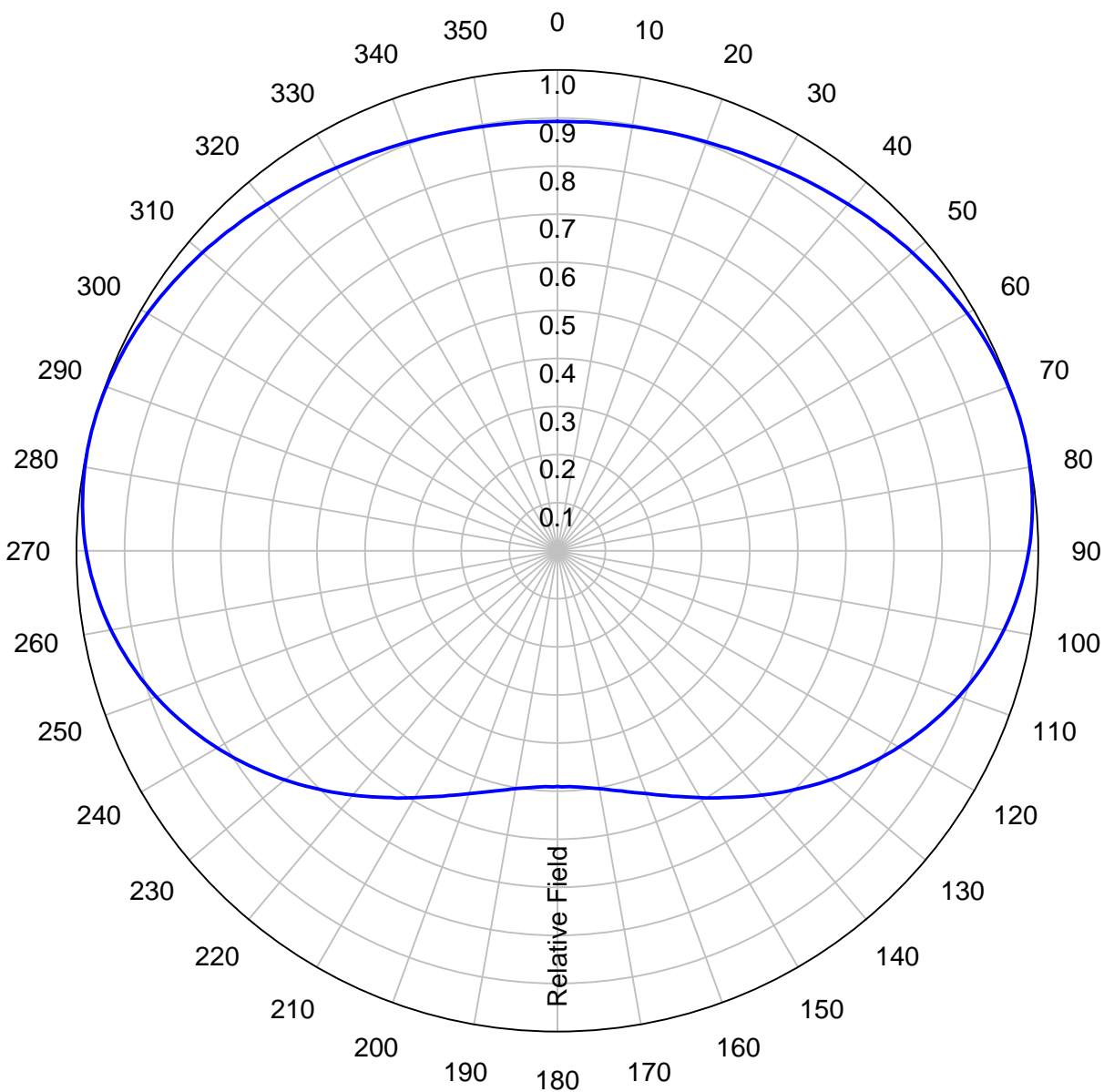


AZIMUTH PATTERN**Type:****ATW-WC****Channel:****38****Directivity:****Numeric****dBd****Location:****Fayetteville, NC****Peak(s) at:****1.40****1.46****Polarization:****Horizontal**

Note: Pattern shape and directivity may vary with channel and mouting configuration.



