

Table 1a: Mean and pivot wavelengths (in microns) and synthetic mean fluxes $\langle F_\nu \rangle$ (in Jy) for SOFIA/FORCAST standard stars observed in single (non-dichroic) mode for OC2

Filter	FOR_F054	FOR_F056	FOR_F064	FOR_F066	FOR_F077	FOR_F086	FOR_F111	FOR_F113	FOR_F118	FOR_F197	FOR_F242	FOR_F253	FOR_F254	FOR_F315	FOR_F336	FOR_F348	FOR_F371
$\langle \lambda \rangle$	5.356	5.610	6.348	6.614	7.702	8.605	11.089	11.342	11.730	19.670	24.919	25.242	25.408	31.383	33.431	34.678	37.112
λ_{pivot}	5.356	5.610	6.348	6.614	7.700	8.605	11.085	11.342	11.727	19.590	24.868	25.234	25.400	31.309	33.381	34.620	37.056
α Boo	2144.440	2026.170	1687.080	1575.940	1165.690	936.280	591.426	564.323	529.916	203.744	123.369	118.247	116.749	79.414	68.923	64.126	56.084
α Cet	636.233	607.894	515.708	480.620	338.265	264.856	180.483	172.948	162.820	63.276	38.557	36.970	36.506	24.877	21.624	20.125	17.612
α CMa	491.682	451.187	353.169	328.388	244.203	197.682	120.562	114.982	107.848	40.892	24.485	23.447	23.144	15.647	13.525	12.568	10.963
α Tau	1884.410	1791.920	1509.150	1400.570	1005.820	794.982	525.762	502.886	472.846	183.484	111.682	107.080	105.735	72.035	62.585	58.243	50.963
β And	746.682	710.059	597.042	557.464	395.267	310.628	208.616	199.771	187.986	72.794	44.266	42.439	41.905	28.542	24.800	23.081	20.196
β Gem	366.887	338.896	281.042	264.417	194.396	156.853	97.208	92.431	86.952	33.210	19.941	19.100	18.855	12.771	11.060	10.282	8.979
β Peg	1097.040	1047.170	889.351	825.496	582.241	455.768	312.334	299.454	282.124	110.326	67.410	64.651	63.843	43.546	37.871	35.251	30.855
β UMi	443.023	420.607	352.886	329.703	238.718	189.521	123.153	117.665	110.534	42.496	25.751	24.682	24.370	16.575	14.388	13.387	11.707
γ Dra	444.672	422.045	353.679	330.272	235.983	186.374	123.505	118.154	111.088	42.887	26.041	24.964	24.649	16.781	14.576	13.564	11.866
μ UMa	255.272	250.048	218.284	203.944	139.164	110.929	78.875	75.582	70.929	26.927	16.252	15.571	15.372	10.404	9.028	8.395	7.334
σ Lib	632.484	580.940	462.491	428.604	322.901	261.616	161.954	154.657	145.316	56.374	34.213	32.803	32.389	22.075	19.162	17.835	15.603

Table 1b: Mean and pivot wavelengths (in microns) and synthetic mean fluxes $\langle F_\nu \rangle$ (in Jy) for SOFIA/FORCAST standard stars observed in dual (dichroic) mode for OC2

Filter	FOR_F054	FOR_F056	FOR_F064	FOR_F066	FOR_F077	FOR_F086	FOR_F111	FOR_F113	FOR_F118	FOR_F197	FOR_F242	FOR_F253	FOR_F254	FOR_F315	FOR_F336	FOR_F348	FOR_F371
$\langle \lambda \rangle$	5.363	5.614	6.351	6.621	7.723	8.653	11.010	11.305	11.831	19.670	27.679	25.242	26.250	31.360	33.568	34.642	36.981
λ_{pivot}	5.363	5.614	6.351	6.620	7.721	8.653	11.007	11.305	11.829	19.590	27.654	25.234	26.242	31.303	33.553	34.603	36.947
α Boo	2140.610	2024.130	1685.770	1573.160	1156.920	926.232	599.211	567.862	521.010	203.744	99.186	118.247	109.458	78.159	67.355	63.684	55.845
α Cet	635.231	607.295	515.338	479.973	334.239	262.560	182.665	173.974	160.191	63.276	31.053	36.970	34.246	24.506	21.138	19.990	17.540
α CMa	490.483	450.449	353.059	327.574	243.147	195.542	122.191	115.717	106.024	40.892	19.600	23.447	21.668	15.376	13.208	12.477	10.911
α Tau	1881.270	1790.100	1508.010	1398.950	995.599	787.782	532.378	505.939	465.121	183.484	89.921	107.080	99.177	70.938	61.174	57.849	50.753
β And	745.435	709.336	596.605	556.571	390.879	307.817	211.172	200.965	184.918	72.794	35.632	42.439	39.303	28.109	24.241	22.924	20.112
β Gem	366.088	338.546	280.953	263.703	193.401	155.080	98.561	93.004	85.525	33.210	15.984	19.100	17.660	12.560	10.803	10.209	8.938
β Peg	1095.280	1046.140	888.707	824.711	575.367	452.028	316.070	301.204	277.643	110.326	54.336	64.651	59.903	42.907	37.024	35.016	30.732
β UMi	442.275	420.181	352.624	329.135	236.490	187.652	124.734	118.398	108.689	42.496	20.705	24.682	22.849	16.317	14.061	13.295	11.658
γ Dra	443.909	421.617	353.414	329.722	233.534	184.610	125.050	118.875	109.254	42.887	20.953	24.964	23.115	16.523	14.246	13.471	11.817
μ UMa	255.154	249.932	218.173	203.654	137.277	109.701	79.855	76.162	69.620	26.927	13.036	15.571	14.401	10.249	8.820	8.337	7.303
σ Lib	630.909	580.224	462.083	427.924	321.254	258.882	164.085	155.622	142.930	56.374	27.536	32.803	30.372	21.721	18.728	17.713	15.537

For most of the standard stars, the adopted stellar models were obtained from the Herschel calibration group and consist of high-resolution theoretical spectra, generated from the MARCS models (Gustafsson et al. 1975, Plez et al. 1992), scaled to match absolutely calibrated observational fluxes (Dehaes et al. 2011). For β UMi we scaled the model by a factor of 1.18 in agreement with the results of the Herschel calibration group (J. Blommaert, private communication). (The newer version of the model from the Herschel group has incorporated this factor.) For β Gem and μ UMa, we used the Cohen et al. (1996) models, extended with an Engelke (1992) function and the parameters given by Cohen et al. (1996) to cover the entire FORCAST wavelength range.

The synthetic fluxes will be updated based on observations calibrated against α Boo. It should be noted that many of these stars are known to be variable to some extent. For example, β Peg is known to exhibit variability on the order of 8%.

References:

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