Name	RA	dec	1	b	Vmag	phase	exptime	airmass	Dist	P	A
HAC211	314.36135	-7.03973	41.49344	-31.1594	$\frac{v mag}{16.43}$	0.14	600	1.59	15.6	0.801	$\frac{\Lambda}{0.43}$
HAC197	328.27928	-5.43077	51.82145	-42.39367	16.43 16.67	0.72	900	1.67	15.0 15.14	0.653	0.43 0.57
HAC59	313.43136	-12.531	35.20078	-32.73917	16.67	0.12	900	1.48	16.07	0.533	0.81
HAC37	311.80518	-12.331	36.01366	-32.73917	16.96	$0.9 \\ 0.71$	900	1.43 1.37	15.31	0.344 0.459	1.27
HAC37	311.80518	-11.03594	36.01366	-30.66769	16.90	$0.71 \\ 0.74$	900	1.36	15.31 15.31	0.459 0.459	1.27 1.27
HAC152	322.18518	1.42297	54.83901	-33.53958	16.9 16.77	$0.74 \\ 0.84$	900	1.36 1.16	16.31		0.77
	310.08093						900			0.555	1.12
HAC22		-6.16099	40.14295	-26.98093	16.39	0.24		1.35	15.69	0.585	0.62
HAC27	310.68446	-15.87233	30.32843	-31.62062	16.77	0.72	900	1.71	15.99	0.603	
HAC186	326.30781	-8.3674	47.05562	-42.2127	15.95	0.01	900	1.41	16.29	0.52	1.14
HAC91	315.92048	-13.01857	35.86773	-35.15256	16.51	0.35	900	1.93	15.84	0.679	0.76
HAC195	327.91451	-11.23821	44.60131	-44.96772	16.53	0.48	900	1.74	15.34	0.648	0.45
HAC26	310.57618	-9.67024	36.8368	-28.98934	16.75	0.72	900	1.78	15.37	0.531	0.96
HAC131	319.4763	-0.2823	51.36976	-32.214	16.66	0.27	450	1.51	17.11	0.649	0.35
HAC131	319.4763	-0.2823	51.36976	-32.214	16.67	0.28	450	1.47	17.11	0.649	0.35
HAC131	319.4763	-0.2823	51.36976	-32.214	16.68	0.3	450	1.39	17.11	0.649	0.35
HAC210	313.59387	-14.34826	33.29068	-33.61768	16.68	0.52	450	1.53	15.53	0.528	1.11
HAC210	313.59387	-14.34826	33.29068	-33.61768	16.67	0.53	450	1.51	15.53	0.528	1.11
HAC11	307.86799	-9.80557	35.39314	-26.6414	16.29	0.15	450	1.34	15.66	0.536	0.93
HAC11	307.86799	-9.80557	35.39314	-26.6414	16.29	0.16	450	1.34	15.66	0.536	0.93
HAC211	314.36135	-7.03973	41.49344	-31.1594	16.58	0.49	450	1.29	15.6	0.801	0.43
HAC211	314.36135	-7.03973	41.49344	-31.1594	16.59	0.5	450	1.28	15.6	0.801	0.43
HAC177	324.46875	-2.25112	52.63863	-37.47742	16.63	0.51	450	1.21	15.56	0.582	0.57
HAC177	324.46875	-2.25112	52.63863	-37.47742	16.63	0.52	450	1.21	15.56	0.582	0.57
HAC9	307.70441	-5.50855	39.5795	-24.58141	16.03	0.02	450	1.33	15.34	0.557	0.8
HAC9	307.70441	-5.50855	39.5795	-24.58141	16.04	0.03	450	1.35	15.34	0.557	0.8
HAC195	327.91451	-11.23821	44.60131	-44.96772	16.38	0.88	450	1.37	15.34	0.648	0.45
HAC195	327.91451	-11.23821	44.60131	-44.96772	16.36	0.89	450	1.38	15.34	0.648	0.45
HAC96	316.75254	-0.66449	49.3097	-30.10272	16.09	0.96	450	1.29	15.23	0.528	0.78
HAC96	316.75254	-0.66449	49.3097	-30.10272	16.07	0.98	450	1.31	15.23	0.528	0.78
HAC105	317.27205	-4.57895	45.66512	-32.5321	16.42	0.04	450	1.43	15.31	0.661	0.51
HAC105	317.27205	-4.57895	45.66512	-32.5321	16.43	0.05	450	1.46	15.31	0.661	0.51