TABULATED DATA FOR AZIMUTH PATTERN

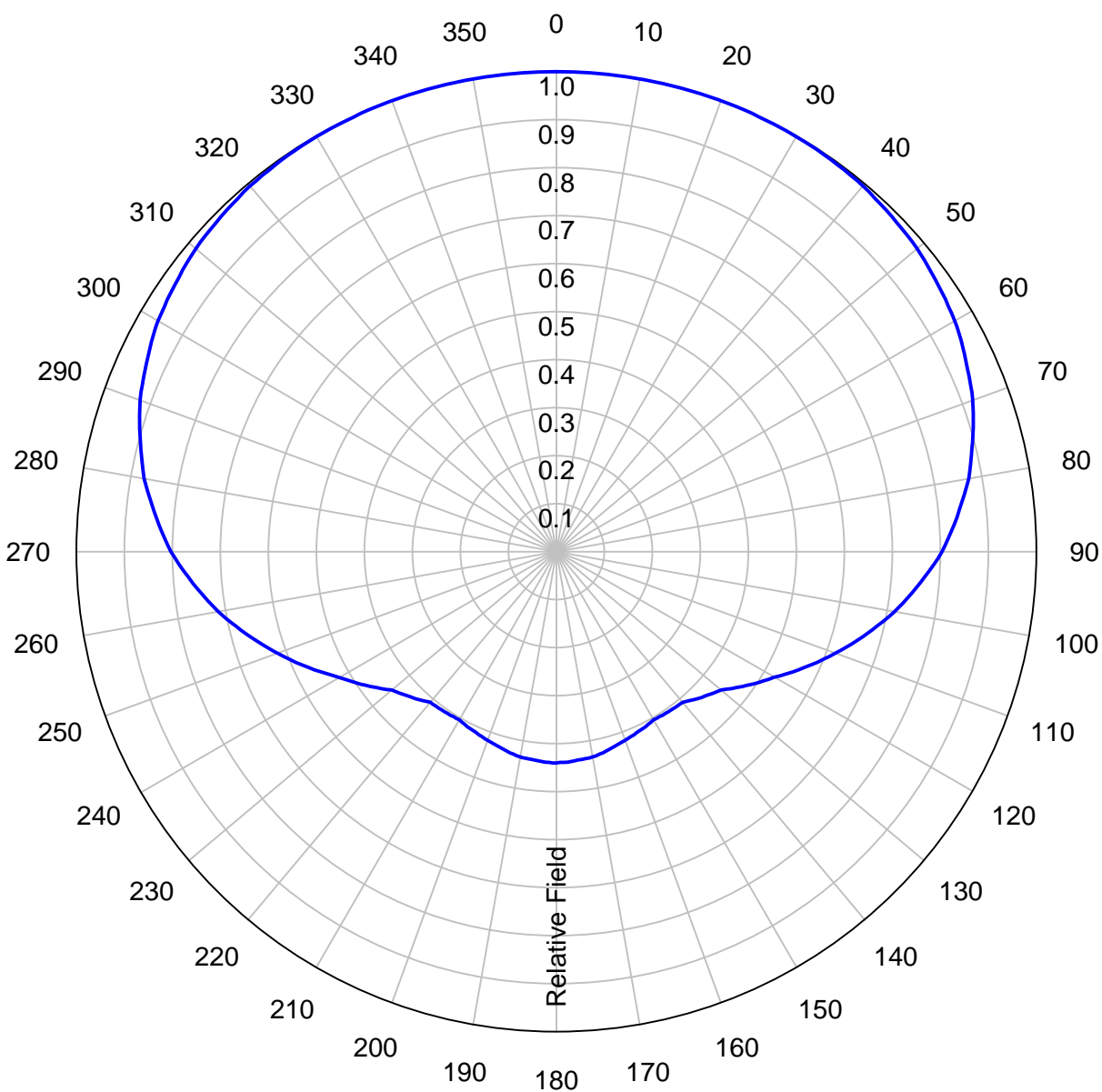
Type:ATW-WC

PolarizationHorizontal

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	0.893	-0.98	92	0.974	-0.23	184	0.492	-6.16	276	0.993	-0.06
2	0.893	-0.98	94	0.967	-0.29	186	0.495	-6.11	278	0.996	-0.03
4	0.894	-0.97	96	0.960	-0.35	188	0.498	-6.06	280	0.998	-0.02
6	0.894	-0.97	98	0.952	-0.43	190	0.502	-5.99	282	0.999	-0.01
8	0.895	-0.96	100	0.943	-0.51	192	0.508	-5.88	284	1.000	0.00
10	0.896	-0.95	102	0.933	-0.60	194	0.514	-5.78	286	1.000	0.00
12	0.897	-0.94	104	0.923	-0.70	196	0.521	-5.66	288	0.999	-0.01
14	0.899	-0.92	106	0.912	-0.80	198	0.529	-5.53	290	0.998	-0.02
16	0.901	-0.91	108	0.900	-0.92	200	0.537	-5.40	292	0.996	-0.03
18	0.903	-0.89	110	0.888	-1.03	202	0.547	-5.24	294	0.994	-0.05
20	0.905	-0.87	112	0.875	-1.16	204	0.557	-5.08	296	0.992	-0.07
22	0.907	-0.85	114	0.861	-1.30	206	0.568	-4.91	298	0.989	-0.10
24	0.910	-0.82	116	0.847	-1.44	208	0.580	-4.73	300	0.985	-0.13
26	0.913	-0.79	118	0.833	-1.59	210	0.593	-4.54	302	0.981	-0.17
28	0.916	-0.76	120	0.818	-1.74	212	0.606	-4.35	304	0.977	-0.20
30	0.920	-0.72	122	0.803	-1.91	214	0.619	-4.17	306	0.973	-0.24
32	0.924	-0.69	124	0.788	-2.07	216	0.633	-3.97	308	0.968	-0.28
34	0.928	-0.65	126	0.772	-2.25	218	0.648	-3.77	310	0.964	-0.32
36	0.932	-0.61	128	0.757	-2.42	220	0.663	-3.57	312	0.959	-0.36
38	0.936	-0.57	130	0.741	-2.60	222	0.678	-3.38	314	0.955	-0.40
40	0.941	-0.53	132	0.725	-2.79	224	0.694	-3.17	316	0.950	-0.45
42	0.945	-0.49	134	0.709	-2.99	226	0.709	-2.99	318	0.945	-0.49
44	0.950	-0.45	136	0.694	-3.17	228	0.725	-2.79	320	0.941	-0.53
46	0.955	-0.40	138	0.678	-3.38	230	0.741	-2.60	322	0.936	-0.57
