

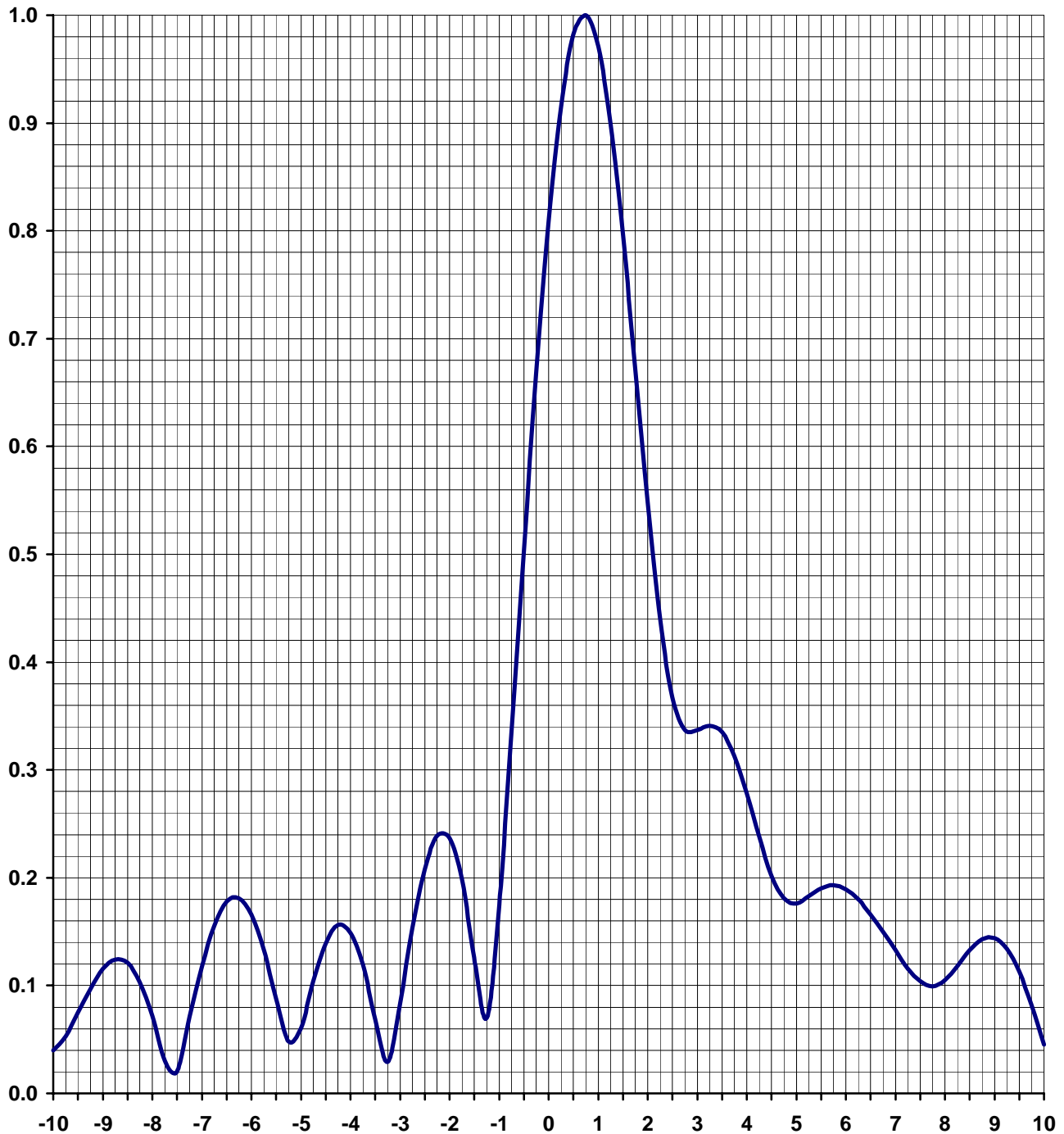
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**ELEVATION PATTERN**

<b>TYPE:</b>	<b>ATW28H3H</b>	
<b>Directivity:</b>	<b>Numeric</b>	<b>dBd</b>
<b>Main Lobe:</b>	<b>28.00</b>	<b>14.47</b>
<b>Horizontal:</b>	<b>0.10</b>	<b>(9.82)</b>

