

Lares-2
303 cubes
208 mm radius

Centroid vs Colatitude

The incidence angle goes the +Z axis to the -Z axis

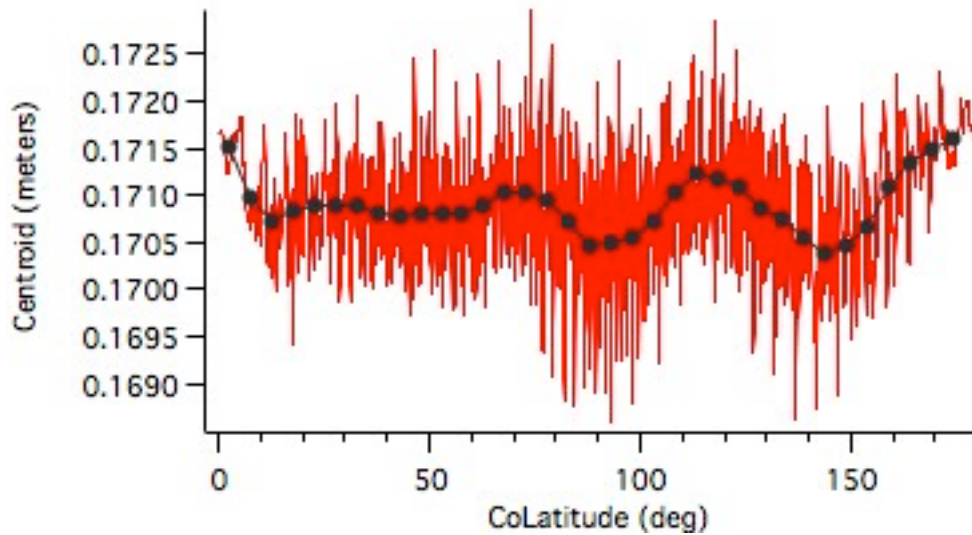


Figure 1. Centroid vs Colatitude. The red line is all points. The black line is the centroid averaged over each set of 72 points (one revolution around the satellite). The incidence angle goes from the +Z axis to the -Z axis.

Minimum	Maximum	Max - Min	Average	rms
0.1686	0.1730	0.0044	0.1709	0.0006
Minimum	Maximum	Max - Min	Average	rms
2.7437	4.9504	2.2067	3.9937	0.3161

Table 1a. Statistics for the red line in Figure 1.

Longitude(deg)	Colatitude(deg)	Centroid(m)	Cross section
177.500	2.485	0.171520	4.100269
537.500	7.525	0.170989	4.147667
897.500	12.565	0.170733	4.141237
1257.500	17.605	0.170834	4.024592
1617.500	22.645	0.170888	3.964196
1977.500	27.685	0.170885	4.014656
2337.500	32.725	0.170882	4.040949
2697.500	37.765	0.170807	4.079733
3057.500	42.805	0.170769	4.060177
3417.500	47.845	0.170814	3.998322
3777.500	52.885	0.170811	4.015214
4137.500	57.925	0.170802	4.018689
4497.500	62.965	0.170896	4.045133
4857.500	68.005	0.171029	4.005078

5217.500	73.045	0.171024	3.936174
5577.500	78.085	0.170934	3.814871
5937.500	83.125	0.170717	3.753095
6297.500	88.165	0.170463	3.797576
6657.500	93.205	0.170489	3.862045
7017.500	98.245	0.170540	3.929183
7377.500	103.285	0.170713	3.932358
7737.500	108.325	0.171036	3.852629
8097.500	113.365	0.171237	3.788970
8457.500	118.405	0.171182	3.853081
8817.500	123.445	0.171094	3.885320
9177.500	128.485	0.170858	3.925596
9537.500	133.525	0.170746	3.938971
9897.500	138.565	0.170542	3.883855
10257.500	143.605	0.170373	3.834164
10617.500	148.645	0.170455	3.836802
10977.500	153.685	0.170669	3.866858
11337.500	158.725	0.171087	3.973179
11697.500	163.765	0.171345	4.051156
12057.500	168.805	0.171498	4.283069
12417.500	173.845	0.171599	4.646711

Table 1b. Data used to plot the black line I Figure 1.

	Phi	minimum	Phi	maximum	max-min
Centroid	143.6050	0.1704	173.8450	0.1716	0.0012
Crossec	83.1250	3.7531	173.8450	4.6467	0.8936

Table 1c. Statistics for Table 1b.