HAC102	317.12882	-13.48412	35.93483	-36.41633	16.24	0.1	450	1.81	15.31	0.708	0.76
HAC102	317.12882	-13.48412	35.93483	-36.41633	16.26	0.1	450	1.87	15.31	0.708	0.76
HAC145	321.3978	-8.28595	44.10414	-37.90989	16.15	0.05	450	1.71	15.55	0.541	0.87
HAC145	321.3978	-8.28595	44.10414	-37.90989	16.19	0.06	450	1.77	15.55	0.541	0.87
HAC145	321.3978	-8.28595	44.10414	-37.90989	16.24	0.07	450	1.84	15.55	0.541	0.87
HAC51	313.10546	6.25013	53.67419	-23.32784	16.97	0.51	450	1.47	16.88	0.539	1.01
HAC51	313.10546	6.25013	53.67419	-23.32784	16.98	0.52	450	1.42	16.88	0.539	1.01
HAC51	313.10546	6.25013	53.67419	-23.32784	16.99	0.53	450	1.38	16.88	0.539	1.01
HAC45	312.37313	2.30484	49.59385	-24.81836	16.93	0.87	450	1.34	16.17	0.496	0.88
HAC45	312.37313	2.30484	49.59385	-24.81836	16.86	0.88	450	1.31	16.17	0.496	0.88
HAC52	313.17598	-1.16474	46.73454	-27.28526	17.09	0.75	450	1.31	17.1	0.527	1.04
HAC52	313.17598	-1.16474	46.73454	-27.28526	17.09	0.76	450	1.29	17.1	0.527	1.04
HAC52	313.17598	-1.16474	46.73454	-27.28526	17.11	0.78	600	1.27	17.1	0.527	1.04
HAC42	312.10736	-3.83914	43.51794	-27.67096	16.76	0.56	450	1.26	16.24	0.643	0.6
HAC42	312.10736	-3.83914	43.51794	-27.67096	16.76	0.57	450	1.25	16.24	0.643	0.6
HAC156	322.51882	-9.56508	43.31414	-39.48549	16.8	0.77	450	1.39	16.21	0.558	1.0

HAC156	322.51882	-9.56508	43.31414	-39.48549	16.81	0.78	450	1.37	16.21	0.558	1.0
HAC156	322.51882	-9.56508	43.31414	-39.48549	16.84	0.79	450	1.35	16.21	0.558	1.0
HAC198	329.40955	-4.6055	53.59353	-42.8934	16.67	0.01	450	1.27	18.74	0.587	0.71
HAC61	313.45347	-12.61245	35.1231	-32.7924	16.28	0.01	450	1.42	15.87	0.603	0.6
HAC61	313.45347	-12.61245	35.1231	-32.7924	16.3	0.02	10	1.44	15.87	0.603	0.6
HAC61	313.45347	-12.61245	35.1231	-32.7924	16.31	0.03	10	1.45	15.87	0.603	0.6
HAC61	313.45347	-12.61245	35.1231	-32.7924	16.33	0.04	10	1.46	15.87	0.603	0.6
HAC204	308.08516	-13.8239	31.37038	-28.50692	16.82	0.46	450	1.9	17.74	0.668	0.59
HAC204	308.08516	-13.8239	31.37038	-28.50692	16.81	0.47	450	1.84	17.74	0.668	0.59
HAC94	316.71384	-0.80928	49.14343	-30.14492	15.98	0.99	450	1.53	15.71	0.543	1.03
HAC94	316.71384	-0.80928	49.14343	-30.14492	15.97	1.0	450	1.49	15.71	0.543	1.03
HAC94	316.71384	-0.80928	49.14343	-30.14492	15.98	0.01	450	1.44	15.71	0.543	1.03
HAC191	327.28944	-5.09963	51.49296	-41.38303	17.28	0.84	450	1.67	18.04	0.47	1.19
HAC191	327.28944	-5.09963	51.49296	-41.38303	17.3	0.85	450	1.62	18.04	0.47	1.19
HAC191	327.28944	-5.09963	51.49296	-41.38303	17.29	0.86	450	1.57	18.04	0.47	1.19
HAC194	327.83597	-3.85225	53.28148	-41.1682	16.8	0.87	450	1.44	17.64	0.522	0.76
HAC194	327.83597	-3.85225	53.28148	-41.1682	16.78	0.88	450	1.41	17.64	0.522	0.76