48	0.959	-0.36	140	0.663	-3.57	232	0.757	-2.42	324	0.932	-0.61
50	0.964	-0.32	142	0.648	-3.77	234	0.772	-2.25	326	0.928	-0.65
52	0.968	-0.28	144	0.633	-3.97	236	0.788	-2.07	328	0.924	-0.69
54	0.973	-0.24	146	0.619	-4.17	238	0.803	-1.91	330	0.920	-0.72
56	0.977	-0.20	148	0.606	-4.35	240	0.818	-1.74	332	0.916	-0.76
58	0.981	-0.17	150	0.593	-4.54	242	0.833	-1.59	334	0.913	-0.79
60	0.985	-0.13	152	0.580	-4.73	244	0.847	-1.44	336	0.910	-0.82
62	0.989	-0.10	154	0.568	-4.91	246	0.861	-1.30	338	0.907	-0.85
64	0.992	-0.07	156	0.557	-5.08	248	0.875	-1.16	340	0.905	-0.87
66	0.994	-0.05	158	0.547	-5.24	250	0.888	-1.03	342	0.903	-0.89
68	0.996	-0.03	160	0.537	-5.40	252	0.900	-0.92	344	0.901	-0.91
70	0.998	-0.02	162	0.529	-5.53	254	0.912	-0.80	346	0.899	-0.92
72	0.999	-0.01	164	0.521	-5.66	256	0.923	-0.70	348	0.897	-0.94
74	1.000	0.00	166	0.514	-5.78	258	0.933	-0.60	350	0.896	-0.95
76	1.000	0.00	168	0.508	-5.88	260	0.943	-0.51	352	0.895	-0.96
78	0.999	-0.01	170	0.502	-5.99	262	0.952	-0.43	354	0.894	-0.97
80	0.998	-0.02	172	0.498	-6.06	264	0.960	-0.35	356	0.894	-0.97
82	0.996	-0.03	174	0.495	-6.11	266	0.967	-0.29	358	0.893	-0.98
84	0.993	-0.06	176	0.492	-6.16	268	0.974	-0.23	360	0.893	-0.98
86	0.989	-0.10	178	0.491	-6.18	270	0.980	-0.18			
88	0.985	-0.13	180	0.490	-6.20	272	0.985	-0.13			
90	0.980	-0.18	182	0.491	-6.18	274	0.989	-0.10			

AZIMUTH PATTERN**Type:****ATW-V3****Channel:****38****Directivity:****Numeric****dBd****Location:****Fayetteville, NC****Peak(s) at:****1.67****2.23****Polarization:****Vertical**

Note: Pattern shape and directivity may vary with channel and mouting configuration.

