



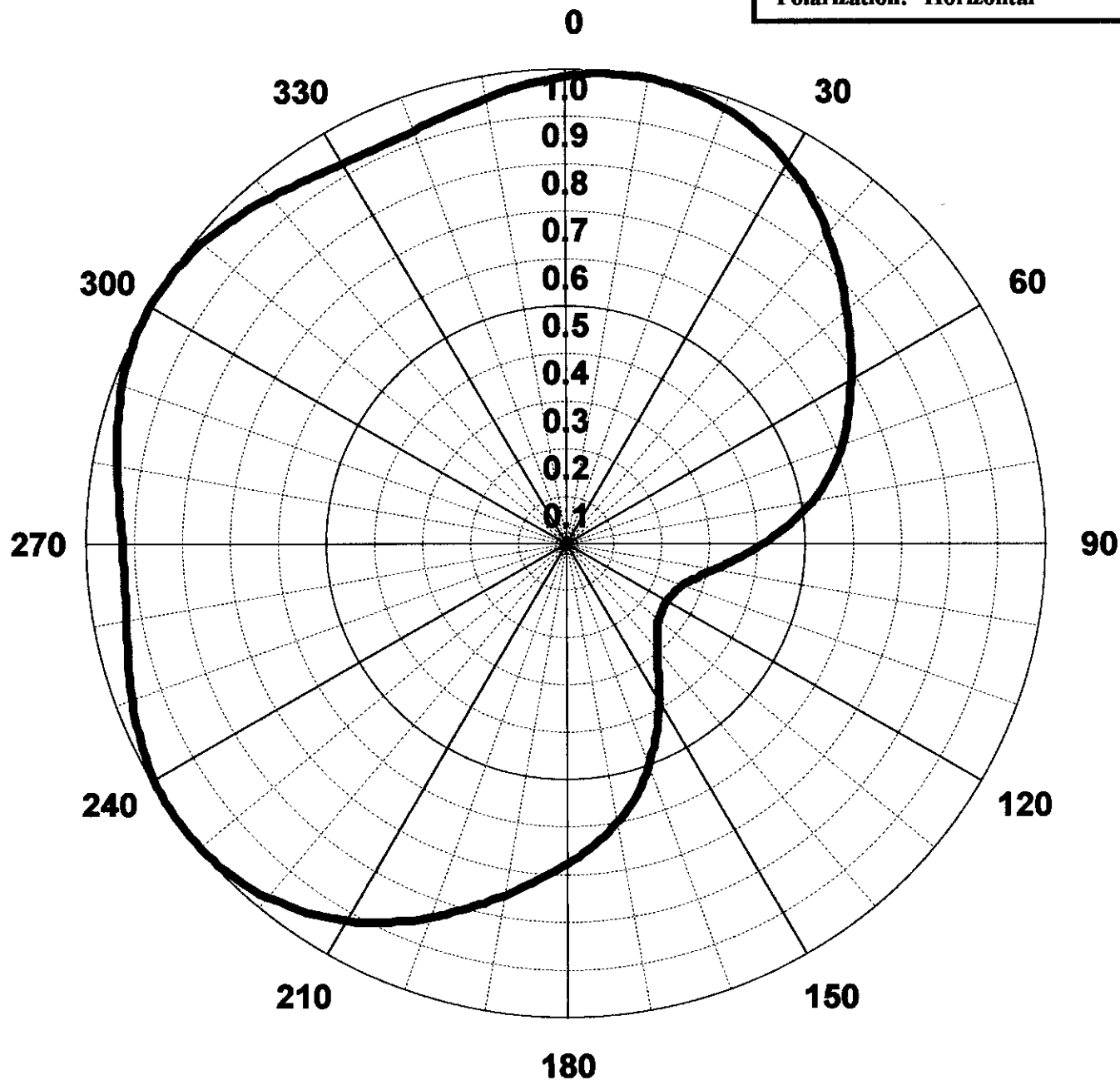
ANDREW

Channel: 21

Type: ALP-W

Gain: 1.56 (1.93 dB)

Polarization: Horizontal



ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

Company:
Site: Pierre, SD
Proposal Number:

Date: 10/28/04
Author:



Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB
0	0.988	-0.10	72	0.596	-4.50	144	0.326	-9.74	216	0.952	-0.43	288	0.976	-0.21
1	0.990	-0.09	73	0.588	-4.61	145	0.335	-9.50	217	0.957	-0.38	289	0.979	-0.18
2	0.992	-0.07	74	0.579	-4.75	146	0.344	-9.27	218	0.961	-0.35	290	0.982	-0.16
3	0.994	-0.05	75	0.570	-4.88	147	0.354	-9.02	219	0.966	-0.30	291	0.985	-0.13
4	0.995	-0.04	76	0.560	-5.04	148	0.365	-8.75	220	0.970	-0.26	292	0.987	-0.11
5	0.996	-0.03	77	0.551	-5.18	149	0.375	-8.52	221	0.975	-0.22	293	0.990	-0.09
6	0.997	-0.03	78	0.541	-5.34	150	0.386	-8.27	222	0.978	-0.19	294	0.992	-0.07
7	0.998	-0.02	79	0.531	-5.50	151	0.397	-8.02	223	0.981	-0.17	295	0.994	-0.05
8	0.998	-0.02	80	0.521	-5.66	152	0.408	-7.79	224	0.984	-0.14	296	0.996	-0.03
9	0.998	-0.02	81	0.510	-5.85	153	0.419	-7.56	225	0.987	-0.11	297	0.997	-0.03
10	0.997	-0.03	82	0.499	-6.04	154	0.430	-7.33	226	0.989	-0.10	298	0.998	-0.02
11	0.997	-0.03	83	0.488	-6.23	155	0.442	-7.09	227	0.992	-0.07	299	0.999	-0.01
12	0.996	-0.03	84	0.477	-6.43	156	0.453	-6.88	228	0.993	-0.06	300	1.000	0.00
13	0.995	-0.04	85	0.465	-6.65	157	0.465	-6.65	229	0.995	-0.04	301	1.000	0.00
14	0.993	-0.06	86	0.454	-6.86	158	0.476	-6.45	230	0.996	-0.03	302	1.000	0.00
15	0.992	-0.07	87	0.442	-7.09	159	0.488	-6.23	231	0.997	-0.03	303	0.999	-0.01
16	0.989	-0.10	88	0.431	-7.31	160	0.499	-6.04	232	0.997	-0.03	304	0.998	-0.02
17	0.987	-0.11	89	0.419	-7.56	161	0.510	-5.85	233	0.998	-0.02	305	0.997	-0.03
18	0.984	-0.14	90	0.408	-7.79	162	0.520	-5.68	234	0.998	-0.02	306	0.996	-0.03
19	0.981	-0.17	91	0.397	-8.02	163	0.531	-5.50	235	0.998	-0.02	307	0.994	-0.05
20	0.978	-0.19	92	0.386	-8.27	164	0.541	-5.34	236	0.997	-0.03	308	0.992	-0.07
21	0.975	-0.22	93	0.375	-8.52	165	0.551	-5.18	237	0.996	-0.03	309	0.990	-0.09
22	0.971	-0.26	94	0.365	-8.75	166	0.560	-5.04	238	0.995	-0.04	310	0.988	-0.10
23	0.966	-0.30	95	0.354	-9.02	167	0.570	-4.88	239	0.994	-0.05	311	0.985	-0.13
24	0.962	-0.34	96	0.344	-9.27	168	0.579	-4.75	240	0.992	-0.07	312	0.982	-0.16
25	0.957	-0.38	97	0.335	-9.50	169	0.588	-4.61	241	0.990	-0.09	313	0.979	-0.18
26	0.952	-0.43	98	0.326	-9.74	170	0.597	-4.48	242	0.988	-0.10	314	0.976	-0.21
27	0.947	-0.47	99	0.318	-9.95	171	0.605	-4.36	243	0.985	-0.13	315	0.973	-0.24
28	0.941	-0.53	100	0.310	-10.17	172	0.613	-4.25	244	0.982	-0.16	316	0.970	-0.26
29	0.935	-0.58	101	0.302	-10.40	173	0.621	-4.14	245	0.979	-0.18	317	0.966	-0.30
30	0.928	-0.65	102	0.295	-10.60	174	0.628	-4.04	246	0.976	-0.21	318	0.963	-0.33
31	0.922	-0.71	103	0.288	-10.81	175	0.636	-3.93	247	0.973	-0.24	319	0.959	-0.36
32	0.915	-0.77	104	0.283	-10.96	176	0.644	-3.82	248	0.969	-0.27	320	0.955	-0.40
33	0.909	-0.83	105	0.277	-11.15	177	0.651	-3.73	249	0.966	-0.30	321	0.951	-0.44
34	0.901	-0.91	106	0.272	-11.31	178	0.659	-3.62	250	0.962	-0.34	322	0.948	-0.46
35	0.894	-0.97	107	0.267	-11.47	179	0.666	-3.53	251	0.959	-0.36	323	0.945	-0.49