HAC194	327.83597	-3.85225	53.28148	-41.1682	16.73	0.9	450	1.35	17.64	0.522	0.76
HAC218	318.61569	-16.31775	33.34844	-38.84531	16.61	0.5	450	1.53	15.2	0.647	0.48
HAC218	318.61569	-16.31775	33.34844	-38.84531	16.61	0.5	450	1.52	15.2	0.647	0.48
HAC21	310.07065	-6.35172	39.94747	-27.0594	16.15	0.03	450	1.28	15.29	0.63	0.41
HAC21	310.07065	-6.35172	39.94747	-27.0594	16.16	0.04	450	1.29	15.29	0.63	0.41
HAC208	311.80133	-9.3492	37.77421	-29.93642	17.07	0.51	450	1.36	18.12	0.587	0.99
HAC208	311.80133	-9.3492	37.77421	-29.93642	17.08	0.52	450	1.37	18.12	0.587	0.99
HAC166	323.06172	-12.1824	40.55315	-41.12951	16.43	0.03	450	1.41	16.58	0.505	0.42
HAC166	323.06172	-12.1824	40.55315	-41.12951	16.44	0.04	450	1.42	16.58	0.505	0.42
HAC166	323.06172	-12.1824	40.55315	-41.12951	16.46	0.05	450	1.43	16.58	0.505	0.42
HAC154	322.21505	-16.21559	35.17795	-42.00935	16.45	0.15	450	1.59	16.33	0.605	0.55
HAC154	322.21505	-16.21559	35.17795	-42.00935	16.47	0.16	450	1.61	16.33	0.605	0.55
HAC120	318.7191	-16.0923	33.66462	-38.85265	16.55	0.13	450	1.72	15.87	0.634	0.4
HAC120	318.7191	-16.0923	33.66462	-38.85265	16.56	0.14	450	1.78	15.87	0.634	0.4
HAC121	318.75783	-1.94396	49.25027	-32.48041	16.28	0.05	450	1.46	16.49	0.49	0.69
HAC121	318.75783	-1.94396	49.25027	-32.48041	16.3	0.06	450	1.5	16.49	0.49	0.69
HAC197	328.27928	-5.43077	51.82145	-42.39367	16.61	0.61	450	1.49	15.14	0.653	0.57
HAC197	328.27928	-5.43077	51.82145	-42.39367	16.61	0.62	450	1.53	15.14	0.653	0.57
HAC187	326.84268	-2.69905	53.8274	-39.70512	16.87	0.67	450	1.6	16.34	0.572	0.77
HAC187	326.84268	-2.69905	53.8274	-39.70512	16.86	0.68	450	1.65	16.34	0.572	0.77
HAC187	326.84268	-2.69905	53.8274	-39.70512	16.84	0.69	450	1.71	16.34	0.572	0.77
HAC189	327.16776	-3.46159	53.23007	-40.39633	16.51	0.32	450	1.86	15.36	0.586	0.51
HAC189	327.16776	-3.46159	53.23007	-40.39633	16.52	0.33	450	1.95	15.36	0.586	0.51
HAC169	323.5458	-2.16656	52.10029	-36.65693	16.98	0.48	450	2.33	17.64	0.453	1.11
HAC169	323.5458	-2.16656	52.10029	-36.65693	16.99	0.5	450	2.48	17.64	0.453	1.11
HAC169	323.5458	-2.16656	52.10029	-36.65693	17.02	0.51	450	2.68	17.64	0.453	1.11
HAC31	311.52711	-0.13406	46.80289	-25.34183	16.72	0.2	450	1.48	18.22	0.477	1.24
HAC31	311.52711	-0.13406	46.80289	-25.34183	16.77	0.21	450	1.45	18.22	0.477	1.24
HAC31	311.52711	-0.13406	46.80289	-25.34183	16.82	0.23	450	1.4	18.22	0.477	1.24
HAC48	312.84083	7.18982	54.37092	-22.59263	17.0	0.52	450	1.26	17.84	0.594	0.99
HAC48	312.84083	7.18982	54.37092	-22.59263	17.0	0.53	450	1.24	17.84	0.594	0.99
HAC48	312.84083	7.18982	54.37092	-22.59263	17.0	0.54	450	1.22	17.84	0.594	0.99

HAC115	318.28816	3.53046	54.32629	-29.13429	16.89	0.38	450	1.27	17.02	0.455	0.85
HAC115	318.28816	3.53046	54.32629	-29.13429	16.9	0.39	450	1.25	17.02	0.455	0.85