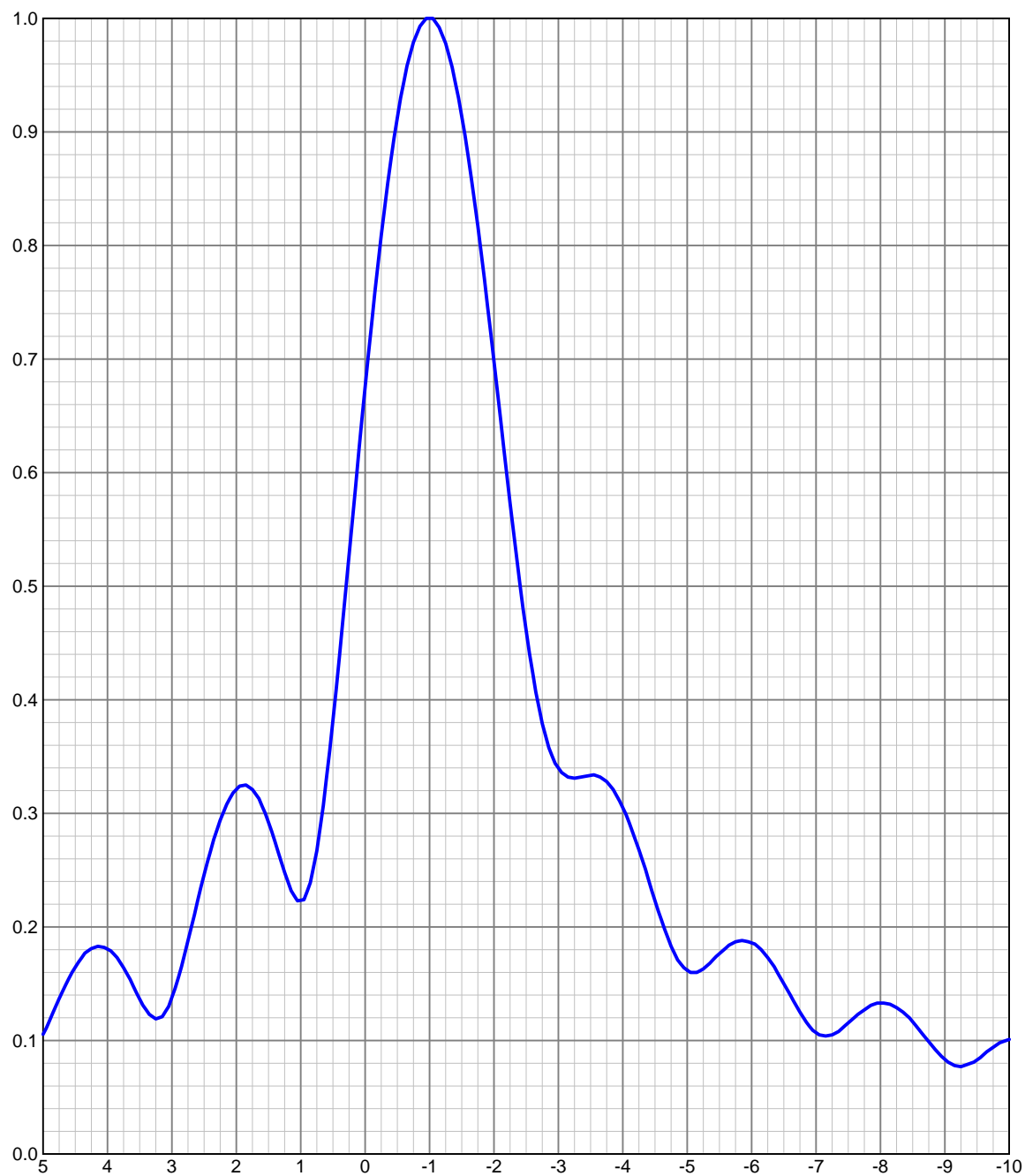


TABULATED DATA FOR AZIMUTH PATTERN

Type: ATW-V3

Polarization: Vertical

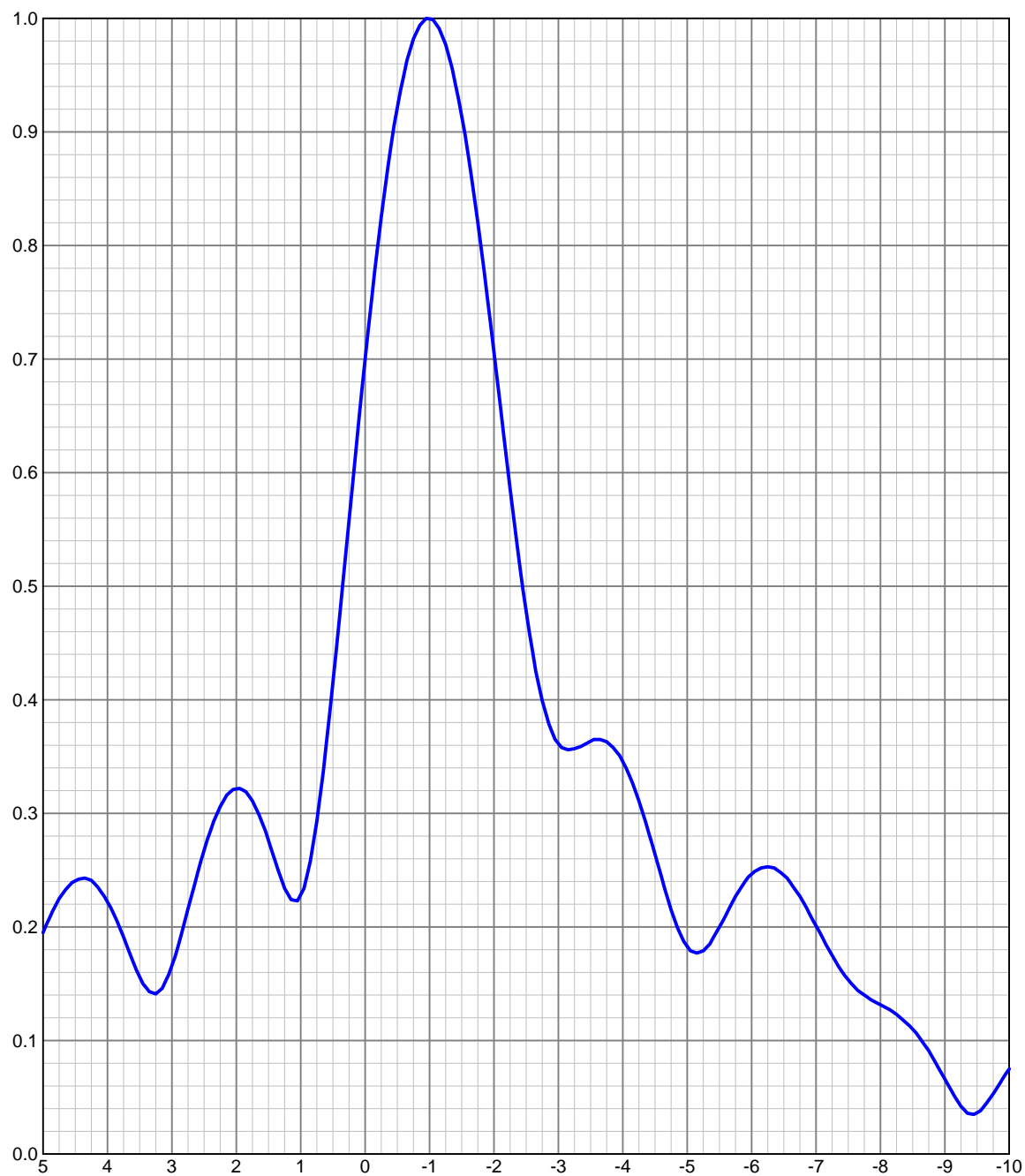
ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	1.000	0.00	92	0.786	-2.09	184	0.438	-7.17	276	0.844	-1.47
2	1.000	0.00	94	0.768	-2.29	186	0.436	-7.21	278	0.858	-1.33
4	1.000	0.00	96	0.751	-2.49	188	0.435	-7.23	280	0.872	-1.19
6	1.000	0.00	98	0.733	-2.70	190	0.434	-7.25	282	0.882	-1.09
8	1.000	0.00	100	0.716	-2.90	192	0.431	-7.31	284	0.892	-0.99
10	1.000	0.00	102	0.696	-3.15	194	0.428	-7.37	286	0.903	-0.89
12	1.000	0.00	104	0.677	-3.39	196	0.424	-7.45	288	0.913	-0.79
14	1.000	0.00	106	0.657	-3.65	198	0.421	-7.51	290	0.923	-0.70
16	1.000	0.00	108	0.638	-3.90	200	0.418	-7.58	292	0.930	-0.63
18	1.000	0.00	110	0.618	-4.18	202	0.415	-7.64	294	0.937	-0.57
20	1.000	0.00	112	0.599	-4.45	204	0.412	-7.70	296	0.945	-0.49
22	1.000	0.00	114	0.580	-4.73	206	0.410	-7.74	298	0.952	-0.43
24	1.000	0.00	116	0.561	-5.02	208	0.407	-7.81	300	0.959	-0.36
