0 III
SED = LH9-89_COS_G160M_c1611_sed.fits
For exptime=1211.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3363.0 cts/s/segment
brightest pixel: 0.055 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:02, v0.4

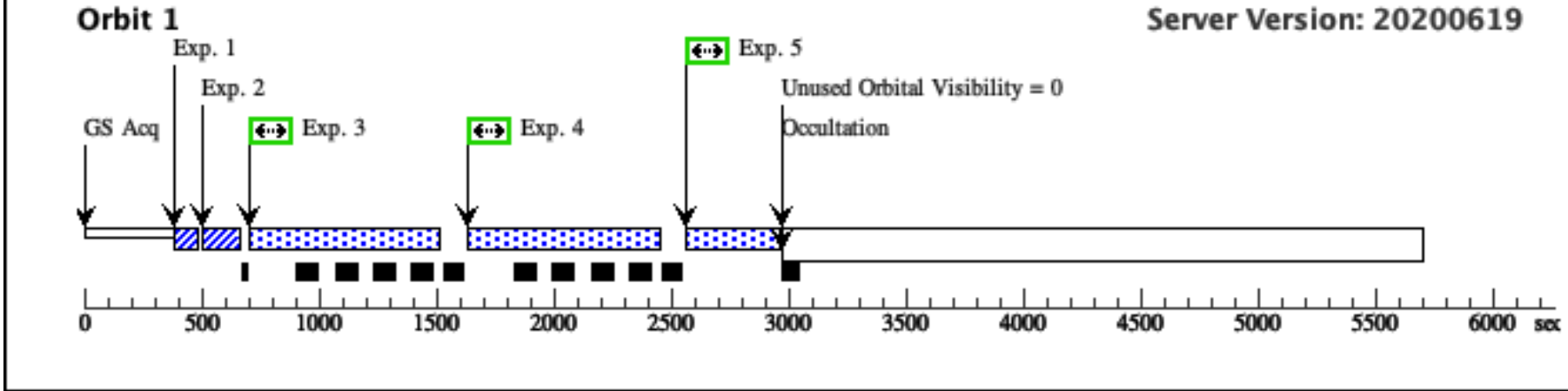
8	G160M/161 1-3 (1437380)	(2) LH9-89	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=246; FP-POS=3	603 Secs (603 Secs) *[==>]*	***[2]***

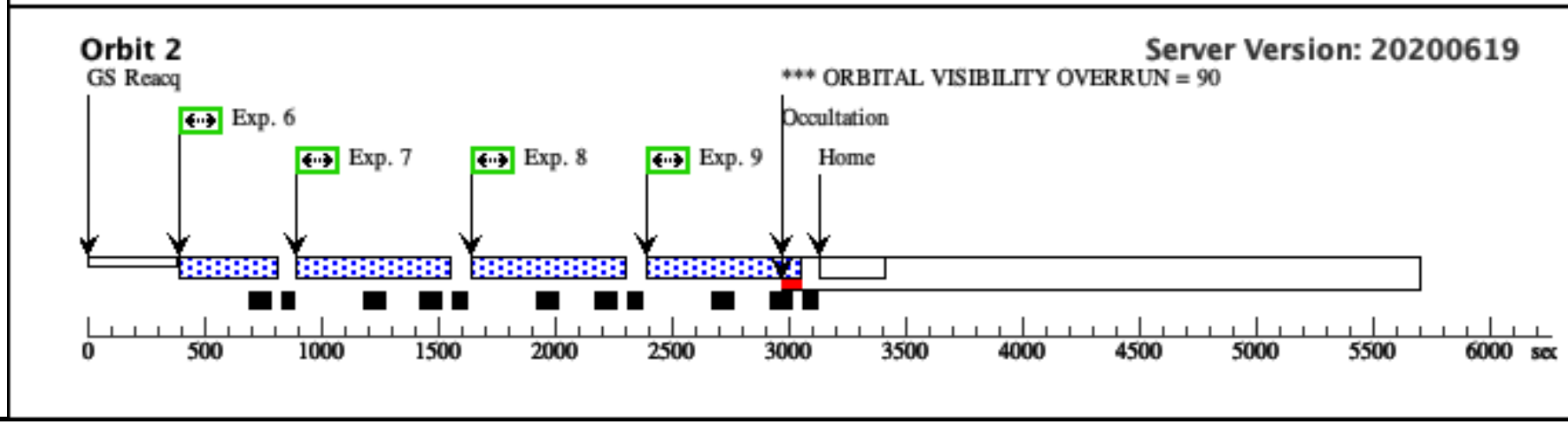
Comments: rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0 IIIn --> B0 III
SED = LH9-89_COS_G160M_c1611_sed.fits
For exptime=1211.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3363.0 cts/s/segment
brightest pixel: 0.055 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:02, v0.4

9	G160M/161 1-4 (1437380)	(2) LH9-89	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=246; FP-POS=4	603 Secs (603 Secs) *[==>]*	***[2]***

Comments: rn(WM-Basic(B0 III, Z=0.008, Teff=28184, log_lum=5.12, log_g=3.54) (extinction lmcavg=0.140), johnson B mag=13.520 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B0 IIIn --> B0 III
SED = LH9-89_COS_G160M_c1611_sed.fits
For exptime=1211.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3363.0 cts/s/segment
brightest pixel: 0.055 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:49:02, v0.4

Orbit Structure





Visit

Proposal 16096, N206-FS-170-COS (3C), completed Mon Oct 12 15:00:40 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 100%

Comments: vstatus; 3C; N206-FS-170; P/COS approved for submission; P/WF 16/04/20 ; intrev: completed ; P/CP 14/05/20
vcheck; Enter targ name & Inst. & Resp. Sci.; N206-FS-170 ; COS ; WF
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; dispersed 1291
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; yes. BOT finds 15-16 safe stars depending on config and 1 unsafe for 1291 in GSC2 check ...
The unsafe is the target (assumed O5V), but it was cleared with the ETC (actually B1V).
vcheck; Visual BOT check for stars not in catalog?; no objects of concern
vcheck; Orbit packing finalized?; yes ...
Exposure times for both cenwaves fall 3% short of request, FP-POS 1 of c1611 is split between orbits to keep times equal
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; n/a
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 2, used = 2

