



16823 - ULLYSES LMC Mid-O Giants - COS and STIS

Cycle: 29, Proposal Category: GO/DD

(Availability Mode: SUPPORTED)

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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>
1C	(1) SK-67D261	COS/FUV	2	10-May-2022 10:00:58.0	yes
1S	(1) SK-67D261 WAVE	STIS/CCD STIS/FUV-MAMA	3	10-May-2022 10:01:00.0	yes

5 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

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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 Å

COS/G130M/c1291: 30 / six-pixel resel at 1150 Å

COS/G160M/c1611: 30 / six-pixel resel at 1590 Å

COS/G185M/c1953: 30 / three-pixel resel at 1860 Å

COS/G185M/c1986: 30 / three-pixel resel at 1980 Å

STIS/E140M/c1425: 20 / two-pixel resel at 1200 Å

STIS/E230M/c1978: 20 / two-pixel resel at 1800 Å

STIS/E230M/c2707: 20 / two-pixel resel at 2800 Å

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	<p>Proposal 16823, SK-67D261-COS (1C)</p> <p>Diagnostic Status: No Diagnostics</p> <p>Scientific Instruments: COS/FUV</p> <p>Special Requirements: SCHED 100%</p> <p><i>Comments: vstatus; 1C; SK-67D261; P/COS approved for submission; P/WVD 10/01/22 ; intrev: complete ; P/AF 27/04/22</i></p> <p><i>vcheck; Enter targ name & Inst. & Resp. Sci.; SK-67D261 'SK -67 261'; COS ; Dixon</i></p> <p><i>vcheck; ETC numbers entered in APT?; YES</i></p> <p><i>vcheck; Any screening violations?; NO</i></p> <p><i>vcheck; S/N ETC calcs done & documented?; YES</i></p> <p><i>vcheck; Field images checked & saved?; YES</i></p> <p><i>vcheck; Selected ACQ strategy?; ACQ/IMAGE 3 sec + FUV PEAKXD 0.1 sec + FUV PEAKD 0.1 sec</i></p> <p><i>vcheck; Possible ACQ or Sci spoilers?; NO</i></p> <p><i>vcheck; Field BOT clear?; Yes. One unknown star (S134207705) on edge of error circle, but Galex image shows that it is faint. Should be OK with BOA.</i></p> <p><i>vcheck; Visual BOT check for stars not in catalog?; Yes</i></p> <p><i>vcheck; Orbit packing finalized?; Yes</i></p> <p><i>vcheck; Buffer times optimized?; Yes</i></p> <p><i>vcheck; Verify visit grouping correct; Yes</i></p> <p><i>vcheck; Is visit ready for int. review?; Yes</i></p> <p><i>Allocated COS orbits = 2</i></p>																																		