<b>Frequency:</b>	<b>38 (Digital)</b>
<b>Location:</b>	<b>Seattle, WA</b>
<b>Beam Tilt:</b>	<b>0.65</b>
<b>Polarization:</b>	<b>Horizontal</b>



## TABULATED DATA FOR ELEVATION PATTERN

**TYPE ATW28H3H**
**-5 to 10 degrees in 0.25 increments**
**10 to 90 degrees in 0.50 increments**

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-10.00	0.040	-27.96	2.00	0.548	-5.22	18.00	0.056	-25.04	42.00	0.039	-28.18	66.00	0.050	-26.02
-9.75	0.053	-25.51	2.25	0.439	-7.15	18.50	0.033	-29.63	42.50	0.028	-31.06	66.50	0.037	-28.64
-9.50	0.075	-22.50	2.50	0.367	-8.71	19.00	0.025	-32.04	43.00	0.026	-31.70	67.00	0.023	-32.77
-9.25	0.097	-20.26	2.75	0.337	-9.45	19.50	0.049	-26.20	43.50	0.028	-31.06	67.50	0.013	-37.72
-9.00	0.116	-18.71	3.00	0.337	-9.45	20.00	0.059	-24.58	44.00	0.025	-32.04	68.00	0.015	-36.48
-8.75	0.124	-18.13	3.25	0.341	-9.34	20.50	0.048	-26.38	44.50	0.015	-36.48	68.50	0.024	-32.40
-8.50	0.121	-18.34	3.50	0.335	-9.50	21.00	0.027	-31.37	45.00	0.005	-46.02	69.00	0.033	-29.63
-8.25	0.103	-19.74	3.75	0.313	-10.09	21.50	0.033	-29.63	45.50	0.019	-34.42	69.50	0.038	-28.40
-8.00	0.072	-22.85	4.00	0.278	-11.12	22.00	0.048	-26.38	46.00	0.032	-29.90	70.00	0.040	-27.96
-7.75	0.030	-30.46	4.25	0.238	-12.47	22.50	0.046	-26.74	46.50	0.039	-28.18	70.50	0.038	-28.40
-7.50	0.020	-33.98	4.50	0.202	-13.89	23.00	0.029	-30.75	47.00	0.036	-28.87	71.00	0.034	-29.37
-7.25	0.071	-22.97	4.75	0.181	-14.85	23.50	0.009	-40.92	47.50	0.027	-31.37	71.50	0.027	-31.37
-7.00	0.118	-18.56	5.00	0.176	-15.09	24.00	0.019	-34.42	48.00	0.017	-35.39	72.00	0.019	-34.42
-6.75	0.155	-16.19	5.25	0.183	-14.75	24.50	0.028	-31.06	48.50	0.019	-34.42	72.50	0.010	-40.00
-6.50	0.178	-14.99	5.50	0.190	-14.42	25.00	0.029	-30.75	49.00	0.030	-30.46	73.00	0.004	-47.96
-6.25	0.181	-14.85	5.75	0.193	-14.29	25.50	0.029	-30.75	49.50	0.037	-28.64	73.50	0.012	-38.42
-6.00	0.166	-15.60	6.00	0.189	-14.47	26.00	0.032	-29.90	50.00	0.039	-28.18	74.00	0.021	-33.56
-5.75	0.133	-17.52	6.25	0.180	-14.89	26.50	0.030	-30.46	50.50	0.036	-28.87	74.50	0.030	-30.46
-5.50	0.088	-21.11	6.50	0.166	-15.60	27.00	0.022	-33.15	51.00	0.030	-30.46	75.00	0.037	-28.64
-5.25	0.048	-26.38	6.75	0.150	-16.48	27.50	0.016	-35.92	51.50	0.027	-31.37	75.50	0.042	-27.54
-5.00	0.061	-24.29	7.00	0.133	-17.52	28.00	0.021	-33.56	52.00	0.026	-31.70	76.00	0.047	-26.56
-4.75	0.104	-19.66	7.25	0.116	-18.71	28.50	0.023	-32.77	52.50	0.025	-32.04	76.50	0.049	-26.20