Diagnostics

(N206-FS-170-COS (3C)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	N206-FS-170	RA: 05 31 2.9900 (82.7624583d) Dec: -70 49 56.46 (-70.83235d) Equinox: J2000	Proper Motion RA: 0 sec of time/yr Proper Motion Dec: 0 arcsec/yr	V=14.39 SpT=B1 IV; E(B-V)=0.09; U=13.6; B=14.2; V=14.4	Reference Frame: ICRS

Comments: N206-FS-170 : [N206-FS]-170, [N206-FS]_170
Previous name : [N206-FS]-170
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SpT = B1 IV
COS/G130M/c1096 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
COS/G130M/c1291 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
COS/G160M/c1611 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
COS/G185M/c1921 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
COS/G185M/c1953 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
COS/G185M/c1986 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
STIS/E140M/c1425 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
STIS/E230M/c1978 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
STIS/E230M/c2707 : rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag)
Coordinate pedigree: InputCatalog
v sin i = 180
Calculation performed 2020-02-24T17:50:48, v0.4
---
tstatus; N206-FS-170; P/COS approved for submission; S/ins not started; P/WF 13/04/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; N206-FS-170 '[RHH2018] 170'; WF 13/04/20
tcheck; Target info verification status?; complete ; WF 13/04/20
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero ...; WF 13/04/20
Gaia RA differs from initial APT entry by 0.05 sec or 0.75 arcsec, so coordinates were corrected
tcheck; Adopted SED compared to Observations?; OK - only UBV phot exist; WF 13/04/20
Category=EXT-STAR
Description=[B0-B2 V-IV]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/PEAKXD (1437932)	(3) N206-FS-170	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	CENTER=FLUX-WT; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	***[1]***
2	ACQ/PEAKD (1437932)	(3) N206-FS-170	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	***[1]***
3	G130M/1291-3 (1437935)	(3) N206-FS-170	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=297; FP-POS=3			704 Secs (704 Secs) *[==>]*	***[1]***

Comments: rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B1 IV --> B1 V
SED = N206-FS-170_COS_G130M_c1291_sed.fits
For exptime=1448.0 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 2849.2 cts/s/segment
brightest pixel: 0.044 cts/s/pix at 1265.0 A
Calculation performed 2020-02-24T17:50:52, v0.4

4	G130M/1291-4 (1437935)	(3) N206-FS-170	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=297; FP-POS=4			704 Secs (704 Secs) *[==>]*	***[1]***

Comments: rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B1 IV --> B1 V
SED = N206-FS-170_COS_G130M_c1291_sed.fits
For exptime=1448.0 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 2849.2 cts/s/segment
brightest pixel: 0.044 cts/s/pix at 1265.0 A
Calculation performed 2020-02-24T17:50:52, v0.4

5	G160M/1611-1a (1437934)	(3) N206-FS-170	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=794; FP-POS=1			425 Secs (425 Secs) *[==>]*	***[1]***

Comments: rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B1 IV --> B1 V
SED = N206-FS-170_COS_G160M_c1611_sed.fits
For exptime=2657.7 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1490.2 cts/s/segment
brightest pixel: 0.026 cts/s/pix at 1435.0 A
Calculation performed 2020-02-24T17:50:55, v0.4

6	G160M/161 1-1b (1437934)	(3) N206-FS-170	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=79 4; FP-POS=1	220 Secs (220 Secs) *[==>]*	**[2]**

Comments: rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B1 IV --> B1 V
SED = N206-FS-170_COS_G160M_c1611_sed.fits
For exptime=2657.7 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1490.2 cts/s/segment
brightest pixel: 0.026 cts/s/pix at 1435.0 A
Calculation performed 2020-02-24T17:50:55, v0.4

7	G160M/161 1-2 (1437934)	(3) N206-FS-170	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=79 4; FP-POS=2	645 Secs (645 Secs) *[==>]*	**[2]**

Comments: rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B1 IV --> B1 V
SED = N206-FS-170_COS_G160M_c1611_sed.fits
For exptime=2657.7 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1490.2 cts/s/segment
brightest pixel: 0.026 cts/s/pix at 1435.0 A
Calculation performed 2020-02-24T17:50:55, v0.4

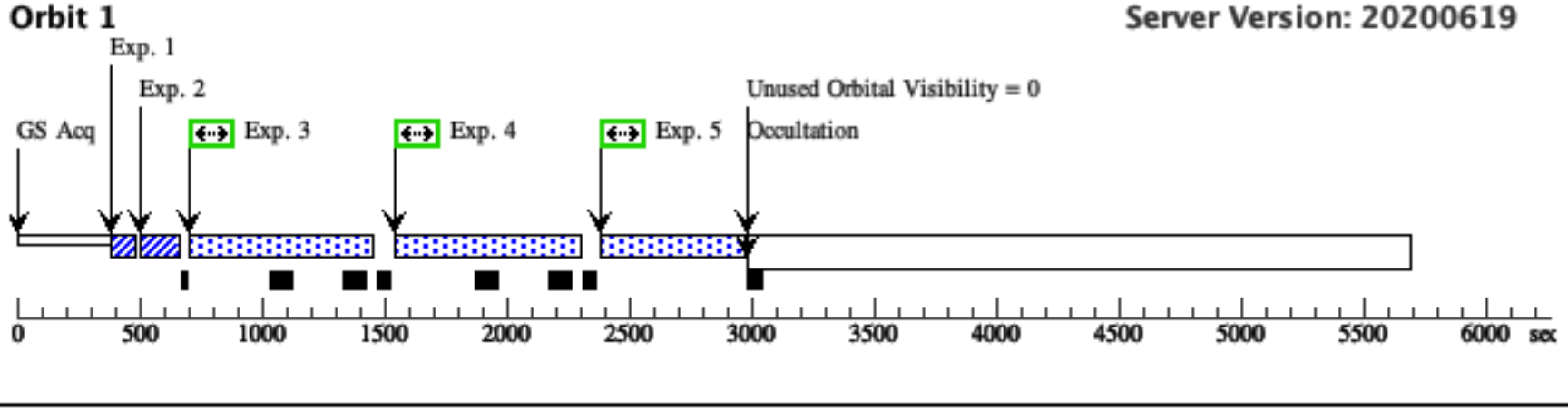
8	G160M/161 1-3 (1437934)	(3) N206-FS-170	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=79 4; FP-POS=3	645 Secs (645 Secs) *[==>]*	**[2]**

