

Table 1. Conroy Cool Dwarf Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-12 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex (0.15 dex for C). The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I ₀	C	N	Mg	Fe	Ca	Na	Si	Cr	Ti	[M/H]
Hδ _A	Å	-10.483	-0.603	-0.071	0.888	-4.021	0.688	0.189	1.580	0.160	-0.367	-0.754
Hδ _F	Å	-1.726	-0.046	-0.013	0.141	-1.638	0.448	0.009	1.295	-0.073	-0.319	-0.471
CN ₁	mag	0.160	0.056	0.039	-0.022	-0.014	-0.017	-0.006	0.069	-0.021	0.001	0.014
CN ₂	mag	0.342	0.058	0.038	-0.042	-0.026	-0.024	-0.011	0.115	-0.021	0.000	0.015
Ca4227	Å	6.548	-0.314	-0.099	0.053	-0.114	0.882	-0.004	-0.235	-0.072	-0.036	0.479
G4300	Å	7.876	1.097	0.040	-0.056	-0.843	0.210	-0.068	-0.248	-0.018	0.509	-0.191
Hγ _A	Å	-13.117	-0.300	-0.069	0.769	-1.005	-0.011	0.192	-0.075	0.392	-0.527	-0.306
Hγ _F	Å	-5.055	-0.413	-0.023	0.265	-0.172	-0.143	0.094	-0.174	0.257	-0.046	0.007
Fe4383	Å	10.127	-0.058	0.002	-0.749	1.877	-0.428	-0.108	-0.014	0.014	-0.040	0.641
Ca4455	Å	3.973	-0.060	-0.003	-0.101	-0.146	0.266	-0.026	-0.136	0.157	0.105	0.467
Fe4531	Å	6.929	0.048	0.014	-0.556	0.259	-0.256	-0.079	0.080	0.247	0.981	0.652
C ₂ 4668	Å	-0.105	0.892	0.008	-0.652	0.143	0.128	0.027	-0.192	-0.345	0.268	-0.054
Hβ	Å	-0.781	-0.100	0.007	-0.494	0.304	-0.021	0.046	0.046	-0.080	0.057	-0.116
Fe5015	Å	10.973	0.061	0.034	-1.122	1.138	-0.007	0.009	-0.089	0.049	1.310	1.424
Mg ₁	mag	0.424	0.008	0.001	0.090	-0.033	-0.018	-0.014	-0.009	-0.005	-0.007	0.023
Mg ₂	mag	0.592	0.008	0.002	0.082	-0.028	-0.014	-0.013	-0.007	-0.006	0.002	0.033
Mg _b	Å	4.622	0.128	0.027	0.821	-0.369	0.057	-0.045	0.007	-0.401	-0.098	0.104
Fe5270	Å	5.805	0.036	0.015	-0.500	0.765	0.222	-0.079	-0.025	-0.012	0.104	0.408
Fe5335	Å	6.349	0.019	0.011	-0.489	1.058	-0.089	-0.109	-0.037	0.337	0.029	0.767
Fe5406	Å	4.448	0.021	0.010	-0.385	0.697	-0.096	-0.076	-0.049	0.243	0.022	0.439
Fe5709	Å	1.502	0.003	0.000	-0.093	0.231	-0.003	-0.092	-0.001	0.068	0.080	0.230
Fe5782	Å	1.255	0.007	0.001	-0.003	-0.012	-0.017	-0.011	-0.004	0.361	-0.031	0.305
Na _D	Å	7.142	0.053	0.019	-0.374	-0.139	-0.171	1.894	-0.080	0.018	-0.126	1.077
TiO ₁	mag	0.013	-0.001	0.000	-0.001	0.000	-0.001	0.000	0.000	0.001	0.005	0.006
TiO ₂	mag	0.026	-0.001	0.000	-0.002	0.005	-0.007	0.000	0.000	0.000	0.005	0.010

Table 2. Conroy Cool Giant Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-12 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex (0.15 dex for C). The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I ₀	C	N	Mg	Fe	Ca	Na	Si	Cr	Ti	[M/H]
