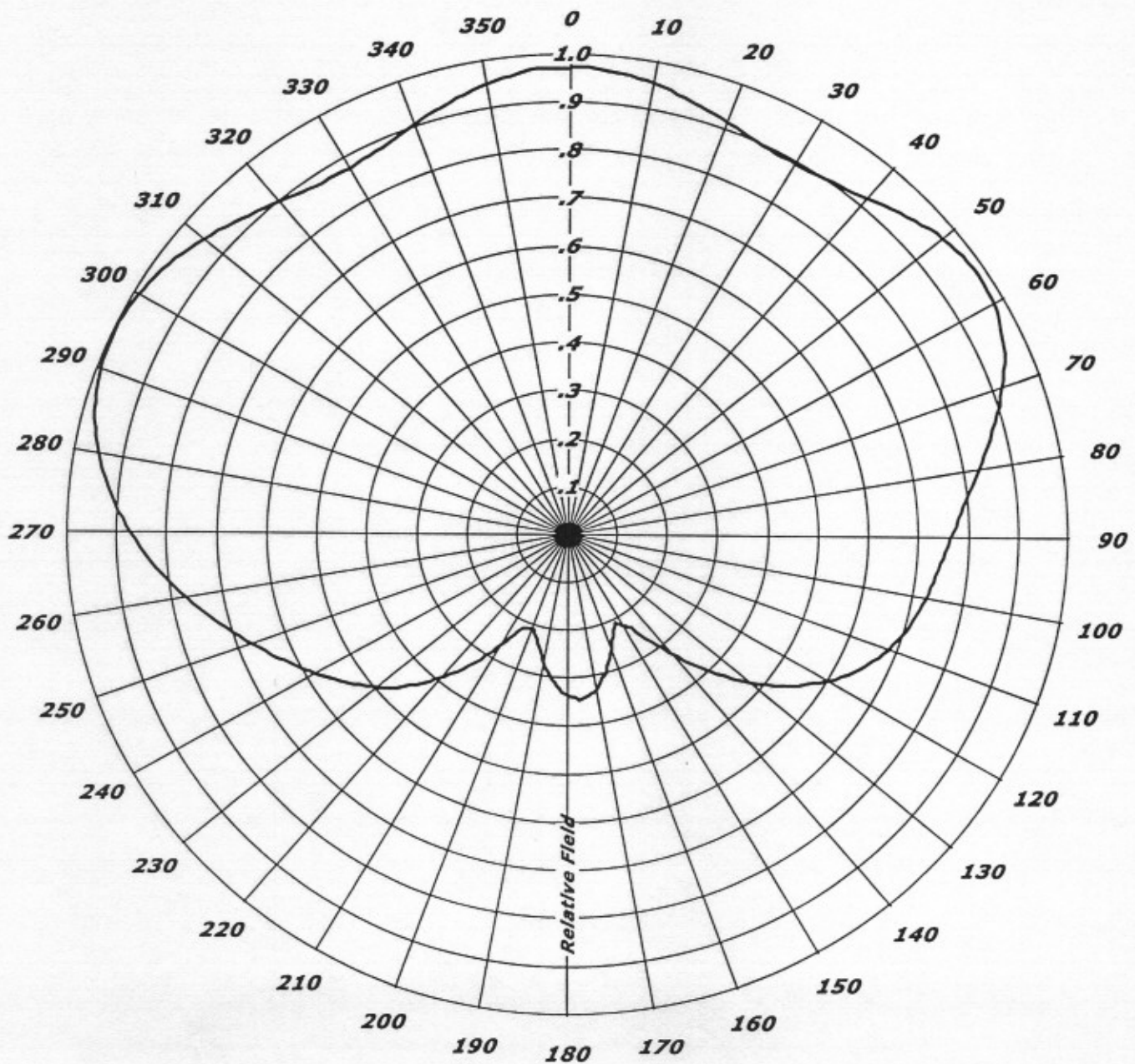


ANDREW
AZIMUTH PATTERN

Type: CH23AZ-H-BID-CX

	Numeric	dBd
Directivity:	<u>1.80</u>	<u>(2.55)</u>
Peak(s) At:	<u></u>	
Polarization:	<u>Horizontal</u>	
Channel:	<u>23</u>	
Location:	<u>Garland, TX.</u>	