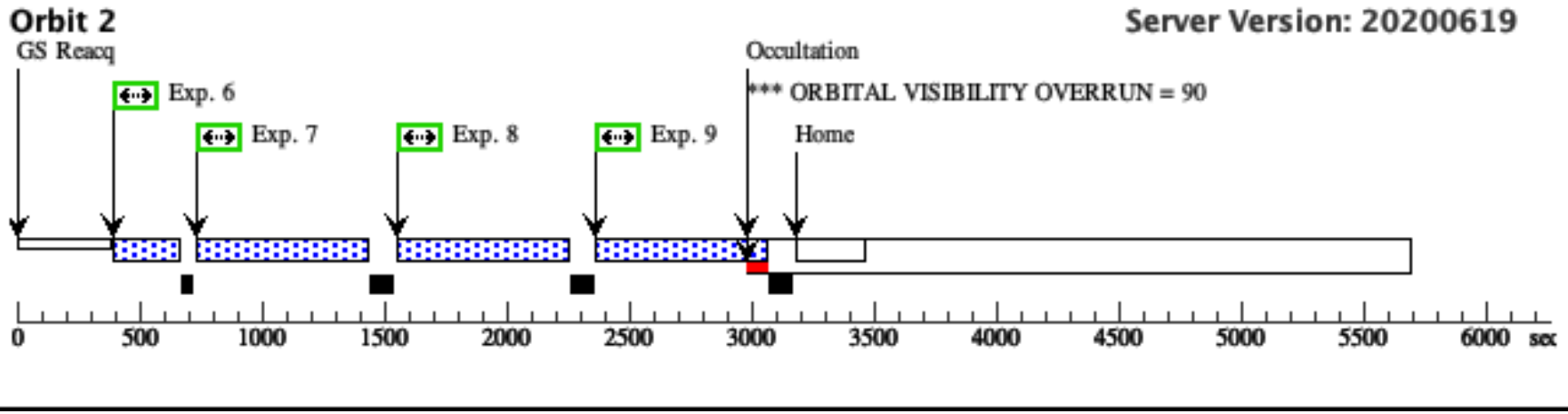
Comments: rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B1 IV --> B1 V
SED = N206-FS-170_COS_G160M_c1611_sed.fits
For exptime=2657.7 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1490.2 cts/s/segment
brightest pixel: 0.026 cts/s/pix at 1435.0 A
Calculation performed 2020-02-24T17:50:55, v0.4

9	G160M/161 1-4 (1437934)	(3) N206-FS-170	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=79 4; FP-POS=4	645 Secs (645 Secs) *[==>]*	**[2]**

Comments: rn(WM-Basic(B1 V, Z=0.008, Teff=26303, log_lum=4.45, log_g=4.00) (extinction lmcavg=0.090), johnson U mag=13.630 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B1 IV --> B1 V
SED = N206-FS-170_COS_G160M_c1611_sed.fits
For exptime=2657.7 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1490.2 cts/s/segment
brightest pixel: 0.026 cts/s/pix at 1435.0 A
Calculation performed 2020-02-24T17:50:55, v0.4

Orbit Structure





Visit

Proposal 16096, SK-70D16-COS (4C), scheduled Mon Oct 12 15:00:40 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: SCHED 100%

Comments: vstatus; 4C; SK-70D16; P/COS approved for submission; P/WF 11/05/20 ; intrev: completed ; P/CP 14/05/20
vcheck; Enter targ name & Inst. & Resp. Sci.; SK-70D16 ; COS ; WF
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; dispersed 1291
vcheck; Possible ACQ or Sci spoilers?; no
vcheck; Field BOT clear?; yes. BOT finds 13-15 safe stars depending on config and 1 unsafe for FUV in GSC2 check ...
The unsafe is the target (assumed O5V), but it was cleared with the ETC (actually B4I).
vcheck; Visual BOT check for stars not in catalog?; no objects of concern
vcheck; Orbit packing finalized?; yes ...
Exposure times per cenwave exceed request by 6 to 23%
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; n/a
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 3, used = 3

Diagnostics

(SK-70D16-COS (4C)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(SK-70D16-COS (4C)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SK-70D16 Alt Name1: M2002-22715 Alt Name2: SK-70-16	RA: 04 54 57.3673 (73.7390304d) Dec: -70 02 28.16 (-70.04116d) Equinox: J2000	Proper Motion RA: 0 sec of time/yr Proper Motion Dec: 0 arcsec/yr	V=13.1 SpT=B4 I; E(B-V)=0.07; U=12.2; B=13.0; V=13.1	Reference Frame: ICRS

Comments: SK-70D16 : [M2002]_22715, Sk -70 16, SK -70 16
Previous name : Sk -70 16
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (SK -70 16): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=SK+-70+16&submit=submit+id
SpT = B4 I
COS/G130M/c1291 : rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag)
COS/G160M/c1611 : rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag)
COS/G185M/c1921 : rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag)
COS/G185M/c1953 : rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag)
COS/G185M/c1986 : rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag)
STIS/E140M/c1425 : rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag)
STIS/E230M/c1978 : rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag)
STIS/E230M/c2707 : rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag)
Coordinate pedigree: Gaia
Calculation performed 2020-02-24T17:51:48, v0.4
---
tstatus; SK-70D16; P/COS approved for submission; S/ins not started; P/WF 07/05/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names: ; SK-70D16 'SK -70 16' ...; WF 07/05/20
aka GV 650, [FD82] 125, [M2002] LMC 22715
tcheck; Target info verification status?; complete ; WF 07/05/20
tcheck; Coordinates & P.M. updated?; yes - Gaia coords - PM set to zero; WF 07/05/20
tcheck; Adopted SED compared to Observations?; OK - only UBV phot exist; WF 07/05/20
Category=EXT-STAR
Description=[B3-B5 III-I]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/PEAKXD (1441414)	(4) SK-70D16	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	CENTER=FLUX-WT; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	***[1]***
2	ACQ/PEAKD (1441414)	(4) SK-70D16	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH			1.0 Secs (1 Secs) *[==>]*	***[1]***
3	G130M/1291-3 (1441415)	(4) SK-70D16	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=206; FP-POS=3			729 Secs (729 Secs) *[==>]*	***[1]***