-4.50	0.139	-17.14	7.50	0.104	-19.66	29.00	0.013	-37.72	53.00	0.022	-33.15	77.00	0.050	-26.02
-4.25	0.156	-16.14	7.75	0.099	-20.09	29.50	0.011	-39.17	53.50	0.016	-35.92	77.50	0.050	-26.02
-4.00	0.149	-16.54	8.00	0.105	-19.58	30.00	0.030	-30.46	54.00	0.014	-37.08	78.00	0.049	-26.20
-3.75	0.119	-18.49	8.25	0.118	-18.56	30.50	0.043	-27.33	54.50	0.019	-34.42	78.50	0.047	-26.56
-3.50	0.069	-23.22	8.50	0.133	-17.52	31.00	0.042	-27.54	55.00	0.026	-31.70	79.00	0.044	-27.13
-3.25	0.029	-30.75	8.75	0.143	-16.89	31.50	0.027	-31.37	55.50	0.029	-30.75	79.50	0.040	-27.96
-3.00	0.084	-21.51	9.00	0.144	-16.83	32.00	0.011	-39.17	56.00	0.027	-31.37	80.00	0.036	-28.87
-2.75	0.153	-16.31	9.25	0.134	-17.46	32.50	0.028	-31.06	56.50	0.020	-33.98	80.50	0.033	-29.63
-2.50	0.208	-13.64	9.50	0.113	-18.94	33.00	0.044	-27.13	57.00	0.007	-43.10	81.00	0.029	-30.75
-2.25	0.239	-12.43	9.75	0.082	-21.72	33.50	0.045	-26.94	57.50	0.011	-39.17	81.50	0.026	-31.70
-2.00	0.237	-12.51	10.00	0.045	-26.94	34.00	0.031	-30.17	58.00	0.028	-31.06	82.00	0.023	-32.77
-1.75	0.198	-14.07	10.50	0.040	-27.96	34.50	0.009	-40.92	58.50	0.044	-27.13	82.50	0.020	-33.98
-1.50	0.126	-17.99	11.00	0.097	-20.26	35.00	0.016	-35.92	59.00	0.055	-25.19	83.00	0.018	-34.89
-1.25	0.070	-23.10	11.50	0.110	-19.17	35.50	0.030	-30.46	59.50	0.061	-24.29	83.50	0.017	-35.39
-1.00	0.175	-15.14	12.00	0.077	-22.27	36.00	0.032	-29.90	60.00	0.059	-24.58	84.00	0.016	-35.92
-0.75	0.334	-9.53	12.50	0.030	-30.46	36.50	0.020	-33.98	60.50	0.051	-25.85	84.50	0.015	-36.48
-0.50	0.504	-5.95	13.00	0.059	-24.58	37.00	0.005	-46.02	61.00	0.037	-28.64	85.00	0.014	-37.08
-0.25	0.667	-3.52	13.50	0.087	-21.21	37.50	0.023	-32.77	61.50	0.019	-34.42	85.50	0.013	-37.72
0.00	0.809	-1.84	14.00	0.080	-21.94	38.00	0.038	-28.40	62.00	0.008	-41.94	86.00	0.013	-37.72
0.25	0.916	-0.76	14.50	0.051	-25.85	38.50	0.041	-27.74	62.50	0.025	-32.04	86.50	0.012	-38.42
0.50	0.982	-0.16	15.00	0.042	-27.54	39.00	0.033	-29.63	63.00	0.043	-27.33	87.00	0.010	-40.00
0.75	1.000	0.00	15.50	0.055	-25.19	39.50	0.025	-32.04	63.50	0.057	-24.88	87.50	0.009	-40.92
1.00	0.971	-0.26	16.00	0.050	-26.02	40.00	0.033	-29.63	64.00	0.066	-23.61	88.00	0.007	-43.10
1.25	0.900	-0.92	16.50	0.028	-31.06	40.50	0.046	-26.74	64.50	0.070	-23.10	88.50	0.006	-44.44
1.50	0.796	-1.98	17.00	0.035	-29.12	41.00	0.053	-25.51	65.00	0.068	-23.35	89.00	0.004	-47.96
1.75	0.673	-3.44	17.50	0.056	-25.04	41.50	0.049	-26.20	65.50	0.061	-24.29	89.50	0.002	-53.98
												90.00	0.000	---