TABULATED DATA FOR AZIMUTH PATTERN
TYPE : CH23AZ-H-BID-CX

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0	0.974	-0.23	110	0.675	-3.41	220	0.385	-8.29	330	0.877	-1.14
2	0.973	-0.24	112	0.664	-3.56	222	0.410	-7.75	332	0.881	-1.10
4	0.970	-0.26	114	0.649	-3.76	224	0.432	-7.30	334	0.885	-1.06
6	0.966	-0.30	116	0.633	-3.98	226	0.453	-6.87	336	0.889	-1.02
8	0.961	-0.34	118	0.616	-4.20	228	0.475	-6.47	338	0.898	-0.94
10	0.955	-0.40	120	0.595	-4.51	230	0.493	-6.15	340	0.907	-0.85
12	0.947	-0.47	122	0.572	-4.85	232	0.511	-5.83	342	0.916	-0.76
14	0.939	-0.55	124	0.550	-5.20	234	0.529	-5.53	344	0.926	-0.67
16	0.931	-0.62	126	0.523	-5.63	236	0.546	-5.25	346	0.935	-0.58
18	0.922	-0.70	128	0.496	-6.09	238	0.563	-4.99	348	0.944	-0.50
20	0.914	-0.78	130	0.469	-6.57	240	0.580	-4.73	350	0.953	-0.42
22	0.907	-0.84	132	0.439	-7.15	242	0.597	-4.48	352	0.960	-0.36
24	0.901	-0.91	134	0.408	-7.78	244	0.614	-4.24	354	0.966	-0.30
26	0.895	-0.97	136	0.377	-8.46	246	0.632	-3.99	356	0.974	-0.23
28	0.894	-0.97	138	0.346	-9.22	248	0.650	-3.74	358	0.973	-0.24
30	0.894	-0.98	140	0.314	-10.05	250	0.669	-3.50	360	0.972	-0.25
32	0.894	-0.97	142	0.285	-10.89	252	0.688	-3.24			
34	0.899	-0.92	144	0.262	-11.63	254	0.709	-2.98			
36	0.904	-0.88	146	0.239	-12.45	256	0.730	-2.73			
38	0.910	-0.81	148	0.221	-13.10	258	0.752	-2.48			
40	0.920	-0.73	150	0.214	-13.40	260	0.773	-2.24			
42	0.929	-0.64	152	0.206	-13.72	262	0.794	-2.00			
44	0.939	-0.54	154	0.209	-13.61	264	0.815	-1.78			
46	0.950	-0.45	156	0.221	-13.10	266	0.835	-1.56			
48	0.960	-0.36	158	0.234	-12.61	268	0.855	-1.36			
50	0.967	-0.29	160	0.249	-12.06	270	0.873	-1.18			
52	0.973	-0.24	162	0.266	-11.49	272	0.891	-1.01			
54	0.978	-0.19	164	0.283	-10.95	274	0.908	-0.84			
56	0.979	-0.19	166	0.298	-10.52	276	0.923	-0.70			
58	0.977	-0.20	168	0.311	-10.15	278	0.938	-0.56			
60	0.976	-0.21	170	0.324	-9.79	280	0.952	-0.43			
62	0.968	-0.29	172	0.331	-9.61	282	0.963	-0.33			
64	0.957	-0.38	174	0.336	-9.49	284	0.974	-0.23			
66	0.947	-0.47	176	0.341	-9.36	286	0.982	-0.16			
68	0.932	-0.61	178	0.336	-9.46	288	0.988	-0.11			
70	0.916	-0.77	180	0.332	-9.58	290	0.994	-0.06			
72	0.899	-0.92	182	0.326	-9.73	292	0.997	-0.03			
74	0.881	-1.10	184	0.313	-10.08	294	0.998	-0.01			
76	0.863	-1.28	186	0.300	-10.45	296	1.000	0.00			
78	0.844	-1.47	188	0.287	-10.85	298	0.996	-0.03			
80	0.827	-1.65	190	0.270	-11.37	300	0.992	-0.07			
82	0.810	-1.83	192	0.253	-11.93	302	0.987	-0.12			
84	0.794	-2.00	194	0.237	-12.49	304	0.979	-0.19			
86	0.782	-2.14	196	0.225	-12.96	306	0.971	-0.26			
88	0.769	-2.28	198	0.212	-13.46	308	0.962	-0.34			
90	0.758	-2.40	200	0.206	-13.71	310	0.951	-0.44			
92	0.750	-2.50	202	0.209	-13.61	312	0.940	-0.53			
94	0.741	-2.60	204	0.211	-13.52	314	0.930	-0.63			
96	0.734	-2.69	206	0.223	-13.05	316	0.920	-0.73			
98	0.727	-2.77	208	0.242	-12.32	318	0.910	-0.82			
100	0.721	-2.84	210	0.261	-11.65	320	0.901	-0.91			
102	0.714	-2.93	212	0.285	-10.90	322	0.893	-0.98			
104	0.706	-3.03	214	0.310	-10.17	324	0.886	-1.05			
106	0.697	-3.13	216	0.335	-9.50	326	0.882	-1.09			
108	0.687	-3.26	218	0.360	-8.88	328	0.880	-1.11			