HAC115	318.28816	3.53046	54.32629	-29.13429	16.91	0.4	450	1.23	17.02	0.455	0.85
HAC60	313.45038	-4.65741	43.43225	-29.23865	16.72	0.23	450	1.29	16.21	0.457	1.25
HAC60	313.45038	-4.65741	43.43225	-29.23865	16.74	0.24	450	1.28	16.21	0.457	1.25
HAC158	322.53194	-5.97973	47.34938	-37.77614	16.96	0.46	450	1.33	17.27	0.648	0.51
HAC158	322.53194	-5.97973	47.34938	-37.77614	16.97	0.47	450	1.32	17.27	0.648	0.51
HAC113	317.98465	-8.54458	41.87029	-35.03898	17.37	0.69	450	1.32	17.6	0.603	1.03
HAC113	317.98465	-8.54458	41.87029	-35.03898	17.37	0.7	450	1.32	17.6	0.603	1.03
HAC71	314.59096	-2.89353	45.83456	-29.37351	16.6	0.12	450	1.22	17.4	0.483	0.98
HAC71	314.59096	-2.89353	45.83456	-29.37351	16.62	0.13	450	1.22	17.4	0.483	0.98
HAC71	314.59096	-2.89353	45.83456	-29.37351	16.64	0.14	450	1.23	17.4	0.483	0.98
HAC76	314.84845	-12.5544	35.85911	-34.00872	16.68	0.3	450	1.43	17.54	0.532	0.86
HAC76	314.84845	-12.5544	35.85911	-34.00872	16.69	0.31	450	1.45	17.54	0.532	0.86
HAC87	315.37609	-11.18742	37.61617	-33.90286	17.06	0.67	450	1.44	16.91	0.487	0.75
HAC87	315.37609	-11.18742	37.61617	-33.90286	17.07	0.68	450	1.46	16.91	0.487	0.75
HAC87	315.37609	-11.18742	37.61617	-33.90286	17.07	0.7	450	1.48	16.91	0.487	0.75
HAC47	312.51776	-8.409	39.11017	-30.15475	16.9	0.22	450	1.5	17.5	0.485	0.87
HAC47	312.51776	-8.409	39.11017	-30.15475	16.91	0.23	450	1.54	17.5	0.485	0.87
HAC47	312.51776	-8.409	39.11017	-30.15475	16.93	0.24	450	1.57	17.5	0.485	0.87
HAC163	322.84445	-10.13548	42.84534	-40.03175	16.66	0.26	450	1.52	17.47	0.533	1.05
HAC163	322.84445	-10.13548	42.84534	-40.03175	16.67	0.27	450	1.55	17.47	0.533	1.05
HAC126	319.16495	-5.06297	46.27468	-34.41187	16.8	0.26	450	1.56	16.99	0.605	0.83
HAC126	319.16495	-5.06297	46.27468	-34.41187	16.81	0.27	450	1.61	16.99	0.605	0.83
HAC126	319.16495	-5.06297	46.27468	-34.41187	16.82	0.28	450	1.66	16.99	0.605	0.83
HAC80	315.03626	0.45058	49.37646	-28.05687	17.01	0.4	450	1.77	17.32	0.466	1.18
HAC80	315.03626	0.45058	49.37646	-28.05687	17.01	0.41	450	1.84	17.32	0.466	1.18
HAC169	323.5458	-2.16656	52.10029	-36.65693	17.1	0.62	300	1.76	17.64	0.453	1.11
HAC169	323.5458	-2.16656	52.10029	-36.65693	17.1	0.62	300	1.81	17.64	0.453	1.11
HAC82	315.17549	3.07673	51.9687	-26.78331	16.73	0.24	450	2.23	17.02	0.687	0.76
HAC82	315.17549	3.07673	51.9687	-26.78331	16.75	0.25	450	2.37	17.02	0.687	0.76
HAC82	315.17549	3.07673	51.9687	-26.78331	16.76	0.25	450	2.53	17.02	0.687	0.76
HAC143	308.08516	-13.8239	31.37038	-28.50692	16.74	0.87	450	1.88	17.74	0.668	0.59
HAC143	308.08516	-13.8239	31.37038	-28.50692	16.7	0.88	450	1.98	17.74	0.668	0.59
HAC143	308.08516	-13.8239	31.37038	-28.50692	16.68	0.89	450	2.08	17.74	0.668	0.59