	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>SK-67D261</td> <td>RA: 05 45 15.2430 (86.3135125d)</td> <td>Proper Motion RA: 1.659 mas/yr</td> <td>V=12.5</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: SK-67-261</td> <td>Dec: -67 10 18.26 (-67.17174d)</td> <td>Proper Motion Dec: 0.853 mas/yr</td> <td>SpT=O8.5 III; E(B-V)=0.12; U=11.42; B=12.37; V=12.50; F2470=3.040e-13</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Equinox: J2000</td> <td>Parallax: 0"</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Epoch of Position: 2015.5</td> <td></td> <td></td> </tr> </tbody> </table> <p><i>Comments: SK-67D261 : SK -67 261</i></p> <p><i>Previous name : Sk -67 261</i></p> <p><i>Input file: ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv</i></p> <p><i>SpT = O8.5 III</i></p> <p><i>COS/G130M/c1096 : rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdor=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam)</i></p> <p><i>Coordinate pedigree: Gaia DR2</i></p> <p><i>Calculation performed 2021-10-25T01:00:33, v0.9</i></p> <p>-----</p> <p><i>tstatus: SK-67D261; P/COS approved for submission; S/STIS approved for submission; P/WVD 19/04/22; S/TM 14/04/22</i></p> <p><i>tcheck; APT/SIMBAD target names: ; SK -67 261; 2MASS J05451524-671018</i></p> <p><i>tcheck; Target info verification status?; OK</i></p> <p><i>Photometry from Isserstedt (1975, A&AS, 19, 259), FUV flux from STIS</i></p> <p><i>Model PoWR_33000_3.60_m7.00_Z0.50.fits_lmcavg_ebm_v0.12_norm_2470_3.0E-13_sed.fits better reproduces 2200 A bump.</i></p> <p><i>tcheck; Coordinates & P.M. verified, epoch checked?; yes - used coords and PMs given in SNAP 16230 for epoch 2015.5</i></p> <p><i>tcheck; Adopted SED compared to Observations?; Fit is reasonable.</i></p> <p><i>PID 16230 acquired target directly so used their coords and PMs.</i></p> <p><i>Category=STAR</i></p> <p><i>Description=[GIANT O]</i></p> <p><i>Extended=NO</i></p>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	SK-67D261	RA: 05 45 15.2430 (86.3135125d)	Proper Motion RA: 1.659 mas/yr	V=12.5	Reference Frame: ICRS		Alt Name1: SK-67-261	Dec: -67 10 18.26 (-67.17174d)	Proper Motion Dec: 0.853 mas/yr	SpT=O8.5 III; E(B-V)=0.12; U=11.42; B=12.37; V=12.50; F2470=3.040e-13				Equinox: J2000	Parallax: 0"						Epoch of Position: 2015.5	
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Fixed Targets																																			