36	0.886	-1.05	108	0.263	-11.60	180	0.673	-3.44	252	0.956	-0.39	324	0.942	-0.52
37	0.878	-1.13	109	0.259	-11.73	181	0.680	-3.35	253	0.952	-0.43	325	0.938	-0.56
38	0.870	-1.21	110	0.256	-11.84	182	0.687	-3.26	254	0.949	-0.45	326	0.936	-0.57
39	0.862	-1.29	111	0.253	-11.94	183	0.695	-3.16	255	0.945	-0.49	327	0.933	-0.60
40	0.853	-1.38	112	0.250	-12.04	184	0.703	-3.06	256	0.942	-0.52	328	0.930	-0.63
41	0.845	-1.46	113	0.248	-12.11	185	0.710	-2.97	257	0.939	-0.55	329	0.928	-0.65
42	0.836	-1.56	114	0.247	-12.15	186	0.717	-2.89	258	0.936	-0.57	330	0.927	-0.66
43	0.828	-1.64	115	0.245	-12.22	187	0.725	-2.79	259	0.933	-0.60	331	0.925	-0.68
44	0.819	-1.73	116	0.244	-12.25	188	0.733	-2.70	260	0.931	-0.62	332	0.924	-0.69
45	0.810	-1.83	117	0.243	-12.29	189	0.742	-2.59	261	0.929	-0.64	333	0.923	-0.70
46	0.801	-1.93	118	0.242	-12.32	190	0.750	-2.50	262	0.927	-0.66	334	0.923	-0.70
47	0.793	-2.01	119	0.241	-12.36	191	0.758	-2.41	263	0.925	-0.68	335	0.922	-0.71
48	0.784	-2.11	120	0.241	-12.36	192	0.766	-2.32	264	0.924	-0.69	336	0.923	-0.70
49	0.775	-2.21	121	0.241	-12.36	193	0.775	-2.21	265	0.923	-0.70	337	0.923	-0.70
50	0.767	-2.30	122	0.241	-12.36	194	0.784	-2.11	266	0.922	-0.71	338	0.924	-0.69
51	0.758	-2.41	123	0.241	-12.36	195	0.793	-2.01	267	0.922	-0.71	339	0.925	-0.68
52	0.750	-2.50	124	0.242	-12.32	196	0.801	-1.93	268	0.923	-0.70	340	0.927	-0.66
53	0.742	-2.59	125	0.243	-12.29	197	0.810	-1.83	269	0.923	-0.70	341	0.929	-0.64
54	0.733	-2.70	126	0.244	-12.25	198	0.819	-1.73	270	0.924	-0.69	342	0.931	-0.62
55	0.725	-2.79	127	0.245	-12.22	199	0.828	-1.64	271	0.925	-0.68	343	0.933	-0.60
56	0.718	-2.88	128	0.247	-12.15	200	0.836	-1.56	272	0.927	-0.66	344	0.936	-0.57
57	0.710	-2.97	129	0.248	-12.11	201	0.845	-1.46	273	0.928	-0.65	345	0.939	-0.55
58	0.702	-3.07	130	0.250	-12.04	202	0.854	-1.37	274	0.931	-0.62	346	0.942	-0.52
59	0.695	-3.16	131	0.253	-11.94	203	0.862	-1.29	275	0.933	-0.60	347	0.945	-0.49
60	0.688	-3.25	132	0.256	-11.84	204	0.870	-1.21	276	0.935	-0.58	348	0.949	-0.45
61	0.680	-3.35	133	0.259	-11.73	205	0.878	-1.13	277	0.938	-0.56	349	0.952	-0.43
62	0.673	-3.44	134	0.263	-11.60	206	0.886	-1.05	278	0.942	-0.52	350	0.955	-0.40
63	0.666	-3.53	135	0.267	-11.47	207	0.894	-0.97	279	0.945	-0.49	351	0.959	-0.36
64	0.658	-3.64	136	0.272	-11.31	208	0.902	-0.90	280	0.948	-0.46	352	0.963	-0.33
65	0.651	-3.73	137	0.277	-11.15	209	0.909	-0.83	281	0.951	-0.44	353	0.966	-0.30
66	0.643	-3.84	138	0.282	-11.00	210	0.916	-0.76	282	0.955	-0.40	354	0.969	-0.27
67	0.636	-3.93	139	0.288	-10.81	211	0.922	-0.71	283	0.959	-0.36	355	0.973	-0.24
68	0.628	-4.04	140	0.295	-10.60	212	0.929	-0.64	284	0.962	-0.34	356	0.976	-0.21
69	0.621	-4.14	141	0.302	-10.40	213	0.935	-0.58	285	0.966	-0.30	357	0.979	-0.18
70	0.613	-4.25	142	0.310	-10.17	214	0.941	-0.53	286	0.969	-0.27	358	0.982	-0.16
71	0.605	-4.36	143	0.318	-9.95	215	0.947	-0.47	287	0.973	-0.24	359	0.985	-0.13