Hδ _A	Å	-11.954	-0.494	0.180	0.320	-3.895	0.104	0.021	1.584	0.119	-0.394	-1.770
Hδ _F	Å	-3.788	-0.141	-0.013	-0.012	-1.746	0.076	-0.009	1.170	-0.111	-0.321	-1.334
CN ₁	mag	0.356	0.105	0.087	-0.037	-0.031	-0.009	-0.005	0.042	-0.015	-0.001	0.035
CN ₂	mag	0.476	0.106	0.088	-0.050	-0.045	-0.012	-0.006	0.080	-0.016	-0.003	0.032
Ca4227	Å	5.205	-0.288	-0.171	0.025	0.051	1.825	0.021	0.082	-0.045	-0.122	1.440
G4300	Å	9.197	0.752	0.088	-0.073	-0.614	0.126	-0.060	-0.113	-0.193	0.259	-0.351
Hγ _A	Å	-12.170	0.435	-0.175	0.339	-1.022	-0.068	0.117	-0.342	-0.065	-0.221	-0.708
Hγ _F	Å	-4.486	-0.250	-0.054	0.134	-0.246	-0.074	0.062	-0.166	-0.092	0.041	-0.380
Fe4383	Å	8.905	-0.513	-0.103	-0.417	1.620	-0.117	-0.013	0.086	0.070	0.080	0.640
Ca4455	Å	3.503	-0.081	-0.038	0.004	-0.127	0.135	0.001	-0.085	0.215	0.086	0.396
Fe4531	Å	6.237	0.068	0.076	-0.260	0.310	-0.177	-0.006	0.105	0.170	0.584	0.814
C ₂ 4668	Å	3.591	3.518	0.030	-0.766	-0.424	-0.010	-0.106	-0.367	-0.340	0.159	0.903
Hβ	Å	0.218	-0.136	0.012	-0.171	0.313	0.007	0.007	0.052	-0.056	0.043	0.091
Fe5015	Å	13.008	-0.140	-0.003	-0.624	1.659	0.051	0.023	-0.067	0.069	0.713	2.018
Mg ₁	mag	0.238	0.032	-0.001	0.061	-0.027	-0.006	-0.004	-0.007	-0.003	-0.005	0.035
Mg ₂	mag	0.378	0.017	0.002	0.087	-0.025	-0.005	-0.004	-0.006	-0.003	0.002	0.062
Mg _b	Å	3.996	0.144	0.026	1.277	-0.240	-0.005	-0.062	-0.038	-0.286	0.006	0.867
Fe5270	Å	4.991	0.040	0.036	-0.311	0.606	0.078	-0.022	-0.027	-0.071	0.131	0.428
Fe5335	Å	6.052	-0.040	-0.020	-0.249	0.846	-0.025	-0.024	0.001	0.195	0.064	0.952
Fe5406	Å	3.911	0.001	0.008	-0.190	0.465	-0.027	-0.018	-0.037	0.140	0.028	0.493
Fe5709	Å	2.234	-0.022	-0.021	-0.035	0.213	0.017	-0.024	-0.008	0.054	0.075	0.322
Fe5782	Å	1.710	-0.001	-0.006	0.028	0.014	-0.002	-0.001	0.032	0.285	-0.036	0.367
Na _D	Å	3.240	0.062	0.058	-0.151	-0.028	-0.063	1.256	-0.059	0.030	-0.067	0.992
TiO ₁	mag	0.021	0.000	0.000	-0.001	0.001	-0.001	0.000	0.000	0.001	0.005	0.008
TiO ₂	mag	0.057	0.002	0.003	-0.002	0.005	-0.002	0.000	0.000	0.001	0.005	0.015

Table 3. Conroy Turn-Off Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-12 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex (0.15 dex for C). The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I_0	C	N	Mg	Fe	Ca	Na	Si	Cr	Ti	[M/H]