ANDREW AZIMUTH PATTERN

Type: CH23AZ-V-BID

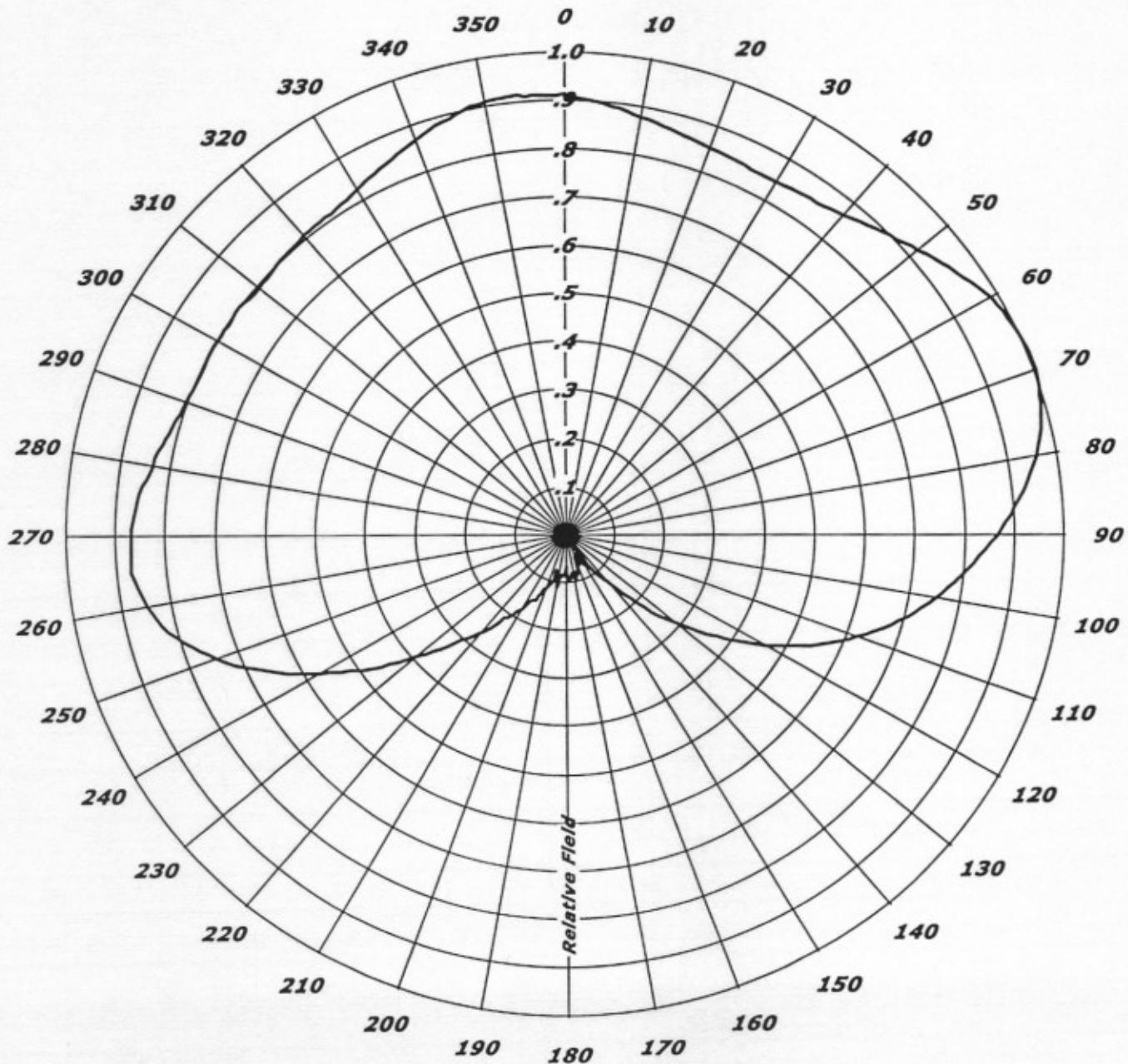
Directivity: Numeric 2.00 dBd (3.01)