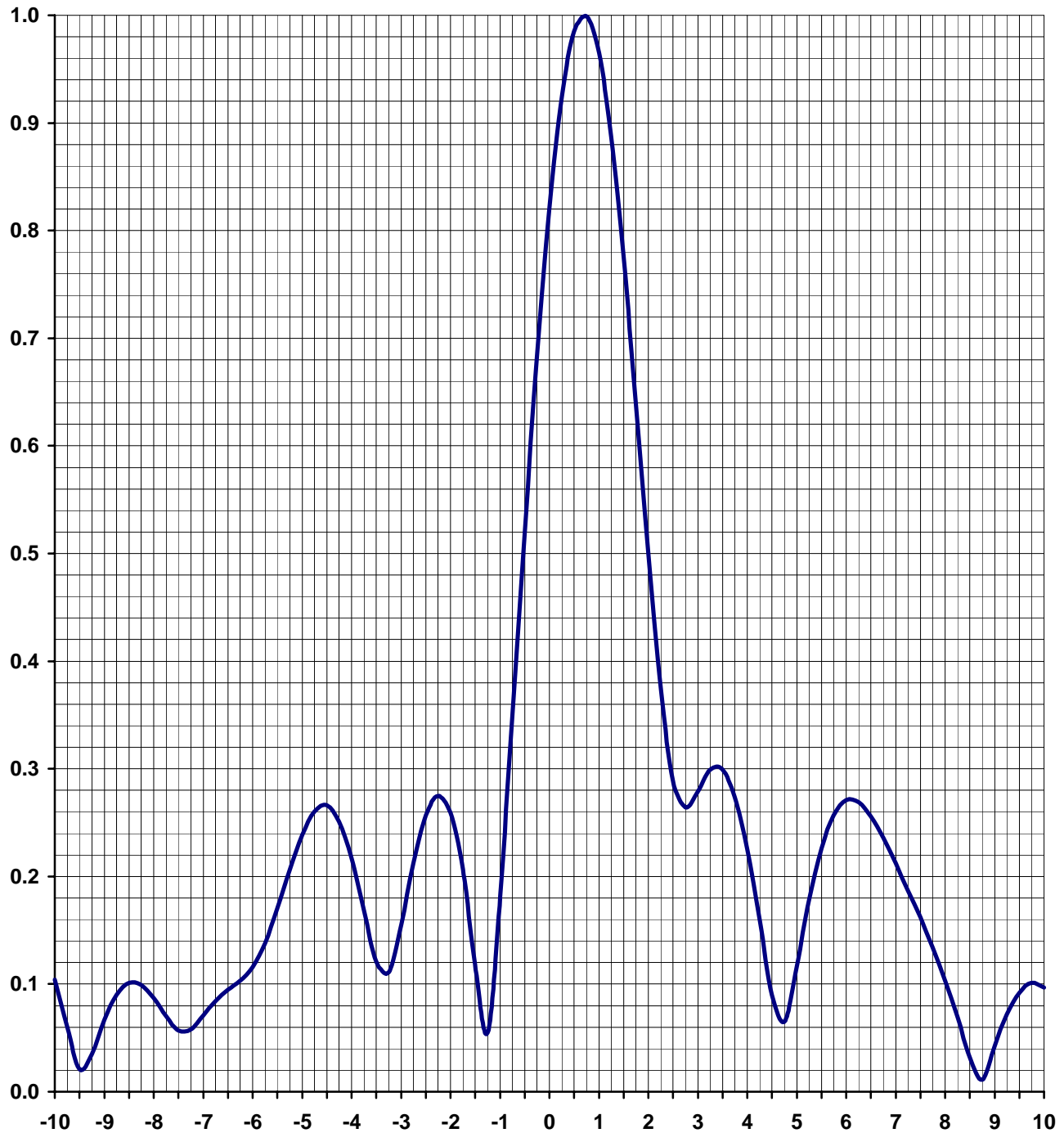
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**ELEVATION PATTERN**

<b>TYPE:</b>	<b>ATW25H3V</b>	
<b>Directivity:</b>	<b>Numeric</b>	<b>dBd</b>
<b>Main Lobe:</b>	<b>25.00</b>	<b>13.98</b>
<b>Horizontal:</b>	<b>1.43</b>	<b>1.55</b>