Centroid vs angle from the X axis

The incidence angle goes from the +X axis to -X axis

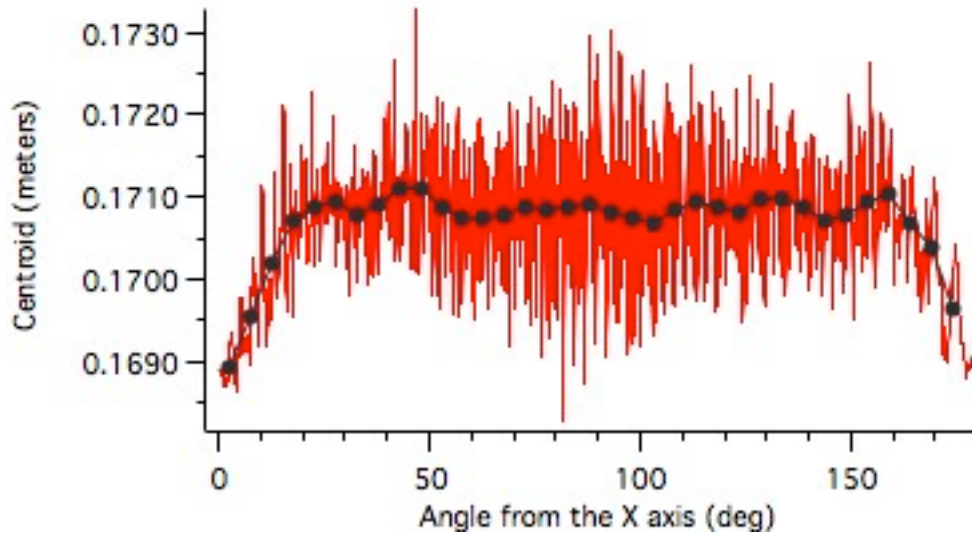


Figure 2. Centroid vs angle from the X axis. The red line is all points. The black line is the average over sets of 72 points (one revolution around the satellite).

Minimum	Maximum	Max - Min	Average	rms
0.1683	0.1733	0.0050	0.1707	0.0008
Minimum	Maximum	Max - Min	Average	rms
3.0409	4.7538	1.7130	3.8610	0.3004

Table 2a. Statistics for the red line in Figure 2.

Longitude(deg)	Colatitude(deg)	Centroid(m)	Cross section
177.500	2.485	0.168928	3.238644
537.500	7.525	0.169539	3.438293
897.500	12.565	0.170183	3.545352
1257.500	17.605	0.170729	3.650567
1617.500	22.645	0.170883	3.851559
1977.500	27.685	0.170933	3.968355
2337.500	32.725	0.170787	3.977965
2697.500	37.765	0.170905	4.003292
3057.500	42.805	0.171090	3.947010
3417.500	47.845	0.171093	3.943392
3777.500	52.885	0.170891	4.002746
4137.500	57.925	0.170758	4.026693
4497.500	62.965	0.170742	4.033147
4857.500	68.005	0.170782	4.036935
5217.500	73.045	0.170864	4.047469
5577.500	78.085	0.170830	3.968405
5937.500	83.125	0.170893	3.878915
6297.500	88.165	0.170899	3.834806
6657.500	93.205	0.170800	3.856058

7017.500	98.245	0.170761	3.894670
7377.500	103.285	0.170684	3.996863
7737.500	108.325	0.170854	4.017262
8097.500	113.365	0.170938	4.005022
8457.500	118.405	0.170868	3.943958
8817.500	123.445	0.170813	3.893430
9177.500	128.485	0.170967	3.883657
9537.500	133.525	0.170969	3.895904
9897.500	138.565	0.170876	3.973428
10257.500	143.605	0.170731	4.000029
10617.500	148.645	0.170781	3.997663
10977.500	153.685	0.170959	3.918951
11337.500	158.725	0.171038	3.825875
11697.500	163.765	0.170692	3.698286
12057.500	168.805	0.170377	3.543483
12417.500	173.845	0.169629	3.583191

Table 2b. Data for the black line in Figure 2.

	Phi	minimum	Phi	maximum	max-min
Centroid	2.4850	0.1689	47.8450	0.1711	0.0022
Crossec	2.4850	3.2386	73.0450	4.0475	0.8088

Table 2c. Statistics for Table 2b.