Peak(s) At: _____

Polarization: Vertical

Channel: 23

Location: Garland, TX





TABULATED DATA FOR AZIMUTH PATTERN
TYPE : CH23AZ-V-BID

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0	0.907	-0.85	110	0.616	-4.21	220	0.258	-11.77	330	0.829	-1.63
2	0.905	-0.86	112	0.589	-4.60	222	0.281	-11.02	332	0.836	-1.56
4	0.899	-0.92	114	0.557	-5.09	224	0.302	-10.41	334	0.843	-1.48
6	0.894	-0.97	116	0.523	-5.63	226	0.329	-9.64	336	0.852	-1.39
8	0.887	-1.04	118	0.490	-6.20	228	0.358	-8.91	338	0.861	-1.30
10	0.879	-1.12	120	0.457	-6.80	230	0.389	-8.20	340	0.871	-1.20
12	0.874	-1.17	122	0.421	-7.52	232	0.425	-7.43	342	0.881	-1.10
14	0.868	-1.23	124	0.385	-8.30	234	0.460	-6.75	344	0.889	-1.02
16	0.862	-1.29	126	0.348	-9.16	236	0.495	-6.11	346	0.897	-0.94
18	0.858	-1.33	128	0.311	-10.14	238	0.531	-5.49	348	0.908	-0.84
20	0.855	-1.36	130	0.278	-11.12	240	0.569	-4.90	350	0.911	-0.81
22	0.852	-1.39	132	0.247	-12.15	242	0.608	-4.33	352	0.913	-0.79
24	0.850	-1.41	134	0.216	-13.32	244	0.646	-3.80	354	0.915	-0.77
26	0.846	-1.45	136	0.182	-14.79	246	0.679	-3.36	356	0.914	-0.78
28	0.846	-1.46	138	0.146	-16.72	248	0.714	-2.93	358	0.913	-0.79
30	0.846	-1.45	140	0.123	-18.21	250	0.743	-2.58	360	0.913	-0.79
32	0.848	-1.43	142	0.112	-19.04	252	0.769	-2.28			
34	0.851	-1.40	144	0.089	-21.06	254	0.798	-1.97			
36	0.854	-1.37	146	0.051	-25.92	256	0.819	-1.74			
38	0.860	-1.31	148	0.038	-28.41	258	0.836	-1.55			
40	0.867	-1.24	150	0.071	-22.93	260	0.850	-1.41			
42	0.877	-1.14	152	0.049	-26.28	262	0.860	-1.31			
44	0.886	-1.05	154	0.052	-25.65	264	0.868	-1.23			
46	0.896	-0.95	156	0.066	-23.65	266	0.873	-1.18			
48	0.907	-0.84	158	0.065	-23.75	268	0.870	-1.21			
50	0.920	-0.73	160	0.053	-25.50	270	0.869	-1.22			
52	0.933	-0.60	162	0.061	-24.31	272	0.866	-1.25			
54	0.946	-0.48	164	0.084	-21.57	274	0.862	-1.29			
56	0.957	-0.38	166	0.075	-22.47	276	0.857	-1.34			
58	0.970	-0.27	168	0.085	-21.42	278	0.846	-1.45			
60	0.980	-0.17	170	0.089	-20.97	280	0.838	-1.54			
62	0.989	-0.10	172	0.078	-22.21	282	0.833	-1.59			
64	0.993	-0.06	174	0.087	-21.19	284	0.823	-1.69			
66	0.997	-0.02	176	0.092	-20.71	286	0.817	-1.76			
68	1.000	0.00	178	0.088	-21.15	288	0.812	-1.81			
70	1.000	-0.00	180	0.065	-23.71	290	0.807	-1.86			
72	0.994	-0.05	182	0.075	-22.47	292	0.804	-1.89			
74	0.987	-0.11	184	0.081	-21.78	294	0.802	-1.91			
76	0.979	-0.18	186	0.079	-22.01	296	0.802	-1.92			
78	0.968	-0.28	188	0.087	-21.17	298	0.803	-1.91			
80	0.954	-0.41	190	0.100	-19.96	300	0.802	-1.92			
82	0.937	-0.56	192	0.099	-20.08	302	0.801	-1.92			
84	0.919	-0.74	194	0.074	-22.65	304	0.803	-1.91			
86	0.899	-0.93	196	0.096	-20.37	306	0.804	-1.89			
88	0.879	-1.12	198	0.107	-19.43	308	0.801	-1.93			
90	0.859	-1.32	200	0.113	-18.97	310	0.799	-1.95			
92	0.835	-1.57	202	0.120	-18.42	312	0.800	-1.94			
94	0.813	-1.79	204	0.138	-17.18	314	0.804	-1.90			
96	0.792	-2.03	206	0.149	-16.54	316	0.807	-1.87			
98	0.769	-2.28	208	0.154	-16.24	318	0.809	-1.84			
100	0.747	-2.54	210	0.169	-15.44	320	0.813	-1.80			
102	0.723	-2.82	212	0.185	-14.66	322	0.813	-1.80			
104	0.698	-3.12	214	0.199	-14.00	324	0.814	-1.78			
106	0.671	-3.46	216	0.211	-13.50	326	0.817	-1.75			
108	0.643	-3.84	218	0.234	-12.61	328	0.822	-1.71			

ANDREW
ELEVATION PATTERN

Type: ATW30H4H

Directivity: Numeric dBd

Main Lobe: 30.00 (14.77)