26	0.999	-0.01	118	0.542	-5.32	210	0.404	-7.87	302	0.963	-0.33
28	0.999	-0.01	120	0.523	-5.63	212	0.405	-7.85	304	0.968	-0.28
30	0.999	-0.01	122	0.508	-5.88	214	0.406	-7.83	306	0.972	-0.25
32	0.998	-0.02	124	0.493	-6.14	216	0.407	-7.81	308	0.977	-0.20
34	0.997	-0.03	126	0.478	-6.41	218	0.408	-7.79	310	0.981	-0.17
36	0.996	-0.03	128	0.463	-6.69	220	0.409	-7.77	312	0.984	-0.14
38	0.995	-0.04	130	0.448	-6.97	222	0.417	-7.60	314	0.986	-0.12
40	0.994	-0.05	132	0.440	-7.13	224	0.425	-7.43	316	0.989	-0.10
42	0.991	-0.08	134	0.432	-7.29	226	0.432	-7.29	318	0.991	-0.08
44	0.989	-0.10	136	0.425	-7.43	228	0.440	-7.13	320	0.994	-0.05
46	0.986	-0.12	138	0.417	-7.60	230	0.448	-6.97	322	0.995	-0.04
48	0.984	-0.14	140	0.409	-7.77	232	0.463	-6.69	324	0.996	-0.03
50	0.981	-0.17	142	0.408	-7.79	234	0.478	-6.41	326	0.997	-0.03
52	0.977	-0.20	144	0.407	-7.81	236	0.493	-6.14	328	0.998	-0.02
54	0.972	-0.25	146	0.406	-7.83	238	0.508	-5.88	330	0.999	-0.01
56	0.968	-0.28	148	0.405	-7.85	240	0.523	-5.63	332	0.999	-0.01