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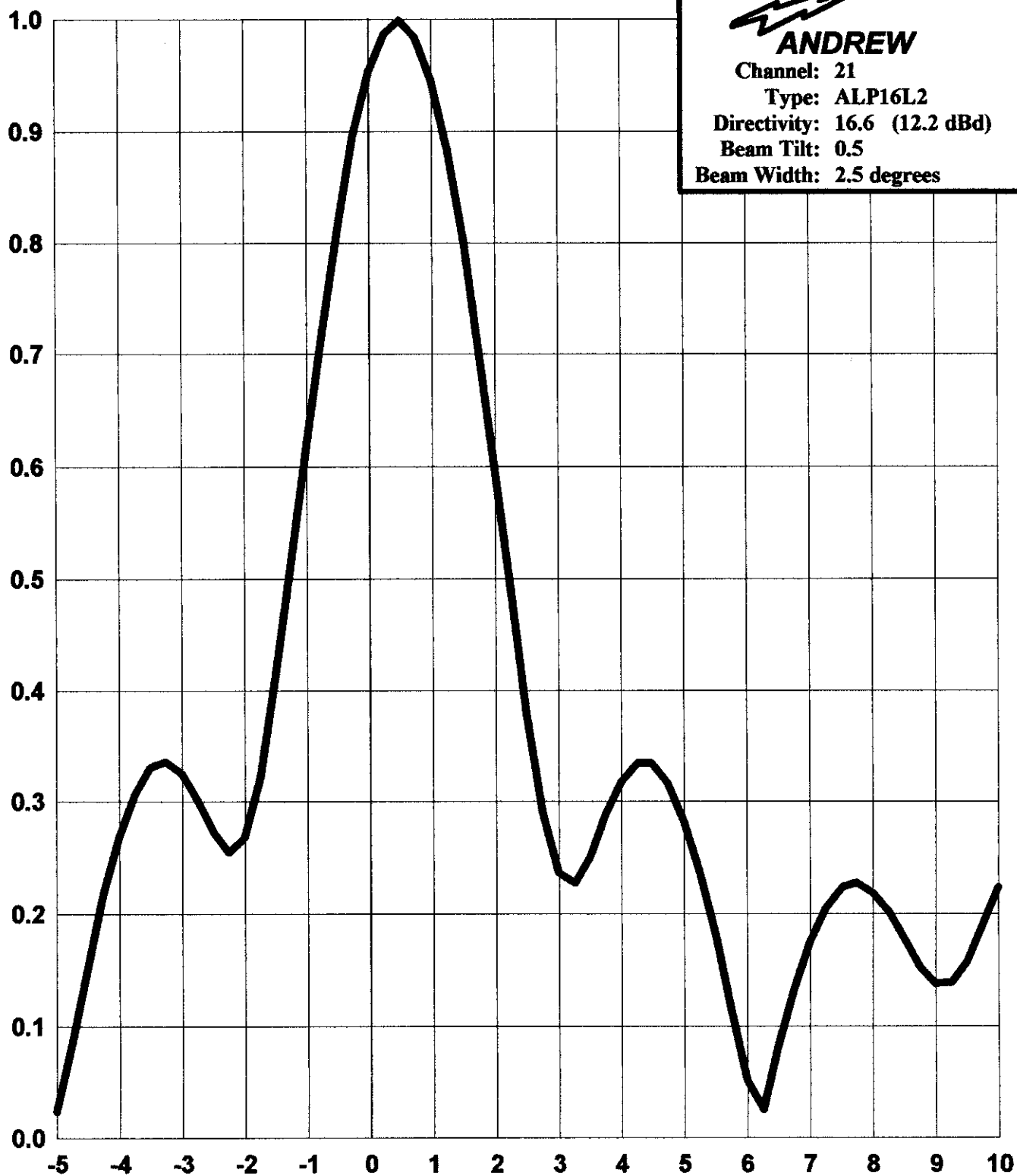
Channel: 21