Centroid vs angle from the Y axis

The incidence angle goes from the +Y axis to the -Y axis

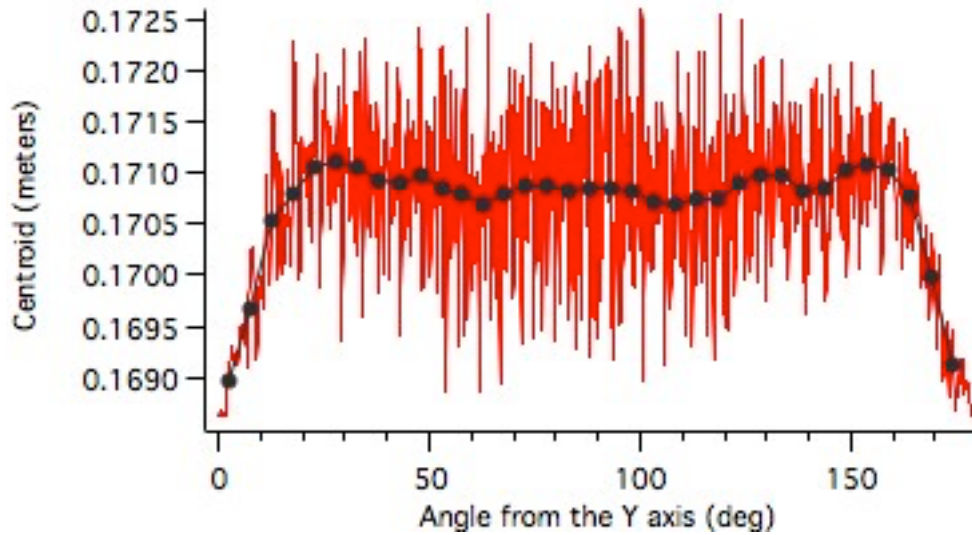


Figure 3. Centroid vs angle from the Y axis

Minimum	Maximum	Max - Min	Average	rms
0.1686	0.1726	0.0040	0.1707	0.0008
Minimum	Maximum	Max - Min	Average	rms
2.8666	4.8444	1.9778	3.8754	0.3035

Table 3a. Statistics for Figure 3.

Longitude(deg)	Colatitude(deg)	Centroid(m)	Cross section
177.500	2.485	0.168958	3.517548
537.500	7.525	0.169679	3.409456
897.500	12.565	0.170537	3.460340
1257.500	17.605	0.170802	3.754962
1617.500	22.645	0.171060	3.914217
1977.500	27.685	0.171111	4.001104
2337.500	32.725	0.171067	4.083368
2697.500	37.765	0.170927	4.094398
3057.500	42.805	0.170898	4.022215
3417.500	47.845	0.170972	3.977959
3777.500	52.885	0.170841	3.968212
4137.500	57.925	0.170788	3.938852
4497.500	62.965	0.170696	3.929409
4857.500	68.005	0.170807	3.920908
5217.500	73.045	0.170883	3.890405
5577.500	78.085	0.170888	3.873643
5937.500	83.125	0.170828	3.867454
6297.500	88.165	0.170844	3.873574
6657.500	93.205	0.170850	3.884711
7017.500	98.245	0.170816	3.905423
7377.500	103.285	0.170725	3.952749

7737.500	108.325	0.170691	4.017365
8097.500	113.365	0.170738	4.025441
8457.500	118.405	0.170737	4.015390
8817.500	123.445	0.170895	3.931981
9177.500	128.485	0.170987	3.916484
9537.500	133.525	0.170975	3.947853
9897.500	138.565	0.170820	4.023321
10257.500	143.605	0.170851	4.088077
10617.500	148.645	0.171035	4.029076
10977.500	153.685	0.171075	3.901015
11337.500	158.725	0.171033	3.845762
11697.500	163.765	0.170775	3.600773
12057.500	168.805	0.169983	3.471503
12417.500	173.845	0.169125	3.631597

Table 3b. Data used to plot the black line in Figure 3.

	Phi	minimum	Phi	maximum	max-min
Centroid	2.4850	0.1690	27.6850	0.1711	0.0022
Crossec	7.5250	3.4095	37.7650	4.0944	0.6849

Table 3c. Statistics for Table 3b.