<b>Frequency:</b>	<b>38 (Digital)</b>
<b>Location:</b>	<b>Seattle, WA</b>
<b>Beam Tilt:</b>	<b>0.65</b>
<b>Polarization:</b>	<b>Vertical</b>



**TABULATED DATA FOR ELEVATION PATTERN**

TYPE ATW25H3V			-5 to 10 degrees in 0.25 increments						10 to 90 degrees in 0.50 increments					
ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
-10.00	0.104	-19.66	2.00	0.500	-6.02	18.00	0.061	-24.29	42.00	0.014	-37.08	66.00	0.056	-25.04
-9.75	0.060	-24.44	2.25	0.374	-8.54	18.50	0.054	-25.35	42.50	0.012	-38.42	66.50	0.057	-24.88
-9.50	0.021	-33.56	2.50	0.289	-10.78	19.00	0.048	-26.38	43.00	0.008	-41.94	67.00	0.060	-24.44
-9.25	0.035	-29.12	2.75	0.264	-11.57	19.50	0.054	-25.35	43.50	0.017	-35.39	67.50	0.063	-24.01
-9.00	0.067	-23.48	3.00	0.279	-11.09	20.00	0.063	-24.01	44.00	0.034	-29.37	68.00	0.065	-23.74
-8.75	0.090	-20.92	3.25	0.299	-10.49	20.50	0.062	-24.15	44.50	0.051	-25.85	68.50	0.067	-23.48
-8.50	0.101	-19.91	3.50	0.299	-10.49	21.00	0.047	-26.56	45.00	0.064	-23.88	69.00	0.066	-23.61
-8.25	0.099	-20.09	3.75	0.274	-11.24	21.50	0.031	-30.17	45.50	0.069	-23.22	69.50	0.063	-24.01
-8.00	0.087	-21.21	4.00	0.225	-12.96	22.00	0.036	-28.87	46.00	0.067	-23.48	70.00	0.057	-24.88
-7.75	0.070	-23.10	4.25	0.159	-15.97	22.50	0.049	-26.20	46.50	0.058	-24.73	70.50	0.050	-26.02
-7.50	0.057	-24.88	4.50	0.090	-20.92	23.00	0.052	-25.68	47.00	0.045	-26.94	71.00	0.041	-27.74
-7.25	0.058	-24.73	4.75	0.065	-23.74	23.50	0.042	-27.54	47.50	0.032	-29.90	71.50	0.031	-30.17
-7.00	0.071	-22.97	5.00	0.117	-18.64	24.00	0.032	-29.90	48.00	0.022	-33.15	72.00	0.023	-32.77
-6.75	0.084	-21.51	5.25	0.178	-14.99	24.50	0.036	-28.87	48.50	0.016	-35.92	72.50	0.020	-33.98
-6.50	0.095	-20.45	5.50	0.226	-12.92	25.00	0.043	-27.33	49.00	0.011	-39.17	73.00	0.023	-32.77
-6.25	0.103	-19.74	5.75	0.257	-11.80	25.50	0.043	-27.33	49.50	0.008	-41.94	73.50	0.030	-30.46
-6.00	0.116	-18.71	6.00	0.271	-11.34	26.00	0.039	-28.18	50.00	0.012	-38.42	74.00	0.038	-28.40
-5.75	0.138	-17.20	6.25	0.269	-11.40	26.50	0.041	-27.74	50.50	0.020	-33.98	74.50	0.045	-26.94
-5.50	0.170	-15.39	6.50	0.256	-11.84	27.00	0.047	-26.56	51.00	0.025	-32.04	75.00	0.051	-25.85
-5.25	0.206	-13.72	6.75	0.236	-12.54	27.50	0.046	-26.74	51.50	0.025	-32.04	75.50	0.056	-25.04
-5.00	0.239	-12.43	7.00	0.212	-13.47	28.00	0.034	-29.37	52.00	0.020	-33.98	76.00	0.058	-24.73
-4.75	0.260	-11.70	7.25	0.187	-14.56	28.50	0.026	-31.70	52.50	0.017	-35.39	76.50	0.060	-24.44