Type: ALP16L2

Directivity: 16.6 (12.2 dBd)

Beam Tilt: 0.5

Beam Width: 2.5 degrees



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Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB	Angle	Amp	dB
-5.00	0.024	-32.40	9.00	0.138	-17.20	36.00	0.123	-18.20	63.50	0.021	-33.56
-4.75	0.086	-21.31	9.25	0.139	-17.14	36.50	0.138	-17.20	64.00	0.035	-29.12
-4.50	0.155	-16.19	9.50	0.159	-15.97	37.00	0.144	-16.83	64.50	0.047	-26.56
-4.25	0.218	-13.23	9.75	0.190	-14.42	37.50	0.138	-17.20	65.00	0.058	-24.73
-4.00	0.270	-11.37	10.00	0.224	-13.00	38.00	0.123	-18.20	65.50	0.066	-23.61
-3.75	0.309	-10.20	10.50	0.280	-11.06	38.50	0.100	-20.00	66.00	0.072	-22.85
-3.50	0.331	-9.60	11.00	0.306	-10.29	39.00	0.073	-22.73	66.50	0.075	-22.50
-3.25	0.337	-9.45	11.50	0.295	-10.60	39.50	0.050	-26.02	67.00	0.075	-22.50
-3.00	0.326	-9.74	12.00	0.253	-11.94	40.00	0.044	-27.13	67.50	0.073	-22.73
-2.75	0.302	-10.40	12.50	0.193	-14.29	40.50	0.054	-25.35	68.00	0.070	-23.10
-2.50	0.273	-11.28	13.00	0.127	-17.92	41.00	0.066	-23.61	68.50	0.064	-23.88
-2.25	0.256	-11.84	13.50	0.070	-23.10	41.50	0.071	-22.97	69.00	0.059	-24.58
-2.00	0.270	-11.37	14.00	0.031	-30.17	42.00	0.068	-23.35	69.50	0.055	-25.19
-1.75	0.324	-9.79	14.50	0.013	-37.72	42.50	0.057	-24.88	70.00	0.054	-25.35
-1.50	0.410	-7.74	15.00	0.005	-46.02	43.00	0.040	-27.96	70.50	0.056	-25.04
-1.25	0.512	-5.81	15.50	0.006	-44.44	43.50	0.020	-33.98	71.00	0.062	-24.15
-1.00	0.619	-4.17	16.00	0.018	-34.89	44.00	0.005	-46.02	71.50	0.071	-22.97
-0.75	0.723	-2.82	16.50	0.025	-32.04	44.50	0.021	-33.56	72.00	0.080	-21.94
-0.50	0.817	-1.76	17.00	0.022	-33.15	45.00	0.036	-28.87	72.50	0.091	-20.82
-0.25	0.895	-0.96	17.50	0.007	-43.10	45.50	0.045	-26.94	73.00	0.101	-19.91
0.00	0.954	-0.41	18.00	0.018	-34.89	46.00	0.048	-26.38	73.50	0.110	-19.17
0.25	0.989	-0.10	18.50	0.044	-27.13	46.50	0.046	-26.74	74.00	0.119	-18.49
0.50	1.000	0.00	19.00	0.065	-23.74	47.00	0.040	-27.96	74.50	0.126	-17.99
0.75	0.985	-0.13	19.50	0.074	-22.62	47.50	0.031	-30.17	75.00	0.132	-17.59
1.00	0.946	-0.48	20.00	0.071	-22.97	48.00	0.026	-31.70	75.50	0.137	-17.27
1.25	0.884	-1.07	20.50	0.061	-24.29	48.50	0.025	-32.04	76.00	0.140	-17.08
1.50	0.802	-1.92	21.00	0.071	-22.97	49.00	0.029	-30.75	76.50	0.142	-16.95