Hemi	Cube	X	Y	Z	Longitude	Latitude	Orientation	
2	1	1	-0.01077	0.14779	-0.14596	94.167	134.568	0.000
2	1	2	-0.05185	0.14402	-0.14083	109.800	132.614	26.000
2	1	3	-0.04723	0.11279	-0.16826	112.719	143.993	52.000
2	1	4	-0.08672	0.11494	-0.15011	127.033	136.192	78.000
2	1	5	-0.08187	0.08064	-0.17337	135.432	146.462	104.000
2	1	6	-0.11794	0.07773	-0.15269	146.612	137.229	10.000
2	1	7	-0.12261	0.11023	-0.12681	138.042	127.564	36.000
2	1	8	-0.12241	0.13835	-0.09559	131.502	117.358	62.000
2	1	9	-0.15305	0.11082	-0.08694	144.093	114.708	88.000
2	1	10	-0.17832	0.08437	-0.06593	154.680	108.481	114.000
2	1	11	-0.18949	0.08183	-0.02574	156.644	97.109	20.000
2	1	12	-0.20292	0.04272	-0.01625	168.111	94.481	46.000
2	1	13	-0.19463	0.04626	-0.05696	166.630	105.892	72.000
2	1	14	-0.20159	0.00379	-0.05108	178.923	104.217	98.000
2	1	15	-0.19514	-0.03662	-0.06199	190.627	107.339	4.000
2	1	16	-0.20279	-0.04109	-0.02123	191.454	95.858	30.000
1	1	17	-0.20197	-0.04477	0.02158	192.499	84.046	56.000
1	1	18	-0.20286	-0.00757	0.04532	182.138	77.416	82.000
1	1	19	-0.18946	-0.00745	0.08552	182.252	65.723	108.000
1	1	20	-0.19286	0.03140	0.07128	170.753	69.958	14.000
1	1	21	-0.18702	0.07056	0.05752	159.328	73.947	40.000
1	1	22	-0.19240	0.07729	0.01646	158.114	85.462	66.000
1	1	23	-0.20227	0.03781	0.03036	169.412	81.607	92.000
1	1	24	-0.17310	0.10763	0.04143	148.126	78.511	118.000
1	1	25	-0.14706	0.13014	0.06856	138.494	70.754	24.000
1	1	26	-0.11521	0.14793	0.09004	127.912	64.348	50.000
1	1	27	-0.07852	0.15981	0.10751	116.167	58.877	76.000
1	1	28	-0.05128	0.14801	0.13685	109.110	48.859	102.000
1	1	29	-0.02058	0.13123	0.16006	98.914	39.688	8.000
1	1	30	0.01073	0.10823	0.17730	84.339	31.526	34.000
1	1	31	-0.00168	0.07088	0.19554	91.359	19.931	60.000
1	1	32	-0.01535	0.03098	0.20511	116.356	9.567	86.000
1	1	33	-0.04853	0.05524	0.19457	131.298	20.702	112.000
1	1	34	-0.08019	0.07702	0.17579	136.155	32.315	18.000
1	1	35	-0.11584	0.05573	0.16352	154.307	38.173	44.000
1	1	36	-0.11040	0.09457	0.14876	139.416	44.340	70.000
1	1	37	-0.09640	0.12971	0.13094	126.619	50.986	96.000
1	1	38	-0.06685	0.11511	0.15983	120.143	39.790	2.000
1	1	39	-0.03524	0.09508	0.18161	110.339	29.176	28.000
1	1	40	-0.08788	0.03310	0.18559	159.364	26.839	54.000
1	1	41	-0.05423	0.00942	0.20059	170.143	15.344	80.000
1	1	42	-0.09084	-0.01238	0.18671	187.762	26.152	106.000
1	1	43	-0.08816	-0.05455	0.18032	211.749	29.897	12.000
1	1	44	-0.12292	-0.03659	0.16375	196.578	38.068	38.000
1	1	45	-0.15174	-0.01326	0.14164	184.996	47.080	64.000
1	1	46	-0.17177	-0.03467	0.11205	191.411	57.404	90.000
1	1	47	-0.14696	-0.05995	0.13443	202.191	49.735	116.000
1	1	48	-0.11564	-0.08205	0.15218	215.355	42.976	22.000
1	1	49	-0.10992	-0.11764	0.13169	226.944	50.720	48.000
1	1	50	-0.14347	-0.09909	0.11341	214.633	56.958	74.000
1	1	51	-0.17100	-0.07551	0.09122	203.824	63.988	100.000
1	1	52	-0.16249	-0.11091	0.06752	214.315	71.056	6.000
1	1	53	-0.13351	-0.13317	0.08778	224.927	65.037	32.000
1	1	54	-0.09921	-0.14976	0.10485	236.477	59.730	58.000
1	1	55	-0.06083	-0.16052	0.11746	249.245	55.618	84.000
1	1	56	-0.02582	-0.17912	0.10253	261.798	60.467	110.000
1	1	57	0.01209	-0.18874	0.08658	273.665	65.401	16.000
1	1	58	0.00608	-0.20241	0.04751	271.720	76.797	42.000
1	1	59	0.04567	-0.19332	0.06167	283.292	72.752	68.000

