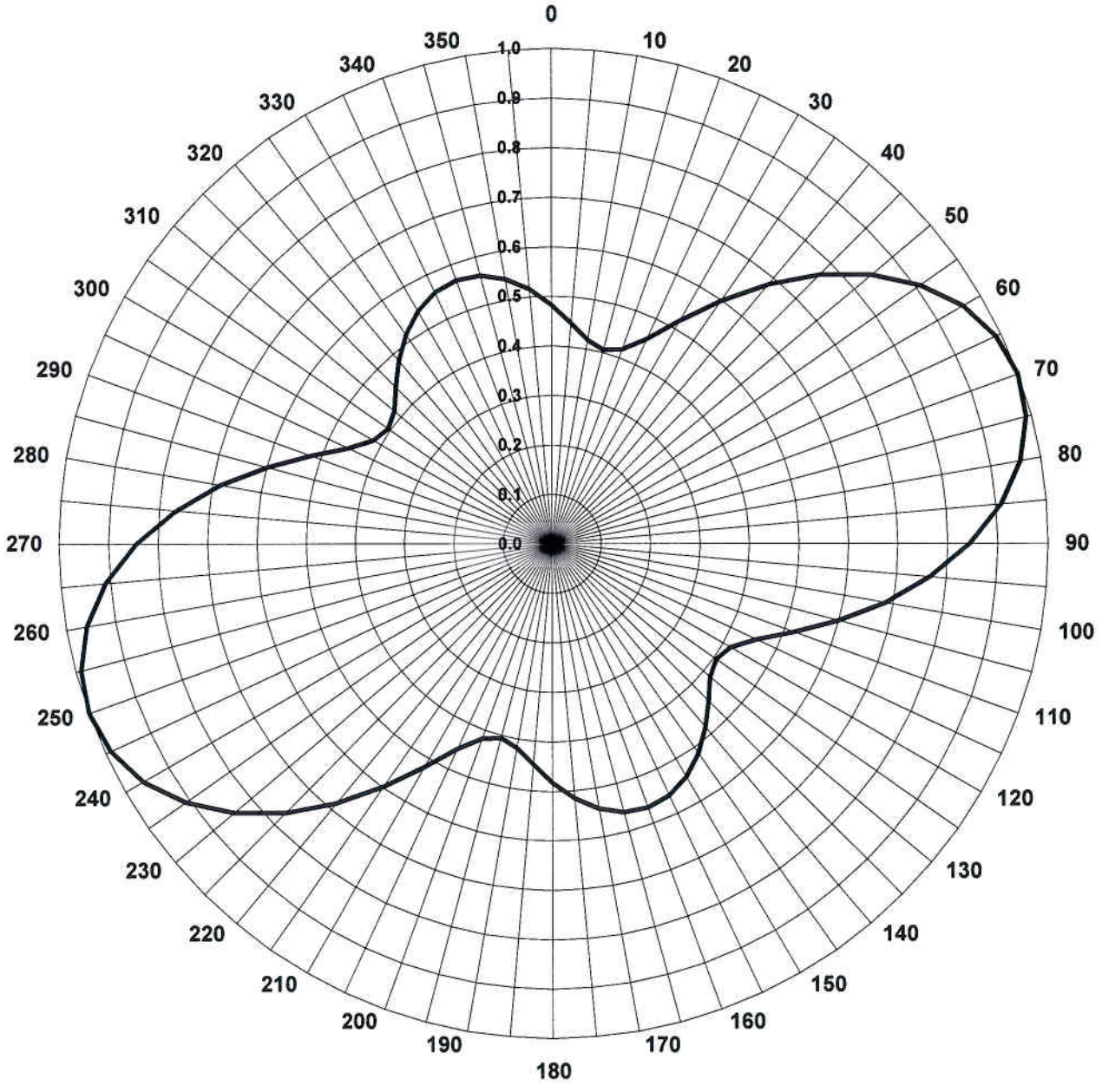
AZIMUTH PATTERN

TYPE:	**CH23HAZ-P230**		**Frequency:**	**23 (DTV)**
	Numeric	**dB**	**Location:**	**Batavia, NY**
Directivity:	**2.30**	**3.62**	**Polarization:**	**Horizontal**
Peak(s) at:				

