



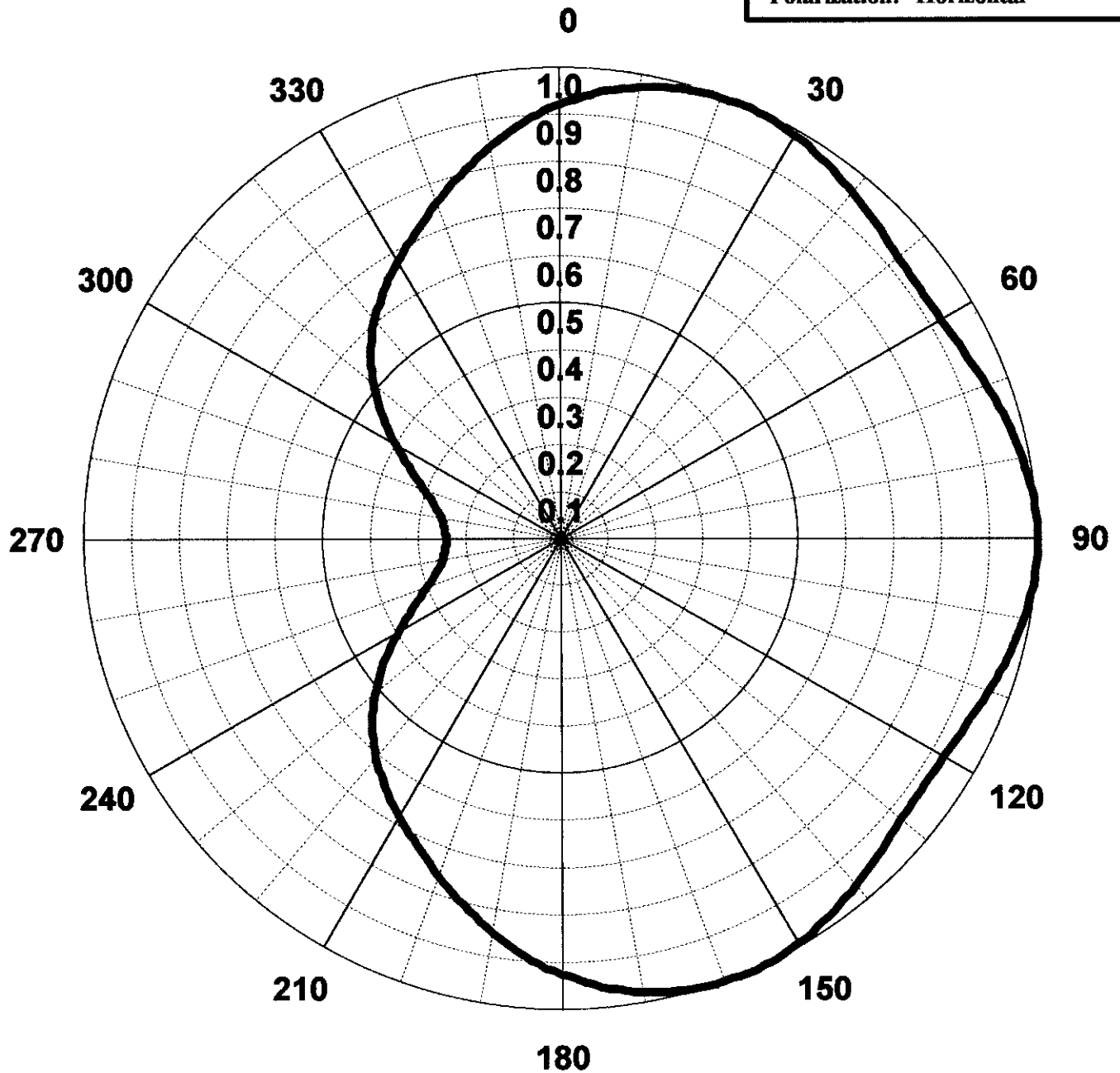
**ANDREW**

Channel: 18

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: Brookings  
Proposal Number:

Date: 10/28/04  
Author:



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

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**Site:** Brookings  
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**ANDREW**

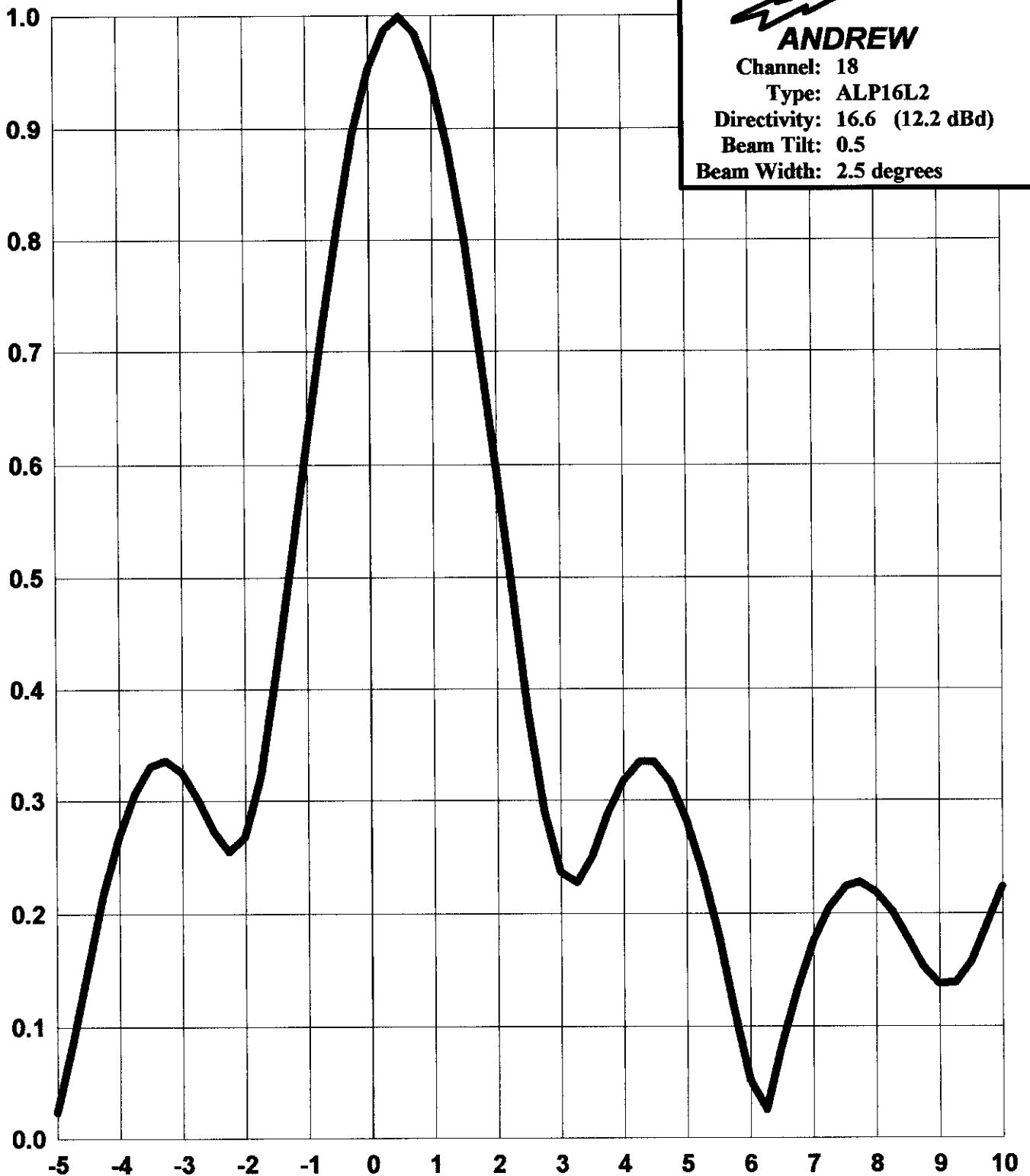
Channel: 18

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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