1	1	60	0.07962	-0.18882	0.03567	292.864	80.124	94.000
2	1	61	0.07968	-0.19204	-0.00593	292.534	91.634	120.000
2	1	62	0.08194	-0.18500	-0.04821	293.888	103.401	26.000
2	1	63	0.11664	-0.16989	-0.02821	304.471	97.795	52.000
2	1	64	0.11865	-0.15668	-0.06810	307.138	109.111	78.000
2	1	65	0.08372	-0.16881	-0.08809	296.378	115.055	104.000
2	1	66	0.04657	-0.17090	-0.10904	285.244	121.615	10.000
2	1	67	0.07075	-0.14441	-0.13193	296.103	129.366	36.000
2	1	68	0.09974	-0.11436	-0.14226	311.094	133.152	62.000
2	1	69	0.12148	-0.07725	-0.15013	327.547	136.203	88.000
2	1	70	0.10432	-0.04729	-0.17362	335.614	146.586	114.000
2	1	71	0.13641	-0.02666	-0.15474	348.942	138.069	20.000
2	1	72	0.14786	0.01470	-0.14555	5.677	134.409	46.000
2	1	73	0.11597	0.00930	-0.17242	4.584	145.989	72.000
2	1	74	0.08136	-0.01143	-0.19109	352.000	156.734	98.000
2	1	75	0.06467	0.02613	-0.19596	22.000	160.407	4.000
2	1	76	0.04056	-0.00570	-0.20393	352.000	168.642	30.000
2	1	77	0.05496	-0.04294	-0.19596	322.000	160.407	56.000
2	1	78	0.01535	-0.03798	-0.20393	292.000	168.642	82.000
2	1	79	-0.00971	-0.06907	-0.19596	262.000	160.407	108.000
2	1	80	-0.02522	-0.03228	-0.20393	232.000	168.642	14.000
2	1	81	-0.06467	-0.02613	-0.19596	202.000	160.407	40.000
2	1	82	-0.04056	0.00570	-0.20393	172.000	168.642	66.000
2	1	83	-0.05496	0.04294	-0.19596	142.000	160.407	92.000
2	1	84	-0.01534	0.03798	-0.20393	112.000	168.642	118.000
2	1	85	0.00971	0.06907	-0.19596	82.000	160.407	24.000
2	1	86	0.02522	0.03228	-0.20393	52.000	168.642	50.000
2	1	87	0.00000	0.00000	-0.20800	317.934	180.000	76.000
2	1	88	-0.08136	0.01143	-0.19109	172.000	156.734	102.000
2	1	89	-0.10571	0.04360	-0.17375	157.585	146.651	8.000
2	1	90	-0.12333	0.00457	-0.16743	177.876	143.606	34.000
2	1	91	-0.10877	-0.03769	-0.17324	199.111	146.398	60.000
2	1	92	-0.08961	-0.07810	-0.17069	221.076	145.147	86.000
2	1	93	-0.05058	-0.06474	-0.19109	232.000	156.734	112.000
2	1	94	-0.04465	-0.10667	-0.17289	247.286	146.223	18.000
2	1	95	-0.08049	-0.11671	-0.15220	235.408	137.032	44.000
2	1	96	-0.11695	-0.11094	-0.13145	223.489	129.197	70.000
2	1	97	-0.09815	-0.14464	-0.11273	235.840	122.819	96.000
2	1	98	-0.06011	-0.14901	-0.13208	248.031	129.421	2.000
2	1	99	-0.02284	-0.14202	-0.15024	260.866	136.246	28.000
2	1	100	0.00311	-0.11580	-0.17275	271.540	146.155	54.000
2	1	101	0.04837	-0.11277	-0.16795	293.216	143.849	80.000
2	1	102	0.02917	-0.14465	-0.14659	281.401	134.811	106.000
2	1	103	0.00358	-0.16843	-0.12199	271.218	125.908	12.000
2	1	104	-0.03511	-0.17474	-0.10722	258.640	121.029	38.000
2	1	105	-0.07355	-0.17247	-0.09004	246.904	115.652	64.000
2	1	106	-0.10915	-0.16362	-0.06767	236.292	108.987	90.000
2	1	107	-0.13224	-0.13415	-0.08821	225.410	115.092	116.000
2	1	108	-0.14913	-0.09969	-0.10529	213.763	120.413	22.000
2	1	109	-0.16036	-0.06091	-0.11764	200.799	124.443	48.000
2	1	110	-0.17879	-0.02608	-0.10305	188.299	119.698	74.000
2	1	111	-0.18648	0.01337	-0.09117	175.901	115.995	100.000
2	1	112	-0.17659	0.05363	-0.09593	163.108	117.465	6.000
2	1	113	-0.15026	0.07913	-0.12010	152.227	125.267	32.000
2	1	114	-0.14253	0.04318	-0.14520	163.144	134.275	58.000
2	1	115	-0.15917	0.00613	-0.13376	177.795	130.022	84.000
2	1	116	-0.14460	-0.03184	-0.14609	192.419	134.616	110.000
2	1	117	-0.12932	-0.07159	-0.14634	208.969	134.714	16.000
2	1	118	-0.17816	-0.07093	-0.08057	201.710	112.790	42.000
2	1	119	-0.18837	-0.07834	-0.04054	202.583	101.240	68.000
1	1	120	-0.19087	-0.08265	0.00137	203.413	89.622	94.000
1	1	121	-0.18535	-0.08333	0.04435	204.207	77.688	120.000
1	1	122	-0.19188	-0.04737	0.06483	193.869	71.839	26.000
1	1	123	-0.17150	0.01449	0.11680	175.171	55.838	52.000
1	1	124	-0.14674	0.03587	0.14299	166.264	46.572	78.000

