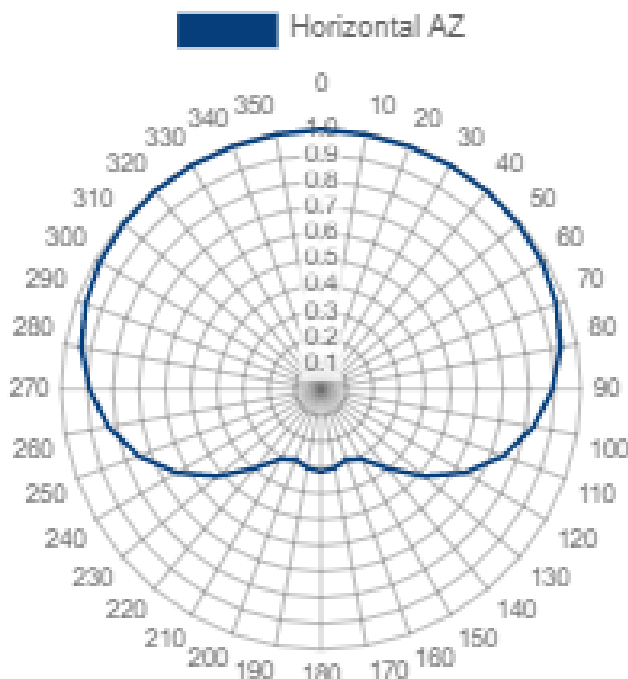


## Azimuth Pattern

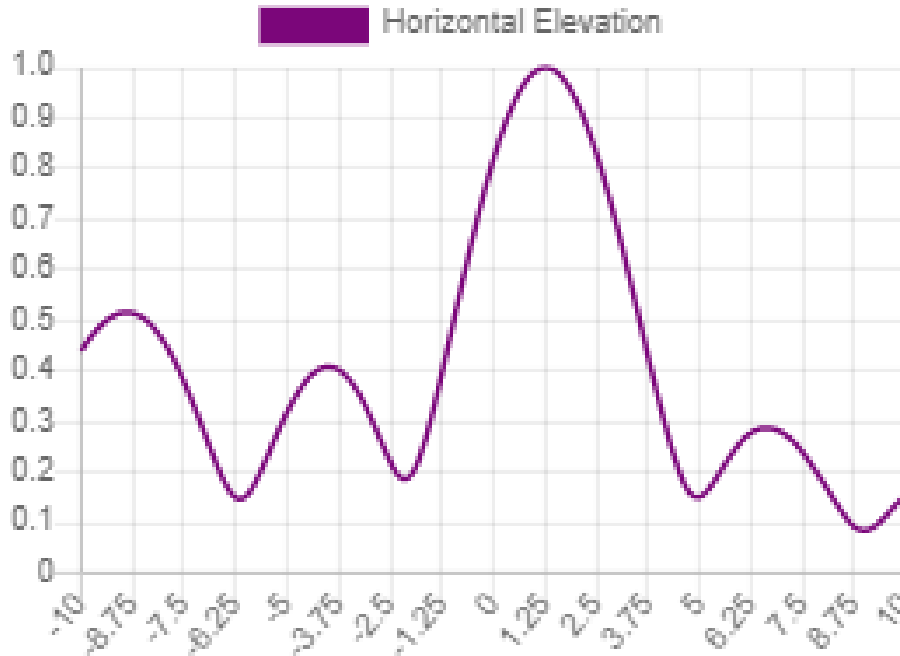
Type:	ALP-W	Polarization:	Horizontal
Directivity:	1.58 numeric (1.99 dB)	Frequency:	23 (ATSC)
Peak(s) at:		Location:	Chambersburg, PA
Note: Pattern shape and directivity may vary with channel and mounting configuration.			



Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0	1.000	0	61	0.981	-0.17	122	0.618	-4.18	183	0.316	-10.01	244	0.685	-3.29	305	0.988	-0.1
1	0.999	-0.01	62	0.979	-0.18	123	0.606	-4.35	184	0.316	-10.01	245	0.696	-3.15	306	0.988	-0.1
2	0.998	-0.02	63	0.978	-0.19	124	0.594	-4.52	185	0.315	-10.03	246	0.708	-3	307	0.989	-0.1
3	0.998	-0.02	64	0.976	-0.21	125	0.582	-4.7	186	0.314	-10.06	247	0.718	-2.88	308	0.990	-0.09
4	0.997	-0.03	65	0.975	-0.22	126	0.569	-4.9	187	0.312	-10.12	248	0.728	-2.76	309	0.991	-0.08
5	0.997	-0.03	66	0.973	-0.24	127	0.557	-5.08	188	0.311	-10.14	249	0.738	-2.64	310	0.991	-0.08
6	0.997	-0.03	67	0.971	-0.26	128	0.544	-5.29	189	0.309	-10.2	250	0.747	-2.53	311	0.991	-0.08
7	0.996	-0.03	68	0.969	-0.27	129	0.532	-5.48	190	0.306	-10.29	251	0.758	-2.41	312	0.992	-0.07
8	0.996	-0.03	69	0.967	-0.29	130	0.519	-5.7	191	0.305	-10.31	252	0.766	-2.32	313	0.992	-0.07
9	0.995	-0.04	70	0.964	-0.32	131	0.506	-5.92	192	0.302	-10.4	253	0.774	-2.23	314	0.993	-0.06
10	0.995	-0.04	71	0.962	-0.34	132	0.493	-6.14	193	0.299	-10.49	254	0.784	-2.11	315	0.993	-0.06
11	0.996	-0.03	72	0.960	-0.35	133	0.479	-6.39	194	0.296	-10.57	255	0.792	-2.03	316	0.993	-0.06
12	0.996	-0.03	73	0.957	-0.38	134	0.468	-6.6	195	0.295	-10.6	256	0.800	-1.94	317	0.993	-0.06
13	0.995	-0.04	74	0.955	-0.4	135	0.455	-6.84	196	0.292	-10.69	257	0.808	-1.85	318	0.994	-0.05
14	0.995	-0.04	75	0.952	-0.43	136	0.443	-7.07	197	0.290	-10.75	258	0.816	-1.77	319	0.994	-0.05
15	0.995	-0.04	76	0.949	-0.45	137	0.430	-7.33	198	0.288	-10.81	259	0.823	-1.69	320	0.995	-0.04
16	0.995	-0.04	77	0.946	-0.48	138	0.419	-7.56	199	0.287	-10.84	260	0.830	-1.62	321	0.994	-0.05
17	0.994	-0.05	78	0.942	-0.52	139	0.407	-7.81	200	0.286	-10.87	261	0.838	-1.54	322	0.994	-0.05
18	0.994	-0.05	79	0.939	-0.55	140	0.395	-8.07	201	0.285	-10.9	262	0.844	-1.47	323	0.994	-0.05
19	0.995	-0.04	80	0.936	-0.57	141	0.384	-8.31	202	0.285	-10.9	263	0.850	-1.41	324	0.995	-0.04
20	0.994	-0.05	81	0.932	-0.61	142	0.373	-8.57	203	0.285	-10.9	264	0.857	-1.34	325	0.994	-0.05
21	0.995	-0.04	82	0.928	-0.65	143	0.363	-8.8	204	0.286	-10.87	265	0.863	-1.28	326	0.994	-0.05
22	0.994	-0.05	83	0.924	-0.69	144	0.354	-9.02	205	0.288	-10.81	266	0.869	-1.22	327	0.995	-0.04
23	0.994	-0.05	84	0.921	-0.71	145	0.344	-9.27	206	0.291	-10.72	267	0.875	-1.16	328	0.994	-0.05
24	0.994	-0.05	85	0.916	-0.76	146	0.337	-9.45	207	0.294	-10.63	268	0.880	-1.11	329	0.994	-0.05
25	0.994	-0.05	86	0.911	-0.81	147	0.328	-9.68	208	0.297	-10.54	269	0.886	-1.05	330	0.994	-0.05
26	0.994	-0.05	87	0.907	-0.85	148	0.321	-9.87	209	0.303	-10.37	270	0.891	-1	331	0.994	-0.05