H δ_A	Å	1.250	-0.133	-0.049	0.173	-0.537	0.113	0.009	0.150	0.079	-0.095	-0.540
H δ_F	Å	2.029	-0.023	-0.009	0.092	-0.241	0.118	0.004	0.086	-0.009	-0.063	-0.189
CN ₁	mag	-0.079	-0.004	0.008	0.002	0.004	-0.002	0.000	0.000	-0.003	0.002	0.004
CN ₂	mag	-0.022	-0.004	0.009	0.003	0.003	-0.001	0.000	0.001	-0.002	0.003	0.006
Ca4227	Å	0.894	-0.059	-0.061	0.018	0.108	0.251	-0.002	0.015	-0.051	0.002	0.178
G4300	Å	5.507	0.550	-0.025	-0.315	-0.337	0.048	-0.031	-0.220	-0.095	0.137	0.404
H γ_A	Å	-1.625	-0.512	0.028	0.442	0.241	0.020	0.021	0.260	0.037	-0.190	-0.364
H γ_F	Å	1.290	-0.308	0.015	0.214	0.249	-0.015	0.014	0.133	0.013	0.008	-0.047
Fe4383	Å	3.244	0.161	-0.015	-0.108	0.326	-0.040	0.024	-0.061	0.091	0.100	0.711
Ca4455	Å	1.347	-0.013	-0.004	-0.018	-0.059	0.063	0.000	-0.015	0.063	0.048	0.296
Fe4531	Å	3.098	-0.004	-0.004	-0.026	0.131	-0.006	0.005	0.009	0.100	0.233	0.509
C ₂ 4668	Å	1.178	0.227	-0.004	0.011	-0.012	0.008	0.015	-0.122	-0.115	0.132	0.248
H β	Å	3.547	-0.020	0.003	0.032	0.098	0.007	0.001	0.040	-0.030	0.081	0.253
Fe5015	Å	6.048	-0.169	-0.016	0.279	1.036	0.065	0.050	-0.035	-0.010	0.314	1.561
Mg ₁	mag	-0.004	-0.001	0.000	0.002	-0.004	0.000	0.000	0.000	-0.001	0.001	-0.003
Mg ₂	mag	0.060	-0.001	0.000	0.018	-0.005	0.000	0.000	-0.001	-0.002	0.002	0.009
Mg _b	Å	1.076	-0.029	-0.005	0.649	-0.076	0.010	-0.023	-0.024	-0.076	-0.043	0.211
Fe5270	Å	1.686	-0.010	-0.005	-0.061	0.345	0.091	0.000	0.035	0.042	0.061	0.494
Fe5335	Å	2.292	0.000	-0.006	0.016	0.462	0.009	0.000	0.059	0.063	0.020	0.654
Fe5406	Å	0.877	-0.026	-0.003	0.009	0.193	-0.004	0.001	-0.008	0.052	0.004	0.202
Fe5709	Å	0.663	0.000	-0.002	0.014	0.134	0.006	-0.027	-0.015	0.031	0.008	0.204
Fe5782	Å	0.399	0.020	-0.001	0.051	0.023	-0.001	0.001	0.029	0.144	-0.009	0.274
Na _D	Å	0.607	-0.003	-0.002	-0.027	-0.015	-0.016	0.276	-0.057	0.008	-0.021	0.142
TiO ₁	mag	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TiO ₂	mag	0.009	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.001	0.004

Table 4. Coelho Cool Dwarf Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-8 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex. The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I_0	C	N	O	Mg	Ca	[M/H]
H δ_A	Å	-12.008	-3.181	-0.55	0.487	1.334	0.504	-1.708
H δ_F	Å	-2.145	-0.648	-0.126	-0.033	0.23	0.338	-0.525
CN ₁	mag	0.084	0.124	0.029	-0.027	-0.015	-0.015	0.017
CN ₂	mag	0.214	0.128	0.029	-0.033	-0.03	-0.021	0.029