1	1	125	-0.14503	0.07580	0.12839	152.405	51.882	104.000
1	1	126	-0.13349	0.11401	0.11156	139.500	57.566	10.000
1	1	127	-0.16387	0.09413	0.08690	150.127	65.306	36.000
1	1	128	-0.17262	0.05491	0.10224	162.355	60.559	62.000
1	1	129	-0.12311	0.00947	0.16739	175.603	36.415	88.000
1	1	130	-0.05375	-0.03653	0.19759	214.200	18.206	114.000
1	1	131	-0.01784	-0.01657	0.20657	222.887	6.721	20.000
1	1	132	0.01839	0.00508	0.20712	15.456	5.262	46.000
1	1	133	0.03300	0.04362	0.20068	52.893	15.247	72.000
1	1	134	0.04534	0.08136	0.18598	60.871	26.601	98.000
1	1	135	0.05237	0.11692	0.16386	65.872	38.019	4.000
1	1	136	0.02272	0.14256	0.14974	80.944	43.951	30.000
1	1	137	0.06184	0.14839	0.13199	67.375	50.613	56.000
1	1	138	0.03109	0.17070	0.11471	79.677	56.531	82.000
1	1	139	-0.00050	0.18788	0.08924	90.153	64.594	108.000
1	1	140	0.03660	0.19236	0.07014	79.226	70.292	14.000
1	1	141	0.04187	0.20164	0.02919	78.269	81.933	40.000
2	1	142	0.04315	0.20305	-0.01312	78.003	93.616	66.000
1	1	143	0.07851	0.19242	0.00862	67.803	87.624	92.000
2	1	144	0.07885	0.18961	-0.03309	67.419	99.154	118.000
2	1	145	0.07610	0.17902	-0.07366	66.970	110.740	24.000
2	1	146	0.05390	0.16952	-0.10780	72.363	121.217	50.000
2	1	147	0.01652	0.18408	-0.09542	84.873	117.308	76.000
2	1	148	0.03911	0.19500	-0.06089	78.659	107.023	102.000
2	1	149	-0.00143	0.20214	-0.04901	90.404	103.630	8.000
2	1	150	-0.03723	0.20276	-0.02771	100.404	97.655	34.000
1	1	151	-0.04389	0.20278	0.01474	102.212	85.936	60.000
1	1	152	-0.08122	0.18914	0.02985	113.240	81.749	86.000
1	1	153	-0.08133	0.17821	0.06994	114.530	70.351	112.000
1	1	154	-0.11799	0.16398	0.04952	125.735	76.227	18.000
1	1	155	-0.11647	0.17217	0.00735	124.078	87.976	44.000
2	1	156	-0.10995	0.17301	-0.03524	122.436	99.754	70.000
2	1	157	-0.09760	0.16678	-0.07695	120.334	111.713	96.000
2	1	158	-0.06875	0.18846	-0.05498	110.041	105.326	2.000
2	1	159	-0.03220	0.19107	-0.07562	99.565	111.318	28.000
2	1	160	-0.06066	0.17206	-0.09990	109.419	118.703	54.000
2	1	161	-0.08868	0.14470	-0.12026	121.504	125.322	80.000
2	1	162	-0.13724	0.14566	-0.05666	133.296	105.809	106.000
2	1	163	-0.16569	0.11777	-0.04404	144.596	102.223	12.000
2	1	164	-0.17399	0.11398	0.00000	146.770	90.000	38.000
2	1	165	-0.14606	0.14726	-0.01568	134.766	94.322	64.000
1	1	166	-0.14899	0.14272	0.02638	136.232	82.713	90.000
2	1	167	-0.07783	0.19251	-0.01202	112.013	93.313	116.000
1	1	168	-0.04203	0.19519	0.05829	102.152	73.725	22.000
1	1	169	-0.00049	0.20208	0.04926	90.138	76.300	48.000
1	1	170	-0.04143	0.17833	0.09872	103.079	61.665	74.000
1	1	171	-0.01194	0.16174	0.13024	94.221	51.233	100.000
1	1	172	0.07004	0.17213	0.09343	67.857	63.309	6.000
1	1	173	0.10016	0.14446	0.11119	55.265	57.687	32.000
1	1	174	0.13395	0.13479	0.08456	45.179	66.012	58.000
1	1	175	0.10733	0.16419	0.06919	56.827	70.571	84.000
1	1	176	0.07540	0.18706	0.05086	68.048	75.847	110.000
1	1	177	0.11375	0.17215	0.02624	56.546	82.753	16.000
2	1	178	0.11562	0.17208	-0.01688	56.101	94.654	42.000
1	1	179	0.14705	0.14711	0.00000	45.012	90.000	68.000
1	1	180	0.14308	0.14480	0.04271	45.343	78.151	94.000
1	1	181	0.16650	0.11027	0.05815	33.516	73.766	120.000
1	1	182	0.15504	0.09928	0.09679	32.633	62.268	26.000
1	1	183	0.17860	0.06792	0.08218	20.821	66.729	52.000
1	1	184	0.19490	0.03356	0.06442	9.771	71.957	78.000
1	1	185	0.20205	-0.00576	0.04905	358.366	76.362	104.000
1	1	186	0.18792	-0.00675	0.08892	357.943	64.692	10.000
1	1	187	0.17577	0.03056	0.10694	9.862	59.061	36.000
1	1	188	0.16518	-0.00822	0.12614	357.151	52.669	62.000
1	1	189	0.17374	-0.04594	0.10472	345.189	59.771	88.000