Proposal 16823 - SK-67D261-COS (1C) - ULLYSES LMC Mid-O Giants - COS and STIS

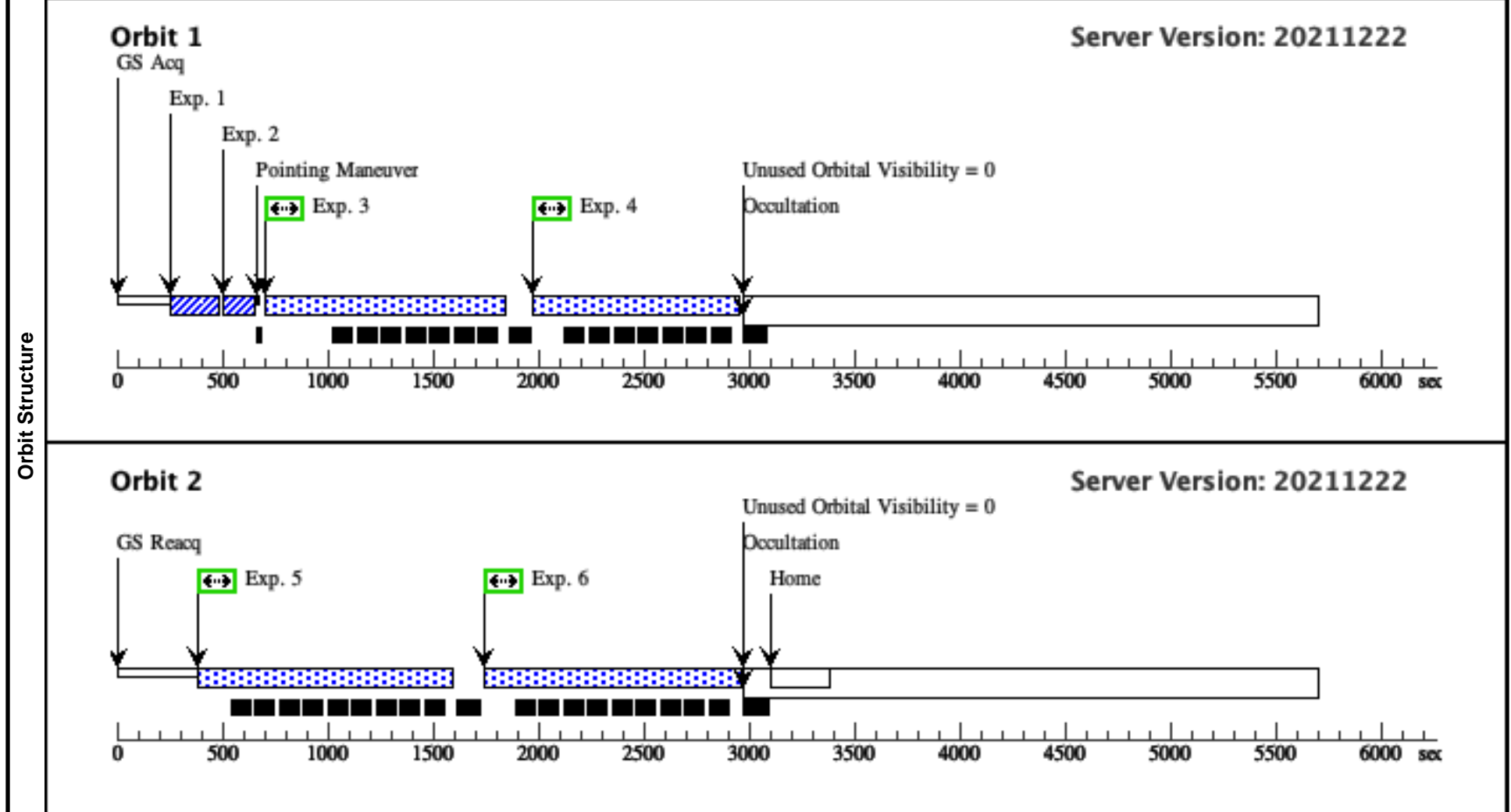
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ/PEAK XD (COS.sa.174 6203)	(1) SK-67D261	COS/FUV, ACQ/PEAKXD, PSA	G160M 1611 A	CENTER=FLUX-W T; NUM-POS=3; STEP-SIZE=1.3			1 Secs (1 Secs) [==>]	[1]
<p><i>Comments: There are two bright stars in the COS macro aperture:</i></p> <p>1) Gaia EDR3 4659457672688251648 is at (offset, PA) = (15.49 arcsec, 91.6 degrees) and has (G, BP-RP) = (15.09, -0.32). The transformations to the Johnson-Cousins system provided in Table C2 of Riello et al. (2021A&A...649A...3R) give $V = G + 0.0541 = 15.14$. Table 10.2 of the COS IHB indicates that an O5 V star fainter than $V=14.7$ is safe for PSA spectroscopy with G130M, while ETC ID COS.sp.1417049 indicates explicitly that the limit with COS G130M/1096 for a hotter, unreddened O3 V star is $V=13.75$. In either case, this star poses no threat to the health and safety of the COS detectors.</p> <p>2) Gaia EDR3 4659451797172287488 is at (offset, PA) = (18.77 arcsec, 268.3 degrees) and has (G, BP-RP) = (13.77, 1.10). Its proper motion (pmRA, pmDEC) = (1.38 mas/yr, 8.48 mas/yr) and red color indicate that it is a foreground object, likely a K2 V dwarf, which poses no threat to the health and safety of the COS detectors.</p>									
2	ACQ/PEAK D (COS.sa.174 6203)	(1) SK-67D261	COS/FUV, ACQ/PEAKD, PSA	G160M 1611 A	CENTER=FLUX-W T-FLR; NUM-POS=5; STEP-SIZE=0.9			1 Secs (1 Secs) [==>]	[1]
3	G130M/109 6/FP-POS1 (1745737)	(1) SK-67D261	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=11 5; FP-POS=1			920 Secs (920 Secs) [==>]	[1]