Ca4227	Å	6.281	-0.743	-0.083	0.179	-0.129	1.112	0.73
G4300	Å	9.214	3.207	0.035	-1.143	-0.377	0.195	0.126
H γ_A	Å	-16.126	-0.385	-0.046	0.582	1.367	-0.072	-1.347
H γ_F	Å	-5.885	-2.081	-0.018	0.672	0.546	-0.077	-0.187
Fe4383	Å	10.131	-0.694	0.01	0.229	-0.895	-0.703	1.074
Ca4455	Å	2.897	-0.029	0.005	0.003	-0.116	0.156	0.329
Fe4531	Å	5.972	-0.018	-0.012	-0.013	-0.623	-0.4	0.578
C ₂ 4668	Å	2.016	4.006	0.011	-0.308	-0.208	0.079	0.384
H β	Å	-0.21	-0.135	0.004	0.024	-0.176	-0.03	-0.048
Fe5015	Å	6.925	-0.208	0.01	0.022	-1.118	0.017	1.19
Mg ₁	mag	0.291	0.047	0.001	-0.003	0.065	-0.011	0.028
Mg ₂	mag	0.588	0.033	0.002	-0.002	0.1	-0.012	0.056
Mg _b	Å	6.965	0.246	0.031	-0.021	1.263	0.005	0.432
Fe5270	Å	5.701	0.006	0.012	0.004	-0.402	0.133	0.546
Fe5335	Å	5.633	-0.092	0.005	0.01	-0.461	-0.064	0.726
Fe5406	Å	3.686	-0.043	0.004	0.004	-0.311	-0.066	0.449
Fe5709	Å	1.387	-0.016	0.000	-0.002	-0.033	0.007	0.289
Fe5782	Å	1.143	-0.015	0.000	0.000	-0.016	-0.048	0.266
Na _D	Å	7.854	-0.046	0.021	0.009	-0.431	-0.132	1.302
TiO ₁	mag	0.001	0.001	0.000	0.000	0.000	-0.002	-0.001
TiO ₂	mag	0.021	0.001	0.000	0.000	-0.001	-0.006	0.003

Table 5. Coelho Cool Giant Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-8 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex. The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I ₀	C	N	O	Mg	Ca	[M/H]
Hδ _A	Å	-13.165	-4.409	-1.412	1.505	0.969	-0.082	-3.116
Hδ _F	Å	-3.434	-1.239	-0.432	0.343	0.151	0.052	-1.381
CN ₁	mag	0.222	0.212	0.075	-0.068	-0.034	-0.01	0.041
CN ₂	mag	0.327	0.218	0.078	-0.072	-0.043	-0.015	0.047
Ca4227	Å	4.936	-0.242	-0.176	0.156	0.016	1.676	1.292
G4300	Å	10.365	1.859	0.095	-0.871	-0.170	0.125	0.1
Hγ _A	Å	-14.825	1.235	-0.109	0.159	0.445	-0.139	-1.905
Hγ _F	Å	-5.885	-1.096	-0.04	0.497	0.305	-0.043	-0.525
Fe4383	Å	9.616	-0.461	0.008	0.065	-0.489	-0.259	1.45
Ca4455	Å	2.903	-0.034	0.007	-0.015	-0.058	0.131	0.289
Fe4531	Å	5.745	-0.18	-0.07	-0.016	-0.258	-0.253	0.662
C ₂ 4668	Å	5.051	10.266	0.044	-1.2	-0.553	0.003	1.552
Hβ	Å	-0.018	-0.187	0.014	0.083	-0.074	-0.012	-0.07
Fe5015	Å	7.72	-0.708	-0.011	0.163	-0.707	0.046	1.223
Mg ₁	mag	0.222	0.12	0.001	-0.022	0.038	-0.004	0.041
Mg ₂	mag	0.398	0.04	0.002	-0.01	0.079	-0.005	0.075
Mg _b	Å	4.139	-0.533	0.016	0.101	1.477	-0.031	0.854
Fe5270	Å	5.031	0.071	0.036	-0.052	-0.23	0.063	0.601
Fe5335	Å	4.749	-0.198	-0.022	-0.014	-0.187	-0.01	0.713