58	0.963	-0.33	150	0.404	-7.87	242	0.542	-5.32	334	0.999	-0.01
60	0.959	-0.36	152	0.407	-7.81	244	0.561	-5.02	336	1.000	0.00
62	0.952	-0.43	154	0.410	-7.74	246	0.580	-4.73	338	1.000	0.00
64	0.945	-0.49	156	0.412	-7.70	248	0.599	-4.45	340	1.000	0.00
66	0.937	-0.57	158	0.415	-7.64	250	0.618	-4.18	342	1.000	0.00
68	0.930	-0.63	160	0.418	-7.58	252	0.638	-3.90	344	1.000	0.00
70	0.923	-0.70	162	0.421	-7.51	254	0.657	-3.65	346	1.000	0.00
72	0.913	-0.79	164	0.424	-7.45	256	0.677	-3.39	348	1.000	0.00
74	0.903	-0.89	166	0.428	-7.37	258	0.696	-3.15	350	1.000	0.00
76	0.892	-0.99	168	0.431	-7.31	260	0.716	-2.90	352	1.000	0.00
78	0.882	-1.09	170	0.434	-7.25	262	0.733	-2.70	354	1.000	0.00
80	0.872	-1.19	172	0.435	-7.23	264	0.751	-2.49	356	1.000	0.00
82	0.858	-1.33	174	0.436	-7.21	266	0.768	-2.29	358	1.000	0.00
84	0.844	-1.47	176	0.438	-7.17	268	0.786	-2.09	360	1.000	0.00
86	0.831	-1.61	178	0.439	-7.15	270	0.803	-1.91			
88	0.817	-1.76	180	0.440	-7.13	272	0.817	-1.76			
90	0.803	-1.91	182	0.439	-7.15	274	0.831	-1.61			