1	1	190	0.19249	-0.04445	0.06509	346.997	71.763	114.000
1	1	191	0.17537	-0.08127	0.07684	335.136	68.320	20.000
1	1	192	0.15010	-0.11525	0.08632	322.482	65.481	46.000
1	1	193	0.11768	-0.14469	0.09210	309.121	63.719	72.000
1	1	194	0.12109	-0.11573	0.12331	316.297	53.641	98.000
1	1	195	0.11888	-0.08187	0.14976	325.445	43.945	4.000
1	1	196	0.11106	-0.04400	0.17028	338.390	35.052	30.000
1	1	197	0.07252	-0.03967	0.19087	331.317	23.416	56.000
1	1	198	0.08138	-0.07947	0.17414	315.679	33.152	82.000
1	1	199	0.08574	-0.11579	0.15001	306.520	43.845	108.000
1	1	200	0.08447	-0.14752	0.11986	299.797	54.812	14.000
1	1	201	0.04690	-0.14345	0.14313	288.107	46.517	40.000
1	1	202	0.04544	-0.17026	0.11050	284.944	57.910	66.000
1	1	203	0.00697	-0.16413	0.12758	272.432	52.165	92.000
1	1	204	-0.02780	-0.14758	0.14391	259.332	46.220	118.000
1	1	205	-0.03486	-0.11509	0.16972	253.148	35.320	24.000
1	1	206	-0.04366	-0.07732	0.18810	240.549	25.270	50.000
1	1	207	-0.00708	-0.05773	0.19970	263.010	16.237	76.000
1	1	208	0.00229	-0.09647	0.18426	271.361	27.640	102.000
1	1	209	0.00886	-0.13210	0.16042	273.837	39.533	8.000
1	1	210	0.04651	-0.11032	0.17009	292.862	35.140	34.000
1	1	211	0.03960	-0.07367	0.19045	298.259	23.709	60.000
1	1	212	0.02990	-0.03492	0.20286	310.572	12.769	86.000
1	1	213	0.06024	0.00250	0.19907	2.381	16.851	112.000
1	1	214	0.09897	-0.00172	0.18294	359.003	28.418	18.000
1	1	215	0.13410	-0.00733	0.15883	356.872	40.216	44.000
1	1	216	0.14740	0.03028	0.14360	11.607	46.339	70.000
1	1	217	0.15399	0.06633	0.12308	23.304	53.718	96.000
1	1	218	0.12226	0.07453	0.15087	31.366	43.503	2.000
1	1	219	0.08581	0.08026	0.17164	43.086	34.392	28.000
1	1	220	0.07571	0.04209	0.18910	29.070	24.612	54.000
1	1	221	0.11384	0.03711	0.17008	18.054	35.147	80.000
1	1	222	0.09072	0.11574	0.14710	51.912	44.992	106.000
1	1	223	0.12552	0.10913	0.12490	41.006	53.096	12.000
1	1	224	0.18897	0.07676	0.04076	22.107	78.698	38.000
1	1	225	0.20283	0.04082	0.02137	11.379	84.102	64.000
2	1	226	0.20163	0.04550	-0.02326	12.716	96.421	90.000
2	1	227	0.20197	0.01152	-0.04836	3.266	103.445	116.000
2	1	228	0.18919	0.04283	-0.07508	12.755	111.158	22.000
2	1	229	0.16906	0.07187	-0.09756	23.032	117.972	48.000
2	1	230	0.17200	0.03235	-0.11240	10.651	122.708	74.000
2	1	231	0.18805	0.00158	-0.08887	0.482	115.295	100.000
2	1	232	0.19652	-0.02932	-0.06150	351.515	107.199	6.000
2	1	233	0.17882	-0.04712	-0.09522	345.237	117.246	32.000
2	1	234	0.15376	-0.06337	-0.12492	337.602	126.911	58.000
2	1	235	0.13693	-0.10418	-0.11688	322.737	124.189	84.000
2	1	236	0.11290	-0.13879	-0.10609	309.127	120.667	110.000
2	1	237	0.14661	-0.12575	-0.07718	319.381	111.782	16.000
2	1	238	0.16664	-0.08883	-0.08720	331.938	114.785	42.000
2	1	239	0.18850	-0.07003	-0.05318	339.618	104.814	68.000
2	1	240	0.17255	-0.10758	-0.04378	328.059	102.151	94.000
1	1	241	0.17399	-0.11398	0.00000	326.770	90.000	120.000
2	1	242	0.19256	-0.07782	-0.01137	337.993	93.134	26.000
2	1	243	0.20342	-0.03803	-0.02087	349.411	95.760	52.000
1	1	244	0.20321	-0.03911	0.02094	349.107	84.222	78.000
1	1	245	0.19031	-0.07714	0.03308	337.936	80.849	104.000
1	1	246	0.16981	-0.11201	0.04339	326.589	77.958	10.000
1	1	247	0.14267	-0.14279	0.05019	314.975	76.036	36.000
1	1	248	0.10966	-0.16766	0.05592	303.188	74.404	62.000
1	1	249	0.07901	-0.17330	0.08359	294.508	66.304	88.000
1	1	250	0.11565	-0.17230	0.01421	303.869	86.081	114.000
1	1	251	0.14833	-0.14556	0.00867	315.540	87.611	20.000
2	1	252	0.14892	-0.14119	-0.03395	316.527	99.394	46.000
2	1	253	0.04356	-0.19224	-0.06640	282.766	108.617	72.000
2	1	254	0.04131	-0.20233	-0.02492	281.540	96.882	98.000