Fe5406	Å	3.244	-0.091	0.006	-0.014	-0.146	-0.013	0.471
Fe5709	Å	2.136	-0.107	-0.014	-0.003	-0.031	0.02	0.35
Fe5782	Å	1.683	-0.051	-0.004	-0.018	0.011	-0.017	0.343
Na _D	Å	4.318	0.237	0.064	-0.088	-0.165	-0.043	1.166
TiO ₁	mag	0.009	0.000	0.000	0.004	-0.001	-0.001	0.006
TiO ₂	mag	0.053	0.004	0.001	0.006	-0.003	-0.003	0.014

Table 6. Coelho Turn-Off Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-8 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex. The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I ₀	C	N	O	Mg	Ca	[M/H]
Hδ _A	Å	2.492	-0.070	-0.033	0.010	0.154	0.048	-0.171
Hδ _F	Å	2.844	0.010	-0.004	0.005	0.083	0.075	0.062
CN ₁	mag	-0.086	-0.006	0.004	0.000	0.002	-0.002	-0.004
CN ₂	mag	-0.031	-0.007	0.004	0.00	0.003	-0.002	-0.001
Ca4227	Å	0.774	-0.097	-0.031	0.002	0.012	0.239	0.200
G4300	Å	5.497	1.311	-0.030	-0.037	-0.293	0.054	0.697
Hγ _A	Å	-1.000	-0.900	0.036	0.033	0.367	-0.008	-0.578
Hγ _F	Å	1.809	-0.604	0.018	0.018	0.194	0.00	-0.112
Fe4383	Å	1.955	-0.033	-0.011	-0.014	-0.044	-0.088	0.477
Ca4455	Å	0.879	-0.012	-0.002	-0.001	-0.031	0.051	0.212
Fe4531	Å	2.951	-0.005	-0.009	-0.002	-0.039	-0.058	0.502
C ₂ 4668	Å	0.931	0.609	-0.006	-0.008	0.073	0.024	0.747
Hβ	Å	3.768	-0.001	0.005	0.003	0.025	0.003	0.258
Fe5015	Å	4.520	-0.009	-0.011	0.013	0.001	0.052	1.030
Mg ₁	mag	0.009	0.011	0.000	-0.001	0.000	-0.001	0.008
Mg ₂	mag	0.076	0.006	0.000	0.000	0.019	0.001	0.022
Mg _b	Å	1.431	-0.046	-0.007	0.000	0.655	0.014	0.299
Fe5270	Å	1.983	-0.020	-0.006	0.000	-0.003	0.081	0.533
Fe5270	Å	1.983	-0.020	-0.006	0.000	-0.003	0.081	0.533
Fe5335	Å	1.749	-0.030	-0.006	0.006	0.007	0.005	0.415
Fe5406	Å	0.855	-0.033	-0.003	0.000	0.009	0.002	0.201
Fe5709	Å	0.635	-0.008	-0.002	0.000	0.029	0.006	0.263
Fe5782	Å	0.336	-0.005	-0.002	-0.001	0.037	-0.010	0.192
Na _D	Å	0.924	-0.008	-0.003	0.000	-0.020	-0.019	0.251
TiO ₁	mag	0.002	0.000	0.000	0.000	0.000	0.000	0.000
TiO ₂	mag	0.008	0.000	0.000	0.000	0.000	-0.001	0.002

Table 7. CAP Cool Dwarf Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-13 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex. The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I ₀	C	N	O	Mg	Fe	Ca	Na	Si	Cr	Ti	[M/H]
Hδ _A	Å	-10.167	-2.360	-0.164	0.544	1.490	-2.796	0.353	0.120	1.837	0.144	-0.305	-0.843
Hδ _F	Å	-1.048	-0.636	-0.072	-0.020	0.178	-1.356	0.271	0.008	1.460	0.016	-0.210	-0.298
CN ₁	mag	0.127	0.313	0.050	-0.051	-0.024	-0.017	-0.014	-0.004	0.054	-0.020	0.004	0.023