Comments: rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B4 I --> B4 I
SED = SK-70D16_COS_G130M_c1291_sed.fits
For exptime=1182.9 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 2871.7 cts/s/segment
brightest pixel: 0.054 cts/s/pix at 1277.0 A
Calculation performed 2020-02-24T17:51:53, v0.4

4	G130M/1291-4 (1441415)	(4) SK-70D16	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=206; FP-POS=4			729 Secs (729 Secs) *[==>]*	***[1]***

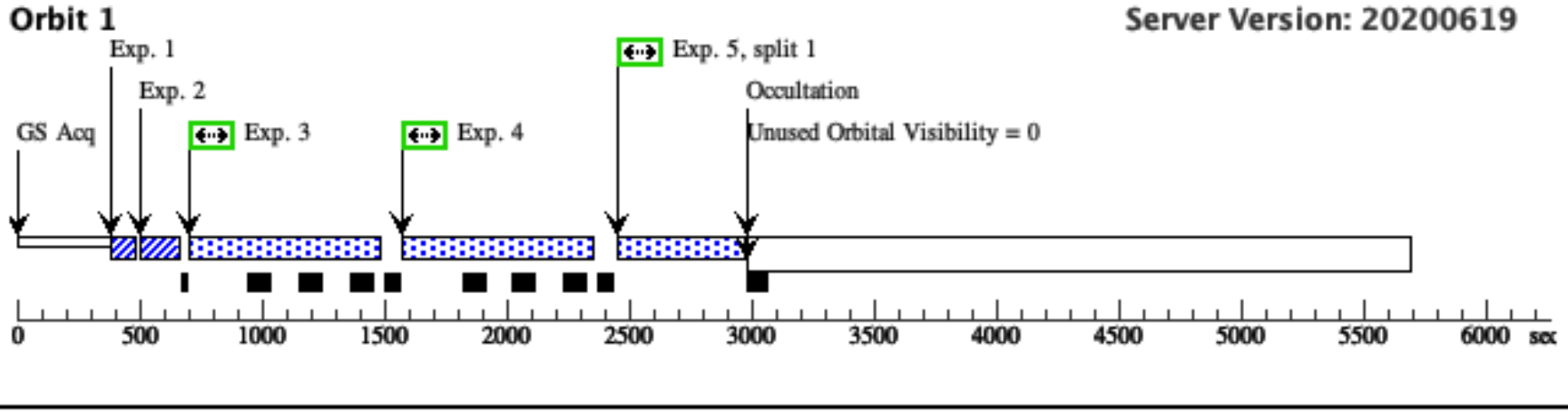
Comments: rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B4 I --> B4 I
SED = SK-70D16_COS_G130M_c1291_sed.fits
For exptime=1182.9 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 2871.7 cts/s/segment
brightest pixel: 0.054 cts/s/pix at 1277.0 A
Calculation performed 2020-02-24T17:51:53, v0.4

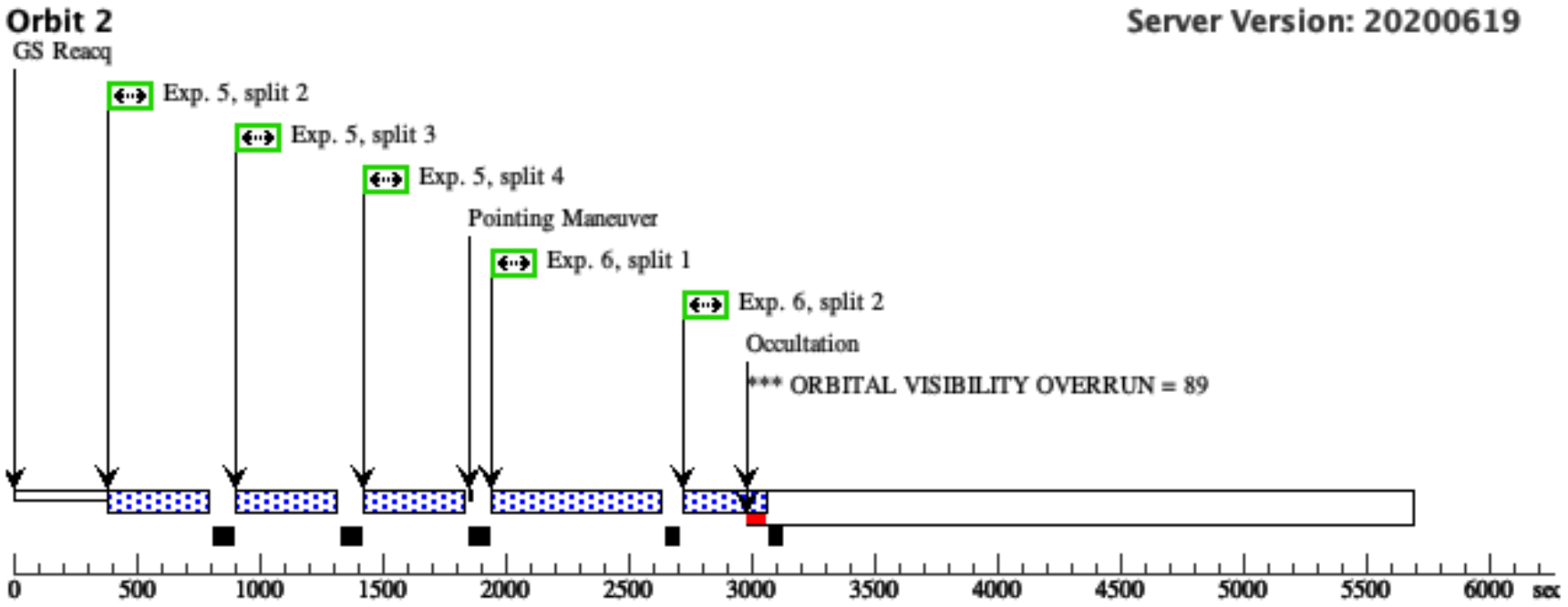
5	G160M/1611 (1441416)	(4) SK-70D16	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=475; FP-POS=ALL			357 Secs (1428 Secs) *[==>(Split 1)]* *[==>(Split 2)]* *[==>(Split 3)]* *[==>(Split 4)]*	***[1]*** ***[2]***