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



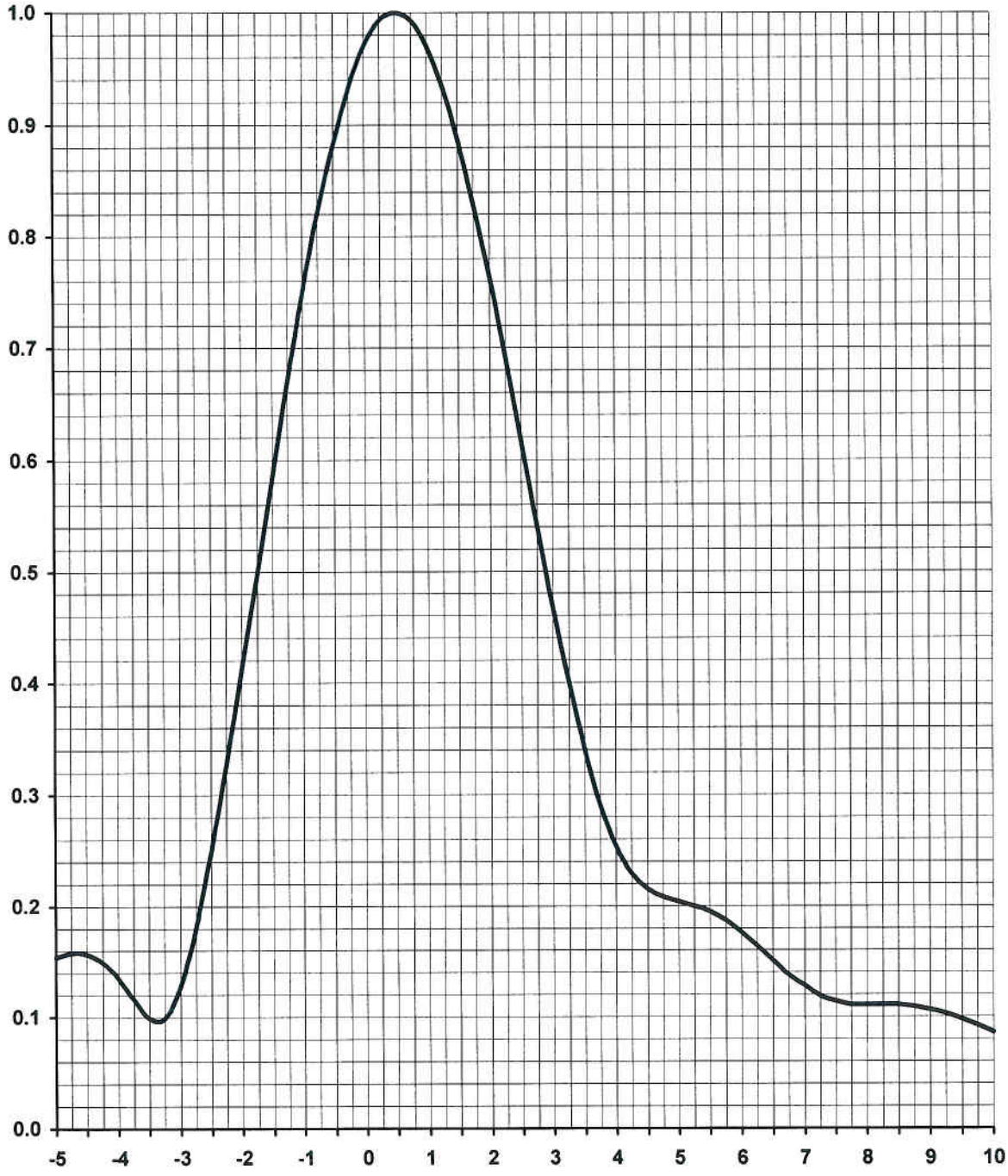
TABULATED DATA FOR AZIMUTH PATTERN

TYPE: CH23HAZ-P230

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	0.482	-6.34	92	0.815	-1.78	184	0.454	-6.86	276	0.751	-2.49
2	0.468	-6.60	94	0.783	-2.12	186	0.440	-7.12	278	0.717	-2.88
4	0.454	-6.86	96	0.751	-2.49	188	0.428	-7.37	280	0.683	-3.31
6	0.440	-7.12	98	0.717	-2.88	190	0.418	-7.57	282	0.649	-3.75
8	0.428	-7.37	100	0.683	-3.31	192	0.411	-7.73	284	0.615	-4.22
10	0.418	-7.57	102	0.649	-3.75	194	0.406	-7.83	286	0.582	-4.70
12	0.411	-7.73	104	0.615	-4.22	196	0.406	-7.84	288	0.550	-5.19
14	0.406	-7.83	106	0.582	-4.70	198	0.409	-7.76	290	0.520	-5.67
16	0.406	-7.84	108	0.550	-5.19	200	0.417	-7.59	292	0.493	-6.15
18	0.409	-7.76	110	0.520	-5.67	202	0.430	-7.33	294	0.468	-6.59
20	0.417	-7.59	112	0.493	-6.15	204	0.447	-6.99	296	0.447	-6.99
22	0.430	-7.33	114	0.468	-6.59	206	0.468	-6.59	298	0.430	-7.33
24	0.447	-6.99	116	0.447	-6.99	208	0.493	-6.15	300	0.417	-7.59
26	0.468	-6.59	118	0.430	-7.33	210	0.520	-5.67	302	0.409	-7.76
28	0.493	-6.15	120	0.417	-7.59	212	0.550	-5.19	304	0.406	-7.84
30	0.520	-5.67	122	0.409	-7.76	214	0.582	-4.70	306	0.406	-7.83
32	0.550	-5.19	124	0.406	-7.84	216	0.615	-4.22	308	0.411	-7.73
34	0.582	-4.70	126	0.406	-7.83	218	0.649	-3.75	310	0.418	-7.57
36	0.615	-4.22	128	0.411	-7.73	220	0.683	-3.31	312	0.428	-7.37
38	0.649	-3.75	130	0.418	-7.57	222	0.717	-2.88	314	0.440	-7.12
40	0.683	-3.31	132	0.428	-7.37	224	0.751	-2.49	316	0.454	-6.86