ELEVATION PATTERN**Type:****ATW26H4H****Channel:****38****Directivity:****Numeric****dBd****Location:****Fayetteville, NC****Main Lobe:****26.00****14.15****Beam Tilt:****-1.00****Horizontal:****11.86****10.74****Polarization:****Horizontal****Relative Field**

TABULATED DATA FOR ELEVATION PATTERN

Type: ATW26H4H
Polarization: Horizontal

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
5.00	0.106	-19.53	-6.75	0.125	-18.06	-27.00	0.034	-29.37	-50.50
4.75	0.137	-17.27	-7.00	0.107	-19.41	-27.50	0.042	-27.64	-51.00
4.50	0.165	-15.68	-7.25	0.105	-19.58	-28.00	0.041	-27.85	-51.50
4.25	0.181	-14.85	-7.50	0.115	-18.75	-28.50	0.031	-30.17	-52.00
4.00	0.180	-14.87	-7.75	0.127	-17.92	-29.00	0.027	-31.37	-52.50
3.75	0.164	-15.70	-8.00	0.133	-17.52	-29.50	0.035	-29.12	-53.00
3.50	0.137	-17.30	-8.25	0.129	-17.79	-30.00	0.041	-27.74	-53.50
3.25	0.119	-18.49	-8.50	0.116	-18.67	-30.50	0.037	-28.64	-54.00
3.00	0.138	-17.20	-8.75	0.099	-20.09	-31.00	0.028	-31.21	-54.50
2.75	0.188	-14.52	-9.00	0.083	-21.57	-31.50	0.026	-31.54	-55.00
2.50	0.246	-12.18	-9.25	0.077	-22.27	-32.00	0.036	-28.87	-55.50
2.25	0.294	-10.63	-9.50	0.083	-21.62	-32.50	0.040	-27.96	-56.00
2.00	0.321	-9.87	-9.75	0.094	-20.54	-33.00	0.035	-29.12	-56.50
1.75	0.321	-9.87	-10.00	0.101	-19.91	-33.50	0.026	-31.87	-57.00
1.50	0.292	-10.69	-10.50	0.096	-20.35	-34.00	0.026	-31.70	-57.50
1.25	0.248	-12.11	-11.00	0.071	-23.04	-34.50	0.035	-29.12	-58.00
1.00	0.224	-13.01	-11.50	0.065	-23.81	-35.00	0.039	-28.18	-58.50
0.75	0.267	-11.47	-12.00	0.081	-21.88	-35.50	0.034	-29.37	-59.00
0.50	0.382	-8.36	-12.50	0.082	-21.72	-36.00	0.025	-32.22	-59.50
0.25	0.527	-5.56	-13.00	0.064	-23.94	-36.50	0.025	-32.22	-60.00
0.00	0.675	-3.41	-13.50	0.052	-25.60	-37.00	0.034	-29.37	-60.50
-0.25	0.809	-1.84	-14.00	0.066	-23.68	-37.50	0.039	-28.18	-61.00
-0.50	0.913	-0.80	-14.50	0.071	-22.91	-38.00	0.035	-29.12	-61.50
-0.75	0.979	-0.18	-15.00	0.059	-24.51	-38.50	0.026	-31.87	-62.00
-1.00	1.000	0.00	-15.50	0.046	-26.74	-39.00	0.022	-32.96	-62.50
-1.25	0.978	-0.19	-16.00	0.053	-25.43	-39.50	0.031	-30.17	-63.00
-1.50	0.913	-0.79	-16.50	0.063	-24.01	-40.00	0.038	-28.29	-63.50
-1.75	0.817	-1.76	-17.00	0.057	-24.96	-40.50	0.037	-28.52	-64.00
-2.00	0.698	-3.12	-17.50	0.043	-27.33	-41.00	0.029	-30.75	-64.50
-2.25	0.573	-4.84	-18.00	0.044	-27.13	-41.50	0.021	-33.35	-65.00
-2.50	0.461	-6.73	-18.50	0.054	-25.27	-42.00	0.026	-31.70	-65.50
-2.75	0.379	-8.43	-19.00	0.054	-25.35	-42.50	0.036	-29.00	-66.00
-3.00	0.340	-9.37	-19.50	0.042	-27.54	-43.00	0.039	-28.18	-66.50
-3.25	0.331	-9.60	-20.00	0.037	-28.52	-43.50	0.035	-29.12	-67.00
-3.50	0.334	-9.54	-20.50	0.047	-26.56	-44.00	0.025	-32.04	-67.50
-3.75	0.328	-9.68	-21.00	0.051	-25.85	-44.50	0.021	-33.56	-68.00
-4.00	0.305	-10.31	-21.50	0.043	-27.33	-45.00	0.029	-30.75	-68.50
-4.25	0.268	-11.44	-22.00	0.034	-29.50	-45.50	0.037	-28.52	-69.00
-4.50	0.223	-13.03	-22.50	0.039	-28.18	-46.00	0.040	-28.07	-69.50
-4.75	0.183	-14.75	-23.00	0.047	-26.56	-46.50	0.034	-29.37	-70.00
-5.00	0.162	-15.81	-23.50	0.044	-27.13	-47.00	0.025	-32.22	-70.50
-5.25	0.163	-15.76	-24.00	0.034	-29.37	-47.50	0.021	-33.76	-71.00
-5.50	0.176	-15.07	-24.50	0.032	-29.90	-48.00	0.029	-30.75	-71.50
-5.75	0.187	-14.56	-25.00	0.041	-27.74	-48.50	0.037	-28.52	-72.00
-6.00	0.186	-14.61	-25.50	0.044	-27.03	-49.00	0.041	-27.74	-72.50
-6.25	0.173	-15.24	-26.00	0.037	-28.64	-49.50	0.036	-28.75	-73.00
-6.50	0.150	-16.48	-26.50	0.029	-30.90	-50.00	0.027	-31.37	-73.50

ELEVATION PATTERN**Type:****ATW23H4V****Channel:****38****Directivity:****Numeric****dBd****Location:****Fayetteville, NC****Main Lobe:****23.00****13.62****Beam Tilt:****-1.00****Horizontal:****11.27****10.52****Polarization:****Vertical****Relative Field**