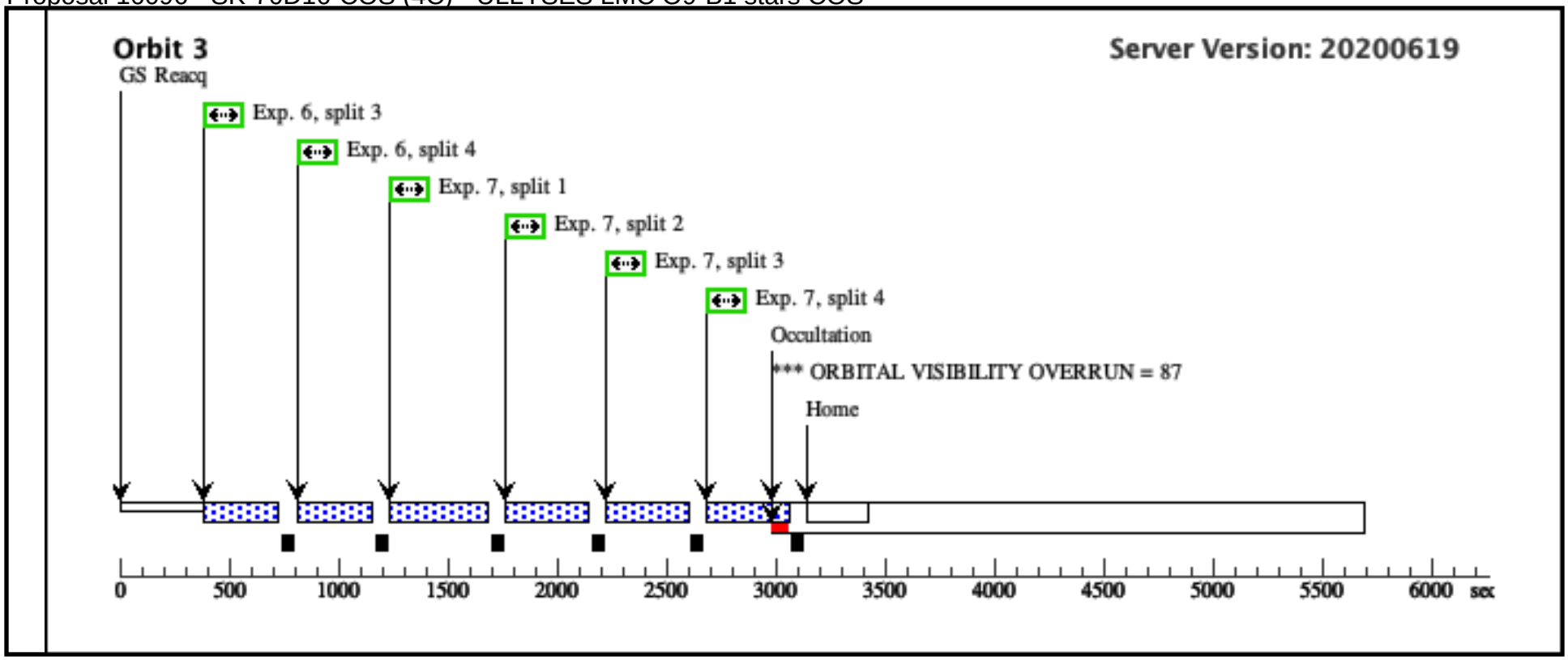
Comments: rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: B4 I --> B4 I
SED = SK-70D16_COS_G160M_c1611_sed.fits
For exptime=1326.7 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 2508.3 cts/s/segment
brightest pixel: 0.038 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T17:51:55, v0.4

	6	G185M/1953 (4) SK-70D16 3 (1441417)	COS/NUV, TIME-TAG, PSA	G185M 1953 A	BUFFER-TIME=820; FP-POS=ALL	328 Secs (1312 Secs) *[==>(Split 1)]* *[==>(Split 2)]* *[==>(Split 3)]* *[==>(Split 4)]*	 ***[2]*** ***[3]***
		Comments: rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag); cos,nuv,g185m,c1953,psa,mjd#59305 *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: B4 I --> B4 I* *SED = SK-70D16_COS_G185M_c1953_sed.fits* *For exptime=1229.6 s, spectral region:* *1860.0 +- 0.5 A achieves SNR=30.0/resel* *global countrate (brightest segment): 1681.0 cts/s/segment* *brightest pixel: 0.139 cts/s/pix at 1872.0 A* *Calculation performed 2020-02-24T17:51:56, v0.4*					
	7	G185M/1986 (4) SK-70D16 6 (1441418)	COS/NUV, TIME-TAG, PSA	G185M 1986 A	BUFFER-TIME=820; FP-POS=ALL	361 Secs (1444 Secs) *[==>(Split 1)]* *[==>(Split 2)]* *[==>(Split 3)]* *[==>(Split 4)]*	 ***[3]***
		Comments: rn(ck04models(B4I,Teff=16080,metallicity=0.008,logG=2.52) (extinction lmcavg=0.070), johnson U mag=12.190 vegamag); cos,nuv,g185m,c1986,psa,mjd#59305 *From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv* *Spectral type: B4 I --> B4 I* *SED = SK-70D16_COS_G185M_c1986_sed.fits* *For exptime=1192.7 s, spectral region:* *1980.0 +- 0.5 A achieves SNR=30.0/resel* *global countrate (brightest segment): 1680.5 cts/s/segment* *brightest pixel: 0.145 cts/s/pix at 1875.0 A* *Calculation performed 2020-02-24T17:51:56, v0.4*					

Orbit Structure






Orbit 3
Server Version: 20200619
GS Reacq
Exp. 6, split 3
Exp. 6, split 4
Exp. 7, split 1
Exp. 7, split 2
Exp. 7, split 3
Exp. 7, split 4
Occultation
*** ORBITAL VISIBILITY OVERRUN = 87
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
sec