42	0.717	-2.88	134	0.440	-7.12	226	0.783	-2.12	318	0.468	-6.60
44	0.751	-2.49	136	0.454	-6.86	228	0.815	-1.78	320	0.482	-6.34
46	0.783	-2.12	138	0.468	-6.60	230	0.844	-1.47	322	0.496	-6.09
48	0.815	-1.78	140	0.482	-6.34	232	0.872	-1.19	324	0.509	-5.86
50	0.844	-1.47	142	0.496	-6.09	234	0.898	-0.94	326	0.522	-5.65
52	0.872	-1.19	144	0.509	-5.86	236	0.921	-0.72	328	0.533	-5.47
54	0.898	-0.94	146	0.522	-5.65	238	0.941	-0.53	330	0.542	-5.31
56	0.921	-0.72	148	0.533	-5.47	240	0.959	-0.37	332	0.551	-5.18
58	0.941	-0.53	150	0.542	-5.31	242	0.973	-0.23	334	0.557	-5.08
60	0.959	-0.37	152	0.551	-5.18	244	0.985	-0.13	336	0.562	-5.01
62	0.973	-0.23	154	0.557	-5.08	246	0.993	-0.06	338	0.565	-4.97
64	0.985	-0.13	156	0.562	-5.01	248	0.998	-0.01	340	0.566	-4.95
66	0.993	-0.06	158	0.565	-4.97	250	1.000	0.00	342	0.565	-4.97
68	0.998	-0.01	160	0.566	-4.95	252	0.998	-0.01	344	0.562	-5.01
70	1.000	0.00	162	0.565	-4.97	254	0.993	-0.06	346	0.557	-5.08
72	0.998	-0.01	164	0.562	-5.01	256	0.985	-0.13	348	0.551	-5.18
74	0.993	-0.06	166	0.557	-5.08	258	0.973	-0.23	350	0.542	-5.31
76	0.985	-0.13	168	0.551	-5.18	260	0.959	-0.37	352	0.533	-5.47
78	0.973	-0.23	170	0.542	-5.31	262	0.941	-0.53	354	0.522	-5.65
80	0.959	-0.37	172	0.533	-5.47	264	0.921	-0.72	356	0.509	-5.86
82	0.941	-0.53	174	0.522	-5.65	266	0.898	-0.94	358	0.496	-6.09
84	0.921	-0.72	176	0.509	-5.86	268	0.872	-1.19	360	0.482	-6.34
86	0.898	-0.94	178	0.496	-6.09	270	0.844	-1.47			
88	0.872	-1.19	180	0.482	-6.34	272	0.815	-1.78			
90	0.844	-1.47	182	0.468	-6.60	274	0.783	-2.12			