<p><i>Comments: rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdot=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam); cos.fuv.g130m.c1096.psa.mjd#59670; fp-pos=None, segment=None)</i> <i>From file ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv</i> <i>Spectral type: O8.5 III</i> <i>SED = SK-67D261_COS_G130M_c1096_sed.fits</i> <i>For exptime=2495.5 s, spectral region:</i> <i>1080.0 +- 0.5 A achieves SNR=20.0/resel</i> <i>global countrate (brightest segment): 8853.8 cts/s/segment</i> <i>brightest pixel: 0.197 cts/s/pix at 1227.0 A</i> <i>Calculation performed 2021-10-25T01:00:39, v0.9</i></p>									
4	G130M/109 6/FP-POS2 (1745737)	(1) SK-67D261	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=11 5; FP-POS=2			926 Secs (926 Secs) [==>]	[1]
<p><i>Comments: rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdot=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam); cos.fuv.g130m.c1096.psa.mjd#59670; fp-pos=None, segment=None)</i> <i>From file ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv</i> <i>Spectral type: O8.5 III</i> <i>SED = SK-67D261_COS_G130M_c1096_sed.fits</i> <i>For exptime=2495.5 s, spectral region:</i> <i>1080.0 +- 0.5 A achieves SNR=20.0/resel</i> <i>global countrate (brightest segment): 8853.8 cts/s/segment</i> <i>brightest pixel: 0.197 cts/s/pix at 1227.0 A</i> <i>Calculation performed 2021-10-25T01:00:39, v0.9</i></p>									
5	G130M/109 6/FP-POS3 (1745737)	(1) SK-67D261	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=11 5; FP-POS=3			1160 Secs (1160 Secs) [==>]	[2]
<p><i>Comments: rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdot=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam); cos.fuv.g130m.c1096.psa.mjd#59670; fp-pos=None, segment=None)</i> <i>From file ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv</i> <i>Spectral type: O8.5 III</i> <i>SED = SK-67D261_COS_G130M_c1096_sed.fits</i> <i>For exptime=2495.5 s, spectral region:</i> <i>1080.0 +- 0.5 A achieves SNR=20.0/resel</i> <i>global countrate (brightest segment): 8853.8 cts/s/segment</i> <i>brightest pixel: 0.197 cts/s/pix at 1227.0 A</i> <i>Calculation performed 2021-10-25T01:00:39, v0.9</i></p>									