27	0.994	-0.05	88	0.902	-0.9	149	0.314	-10.06	210	0.308	-10.23	271	0.897	-0.94	332	0.994	-0.05
28	0.994	-0.05	89	0.897	-0.94	150	0.308	-10.23	211	0.314	-10.06	272	0.902	-0.9	333	0.994	-0.05
29	0.994	-0.05	90	0.891	-1	151	0.303	-10.37	212	0.321	-9.87	273	0.907	-0.85	334	0.994	-0.05
30	0.994	-0.05	91	0.886	-1.05	152	0.297	-10.54	213	0.328	-9.68	274	0.911	-0.81	335	0.994	-0.05
31	0.994	-0.05	92	0.880	-1.11	153	0.294	-10.63	214	0.337	-9.45	275	0.916	-0.76	336	0.994	-0.05
32	0.994	-0.05	93	0.875	-1.16	154	0.291	-10.72	215	0.344	-9.27	276	0.921	-0.71	337	0.994	-0.05
33	0.995	-0.04	94	0.869	-1.22	155	0.288	-10.81	216	0.354	-9.02	277	0.924	-0.69	338	0.994	-0.05
34	0.994	-0.05	95	0.863	-1.28	156	0.286	-10.87	217	0.363	-8.8	278	0.928	-0.65	339	0.995	-0.04
35	0.994	-0.05	96	0.857	-1.34	157	0.285	-10.9	218	0.373	-8.57	279	0.932	-0.61	340	0.994	-0.05
36	0.995	-0.04	97	0.850	-1.41	158	0.285	-10.9	219	0.384	-8.31	280	0.936	-0.57	341	0.995	-0.04
37	0.994	-0.05	98	0.844	-1.47	159	0.285	-10.9	220	0.395	-8.07	281	0.939	-0.55	342	0.994	-0.05
38	0.994	-0.05	99	0.838	-1.54	160	0.286	-10.87	221	0.407	-7.81	282	0.942	-0.52	343	0.994	-0.05
39	0.994	-0.05	100	0.830	-1.62	161	0.287	-10.84	222	0.419	-7.56	283	0.946	-0.48	344	0.995	-0.04
40	0.995	-0.04	101	0.823	-1.69	162	0.288	-10.81	223	0.430	-7.33	284	0.949	-0.45	345	0.995	-0.04
41	0.994	-0.05	102	0.816	-1.77	163	0.290	-10.75	224	0.443	-7.07	285	0.952	-0.43	346	0.995	-0.04
42	0.994	-0.05	103	0.808	-1.85	164	0.292	-10.69	225	0.455	-6.84	286	0.955	-0.4	347	0.995	-0.04
43	0.993	-0.06	104	0.800	-1.94	165	0.295	-10.6	226	0.468	-6.6	287	0.957	-0.38	348	0.996	-0.03
44	0.993	-0.06	105	0.792	-2.03	166	0.296	-10.57	227	0.479	-6.39	288	0.960	-0.35	349	0.996	-0.03
45	0.993	-0.06	106	0.784	-2.11	167	0.299	-10.49	228	0.493	-6.14	289	0.962	-0.34	350	0.995	-0.04
46	0.993	-0.06	107	0.774	-2.23	168	0.302	-10.4	229	0.506	-5.92	290	0.964	-0.32	351	0.995	-0.04
47	0.992	-0.07	108	0.766	-2.32	169	0.305	-10.31	230	0.519	-5.7	291	0.967	-0.29	352	0.996	-0.03
48	0.992	-0.07	109	0.758	-2.41	170	0.306	-10.29	231	0.532	-5.48	292	0.969	-0.27	353	0.996	-0.03
49	0.991	-0.08	110	0.747	-2.53	171	0.309	-10.2	232	0.544	-5.29	293	0.971	-0.26	354	0.997	-0.03
50	0.991	-0.08	111	0.738	-2.64	172	0.311	-10.14	233	0.557	-5.08	294	0.973	-0.24	355	0.997	-0.03
51	0.991	-0.08	112	0.728	-2.76	173	0.312	-10.12	234	0.569	-4.9	295	0.975	-0.22	356	0.997	-0.03
52	0.990	-0.09	113	0.718	-2.88	174	0.314	-10.06	235	0.582	-4.7	296	0.976	-0.21	357	0.998	-0.02
53	0.989	-0.1	114	0.708	-3	175	0.315	-10.03	236	0.594	-4.52	297	0.978	-0.19	358	0.998	-0.02