-4.50	0.266	-11.50	7.50	0.162	-15.81	29.00	0.040	-27.96	53.00	0.029	-30.75	77.00	0.059	-24.58
-4.25	0.251	-12.01	7.75	0.134	-17.46	29.50	0.058	-24.73	53.50	0.048	-26.38	77.50	0.058	-24.73
-4.00	0.217	-13.27	8.00	0.103	-19.74	30.00	0.066	-23.61	54.00	0.068	-23.35	78.00	0.055	-25.19
-3.75	0.168	-15.49	8.25	0.069	-23.22	30.50	0.061	-24.29	54.50	0.085	-21.41	78.50	0.051	-25.85
-3.50	0.121	-18.34	8.50	0.032	-29.90	31.00	0.046	-26.74	55.00	0.095	-20.45	79.00	0.047	-26.56
-3.25	0.111	-19.09	8.75	0.011	-39.17	31.50	0.027	-31.37	55.50	0.097	-20.26	79.50	0.043	-27.33
-3.00	0.155	-16.19	9.00	0.043	-27.33	32.00	0.011	-39.17	56.00	0.090	-20.92	80.00	0.038	-28.40
-2.75	0.212	-13.47	9.25	0.072	-22.85	32.50	0.003	-50.46	56.50	0.076	-22.38	80.50	0.033	-29.63
-2.50	0.257	-11.80	9.50	0.092	-20.72	33.00	0.016	-35.92	57.00	0.057	-24.88	81.00	0.029	-30.75
-2.25	0.275	-11.21	9.75	0.101	-19.91	33.50	0.030	-30.46	57.50	0.037	-28.64	81.50	0.025	-32.04
-2.00	0.259	-11.73	10.00	0.097	-20.26	34.00	0.042	-27.54	58.00	0.021	-33.56	82.00	0.021	-33.56
-1.75	0.206	-13.72	10.50	0.057	-24.88	34.50	0.047	-26.56	58.50	0.022	-33.15	82.50	0.018	-34.89
-1.50	0.118	-18.56	11.00	0.032	-29.90	35.00	0.042	-27.54	59.00	0.031	-30.17	83.00	0.016	-35.92
-1.25	0.055	-25.19	11.50	0.098	-20.18	35.50	0.032	-29.90	59.50	0.038	-28.40	83.50	0.015	-36.48
-1.00	0.182	-14.80	12.00	0.144	-16.83	36.00	0.031	-30.17	60.00	0.039	-28.18	84.00	0.014	-37.08
-0.75	0.348	-9.17	12.50	0.151	-16.42	36.50	0.045	-26.94	60.50	0.035	-29.12	84.50	0.013	-37.72
-0.50	0.520	-5.68	13.00	0.120	-18.42	37.00	0.059	-24.58	61.00	0.028	-31.06	85.00	0.013	-37.72
-0.25	0.682	-3.32	13.50	0.072	-22.85	37.50	0.066	-23.61	61.50	0.020	-33.98	85.50	0.012	-38.42
0.00	0.821	-1.71	14.00	0.043	-27.33	38.00	0.063	-24.01	62.00	0.020	-33.98	86.00	0.012	-38.42
0.25	0.925	-0.68	14.50	0.051	-25.85	38.50	0.051	-25.85	62.50	0.029	-30.75	86.50	0.011	-39.17
0.50	0.985	-0.13	15.00	0.055	-25.19	39.00	0.036	-28.87	63.00	0.039	-28.18	87.00	0.010	-40.00
0.75	0.999	-0.01	15.50	0.039	-28.18	39.50	0.021	-33.56	63.50	0.047	-26.56	87.50	0.009	-40.92
1.00	0.965	-0.31	16.00	0.013	-37.72	40.00	0.012	-38.42	64.00	0.053	-25.51	88.00	0.007	-43.10
1.25	0.887	-1.04	16.50	0.020	-33.98	40.50	0.009	-40.92	64.50	0.056	-25.04	88.50	0.006	-44.44
1.50	0.775	-2.21	17.00	0.044	-27.13	41.00	0.010	-40.00	65.00	0.057	-24.88	89.00	0.004	-47.96
1.75	0.640	-3.88	17.50	0.058	-24.73	41.50	0.012	-38.42	65.50	0.056	-25.04	89.50	0.002	-53.98
												90.00	0.000	---