1.75	0.705	-3.04	21.50	0.109	-19.25	49.50	0.033	-29.63	77.00	0.142	-16.95
2.00	0.598	-4.47	22.00	0.157	-16.08	50.00	0.034	-29.37	77.50	0.142	-16.95
2.25	0.487	-6.25	22.50	0.201	-13.94	50.50	0.031	-30.17	78.00	0.140	-17.08
2.50	0.381	-8.38	23.00	0.229	-12.80	51.00	0.024	-32.40	78.50	0.137	-17.27
2.75	0.292	-10.69	23.50	0.238	-12.47	51.50	0.015	-36.48	79.00	0.133	-17.52
3.00	0.237	-12.51	24.00	0.225	-12.96	52.00	0.003	-50.46	79.50	0.129	-17.79
3.25	0.228	-12.84	24.50	0.194	-14.24	52.50	0.009	-40.92	80.00	0.124	-18.13
3.50	0.253	-11.94	25.00	0.150	-16.48	53.00	0.020	-33.98	80.50	0.118	-18.56
3.75	0.289	-10.78	25.50	0.102	-19.83	53.50	0.029	-30.75	81.00	0.112	-19.02
4.00	0.319	-9.92	26.00	0.062	-24.15	54.00	0.035	-29.12	81.50	0.106	-19.49
4.25	0.336	-9.47	26.50	0.044	-27.13	54.50	0.038	-28.40	82.00	0.100	-20.00
4.50	0.335	-9.50	27.00	0.049	-26.20	55.00	0.037	-28.64	82.50	0.093	-20.63
4.75	0.317	-9.98	27.50	0.055	-25.19	55.50	0.033	-29.63	83.00	0.086	-21.31
5.00	0.284	-10.93	28.00	0.052	-25.68	56.00	0.028	-31.06	83.50	0.080	-21.94
5.25	0.237	-12.51	28.50	0.041	-27.74	56.50	0.025	-32.04	84.00	0.073	-22.73
5.50	0.180	-14.89	29.00	0.025	-32.04	57.00	0.026	-31.70	84.50	0.066	-23.61
5.75	0.116	-18.71	29.50	0.010	-40.00	57.50	0.033	-29.63	85.00	0.060	-24.44
6.00	0.052	-25.68	30.00	0.002	-53.98	58.00	0.041	-27.74	85.50	0.053	-25.51
6.25	0.026	-31.70	30.50	0.008	-41.94	58.50	0.049	-26.20	86.00	0.047	-26.56
6.50	0.081	-21.83	31.00	0.008	-41.94	59.00	0.055	-25.19	86.50	0.041	-27.74
6.75	0.133	-17.52	31.50	0.003	-50.46	59.50	0.058	-24.73	87.00	0.035	-29.12
7.00	0.176	-15.09	32.00	0.003	-50.46	60.00	0.057	-24.88	87.50	0.029	-30.75
7.25	0.206	-13.72	32.50	0.008	-41.94	60.50	0.054	-25.35	88.00	0.023	-32.77
7.50	0.224	-13.00	33.00	0.012	-38.42	61.00	0.046	-26.74	88.50	0.017	-35.39
7.75	0.228	-12.84	33.50	0.017	-35.39	61.50	0.036	-28.87	89.00	0.011	-39.17
8.00	0.220	-13.15	34.00	0.029	-30.75	62.00	0.024	-32.40	89.50	0.006	-44.44
8.25	0.203	-13.85	34.50	0.050	-26.02	62.50	0.011	-39.17	90.00	0.000	—
8.50	0.179	-14.94	35.00	0.075	-22.50	63.00	0.007	-43.10			
8.75	0.154	-16.25	35.50	0.101	-19.91	63.50	0.021	-33.56			

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