Visit

Proposal 16096, VFTS-66-COS (5C), scheduled Mon Oct 12 15:00:40 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 100%

Comments: vstatus; 5C; VFTS-66; P/COS approved for submission; P/WF 27/05/20 ; intrev: needs to be redone ; P/CP 14/05/20
vcheck; Enter targ name & Inst. & Resp. Sci.; VFTS-66; COS; WF
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; dispersed 1291
vcheck; Possible ACQ or Sci spoilers?; no ...
The GSC2 entry that is very close to the target is 4 magnitudes fainter at V
vcheck; Field BOT clear?; yes. BOT/GSC2 finds 11-12 safe stars depending on config and 1 unknown ...
The unknown is a pair of stars in Gaia, both with G fainter than 19th mag, so it is fine
vcheck; Visual BOT check for stars not in catalog?; no concerns
vcheck; Orbit packing finalized?; yes ...
Exposure time is only 32% of ETC as agreed upon by CIT
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; none needed
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 3, used = 3

Diagnostics

(VFTS-66-COS (5C)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(VFTS-66-COS (5C)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	VFTS-66	RA: 05 37 33.0874 (84.3878642d)	Proper Motion RA: 0 sec of time/yr	V=15.54	Reference Frame: ICRS
	Alt Name1: VFTS066	Dec: -69 04 34.69 (-69.07630d)	Proper Motion Dec: 0 arcsec/yr	SpT=O9V + B0.2V; E(B-V)=0.37; B=15.6; V=15.5; F275MAG=14.39,	
		Equinox: J2000		F336MAG=14.495; F555mag=15.607; F658mag=15.392	

Comments: VFTS-66 : VFTS066, VFTS 66
Previous name : VFTS066
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (VFTS 66): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=VFTS+66&submit=submit+id
SpT = O9V + B0.2V
COS/G130M/c1096 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G130M/c1291 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G160M/c1611 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G185M/c1921 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G185M/c1953 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G185M/c1986 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
STIS/E140M/c1425 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
STIS/E230M/c1978 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
STIS/E230M/c2707 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
Coordinate pedigree: 2MASS
v sin i = >330
Calculation performed 2020-02-24T18:09:02, v0.4
---
tstatus; VFTS-66; P/COS approved for submission; S/ins not started; P/WF 27/05/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names:; VFTS-66 'VFTS 66' ...
aka 2MASS J05373309-6904343
tcheck; Target info verification status?; OK ...
E(B-V) was autopopulated to 0 but is best estimated as 0.37 (Mahy et al. 2020, A&A, 634, A118)
tcheck; Coordinates & P.M. updated?; yes - coords updated from 2MASS to Gaia - PM set to 0
tcheck; Adopted SED compared to Observations?; OK - only BV phot exist ...
Tarantula Survey Sabbi+2016 gives F275mag=14.39, F336mag=14.495, F555mag=15.607, F658mag=15.392
AAVSO Photometric All Sky Survey (APASS) DR9 (Henden+, 2016) gives V=15.516, B=15.673 so B-V=0.156
see See /1442515 for c12911611 normaized to F275W - S/N is perhaps a bit low in these? But E(B-V) probably low, so real FUV discrepancy probably much bigger?

ETC COS.sp.1442605 gives 3,865.3972s for c1291
or normalizing to F275W gives 7990s for c1291 COS.sp.1442606
or normalizing to F336W gives 5592 s COS.sp.1442609
Category=EXT-STAR
Description=[MAIN SEQUENCE O]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/PEAKXD (1443996)	(5) VFTS-66	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A	CENTER=FLUX-WT; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH			5 Secs (5 Secs) *[==>]*	*[1]*
2	ACQ/PEAKD (1443996)	(5) VFTS-66	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	CENTER=FLUX-WT-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH			5 Secs (5 Secs) *[==>]*	*[1]*
3	G130M/1291-3a (1443997)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=2182; FP-POS=3			2165 Secs (2165 Secs) *[==>]*	*[1]*

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G130M_c1291_sed.fits
For exptime=1126.3 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3060.8 cts/s/segment
brightest pixel: 0.042 cts/s/pix at 1265.0 A
Calculation performed 2020-02-24T18:09:05, v0.4

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
4	G130M/1291-3b (1443997)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1358; FP-POS=3			1468.5 Secs (1468.5 Secs) *[==>]*	*[2]*

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G130M_c1291_sed.fits
For exptime=1126.3 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3060.8 cts/s/segment
brightest pixel: 0.042 cts/s/pix at 1265.0 A
Calculation performed 2020-02-24T18:09:05, v0.4

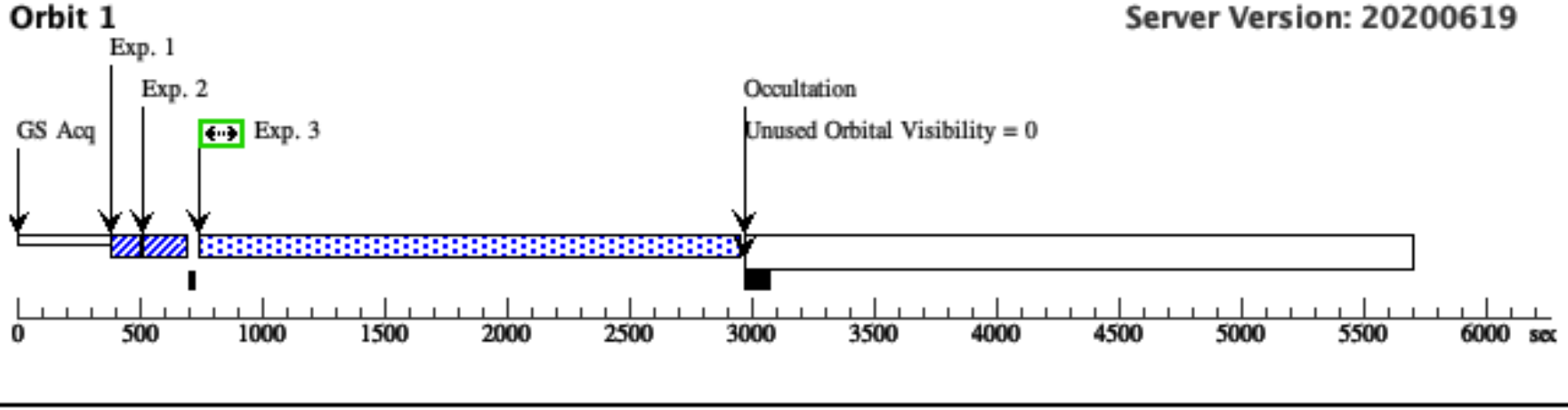
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
5	G130M/1291-4a (1443997)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=2182; FP-POS=4			1029.5 Secs (1029.5 Secs) *[==>]*	*[2]*