CN ₂	mag	0.275	0.316	0.050	-0.057	-0.039	-0.027	-0.017	-0.005	0.091	-0.019	0.005	0.033
Ca4227	Å	5.927	-1.582	-0.162	0.325	-0.105	-0.203	1.071	0.029	-0.264	-0.074	-0.016	0.572
G4300	Å	8.077	3.447	-0.001	-1.052	-0.901	-1.107	0.095	-0.129	-0.539	-0.077	0.399	-0.204
Hγ _A	Å	-13.805	0.644	-0.012	0.344	1.508	-0.979	-0.167	0.160	0.232	0.449	-0.462	-0.761
Hγ _F	Å	-5.077	-1.064	-0.002	0.361	0.518	-0.290	-0.097	0.063	-0.043	0.383	-0.084	-0.083
Fe4383	Å	10.171	-0.632	-0.028	-0.004	-1.150	1.921	-0.607	-0.085	-0.276	-0.112	-0.078	0.625
Ca4455	Å	2.556	-0.268	-0.010	0.053	-0.087	-0.184	0.185	0.001	-0.174	0.105	0.024	0.238
Fe4531	Å	5.496	0.114	-0.017	-0.049	-0.505	0.239	0.031	0.011	-0.094	0.146	0.863	0.588
C ₂ 4668	Å	1.406	5.415	-0.002	0.156	-0.659	0.203	0.037	-0.074	-0.252	-0.356	0.487	0.414
Hβ	Å	0.147	-0.427	0.000	0.170	-0.508	-0.111	-0.057	-0.021	-0.049	-0.114	0.108	0.019
Fe5015	Å	7.817	-0.453	-0.009	0.151	-1.268	0.317	-0.001	0.015	-0.227	0.057	1.198	1.078
Mg ₁	mag	0.228	0.054	-0.001	-0.006	0.084	-0.021	-0.003	-0.002	-0.008	-0.004	-0.004	0.030
Mg ₂	mag	0.518	0.035	-0.001	0.005	0.065	-0.042	-0.006	-0.006	-0.019	-0.005	0.005	0.051
Mg _b	Å	7.213	0.200	-0.002	0.155	0.161	-0.775	-0.078	-0.149	-0.277	-0.559	-0.009	0.372
Fe5270	Å	5.389	0.036	0.002	-0.041	-0.553	0.691	0.206	-0.047	-0.066	-0.027	0.019	0.504
Fe5335	Å	5.742	-0.078	-0.007	-0.067	-0.604	0.677	-0.058	-0.057	-0.059	0.362	-0.005	0.674
Fe5406	Å	3.658	-0.007	-0.002	0.001	-0.364	0.528	-0.039	-0.031	-0.079	0.192	0.039	0.430
Fe5709	Å	1.273	-0.071	-0.006	-0.001	-0.101	0.119	-0.001	-0.111	-0.027	0.051	0.077	0.227
Fe5782	Å	0.958	-0.003	-0.002	-0.040	-0.042	-0.053	-0.034	-0.009	-0.020	0.296	-0.064	0.166
Na _D	Å	7.041	-0.008	-0.001	-0.058	-0.296	-0.233	-0.023	1.971	-0.132	0.006	-0.040	1.083
TiO ₁	mag	0.006	-0.004	0.000	0.014	0.001	0.001	-0.001	0.001	0.001	0.000	0.009	0.011
TiO ₂	mag	0.027	-0.005	0.000	0.020	-0.001	0.002	-0.005	0.000	0.000	0.000	0.011	0.020

Table 8. CAP Cool Giant Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-13 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex. The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I ₀	C	N	O	Mg	Fe	Ca	Na	Si	Cr	Ti	[M/H]
Hδ _A	Å	-10.125	-2.337	0.007	0.865	0.966	-2.010	-0.085	-0.003	1.768	0.151	-0.321	-1.433
Hδ _F	Å	-1.922	-1.071	-0.156	0.225	0.074	-1.025	0.031	-0.017	1.267	-0.014	-0.254	-0.794