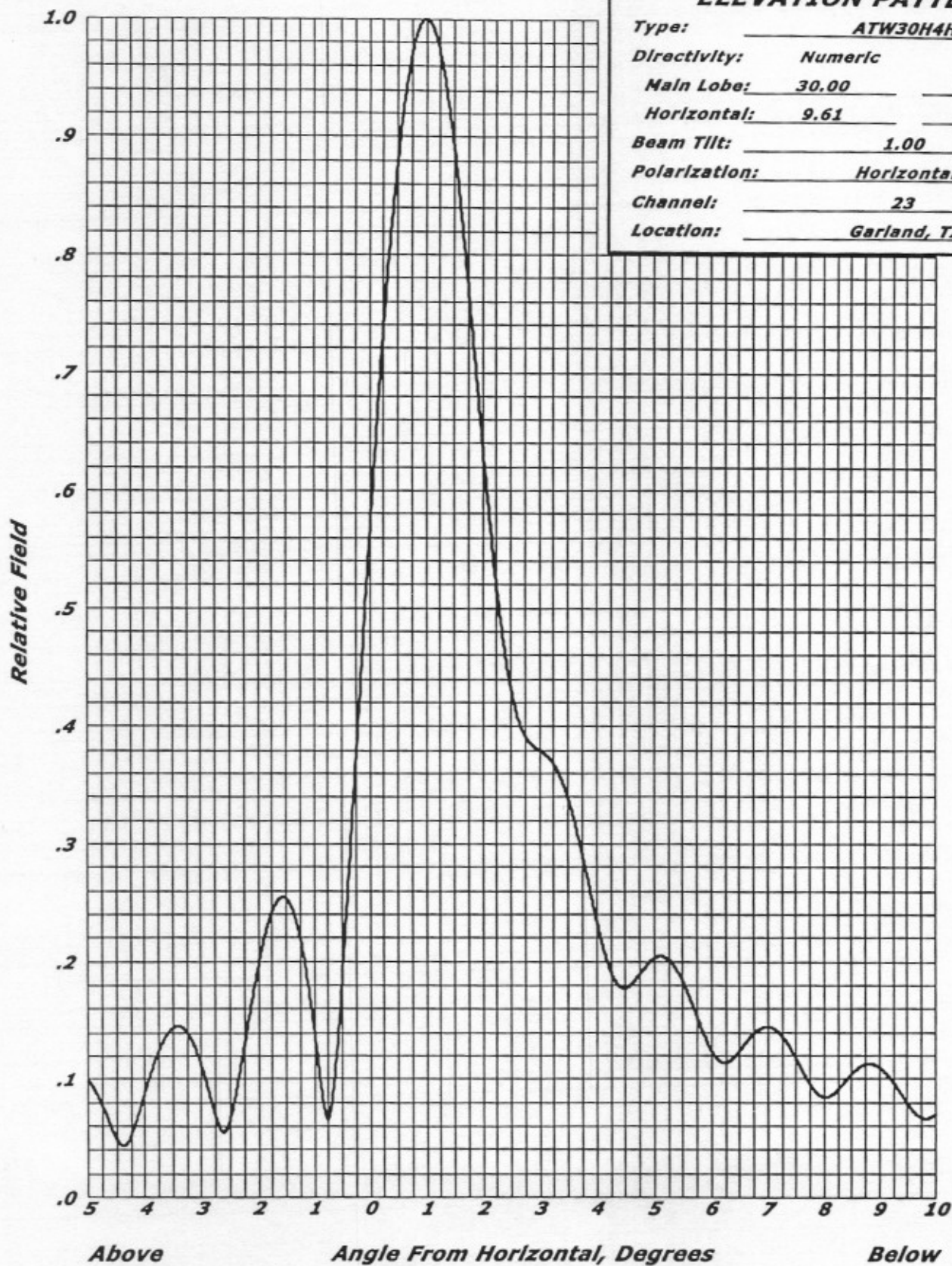
Horizontal: 9.61 (9.83)

Beam Tilt: 1.00

Polarization: Horizontal

Channel: 23