TABULATED DATA FOR ELEVATION PATTERN

Type: ATW23H4V

Polarization: Vertical

ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB	ANGLEFIELD	dB
5.00	0.195	-14.20	-6.75	0.227	-12.88	-27.00	0.075	-22.50	-50.50
4.75	0.225	-12.96	-7.00	0.201	-13.94	-27.50	0.083	-21.67	-51.00
4.50	0.240	-12.38	-7.25	0.175	-15.14	-28.00	0.089	-20.96	-51.50
4.25	0.241	-12.36	-7.50	0.153	-16.28	-28.50	0.094	-20.54	-52.00
4.00	0.222	-13.07	-7.75	0.140	-17.08	-29.00	0.090	-20.92	-52.50
3.75	0.191	-14.38	-8.00	0.132	-17.62	-29.50	0.075	-22.50	-53.00
3.50	0.156	-16.14	-8.25	0.123	-18.20	-30.00	0.050	-26.11	-53.50
3.25	0.141	-17.02	-8.50	0.110	-19.17	-30.50	0.022	-32.96	-54.00
3.00	0.166	-15.60	-8.75	0.091	-20.82	-31.00	0.014	-36.77	-54.50
2.75	0.216	-13.31	-9.00	0.066	-23.61	-31.50	0.026	-31.87	-55.00
2.50	0.268	-11.45	-9.25	0.042	-27.54	-32.00	0.026	-31.54	-55.50
2.25	0.306	-10.29	-9.50	0.037	-28.75	-32.50	0.015	-36.19	-56.00
2.00	0.322	-9.86	-9.75	0.053	-25.51	-33.00	0.007	-43.74	-56.50
1.75	0.311	-10.14	-10.00	0.075	-22.50	-33.50	0.024	-32.58	-57.00
1.50	0.276	-11.18	-10.50	0.097	-20.31	-34.00	0.040	-28.07	-57.50
1.25	0.234	-12.62	-11.00	0.081	-21.83	-34.50	0.052	-25.76	-58.00
1.00	0.229	-12.82	-11.50	0.052	-25.68	-35.00	0.063	-24.01	-58.50
0.75	0.293	-10.66	-12.00	0.075	-22.56	-35.50	0.075	-22.50	-59.00
0.50	0.415	-7.63	-12.50	0.116	-18.71	-36.00	0.085	-21.41	-59.50
0.25	0.558	-5.07	-13.00	0.137	-17.30	-36.50	0.089	-21.01	-60.00
0.00	0.700	-3.10	-13.50	0.132	-17.59	-37.00	0.082	-21.72	-60.50
-0.25	0.825	-1.67	-14.00	0.118	-18.53	-37.50	0.066	-23.61	-61.00
-0.50	0.921	-0.71	-14.50	0.106	-19.49	-38.00	0.043	-27.33	-61.50
-0.75	0.982	-0.16	-15.00	0.092	-20.72	-38.50	0.024	-32.58	-62.00
-1.00	1.000	0.00	-15.50	0.064	-23.94	-39.00	0.022	-32.96	-62.50
-1.25	0.977	-0.20	-16.00	0.024	-32.58	-39.50	0.030	-30.31	-63.00
-1.50	0.913	-0.79	-16.50	0.018	-34.66	-40.00	0.032	-29.90	-63.50
-1.75	0.820	-1.72	-17.00	0.044	-27.03	-40.50	0.025	-32.04	-64.00
-2.00	0.706	-3.02	-17.50	0.045	-26.84	-41.00	0.012	-38.42	-64.50
-2.25	0.586	-4.64	-18.00	0.025	-32.22	-41.50	0.005	-46.02	-65.00
-2.50	0.478	-6.41	-18.50	0.026	-31.54	-42.00	0.017	-35.65	-65.50
-2.75	0.399	-7.98	-19.00	0.063	-24.08	-42.50	0.027	-31.37	-66.00
-3.00	0.361	-8.84	-19.50	0.089	-21.01	-43.00	0.037	-28.64	-66.50
-3.25	0.357	-8.95	-20.00	0.101	-19.96	-43.50	0.049	-26.20	-67.00
-3.50	0.363	-8.79	-20.50	0.102	-19.83	-44.00	0.063	-24.01	-67.50
-3.75	0.363	-8.80	-21.00	0.101	-19.91	-44.50	0.075	-22.50	-68.00
-4.00	0.346	-9.23	-21.50	0.099	-20.13	-45.00	0.082	-21.78	-68.50
-4.25	0.311	-10.14	-22.00	0.086	-21.31	-45.50	0.080	-21.99	-69.00
-4.50	0.264	-11.57	-22.50	0.061	-24.29	-46.00	0.070	-23.16	-69.50
-4.75	0.215	-13.35	-23.00	0.028	-31.21	-46.50	0.053	-25.43	-70.00
-5.00	0.183	-14.75	-23.50	0.007	-43.10	-47.00	0.037	-28.75	-70.50
-5.25	0.179	-14.94	-24.00	0.027	-31.37	-47.50	0.027	-31.37	-71.00
-5.50	0.200	-13.98	-24.50	0.029	-30.60	-48.00	0.030	-30.31	-71.50
-5.75	0.227	-12.88	-25.00	0.015	-36.48	-48.50	0.036	-28.75	-72.00
-6.00	0.246	-12.16	-25.50	0.011	-38.79	-49.00	0.037	-28.52	-72.50
-6.25	0.253	-11.94	-26.00	0.040	-28.07	-49.50	0.033	-29.63	-73.00
-6.50	0.245	-12.20	-26.50	0.061	-24.29	-50.00	0.024	-32.40	-73.50