54	0.988	-0.1	115	0.696	-3.15	176	0.316	-10.01	237	0.606	-4.35	298	0.979	-0.18	359	0.999	-0.01
55	0.988	-0.1	116	0.685	-3.29	177	0.316	-10.01	238	0.618	-4.18	299	0.981	-0.17	360	1.000	0
56	0.986	-0.12	117	0.675	-3.41	178	0.316	-10.01	239	0.629	-4.03	300	0.982	-0.16			
57	0.985	-0.13	118	0.663	-3.57	179	0.317	-9.98	240	0.640	-3.88	301	0.984	-0.14			
58	0.985	-0.13	119	0.652	-3.72	180	0.316	-10.01	241	0.652	-3.72	302	0.985	-0.13			
59	0.984	-0.14	120	0.640	-3.88	181	0.317	-9.98	242	0.663	-3.57	303	0.985	-0.13			
60	0.982	-0.16	121	0.629	-4.03	182	0.316	-10.01	243	0.675	-3.41	304	0.986	-0.12			

### Elevation Pattern

Type:	ALP12L5	Polarization:	Horizontal
Directivity:		Frequency:	23 (ATSC)
Main Lobe:	11.84 numeric (10.73 dB)	Location:	Chambersburg, PA
Horizontal:	7.92 numeric (8.99 dB)	Beam Tilt:	1.25 degrees



Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-10.00	0.439	-7.15	6.75	0.286	-10.87	23.50	0.208	-13.64	40.25	0.084	-21.51	57.00	0.11	-19.17	73.75	0.143	-16.89
-9.75	0.468	-6.6	7.00	0.278	-11.12	23.75	0.207	-13.68	40.50	0.07	-23.1	57.25	0.101	-19.91	74.00	0.145	-16.77
-9.50	0.491	-6.18	7.25	0.262	-11.63	24.00	0.204	-13.81	40.75	0.058	-24.73	57.50	0.091	-20.82	74.25	0.148	-16.59
-9.25	0.507	-5.9	7.50	0.239	-12.43	24.25	0.197	-14.11	41.00	0.047	-26.56	57.75	0.082	-21.72	74.50	0.15	-16.48
-9.00	0.515	-5.76	7.75	0.21	-13.56	24.50	0.188	-14.52	41.25	0.038	-28.4	58.00	0.073	-22.73	74.75	0.151	-16.42
-8.75	0.514	-5.78	8.00	0.179	-14.94	24.75	0.177	-15.04	41.50	0.032	-29.9	58.25	0.065	-23.74	75.00	0.153	-16.31
-8.50	0.505	-5.93	8.25	0.146	-16.71	25.00	0.164	-15.7	41.75	0.031	-30.17	58.50	0.057	-24.88	75.25	0.154	-16.25
-8.25	0.486	-6.27	8.50	0.115	-18.79	25.25	0.149	-16.54	42.00	0.032	-29.9	58.75	0.052	-25.68	75.50	0.155	-16.19
-8.00	0.458	-6.78	8.75	0.091	-20.82	25.50	0.134	-17.46	42.25	0.036	-28.87	59.00	0.048	-26.38	75.75	0.155	-16.19
-7.75	0.422	-7.49	9.00	0.083	-21.62	25.75	0.117	-18.64	42.50	0.041	-27.74	59.25	0.048	-26.38	76.00	0.155	-16.19
-7.50	0.379	-8.43	9.25	0.092	-20.72	26.00	0.101	-19.91	42.75	0.045	-26.94	59.50	0.05	-26.02	76.25	0.155	-16.19
-7.25	0.33	-9.63	9.50	0.111	-19.09	26.25	0.085	-21.41	43.00	0.048	-26.38	59.75	0.054	-25.35	76.50	0.155	-16.19
-7.00	0.277	-11.15	9.75	0.134	-17.46	26.50	0.07	-23.1	43.25	0.05	-26.02	60.00	0.06	-24.44	76.75	0.155	-16.19
-6.75	0.224	-13	10.00	0.155	-16.19	26.75	0.055	-25.19	43.50	0.051	-25.85	60.25	0.066	-23.61	77.00	0.154	-16.25
-6.50	0.177	-15.04	10.25	0.172	-15.29	27.00	0.043	-27.33	43.75	0.051	-25.85	60.50	0.074	-22.62	77.25	0.153	-16.31
-6.25	0.149	-16.54	10.50	0.185	-14.66	27.25	0.032	-29.9	44.00	0.05	-26.02	60.75	0.081	-21.83	77.50	0.152	-16.36