1	1	255	0.04258	-0.20263	0.01977	281.867	84.546	4.000
2	1	256	-0.00162	-0.20304	-0.04512	269.544	102.529	30.000
2	1	257	0.00222	-0.18950	-0.08572	270.671	114.339	56.000
2	1	258	-0.03896	-0.19245	-0.06863	258.555	109.267	82.000
2	1	259	-0.04208	-0.20200	-0.02622	258.234	97.243	108.000
2	1	260	-0.07731	-0.18731	-0.04693	247.573	103.039	14.000
2	1	261	-0.07885	-0.19244	-0.00348	247.720	90.957	40.000
1	1	262	-0.04538	-0.20179	0.02199	257.325	83.930	66.000
1	1	263	-0.03446	-0.19524	0.06292	259.992	72.392	92.000
1	1	264	-0.07052	-0.17848	0.08024	248.441	67.309	118.000
1	1	265	-0.08231	-0.18669	0.04047	246.207	78.782	24.000
1	1	266	-0.11575	-0.17163	0.02020	236.005	84.426	50.000
2	1	267	-0.14705	-0.14711	0.00000	225.012	90.000	76.000
2	1	268	-0.14292	-0.14433	-0.04479	225.281	102.434	102.000
2	1	269	-0.16412	-0.11039	-0.06436	213.927	108.025	8.000
2	1	270	-0.17081	-0.11672	-0.02155	214.347	95.946	34.000
1	1	271	-0.16957	-0.11840	0.02218	214.926	83.879	60.000
1	1	272	-0.14232	-0.14519	0.04392	225.570	77.810	86.000
1	1	273	-0.11013	-0.16375	0.06573	236.077	71.579	112.000
2	1	274	-0.11391	-0.17236	-0.02411	236.540	96.657	18.000
1	1	275	-0.07127	-0.13018	0.14573	241.299	45.521	44.000
1	1	276	-0.07887	-0.09413	0.16788	230.040	36.185	70.000
1	1	277	0.14585	-0.04650	0.14082	342.318	47.388	96.000
1	1	278	0.15115	-0.08282	0.11644	331.281	55.958	2.000
2	1	279	0.19149	0.08117	-0.00258	22.972	90.711	28.000
1	1	280	0.17191	0.11586	0.01695	33.980	85.325	54.000
2	1	281	0.17182	0.11420	-0.02644	33.611	97.303	80.000
2	1	282	0.14509	0.14232	-0.04424	44.449	102.279	106.000
2	1	283	0.11292	0.16416	-0.05970	55.478	106.678	12.000
2	1	284	0.13057	0.13539	-0.08880	46.037	115.272	38.000
2	1	285	0.14224	0.10121	-0.11309	35.432	122.935	64.000
2	1	286	0.10651	0.12376	-0.12885	49.285	128.278	90.000
2	1	287	0.09345	0.15442	-0.10336	58.819	119.798	116.000
2	1	288	0.06856	0.13283	-0.14464	62.698	134.057	22.000
2	1	289	0.03060	0.15117	-0.13955	78.555	132.138	48.000
2	1	290	0.03749	0.11127	-0.17169	71.380	145.634	74.000
2	1	291	-0.00377	0.11583	-0.17273	91.865	146.141	100.000
2	1	292	-0.03078	0.07618	-0.19109	112.000	156.734	6.000
2	1	293	0.05058	0.06474	-0.19109	52.000	156.734	32.000
2	1	294	0.07721	0.09510	-0.16810	50.925	143.919	58.000
2	1	295	0.11538	0.08765	-0.14923	37.223	135.845	84.000
2	1	296	0.14185	0.05610	-0.14141	21.580	132.831	110.000
2	1	297	0.10235	0.05148	-0.17360	26.700	146.578	16.000
2	1	298	0.16690	-0.01573	-0.12313	354.616	126.297	42.000
2	1	299	0.08131	-0.08471	-0.17169	313.829	145.632	68.000
2	1	300	0.03078	-0.07618	-0.19109	292.000	156.734	94.000
2	1	301	0.16167	0.10983	-0.07116	34.192	110.007	120.000
2	1	302	0.18596	0.07927	-0.04896	23.086	103.616	26.000
2	1	303	-0.02062	0.17296	-0.11367	96.800	123.128	52.000

Table 4. Position (meters) and orientation (deg) of the cube corners