CN ₁	mag	0.341	0.510	0.089	-0.108	-0.053	-0.057	-0.010	-0.005	0.022	-0.016	0.002	0.040
CN ₂	mag	0.461	0.517	0.089	-0.110	-0.059	-0.064	-0.012	-0.004	0.049	-0.014	0.002	0.046
Ca4227	Å	4.111	-0.866	-0.172	0.386	0.439	0.266	1.897	0.091	-0.010	-0.040	-0.023	1.430
G4300	Å	9.106	2.860	-0.006	-0.798	-0.716	-0.907	0.075	-0.101	-0.502	-0.169	0.266	-0.167
Hγ _A	Å	-12.092	2.490	-0.062	-0.064	0.557	-1.071	-0.201	0.077	-0.088	-0.012	-0.364	-1.313
Hγ _F	Å	-4.456	-0.842	-0.012	0.165	0.202	-0.327	-0.078	0.031	-0.072	0.043	-0.051	-0.517
Fe4383	Å	9.085	-2.952	-0.132	0.015	-0.579	1.754	-0.212	-0.001	-0.155	-0.066	0.023	0.751
Ca4455	Å	2.189	-0.268	-0.032	0.079	0.044	-0.120	0.137	0.010	-0.088	0.139	0.069	0.228
Fe4531	Å	5.154	0.032	-0.061	-0.039	-0.238	0.258	0.020	0.018	-0.061	0.003	0.504	0.594
C ₂ 4668	Å	3.923	12.574	-0.016	-0.165	-0.822	-0.252	-0.002	-0.099	-0.456	-0.377	0.666	1.453
Hβ	Å	0.449	-0.457	-0.001	0.336	-0.290	-0.071	-0.024	-0.009	-0.060	-0.093	0.187	0.117
Fe5015	Å	8.163	-1.656	-0.057	0.649	-0.710	0.426	0.040	0.032	-0.201	0.113	0.806	1.316
Mg ₁	mag	0.163	0.153	-0.002	-0.019	0.053	-0.009	-0.001	-0.001	-0.008	-0.002	-0.005	0.031
Mg ₂	mag	0.336	0.048	-0.002	0.039	0.081	-0.012	0.002	0.001	-0.014	-0.003	0.023	0.084
Mg _b	Å	4.555	-0.753	-0.005	1.106	1.187	-0.225	0.041	-0.022	-0.221	-0.427	0.527	1.244
Fe5270	Å	4.442	0.231	0.022	-0.069	-0.288	0.557	0.075	-0.013	-0.077	-0.058	0.053	0.537
Fe5335	Å	4.961	-0.327	-0.045	-0.081	-0.276	0.496	-0.005	-0.011	-0.063	0.194	-0.026	0.666
Fe5406	Å	3.104	0.036	-0.002	0.019	-0.149	0.402	0.003	-0.001	-0.077	0.108	0.046	0.478
Fe5709	Å	1.819	-0.338	-0.042	0.034	-0.077	0.051	0.017	-0.024	-0.042	0.042	0.089	0.278
Fe5782	Å	1.315	-0.033	-0.012	-0.081	-0.011	-0.052	-0.006	0.000	-0.019	0.225	-0.083	0.207
Na _D	Å	3.566	0.400	0.047	0.055	0.014	-0.011	0.017	1.238	-0.088	0.020	0.058	1.018
TiO ₁	mag	0.021	-0.012	0.000	0.037	0.002	0.002	0.001	0.001	-0.001	0.001	0.019	0.024
TiO ₂	mag	0.069	0.001	0.002	0.063	0.002	0.002	0.001	0.002	-0.001	0.000	0.031	0.045

Table 9. CAP Turn-Off Response Function. Column 1 is the Lick index name, Column 2 is the units of the index, Column 3 is the model base star index strength and Columns 4-13 are the variation of the index strength (in units of mag or Å) when the element at the top of the column is increased by 0.3 dex. The last column shows the variation of the index strength when there is an overall metallicity increase of 0.3 dex.