-6.00	0.151	-16.42	10.75	0.193	-14.29	27.50	0.022	-33.15	44.25	0.048	-26.38	61.00	0.088	-21.11	77.75	0.15	-16.48
-5.75	0.182	-14.8	11.00	0.195	-14.2	27.75	0.016	-35.92	44.50	0.046	-26.74	61.25	0.094	-20.54	78.00	0.149	-16.54
-5.50	0.226	-12.92	11.25	0.192	-14.33	28.00	0.011	-39.17	44.75	0.042	-27.54	61.50	0.1	-20	78.25	0.147	-16.65
-5.25	0.274	-11.24	11.50	0.184	-14.7	28.25	0.01	-40	45.00	0.038	-28.4	61.75	0.106	-19.49	78.50	0.145	-16.77
-5.00	0.318	-9.95	11.75	0.172	-15.29	28.50	0.009	-40.92	45.25	0.034	-29.37	62.00	0.111	-19.09	78.75	0.143	-16.89
-4.75	0.355	-9	12.00	0.157	-16.08	28.75	0.008	-41.94	45.50	0.029	-30.75	62.25	0.115	-18.79	79.00	0.14	-17.08
-4.50	0.384	-8.31	12.25	0.138	-17.2	29.00	0.006	-44.44	45.75	0.025	-32.04	62.50	0.118	-18.56	79.25	0.138	-17.2
-4.25	0.402	-7.92	12.50	0.118	-18.56	29.25	0.003	-50.46	46.00	0.02	-33.98	62.75	0.121	-18.34	79.50	0.135	-17.39
-4.00	0.408	-7.79	12.75	0.096	-20.35	29.50	0	--	46.25	0.016	-35.92	63.00	0.123	-18.2	79.75	0.133	-17.52
-3.75	0.402	-7.92	13.00	0.074	-22.62	29.75	0.004	-47.96	46.50	0.012	-38.42	63.25	0.124	-18.13	80.00	0.13	-17.72
-3.50	0.383	-8.34	13.25	0.053	-25.51	30.00	0.008	-41.94	46.75	0.009	-40.92	63.50	0.124	-18.13	80.25	0.127	-17.92
-3.25	0.353	-9.04	13.50	0.033	-29.63	30.25	0.013	-37.72	47.00	0.007	-43.1	63.75	0.124	-18.13	80.50	0.124	-18.13
-3.00	0.313	-10.09	13.75	0.014	-37.08	30.50	0.017	-35.39	47.25	0.005	-46.02	64.00	0.123	-18.2	80.75	0.121	-18.34
-2.75	0.267	-11.47	14.00	0.001	-60	30.75	0.021	-33.56	47.50	0.003	-50.46	64.25	0.121	-18.34	81.00	0.118	-18.56
-2.50	0.221	-13.11	14.25	0.014	-37.08	31.00	0.024	-32.4	47.75	0.002	-53.98	64.50	0.119	-18.49	81.25	0.115	-18.79
-2.25	0.189	-14.47	14.50	0.024	-32.4	31.25	0.026	-31.7	48.00	0.001	-60	64.75	0.115	-18.79	81.50	0.112	-19.02
-2.00	0.192	-14.33	14.75	0.03	-30.46	31.50	0.027	-31.37	48.25	0.001	-60	65.00	0.112	-19.02	81.75	0.108	-19.33
-1.75	0.236	-12.54	15.00	0.033	-29.63	31.75	0.027	-31.37	48.50	0.004	-47.96	65.25	0.108	-19.33	82.00	0.105	-19.58
-1.50	0.307	-10.26	15.25	0.033	-29.63	32.00	0.025	-32.04	48.75	0.008	-41.94	65.50	0.103	-19.74	82.25	0.102	-19.83
-1.25	0.393	-8.11	15.50	0.031	-30.17	32.25	0.023	-32.77	49.00	0.013	-37.72	65.75	0.098	-20.18	82.50	0.098	-20.18
-1.00	0.484	-6.3	15.75	0.027	-31.37	32.50	0.021	-33.56	49.25	0.019	-34.42	66.00	0.092	-20.72	82.75	0.095	-20.45
-0.75	0.575	-4.81	16.00	0.025	-32.04	32.75	0.021	-33.56	49.50	0.025	-32.04	66.25	0.087	-21.21	83.00	0.091	-20.82
-0.50	0.663	-3.57	16.25	0.026	-31.7	33.00	0.024	-32.4	49.75	0.032	-29.9	66.50	0.081	-21.83	83.25	0.088	-21.11
