

Date	Time	zenith angle	Top. azimuth angle (eastward from N)	Top. azimuth angle (westward from S)
3/18/2014	0:00:00	167.343276	340.002605	160.002605
3/18/2014	0:00:10	167.357055	340.182158	160.182158
3/18/2014	0:00:20	167.370713	340.362093	160.362093
3/18/2014	0:00:30	167.384252	340.542409	160.542409
3/18/2014	0:00:40	167.39767	340.723103	160.723103
3/18/2014	0:00:50	167.410967	340.904174	160.904174
3/18/2014	0:01:00	167.424142	341.085619	161.085619
3/18/2014	0:01:10	167.437196	341.267436	161.267436
3/18/2014	0:01:20	167.450128	341.449627	161.449627
3/18/2014	0:01:30	167.462937	341.632176	161.632176
3/18/2014	0:01:40	167.475623	341.815094	161.815094
3/18/2014	0:01:50	167.488186	341.998374	161.998374
3/18/2014	0:02:00	167.500625	342.182015	162.182015
3/18/2014	0:02:10	167.51294	342.366013	162.366013
3/18/2014	0:02:20	167.525131	342.550366	162.550366
3/18/2014	0:02:30	167.537197	342.735071	162.735071
3/18/2014	0:02:40	167.549138	342.920126	162.920126
3/18/2014	0:02:50	167.560954	343.105528	163.105528
3/18/2014	0:03:00	167.572643	343.291274	163.291274
3/18/2014	0:03:10	167.584207	343.477362	163.477362
3/18/2014	0:03:20	167.595644	343.663789	163.663789
3/18/2014	0:03:30	167.606953	343.850551	163.850551
3/18/2014	0:03:40	167.618136	344.037647	164.037647
3/18/2014	0:03:50	167.629191	344.225073	164.225073
3/18/2014	0:04:00	167.640119	344.412827	164.412827
3/18/2014	0:04:10	167.650917	344.600904	164.600904
3/18/2014	0:04:20	167.661588	344.789304	164.789304
3/18/2014	0:04:30	167.672129	344.978027	164.978027
3/18/2014	0:04:40	167.682541	345.167055	165.167055
3/18/2014	0:04:50	167.692824	345.356401	165.356401
3/18/2014	0:05:00	167.702976	345.546055	165.546055
3/18/2014	0:05:10	167.712999	345.736015	165.736015
3/18/2014	0:05:20	167.72289	345.926279	165.926279
3/18/2014	0:05:30	167.732651	346.116841	166.116841
3/18/2014	0:05:40	167.742281	346.3077	166.3077
3/18/2014	0:05:50	167.751779	346.498852	166.498852
3/18/2014	0:06:00	167.761145	346.690292	166.690292
3/18/2014	0:06:10	167.77038	346.88202	166.88202
3/18/2014	0:06:20	167.779481	347.074029	167.074029
3/18/2014	0:06:30	167.78845	347.266318	167.266318
3/18/2014	0:06:40	167.797286	347.458883	167.458883
3/18/2014	0:06:50	167.805989	347.65172	167.65172
3/18/2014	0:07:00	167.814558	347.844825	167.844825
3/18/2014	0:07:10	167.822994	348.038196	168.038196
3/18/2014	0:07:20	167.831295	348.231827	168.231827
3/18/2014	0:07:30	167.839462	348.425716	168.425716
3/18/2014	0:07:40	167.847494	348.61986	168.61986
3/18/2014	0:07:50	167.855391	348.814254	168.814254
3/18/2014	0:08:00	167.863153	349.008894	169.008894
3/18/2014	0:08:10	167.870779	349.203777	169.203777
3/18/2014	0:08:20	167.87827	349.398899	169.398899
3/18/2014	0:08:30	167.885625	349.594255	169.594255
3/18/2014	0:08:40	167.892843	349.789843	169.789843
3/18/2014	0:08:50	167.899925	349.985658	169.985658
3/18/2014	0:09:00	167.90687	350.181696	170.181696
3/18/2014	0:09:10	167.913679	350.377954	170.377954
3/18/2014	0:09:20	167.92035	350.574427	170.574427
3/18/2014	0:09:30	167.926883	350.771112	170.771112
3/18/2014	0:09:40	167.93328	350.968003	170.968003
3/18/2014	0:09:50	167.939538	351.165097	171.165097
3/18/2014	0:10:00	167.945658	351.362391	171.362391
3/18/2014	0:10:10	167.95164	351.559879	171.559879
3/18/2014	0:10:20	167.957483	351.757557	171.757557
3/18/2014	0:10:30	167.963188	351.955423	171.955423
3/18/2014	0:10:40	167.968754	352.15347	172.15347
3/18/2014	0:10:50	167.97418	352.351695	172.351695
3/18/2014	0:11:00	167.979468	352.550095	172.550095
3/18/2014	0:11:10	167.984616	352.748663	172.748663
3/18/2014	0:11:20	167.989624	352.947397	172.947397
3/18/2014	0:11:30	167.994493	353.146292	173.146292
3/18/2014	0:11:40	167.999221	353.345342	173.345342
3/18/2014	0:11:50	168.00381	353.544545	173.544545
3/18/2014	0:12:00	168.008258	353.743895	173.743895
3/18/2014	0:12:10	168.012566	353.943389	173.943389
3/18/2014	0:12:20	168.016733	354.143021	174.143021
3/18/2014	0:12:30	168.020759	354.342788	174.342788
3/18/2014	0:12:40	168.024645	354.542684	174.542684
3/18/2014	0:12:50	168.028389	354.742705	174.742705
3/18/2014	0:13:00	168.031992	354.942848	174.942848
3/18/2014	0:13:10	168.035454	355.143106	175.143106
3/18/2014	0:13:20	168.038775	355.343477	175.343477
3/18/2014	0:13:30	168.041954	355.543954	175.543954
3/18/2014	0:13:40	168.044991	355.744534	175.744534

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