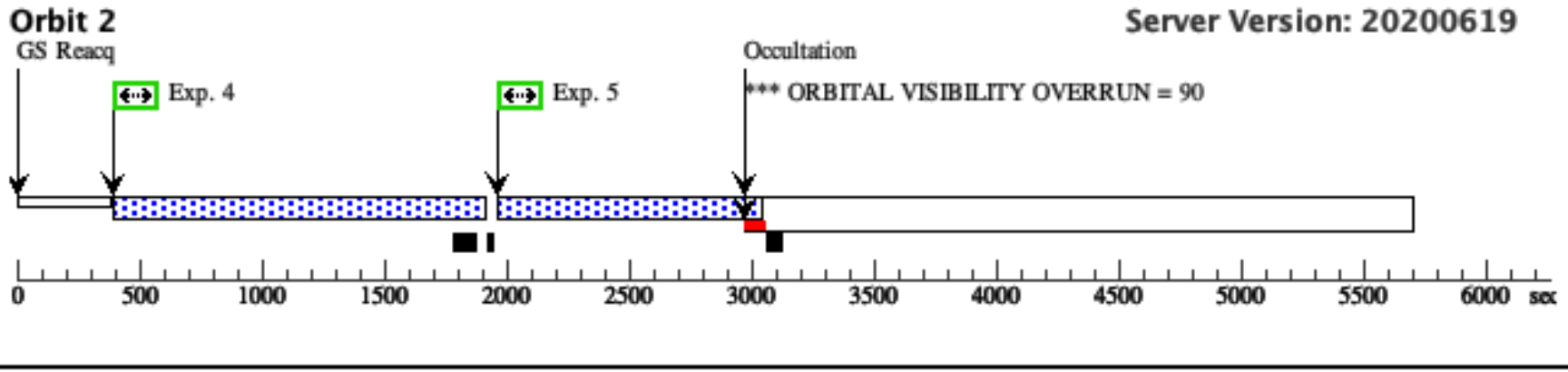
Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G130M_c1291_sed.fits
For exptime=1126.3 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3060.8 cts/s/segment
brightest pixel: 0.042 cts/s/pix at 1265.0 A
Calculation performed 2020-02-24T18:09:05, v0.4

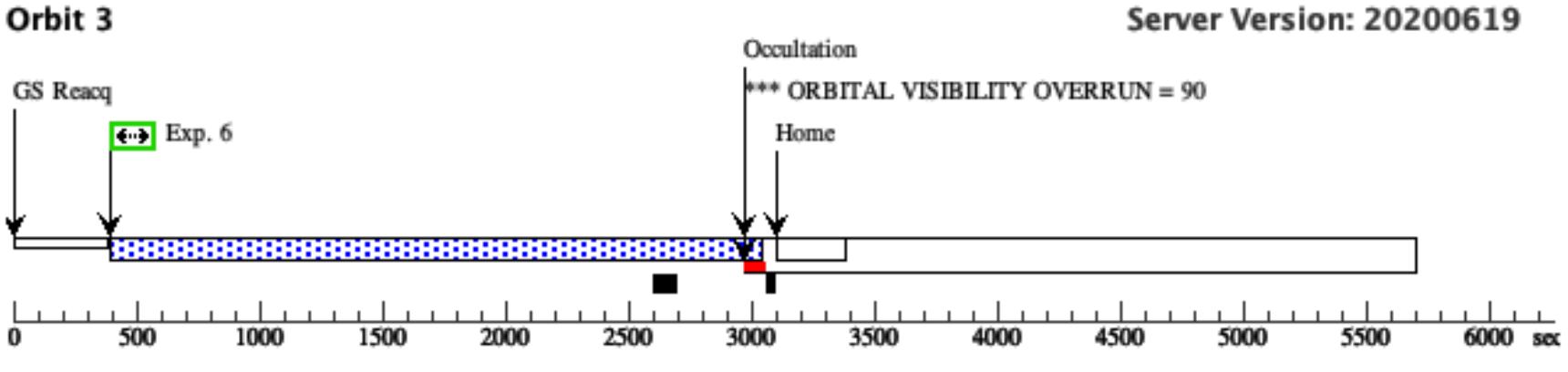
	6	G130M/1291 1-4b (1443997)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=2182; FP-POS=4	2604 Secs (2604 Secs) *[==>]*	***[3]***

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g130m,c1291,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G130M_c1291_sed.fits
For exptime=1126.3 s, spectral region:
1150.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 3060.8 cts/s/segment
brightest pixel: 0.042 cts/s/pix at 1265.0 A
Calculation performed 2020-02-24T18:09:05, v0.4

Orbit Structure







Visit

Proposal 16096, VFTS-66-COS (5D), scheduled Mon Oct 12 15:00:40 GMT 2020

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 100%

Comments: vstatus; 5C; VFTS-66; P/COS approved for submission; P/WF 27/05/20 ; intrev: needs to be redone ; P/CP 14/05/27
vcheck; Enter targ name & Inst. & Resp. Sci.; VFTS-66; COS; WF
vcheck; ETC numbers entered in APT?; yes
vcheck; Any screening violations?; no
vcheck; S/N ETC calcs done & documented?; yes
vcheck; Field images checked & saved?; yes
vcheck; Selected ACQ strategy?; dispersed 1611
vcheck; Possible ACQ or Sci spoilers?; no ...
The GSC2 entry that is very close to the target is 4 magnitudes fainter at V
vcheck; Field BOT clear?; yes. BOT/GSC2 finds 11-12 safe stars depending on config and 1 unknown ...
The unknown is a pair of stars in Gaia, both with G fainter than 19th mag, so it is fine
vcheck; Visual BOT check for stars not in catalog?; no concerns
vcheck; Orbit packing finalized?; yes ...
Exposure time is only 38% of ETC as agreed upon by CIT
vcheck; Buffer times optimized?; yes
vcheck; Verify visit grouping correct; none needed
vcheck; Is visit ready for int. review?; yes
Allocated COS orbits = 3, used = 3