Location: Garland, TX





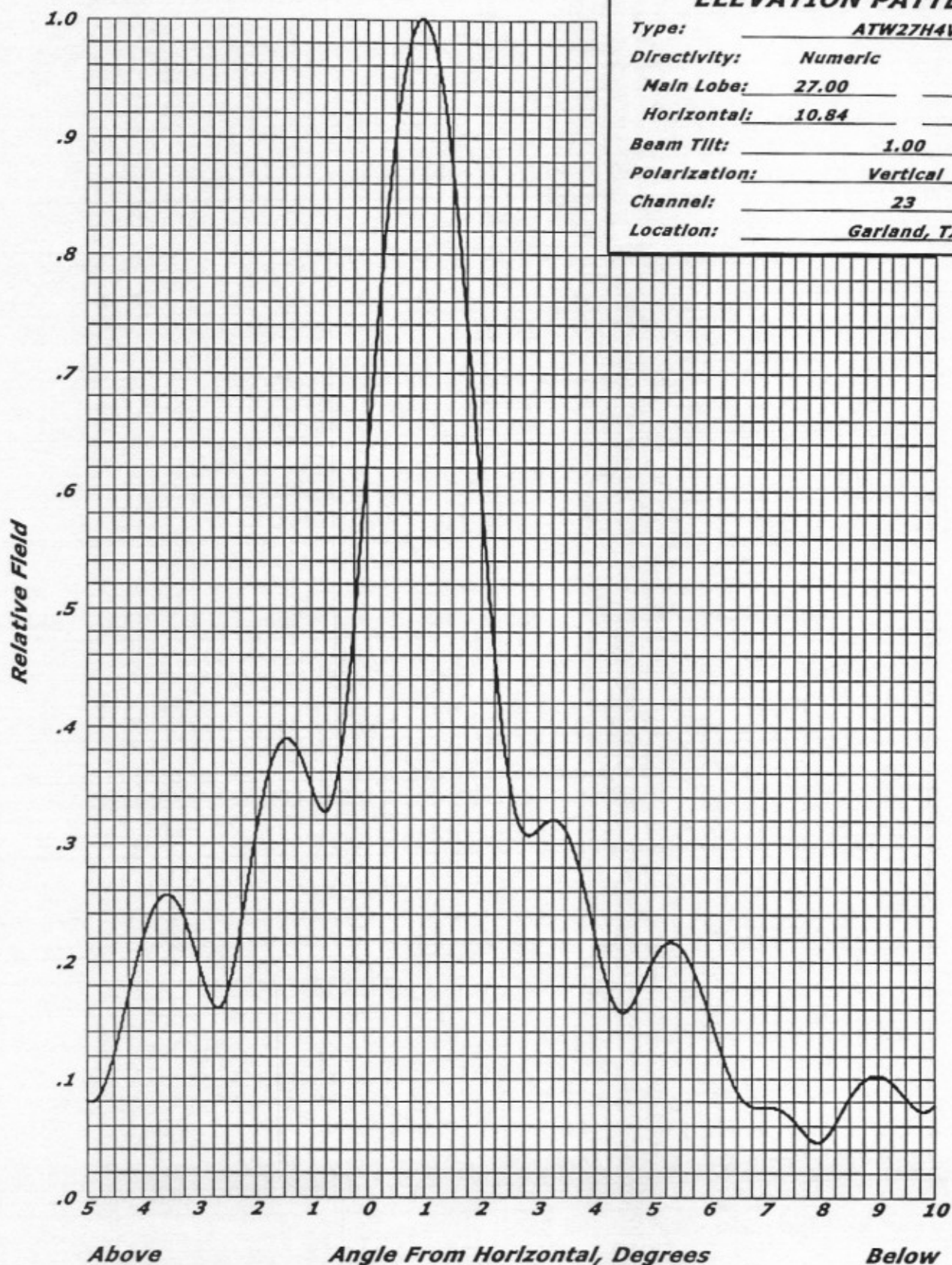
TABULATED DATA FOR ELEVATION PATTERN
TYPE : ATW30H4H