Exposures

Proposal 16823 - SK-67D261-COS (1C) - ULLYSES LMC Mid-O Giants - COS and STIS

6	G130M/109 6/FP-POS4 (1745737)	(1) SK-67D261	COS/FUV, TIME-TAG, PSA	G130M 1096 A	BUFFER-TIME=11 5; FP-POS=4	1163 Secs (1163 Secs) [==>]	[2]
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Comments: rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdod=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam); cos.fuv.g130m.c1096.psa.mjd#59670; fp-pos=None, segment=None)
 From file ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv
 Spectral type: O8.5 III
 SED = SK-67D261_COS_G130M_c1096_sed.fits
 For exptime=2495.5 s, spectral region:
 1080.0 +- 0.5 A achieves SNR=20.0/resel
 global countrate (brightest segment): 8853.8 cts/s/segment
 brightest pixel: 0.197 cts/s/pix at 1227.0 A
 Calculation performed 2021-10-25T01:00:39, v0.9



Proposal 16823, SK-67D261-STIS (1S)

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD, STIS/FUV-MAMA

Special Requirements: SCHED 100%; GROUP 1S,1C WITHIN 30D

Comments: vstatus; 1S; SK-67D261; S/STIS approved for submission; S/TM 14/04/22 ; intrev: complete ; P/AF 27/04/22
vcheck; Enter targ name & Inst. & Resp. Sci.; SK-67D261 'SK -67 261 ' ; STIS ; TM
vcheck; ETC numbers entered in APT?; completed
vcheck; Any screening violations?; None but ...
No stars returned for GSC2 or Gaia with or without PMs turned on.
vcheck; S/N ETC calcs done & documented?; Yes ...
3 orbits allow for 7196s of science time
STIS.sp.1745774 E140M gives SNR = 19.3 per resel at 1200A, but ETC plots give SNR = 25 per resel
vcheck; Field images checked & saved?; Yes ...
DSS, Gaia, and 2Mass images inspected and saved
Zaritsky catalogs queried for the region and also saved.
The target is the brightest source within a 15" circle
No spoiler stars from Zaritsky or Gaia catalogs seen for screening or target ACQ.
vcheck; Selected ACQ strategy?; STIS F28X50LP 0.1s ...
The E140M SED doesn't go redward enough to cover the F28X50LP bandpass. Even with partial bandpass coverage, the minimum exptime of 0.1s is needed. STIS.ta.1745037
Use a Pickles O8III model normalized to V=12.4 for the final calculation: STIS.ta.1745038
Reclaimed 96s back for science exposures.
vcheck; Possible ACQ or Sci spoilers?; No ...
Inspected the field (see above). Target is brightest object in optical bands, and all images and catalogs inspected.
vcheck; Field BOT clear?; Yes, but ...
No stars returned for GSC2 or Gaia with or without PMs turned on.
vcheck; Visual BOT check for stars not in catalog?; Ok ...
DSS, Gaia, and 2Mass images inspected
Zaritsky and Gaia catalogs queried for the region - no objects brighter than target in any band.
No spoiler stars from Zaritsky or Gaia catalogs seen
vcheck; Orbit packing finalized?; 3 orbits used
vcheck; Buffer times optimized?; Yes, times updated for revised SED.
vcheck; Verify visit grouping correct; Group within 30 days added for 1C and 1S
vcheck; Is visit ready for int. review?; Yes, AF sent updated SED with E(B-V) of 0.12
Allocated STIS orbits = 3

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SK-67D261	RA: 05 45 15.2430 (86.3135125d)	Proper Motion RA: 1.659 mas/yr	V=12.5	Reference Frame: ICRS
	Alt Name1: SK-67-261	Dec: -67 10 18.26 (-67.17174d)	Proper Motion Dec: 0.853 mas/yr	SpT=O8.5 III; E(B-V)=0.12; U=11.42; B=12.37; V=12.50; F2470=3.040e-13	
		Equinox: J2000	Parallax: 0"		
			Epoch of Position: 2015.5		
<p><i>Comments: SK-67D261 : SK -67 261</i> <i>Previous name : Sk -67 261</i> <i>Input file: ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv</i> <i>SpT = O8.5 III</i> <i>COS/G130M/c1096 : rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdots=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam)</i> <i>Coordinate pedigree: Gaia DR2</i> <i>Calculation performed 2021-10-25T01:00:33, v0.9</i></p> <hr/> <p><i>tstatus; SK-67D261; P/COS approved for submission; S/STIS approved for submission; P/WVD 19/04/22; S/TM 14/04/22</i> <i>tcheck; APT/SIMBAD target names: ; SK -67 261; 2MASS J05451524-671018</i> <i>tcheck; Target info verification status?; OK</i> <i>Photometry from Isserstedt (1975, A&AS, 19, 259), FUV flux from STIS</i> <i>Model PoWR_33000_3.60_m7.00_Z0.50.fits_lmcavg_ebm_v.0.12_norm_2470_3.0E-13_sed.fits better reproduces 2200 A bump.</i> <i>tcheck; Coordinates & P.M. verified, epoch checked?; yes - used coords and PMs given in SNAP 16230 for epoch 2015.5</i> <i>tcheck; Adopted SED compared to Observations?; Fit is reasonable.</i> <i>PID 16230 acquired target directly so used their coords and PMs.</i> <i>Category=STAR</i> <i>Description=[GIANT O]</i> <i>Extended=NO</i></p>					