Diagnostics

(VFTS-66-COS (5D)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(VFTS-66-COS (5D)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	VFTS-66	RA: 05 37 33.0874 (84.3878642d)	Proper Motion RA: 0 sec of time/yr	V=15.54	Reference Frame: ICRS
	Alt Name1: VFTS066	Dec: -69 04 34.69 (-69.07630d)	Proper Motion Dec: 0 arcsec/yr	SpT=O9V + B0.2V; E(B-V)=0.37; B=15.6; V=15.5; F275MAG=14.39,	
		Equinox: J2000		F336MAG=14.495; F555mag=15.607; F658mag=15.392	

Comments: VFTS-66 : VFTS066, VFTS 66
Previous name : VFTS066
Input file: LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
SIMBAD link (VFTS 66): https://simbad.u-strasbg.fr/simbad/sim-id?Ident=VFTS+66&submit=submit+id
SpT = O9V + B0.2V
COS/G130M/c1096 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G130M/c1291 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G160M/c1611 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G185M/c1921 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G185M/c1953 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
COS/G185M/c1986 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
STIS/E140M/c1425 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
STIS/E230M/c1978 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
STIS/E230M/c2707 : rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag)
Coordinate pedigree: 2MASS
v sin i = >330
Calculation performed 2020-02-24T18:09:02, v0.4
---
tstatus; VFTS-66; P/COS approved for submission; S/ins not started; P/WF 27/05/20; S/xx DD/MM/YY
tcheck; APT/SIMBAD target names:; VFTS-66 'VFTS 66' ...
aka 2MASS J05373309-6904343
tcheck; Target info verification status?; OK ...
E(B-V) was autopopulated to 0 but is best estimated as 0.37 (Mahy et al. 2020, A&A, 634, A118)
tcheck; Coordinates & P.M. updated?; yes - coords updated from 2MASS to Gaia - PM set to 0
tcheck; Adopted SED compared to Observations?; OK - only BV phot exist ...
Tarantula Survey Sabbi+2016 gives F275mag=14.39, F336mag=14.495, F555mag=15.607, F658mag=15.392
AAVSO Photometric All Sky Survey (APASS) DR9 (Henden+, 2016) gives V=15.516, B=15.673 so B-V=0.156
see See /1442515 for c12911611 normaized to F275W - S/N is perhaps a bit low in these? But E(B-V) probably low, so real FUV discrepancy probably much bigger?

ETC COS.sp.1442605 gives 3,865.3972s for c1291
or normalizing to F275W gives 7990s for c1291 COS.sp.1442606
or normalizing to F336W gives 5592 s COS.sp.1442609
Category=EXT-STAR
Description=[MAIN SEQUENCE O]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/PEAKXD (1444005)	(5) VFTS-66	COS/FUV, ACQ/PEAKXD, PSA	G160M 1611 A	CENTER=FLUX-WT; NUM-POS=3; STEP-SIZE=1.3; SEGMENT=BOTH			6 Secs (6 Secs) *[==>]*	*[1]*
2	ACQ/PEAKD (1444005)	(5) VFTS-66	COS/FUV, ACQ/PEAKD, PSA	G160M 1611 A	CENTER=FLUX-WT-FLR; NUM-POS=5; STEP-SIZE=0.9; SEGMENT=BOTH			6 Secs (6 Secs) *[==>]*	*[1]*
3	G160M/1611-1 (1443999)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=1648; FP-POS=1			1758 Secs (1758 Secs) *[==>]*	*[1]*

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G160M_c1611_sed.fits
For exptime=3862.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1230.6 cts/s/segment
brightest pixel: 0.020 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T18:09:07, v0.4

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
4	G160M/1611-2a (1443999)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=4413; FP-POS=2			228 Secs (228 Secs) *[==>]*	*[1]*

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G160M_c1611_sed.fits
For exptime=3862.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1230.6 cts/s/segment
brightest pixel: 0.020 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T18:09:07, v0.4

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
5	G160M/1611-2b (1443999)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=1419; FP-POS=2			1529.5 Secs (1529.5 Secs) *[==>]*	*[2]*

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G160M_c1611_sed.fits
For exptime=3862.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1230.6 cts/s/segment
brightest pixel: 0.020 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T18:09:07, v0.4

6	G160M/161 1-3a (1443999)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=44 13; FP-POS=3	968.5 Secs (968.5 Secs) *[==>]*	***[2]***

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G160M_c1611_sed.fits
For exptime=3862.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1230.6 cts/s/segment
brightest pixel: 0.020 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T18:09:07, v0.4

7	G160M/161 1-3b (1443999)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=44 13; FP-POS=3	760 Secs (760 Secs) *[==>]*	***[3]***

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G160M_c1611_sed.fits
For exptime=3862.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1230.6 cts/s/segment
brightest pixel: 0.020 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T18:09:07, v0.4

8	G160M/161 1-4 (1443999)	(5) VFTS-66	COS/FUV, TIME-TAG, PSA	G160M 1611 A	BUFFER-TIME=44 13; FP-POS=4	1729 Secs (1729 Secs) *[==>]*	***[3]***

Comments: rn(WM-Basic(O9 V, Z=0.008, Teff=32359, log_lum=5.00, log_g=4.00), johnson B mag=15.640 vegamag); cos,fuv,g160m,c1611,psa,mjd#59305; fp-pos=None, segment=None)
From file LMC_2020Feb20/input/LMC_all_do1_fixed_wr_NewCoords_pids.csv
Spectral type: O9V + B0.2V --> O9 V
SED = VFTS-66_COS_G160M_c1611_sed.fits
For exptime=3862.6 s, spectral region:
1590.0 +- 0.5 A achieves SNR=30.0/resel
global countrate (brightest segment): 1230.6 cts/s/segment
brightest pixel: 0.020 cts/s/pix at 1442.0 A
Calculation performed 2020-02-24T18:09:07, v0.4

Orbit Structure