ELEVATION PATTERN

TYPE:	ATW18HS2H		Frequency:	23 (DTV)
Directivity:	Numeric	dBd	Location:	Batavia, NY
Main Lobe:	18.00	12.55	Beam Tilt:	0.50
Horizontal:	16.94	12.29	Polarization:	Horizontal



TABULATED DATA FOR ELEVATION PATTERN

ATW18HS2H *-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
-5.000	0.154	-16.25	6.75	0.138	-17.20	27.00	0.036	-28.87	50.50	0.037	-28.64	74.00	0.029	-30.75
-4.750	0.158	-16.03	7.00	0.128	-17.86	27.50	0.038	-28.40	51.00	0.037	-28.64	74.50	0.026	-31.70
-4.500	0.157	-16.08	7.25	0.119	-18.49	28.00	0.038	-28.40	51.50	0.036	-28.87	75.00	0.022	-33.15
-4.250	0.149	-16.54	7.50	0.114	-18.86	28.50	0.036	-28.87	52.00	0.035	-29.12	75.50	0.019	-34.42
-4.000	0.135	-17.39	7.75	0.111	-19.09	29.00	0.033	-29.63	52.50	0.034	-29.37	76.00	0.017	-35.39
-3.750	0.116	-18.71	8.00	0.111	-19.09	29.50	0.030	-30.46	53.00	0.033	-29.63	76.50	0.016	-35.92
-3.500	0.099	-20.09	8.25	0.111	-19.09	30.00	0.032	-29.90	53.50	0.032	-29.90	77.00	0.017	-35.39
-3.250	0.099	-20.09	8.50	0.111	-19.09	30.50	0.036	-28.87	54.00	0.033	-29.63	77.50	0.018	-34.89
-3.000	0.129	-17.79	8.75	0.109	-19.25	31.00	0.037	-28.64	54.50	0.035	-29.12	78.00	0.021	-33.56
-2.750	0.181	-14.85	9.00	0.106	-19.49	31.50	0.037	-28.64	55.00	0.036	-28.87	78.50	0.023	-32.77
-2.500	0.250	-12.04	9.25	0.103	-19.74	32.00	0.034	-29.37	55.50	0.037	-28.64	79.00	0.025	-32.04
-2.250	0.328	-9.68	9.50	0.098	-20.18	32.50	0.030	-30.46	56.00	0.038	-28.40	79.50	0.028	-31.06
-2.000	0.412	-7.70	9.75	0.092	-20.72	33.00	0.029	-30.75	56.50	0.038	-28.40	80.00	0.029	-30.75
-1.750	0.499	-6.04	10.00	0.086	-21.31	33.50	0.032	-29.90	57.00	0.037	-28.64	80.50	0.031	-30.17
-1.500	0.585	-4.66	10.50	0.077	-22.27	34.00	0.035	-29.12	57.50	0.036	-28.87	81.00	0.032	-29.90
-1.250	0.670	-3.48	11.00	0.075	-22.50	34.50	0.036	-28.87	58.00	0.035	-29.12	81.50	0.033	-29.63
-1.000	0.750	-2.50	11.50	0.076	-22.38	35.00	0.036	-28.87	58.50	0.034	-29.37	82.00	0.033	-29.63
-0.750	0.821	-1.71	12.00	0.076	-22.38	35.50	0.034	-29.37	59.00	0.033	-29.63	82.50	0.033	-29.63
-0.500	0.883	-1.08	12.50	0.072	-22.85	36.00	0.030	-30.46	59.50	0.034	-29.37	83.00	0.033	-29.63
-0.250	0.933	-0.60	13.00	0.065	-23.74	36.50	0.029	-30.75	60.00	0.035	-29.12	83.50	0.032	-29.90
0.000	0.970	-0.26	13.50	0.058	-24.73	37.00	0.031	-30.17	60.50	0.036	-28.87	84.00	0.031	-30.17