Proposal 16823 - SK-67D261-STIS (1S) - ULLYSES LMC Mid-O Giants - COS and STIS

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ (STIS.ta.174 5038)	(1) SK-67D261	STIS/CCD, ACQ, F28X50LP	MIRROR				0.1 Secs (0.1 Secs) [==>]	[1]
<p><i>Comments: Used Pickles O8III model normalized to V=12.4 for the above calculation.</i></p> <p><i>The science SED adopted only has partial overlap with the STIS 50LP filter for the target ACQ, but the time needed to get to SNR = 40 is also less than the 0.1 s minimum needed for the shutter anyway</i></p> <p>https://etc.stsci.edu/etc/results/STIS.ta.1745037/</p>									
2	E140M/142 5 (STIS.sp.17 45774)	(1) SK-67D261	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=27 4			2196 Secs (2196 Secs) [==>]	[1]
<p><i>Comments: rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdodot=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam); stis.fuvmama,e140m,c1425,0.2x0.2,mjd#59670</i></p> <p><i>From file ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv</i></p> <p><i>Spectral type: O8.5 III</i></p> <p><i>SED = SK-67D261_STIS_E140M_c1425_sed.fits</i></p> <p><i>For exptime=7148.2 s, spectral region:</i></p> <p><i>1200.0 +- 0.5 A achieves SNR=20.0/resel</i></p> <p><i>global countrate (brightest segment): 4543.1 cts/s/segment</i></p> <p><i>brightest pixel: 0.052 cts/s/pix at 1344.5 A</i></p> <p><i>Calculation performed 2021-10-25T01:00:41, v0.9</i></p>									
3	E140M/142 5 WAVECA L	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				[==>]	[1]
4	E140M/142 5 (STIS.sp.17 45774)	(1) SK-67D261	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=27 4			2548 Secs (2548 Secs) [==>]	[2]
<p><i>Comments: rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdodot=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam); stis.fuvmama,e140m,c1425,0.2x0.2,mjd#59670</i></p> <p><i>From file ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv</i></p> <p><i>Spectral type: O8.5 III</i></p> <p><i>SED = SK-67D261_STIS_E140M_c1425_sed.fits</i></p> <p><i>For exptime=7148.2 s, spectral region:</i></p> <p><i>1200.0 +- 0.5 A achieves SNR=20.0/resel</i></p> <p><i>global countrate (brightest segment): 4543.1 cts/s/segment</i></p> <p><i>brightest pixel: 0.052 cts/s/pix at 1344.5 A</i></p> <p><i>Calculation performed 2021-10-25T01:00:41, v0.9</i></p>									
5	E140M/142 5 WAVECA L	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				[==>]	[2]
6	E140M/142 5 (STIS.sp.17 45774)	(1) SK-67D261	STIS/FUV-MAMA, TIME-TAG, 0.2X0.2	E140M 1425 A	WAVECAL=NO; BUFFER-TIME=27 4			2548 Secs (2548 Secs) [==>]	[3]
<p><i>Comments: rn(PoWR-OB-new(PoWR_33000_3.60_m7.00_Z0.50.fits, lmc-ob-i 33-36, Z=0.500 solar, Teff=33000, log_lum=5.32, log_g=3.60, log_mdodot=-7.00) (extinction lmcavg=0.160), flux1700 +- 2.0A flux=5e-13 Flam); stis.fuvmama,e140m,c1425,0.2x0.2,mjd#59670</i></p> <p><i>From file ULLYSES_Cycle29_MassiveStar_ProgramInput_v5.csv</i></p> <p><i>Spectral type: O8.5 III</i></p> <p><i>SED = SK-67D261_STIS_E140M_c1425_sed.fits</i></p> <p><i>For exptime=7148.2 s, spectral region:</i></p> <p><i>1200.0 +- 0.5 A achieves SNR=20.0/resel</i></p> <p><i>global countrate (brightest segment): 4543.1 cts/s/segment</i></p> <p><i>brightest pixel: 0.052 cts/s/pix at 1344.5 A</i></p> <p><i>Calculation performed 2021-10-25T01:00:41, v0.9</i></p>									
7	E140M/142 5 WAVECA L	WAVE	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				[==>]	[3]

Exposures