Angle Field dB -5 To 10 In 0.25 Increments	Angle Field dB 10 To 90 In 0.5 Increments	Angle Field dB	Angle Field dB
-5.00 0.098-20.13	8.75 0.113-18.96	35.00 0.015-36.37	62.50 0.012-38.46
-4.75 0.076-22.34	9.00 0.110-19.20	35.50 0.024-32.48	63.00 0.021-33.70
-4.50 0.049-26.21	9.25 0.096-20.31	36.00 0.030-30.48	63.50 0.027-31.50
-4.25 0.052-25.64	9.50 0.079-22.07	36.50 0.025-31.93	64.00 0.029-30.87
-4.00 0.089-20.98	9.75 0.067-23.45	37.00 0.015-36.42	64.50 0.026-31.56
-3.75 0.125-18.06	10.00 0.070-23.07	37.50 0.018-34.81	65.00 0.021-33.72
-3.50 0.144-16.80	10.50 0.091-20.82	38.00 0.027-31.29	65.50 0.012-38.28
-3.25 0.140-17.06	11.00 0.083-21.60	38.50 0.028-31.16	66.00 0.004-48.65
-3.00 0.111-19.07	11.50 0.057-24.87	39.00 0.019-34.44	66.50 0.009-40.85
-2.75 0.068-23.38	12.00 0.065-23.69	39.50 0.013-37.47	67.00 0.018-35.03
-2.50 0.066-23.62	12.50 0.078-22.17	40.00 0.022-33.07	67.50 0.024-32.26
-2.25 0.129-17.80	13.00 0.062-24.16	40.50 0.028-31.04	68.00 0.028-30.98
-2.00 0.196-14.15	13.50 0.046-26.76	41.00 0.024-32.25	68.50 0.029-30.76
-1.75 0.243-12.30	14.00 0.061-24.29	41.50 0.015-36.60	69.00 0.027-31.48
-1.50 0.254-11.92	14.50 0.064-23.86	42.00 0.015-36.33	69.50 0.022-33.27
-1.25 0.220-13.16	15.00 0.045-26.90	42.50 0.025-32.12	70.00 0.015-36.64
-1.00 0.141-17.02	15.50 0.042-27.60	43.00 0.028-31.01	70.50 0.006-43.76
-0.75 0.066-23.62	16.00 0.057-24.95	43.50 0.023-32.92	71.00 0.002-53.12
-0.50 0.188-14.50	16.50 0.052-25.64	44.00 0.013-37.60	71.50 0.011-39.51
-0.25 0.373 -8.55	17.00 0.035-29.22	44.50 0.016-35.85	72.00 0.018-34.90
0.00 0.566 -4.95	17.50 0.040-27.90	45.00 0.025-31.90	72.50 0.024-32.41
0.25 0.741 -2.60	18.00 0.051-25.87	45.50 0.028-30.98	73.00 0.028-31.02
0.50 0.881 -1.10	18.50 0.042-27.60	46.00 0.023-32.88	73.50 0.030-30.36
0.75 0.970 -0.26	19.00 0.029-30.81	46.50 0.013-37.57	74.00 0.031-30.28
1.00 1.000 0.00	19.50 0.040-28.04	47.00 0.015-36.50	74.50 0.029-30.72
1.25 0.970 -0.26	20.00 0.045-26.89	47.50 0.024-32.24	75.00 0.026-31.67
1.50 0.889 -1.03	20.50 0.033-29.56	48.00 0.029-30.86	75.50 0.022-33.22
1.75 0.770 -2.27	21.00 0.026-31.61	48.50 0.025-32.06	76.00 0.017-35.54
2.00 0.637 -3.92	21.50 0.039-28.24	49.00 0.016-36.03	76.50 0.011-39.05
2.25 0.515 -5.76	22.00 0.040-27.86	49.50 0.012-38.22	77.00 0.006-44.71
2.50 0.431 -7.32	22.50 0.028-31.20	50.00 0.021-33.60	77.50 0.004-48.79
2.75 0.392 -8.14	23.00 0.026-31.81	50.50 0.028-31.14	78.00 0.007-42.51
3.00 0.380 -8.41	23.50 0.038-28.51	51.00 0.028-31.14	78.50 0.012-38.34
3.25 0.367 -8.70	24.00 0.037-28.73	51.50 0.021-33.58	79.00 0.016-35.78
3.50 0.338 -9.43	24.50 0.024-32.45	52.00 0.012-38.49	79.50 0.020-34.11
3.75 0.290-10.76	25.00 0.025-32.01	52.50 0.014-37.12	80.00 0.022-33.00
4.00 0.234-12.60	25.50 0.036-28.89	53.00 0.023-32.72	80.50 0.024-32.28
4.25 0.191-14.38	26.00 0.034-29.45	53.50 0.028-30.93	81.00 0.025-31.87
4.50 0.178-14.99	26.50 0.021-33.35	54.00 0.027-31.32	81.50 0.026-31.70
4.75 0.190-14.44	27.00 0.024-32.35	54.50 0.020-33.99	82.00 0.026-31.73
5.00 0.203-13.87	27.50 0.034-29.31	55.00 0.011-39.26	82.50 0.025-31.94
5.25 0.202-13.91	28.00 0.032-29.94	55.50 0.013-38.03	83.00 0.024-32.30
5.50 0.183-14.74	28.50 0.021-33.75	56.00 0.022-33.26	83.50 0.023-32.80
5.75 0.153-16.31	29.00 0.023-32.68	56.50 0.028-31.12	84.00 0.021-33.43
6.00 0.124-18.12	29.50 0.033-29.63	57.00 0.028-31.00	84.50 0.020-34.18
6.25 0.114-18.86	30.00 0.031-30.12	57.50 0.023-32.82	85.00 0.018-35.06
6.50 0.124-18.11	30.50 0.020-34.01	58.00 0.014-37.25	85.50 0.016-36.06
6.75 0.139-17.13	31.00 0.021-33.75	58.50 0.008-42.05	86.00 0.014-37.19
7.00 0.145-16.79	31.50 0.031-30.21	59.00 0.015-36.25	86.50 0.012-38.48
7.25 0.136-17.30	32.00 0.031-30.11	59.50 0.024-32.45	87.00 0.010-39.95
7.50 0.117-18.64	32.50 0.021-33.44	60.00 0.028-30.95	87.50 0.008-41.67
7.75 0.095-20.44	33.00 0.018-34.80	60.50 0.028-31.13	88.00 0.007-43.72
8.00 0.084-21.48	33.50 0.028-31.07	61.00 0.022-32.99	88.50 0.005-46.32
8.25 0.091-20.80	34.00 0.031-30.24	61.50 0.014-37.28	89.00 0.003-49.92
8.50 0.105-19.60	34.50 0.023-32.93	62.00 0.006-44.32	89.50 0.002-55.99