0.250	0.993	-0.06	14.00	0.056	-25.04	37.50	0.034	-29.37	61.00	0.037	-28.64	84.50	0.029	-30.75
0.500	1.000	0.00	14.50	0.058	-24.73	38.00	0.036	-28.87	61.50	0.039	-28.18	85.00	0.028	-31.06
0.750	0.993	-0.06	15.00	0.060	-24.44	38.50	0.036	-28.87	62.00	0.040	-27.96	85.50	0.026	-31.70
1.000	0.970	-0.26	15.50	0.058	-24.73	39.00	0.034	-29.37	62.50	0.040	-27.96	86.00	0.024	-32.40
1.250	0.935	-0.58	16.00	0.052	-25.68	39.50	0.032	-29.90	63.00	0.039	-28.18	86.50	0.021	-33.56
1.500	0.887	-1.04	16.50	0.046	-26.74	40.00	0.030	-30.46	63.50	0.038	-28.40	87.00	0.018	-34.89
1.750	0.829	-1.63	17.00	0.045	-26.94	40.50	0.030	-30.46	64.00	0.037	-28.64	87.50	0.015	-36.48
2.000	0.763	-2.35	17.50	0.048	-26.38	41.00	0.033	-29.63	64.50	0.035	-29.12	88.00	0.011	-39.17
2.250	0.691	-3.21	18.00	0.051	-25.85	41.50	0.035	-29.12	65.00	0.034	-29.37	88.50	0.009	-40.92
2.500	0.616	-4.21	18.50	0.051	-25.85	42.00	0.036	-28.87	65.50	0.032	-29.90	89.00	0.005	-46.02
2.750	0.540	-5.35	19.00	0.046	-26.74	42.50	0.036	-28.87	66.00	0.031	-30.17	89.50	0.002	-53.98
3.000	0.467	-6.61	19.50	0.041	-27.74	43.00	0.035	-29.12	66.50	0.032	-29.90	90.00	0.000	---
3.250	0.399	-7.98	20.00	0.039	-28.18	43.50	0.032	-29.90	67.00	0.033	-29.63			
3.500	0.340	-9.37	20.50	0.041	-27.74	44.00	0.031	-30.17	67.50	0.034	-29.37			
3.750	0.290	-10.75	21.00	0.044	-27.13	44.50	0.031	-30.17	68.00	0.036	-28.87			
4.000	0.254	-11.90	21.50	0.045	-26.94	45.00	0.033	-29.63	68.50	0.038	-28.40			
4.250	0.229	-12.80	22.00	0.042	-27.54	45.50	0.035	-29.12	69.00	0.040	-27.96			
4.500	0.215	-13.35	22.50	0.037	-28.64	46.00	0.036	-28.87	69.50	0.042	-27.54			
4.750	0.208	-13.64	23.00	0.034	-29.37	46.50	0.036	-28.87	70.00	0.043	-27.33			
5.000	0.204	-13.81	23.50	0.036	-28.87	47.00	0.035	-29.12	70.50	0.043	-27.33			
5.250	0.200	-13.98	24.00	0.040	-27.96	47.50	0.034	-29.37	71.00	0.043	-27.33			
5.500	0.195	-14.20	24.50	0.041	-27.74	48.00	0.032	-29.90	71.50	0.042	-27.54			
5.750	0.187	-14.56	25.00	0.040	-27.96	48.50	0.031	-30.17	72.00	0.040	-27.96			
6.000	0.176	-15.09	25.50	0.036	-28.87	49.00	0.032	-29.90	72.50	0.038	-28.40			
6.250	0.164	-15.70	26.00	0.032	-29.90	49.50	0.034	-29.37	73.00	0.036	-28.87			
6.500	0.151	-16.42	26.50	0.032	-29.90	50.00	0.035	-29.12	73.50	0.032	-29.90			