Index	Units	I_0	C	N	O	Mg	Fe	Ca	Na	Si	Cr	Ti	[M/H]
H δ_A	Å	2.354	-0.230	-0.044	0.023	-0.117	-0.722	-0.004	-0.009	-0.105	0.013	-0.088	-0.396
H δ_F	Å	2.739	-0.043	-0.013	0.016	-0.084	-0.402	0.035	-0.004	-0.066	-0.008	-0.047	-0.134
CN ₁	mag	-0.092	-0.003	0.007	0.000	0.003	0.006	-0.001	0.000	0.002	-0.001	0.002	0.001
CN ₂	mag	-0.037	-0.006	0.007	0.000	0.003	0.004	-0.002	0.000	0.002	-0.001	0.002	0.003
Ca4227	Å	0.646	-0.147	-0.045	0.001	0.031	0.106	0.256	-0.006	0.024	-0.053	0.001	0.138
G4300	Å	4.630	1.163	0.000	-0.023	-0.041	-0.057	0.076	-0.023	-0.028	-0.055	0.134	0.610
H γ_A	Å	-0.243	-0.879	0.001	0.036	-0.066	-0.474	-0.058	0.005	-0.130	-0.017	-0.164	-0.606
H γ_F	Å	2.086	-0.538	0.002	0.023	-0.067	-0.216	-0.032	-0.002	-0.083	-0.014	-0.022	-0.185
Fe4383	Å	2.052	0.215	-0.002	-0.014	0.052	0.543	-0.076	0.018	0.030	0.044	0.049	0.481
Ca4455	Å	0.773	-0.019	0.000	0.000	-0.011	-0.081	0.049	0.001	-0.034	0.052	0.033	0.146
Fe4531	Å	2.480	0.001	0.000	0.000	-0.010	0.106	0.013	0.005	-0.022	0.092	0.217	0.411
C ₂ 4668	Å	0.481	0.394	0.000	-0.004	0.081	0.303	0.040	0.007	-0.080	-0.090	0.144	0.502
H β	Å	3.864	-0.034	0.001	0.013	-0.099	-0.182	-0.014	-0.004	-0.070	-0.044	0.072	0.157
Fe5015	Å	4.277	0.000	-0.001	0.002	0.050	0.490	0.053	0.030	-0.004	-0.002	0.250	1.006
Mg ₁	mag	0.011	0.004	0.000	0.000	0.001	0.002	0.000	0.000	0.000	-0.002	0.000	0.008
Mg ₂	mag	0.073	0.002	0.000	0.000	0.023	0.005	0.001	0.000	0.000	-0.001	0.001	0.020
Mg _b	Å	1.668	-0.031	0.000	0.000	0.787	0.098	0.023	-0.014	0.009	-0.091	-0.016	0.391
Fe5270	Å	1.793	-0.019	0.000	0.000	0.031	0.324	0.082	0.001	0.107	0.023	0.043	0.475
Fe5335	Å	1.909	-0.017	0.000	0.005	0.041	0.315	0.005	0.002	0.140	0.052	0.025	0.493
Fe5406	Å	0.851	-0.021	0.000	0.001	0.022	0.207	0.003	0.001	0.024	0.026	-0.002	0.198
Fe5709	Å	0.543	-0.006	0.000	0.000	0.039	0.119	0.006	-0.022	0.016	0.020	0.011	0.214
Fe5782	Å	0.254	-0.002	0.000	0.000	0.042	-0.003	-0.005	0.001	0.012	0.123	-0.008	0.134
Na _D	Å	0.712	-0.007	0.001	0.000	0.014	0.022	-0.023	0.270	-0.007	0.004	-0.006	0.184
TiO ₁	mag	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TiO ₂	mag	0.008	-0.001	0.000	0.000	0.000	0.001	-0.001	0.000	0.000	0.000	0.000	0.001