-0.25	0.745	-2.56	16.50	0.033	-29.63	33.25	0.031	-30.17	50.00	0.04	-27.96	66.75	0.075	-22.5	83.50	0.084	-21.51
0.00	0.818	-1.74	16.75	0.043	-27.33	33.50	0.04	-27.96	50.25	0.048	-26.38	67.00	0.07	-23.1	83.75	0.081	-21.83
0.25	0.881	-1.1	17.00	0.054	-25.35	33.75	0.052	-25.68	50.50	0.057	-24.88	67.25	0.064	-23.88	84.00	0.077	-22.27
0.50	0.931	-0.62	17.25	0.065	-23.74	34.00	0.065	-23.74	50.75	0.066	-23.61	67.50	0.059	-24.58	84.25	0.074	-22.62
0.75	0.969	-0.27	17.50	0.076	-22.38	34.25	0.078	-22.16	51.00	0.075	-22.5	67.75	0.055	-25.19	84.50	0.07	-23.1
1.00	0.992	-0.07	17.75	0.085	-21.41	34.50	0.093	-20.63	51.25	0.085	-21.41	68.00	0.052	-25.68	84.75	0.067	-23.48
1.25	1	0	18.00	0.092	-20.72	34.75	0.107	-19.41	51.50	0.094	-20.54	68.25	0.05	-26.02	85.00	0.063	-24.01
1.50	0.994	-0.05	18.25	0.096	-20.35	35.00	0.121	-18.34	51.75	0.103	-19.74	68.50	0.049	-26.2	85.25	0.06	-24.44
1.75	0.973	-0.24	18.50	0.098	-20.18	35.25	0.135	-17.39	52.00	0.112	-19.02	68.75	0.05	-26.02	85.50	0.056	-25.04
2.00	0.938	-0.56	18.75	0.096	-20.35	35.50	0.147	-16.65	52.25	0.12	-18.42	69.00	0.052	-25.68	85.75	0.053	-25.51
2.25	0.89	-1.01	19.00	0.092	-20.72	35.75	0.159	-15.97	52.50	0.128	-17.86	69.25	0.056	-25.04	86.00	0.049	-26.2
2.50	0.831	-1.61	19.25	0.085	-21.41	36.00	0.169	-15.44	52.75	0.135	-17.39	69.50	0.06	-24.44	86.25	0.045	-26.94
2.75	0.762	-2.36	19.50	0.076	-22.38	36.25	0.178	-14.99	53.00	0.142	-16.95	69.75	0.065	-23.74	86.50	0.042	-27.54
3.00	0.686	-3.27	19.75	0.065	-23.74	36.50	0.185	-14.66	53.25	0.147	-16.65	70.00	0.07	-23.1	86.75	0.038	-28.4
3.25	0.603	-4.39	20.00	0.054	-25.35	36.75	0.191	-14.38	53.50	0.152	-16.36	70.25	0.076	-22.38	87.00	0.035	-29.12
3.50	0.517	-5.73	20.25	0.047	-26.56	37.00	0.194	-14.24	53.75	0.155	-16.19	70.50	0.082	-21.72	87.25	0.031	-30.17
3.75	0.43	-7.33	20.50	0.048	-26.38	37.25	0.195	-14.2	54.00	0.158	-16.03	70.75	0.088	-21.11	87.50	0.028	-31.06
4.00	0.346	-9.22	20.75	0.057	-24.88	37.50	0.194	-14.24	54.25	0.16	-15.92	71.00	0.094	-20.54	87.75	0.024	-32.4
4.25	0.268	-11.44	21.00	0.073	-22.73	37.75	0.191	-14.38	54.50	0.16	-15.92	71.25	0.099	-20.09	88.00	0.021	-33.56
4.50	0.202	-13.89	21.25	0.092	-20.72	38.00	0.186	-14.61	54.75	0.159	-15.97	71.50	0.105	-19.58	88.25	0.017	-35.39
4.75	0.159	-15.97	21.50	0.111	-19.09	38.25	0.18	-14.89	55.00	0.158	-16.03	71.75	0.11	-19.17	88.50	0.014	-37.08
5.00	0.15	-16.48	21.75	0.131	-17.65	38.50	0.171	-15.34	55.25	0.155	-16.19	72.00	0.115	-18.79	88.75	0.01	-40
5.25	0.169	-15.44	22.00	0.149	-16.54	38.75	0.162	-15.81	55.50	0.151	-16.42	72.25	0.12	-18.42	89.00	0.007	-43.1
5.50	0.2	-13.98	22.25	0.165	-15.65	39.00	0.15	-16.48	55.75	0.146	-16.71	72.50	0.1				