ANDREW ELEVATION PATTERN

Type:	ATW27H4V	
Directivity:	Numeric	dBd
Main Lobe:	27.00	(14.31)
Horizontal:	10.84	(10.35)
Beam Tilt:	1.00	
Polarization:	Vertical	
Channel:	23	
Location:	Garland, TX	





TABULATED DATA FOR ELEVATION PATTERN **TYPE : ATW27H4V**

Angle Field dB -5 To 10 In 0.25 Increments	Angle Field dB 10 To 90 In 0.5 Increments	Angle Field dB	Angle Field dB
-5.00 0.081-21.80	8.75 0.098-20.13	35.00 0.079-22.06	62.50 0.033-29.74
-4.75 0.087-21.19	9.00 0.103-19.76	35.50 0.072-22.83	63.00 0.036-28.92
-4.50 0.123-18.22	9.25 0.096-20.33	36.00 0.055-25.20	63.50 0.036-28.83
-4.25 0.173-15.26	9.50 0.083-21.63	36.50 0.036-28.85	64.00 0.033-29.59
-4.00 0.219-13.20	9.75 0.073-22.77	37.00 0.024-32.32	64.50 0.028-31.19
-3.75 0.249-12.07	10.00 0.077-22.23	37.50 0.018-34.95	65.00 0.022-33.20
-3.50 0.256-11.84	10.50 0.116-18.68	38.00 0.010-40.11	65.50 0.020-34.07
-3.25 0.237-12.51	11.00 0.136-17.35	38.50 0.007-43.68	66.00 0.023-32.79
-3.00 0.198-14.05	11.50 0.114-18.86	39.00 0.014-37.27	66.50 0.028-31.00
-2.75 0.164-15.71	12.00 0.071-22.97	39.50 0.016-35.91	67.00 0.032-29.79
-2.50 0.174-15.17	12.50 0.042-27.56	40.00 0.017-35.48	67.50 0.034-29.33
-2.25 0.234-12.61	13.00 0.029-30.75	40.50 0.030-30.59	68.00 0.033-29.57
-2.00 0.306-10.28	13.50 0.019-34.45	41.00 0.049-26.18	68.50 0.030-30.39
-1.75 0.363 -8.80	14.00 0.043-27.32	41.50 0.065-23.73	69.00 0.027-31.40
-1.50 0.389 -8.20	14.50 0.060-24.50	42.00 0.071-22.95	69.50 0.026-31.72
-1.25 0.380 -8.40	15.00 0.052-25.70	42.50 0.066-23.64	70.00 0.029-30.65
-1.00 0.348 -9.17	15.50 0.049-26.12	43.00 0.052-25.75	70.50 0.036-28.83
-0.75 0.327 -9.71	16.00 0.080-21.89	43.50 0.035-29.01	71.00 0.044-27.08
-0.50 0.369 -8.67	16.50 0.104-19.63	44.00 0.025-31.93	71.50 0.052-25.70
-0.25 0.483 -6.32	17.00 0.100-20.02	44.50 0.022-33.08	72.00 0.058-24.74
0.00 0.634 -3.96	17.50 0.072-22.85	45.00 0.018-34.73	72.50 0.062-24.15
0.25 0.783 -2.12	18.00 0.041-27.83	45.50 0.011-38.94	73.00 0.064-23.92
0.50 0.905 -0.87	18.50 0.021-33.49	46.00 0.009-40.95	73.50 0.063-23.99
0.75 0.980 -0.17	19.00 0.007-43.72	46.50 0.014-36.87	74.00 0.061-24.36
1.00 1.000 0.00	19.50 0.020-34.06	47.00 0.017-35.51	74.50 0.056-25.00
1.25 0.962 -0.34	20.00 0.037-28.53	47.50 0.016-35.77	75.00 0.051-25.88
1.50 0.872 -1.19	20.50 0.040-28.04	48.00 0.023-32.85	75.50 0.045-26.96
1.75 0.743 -2.58	21.00 0.035-29.07	48.50 0.038-28.41	76.00 0.039-28.13
2.00 0.596 -4.50	21.50 0.055-25.19	49.00 0.054-25.35	76.50 0.035-29.23
2.25 0.455 -6.84	22.00 0.083-21.60	49.50 0.065-23.75	77.00 0.032-29.99
2.50 0.352 -9.06	22.50 0.095-20.46	50.00 0.068-23.41	77.50 0.031-30.22
2.75 0.309-10.19	23.00 0.084-21.53	50.50 0.062-24.22	78.00 0.032-29.95
3.00 0.312-10.12	23.50 0.058-24.68	51.00 0.049-26.11	78.50 0.034-29.40
3.25 0.320 -9.89	24.00 0.034-29.47	51.50 0.037-28.73	79.00 0.036-28.80
3.50 0.310-10.18	24.50 0.018-34.67	52.00 0.029-30.68	79.50 0.039-28.28
3.75 0.275-11.20	25.00 0.006-44.88	52.50 0.029-30.83	80.00 0.040-27.89
4.00 0.225-12.97	25.50 0.013-37.45	53.00 0.029-30.82	80.50 0.041-27.65
4.25 0.177-15.07	26.00 0.026-31.78	53.50 0.025-32.03	81.00 0.042-27.56
4.50 0.157-16.11	26.50 0.027-31.37	54.00 0.018-34.84	81.50 0.042-27.61
4.75 0.172-15.29	27.00 0.027-31.31	54.50 0.013-37.89	82.00 0.041-27.80
5.00 0.199-14.03	27.50 0.047-26.49	55.00 0.015-36.77	82.50 0.039-28.10
5.25 0.215-13.33	28.00 0.072-22.86	55.50 0.018-34.81	83.00 0.038-28.51
5.50 0.213-13.43	28.50 0.084-21.51	56.00 0.019-34.63	83.50 0.035-29.03
5.75 0.192-14.33	29.00 0.078-22.16	56.50 0.016-35.85	84.00 0.033-29.66
6.00 0.158-16.05	29.50 0.058-24.70	57.00 0.018-35.04	84.50 0.030-30.38
6.25 0.119-18.45	30.00 0.036-28.89	57.50 0.028-31.14	85.00 0.028-31.21
6.50 0.089-20.98	30.50 0.021-33.54	58.00 0.041-27.77	85.50 0.025-32.15
6.75 0.077-22.33	31.00 0.011-38.92	58.50 0.052-25.60	86.00 0.022-33.21
7.00 0.076-22.41	31.50 0.004-48.45	59.00 0.060-24.49	86.50 0.019-34.42
7.25 0.074-22.67	32.00 0.015-36.56	59.50 0.061-24.28	87.00 0.016-35.82
7.50 0.064-23.90	32.50 0.021-33.45	60.00 0.057-24.91	87.50 0.013-37.45
7.75 0.050-25.95	33.00 0.021-33.60	60.50 0.048-26.33	88.00 0.011-39.44
8.00 0.048-26.46	33.50 0.029-30.62	61.00 0.038-28.38	88.50 0.008-41.98
8.25 0.063-24.03	34.00 0.051-25.84	61.50 0.031-30.31	89.00 0.005-45.53
8.50 0.084-21.56	34.50 0.071-22.99	62.00 0.029-30.68	89.50 0.003-51.57