



Coaxial Slot Antenna Proposal

KLMB
El Dorado, AR

H-POL Side Mount

08/24/2017



ANTENNA SPECIFICATIONS



ALIVETELE.COM
SPEC GENERATOR

model no.: ATC-BCH78M-36

call sign: KLMB

city of license: El Dorado

state: AR

Summary

Antenna Specifications

Antenna Type	Coaxial Slot
Antenna Model	ATC-BCH78M-36

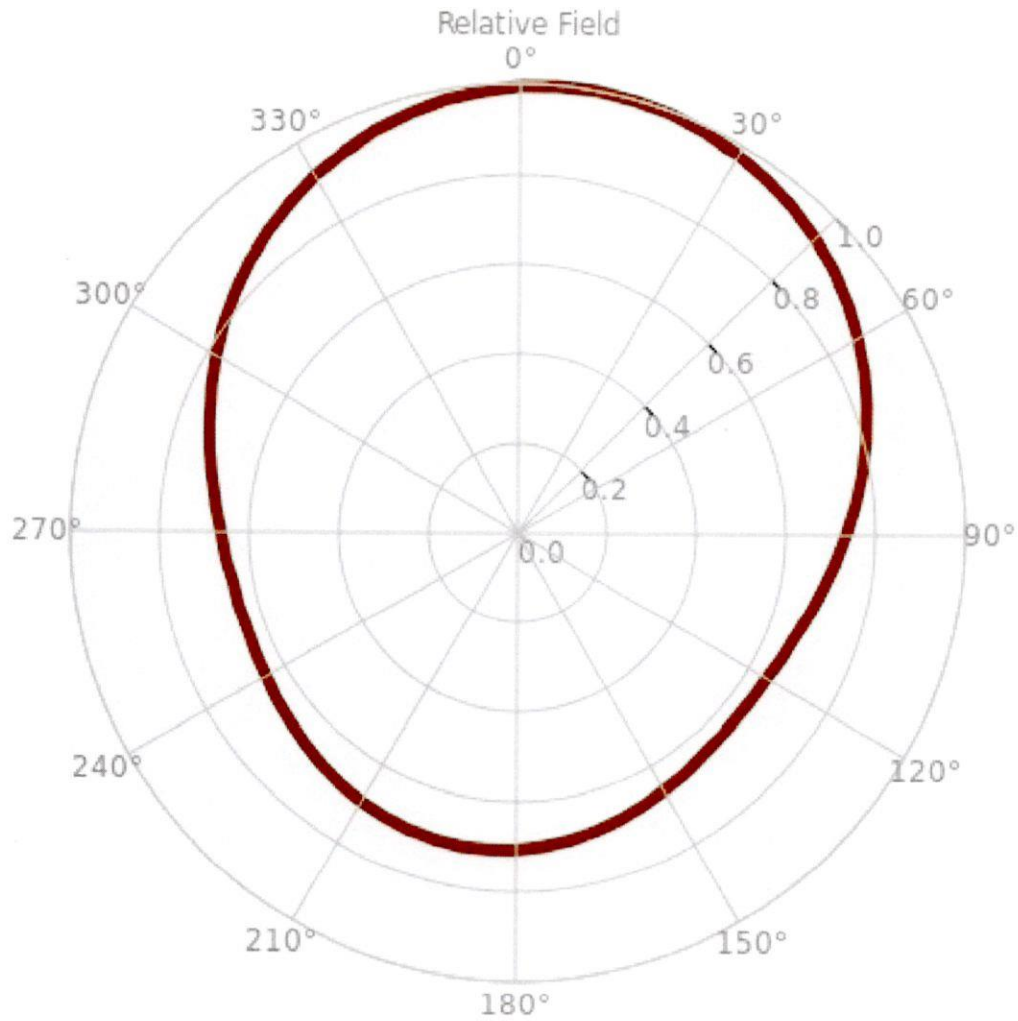
Electrical Specifications

Channel(s)	36
Frequency Range (MHz)	602 - 608
Polarization	Horizontal
Horizontal Azimuth Pattern	Omniooid
Directivity	1.65
dB	2.17
Azimuth Peak of Beam	10 °
Elevation Pattern	BC8
Directivity	8.68
dB	9.39
Electrical Beam Tilt	1.75 °
Antenna Peak Power Gain	
Horizontal Gain Power	14.32
Horizontal Gain Ratio	11.56 dBd
Line Type	1-5/8" 50 Ohm Foam Flex Line
Line Length	215 ft
Total Line Loss	1.22 dB
Effective Radiated Power (ERP)	.5 kW
Transmitter Power Output (TPO)	
TPO Power	0.05 kW
TPO Ratio	-13.35 dBk
Input Type	EIA 7/8"

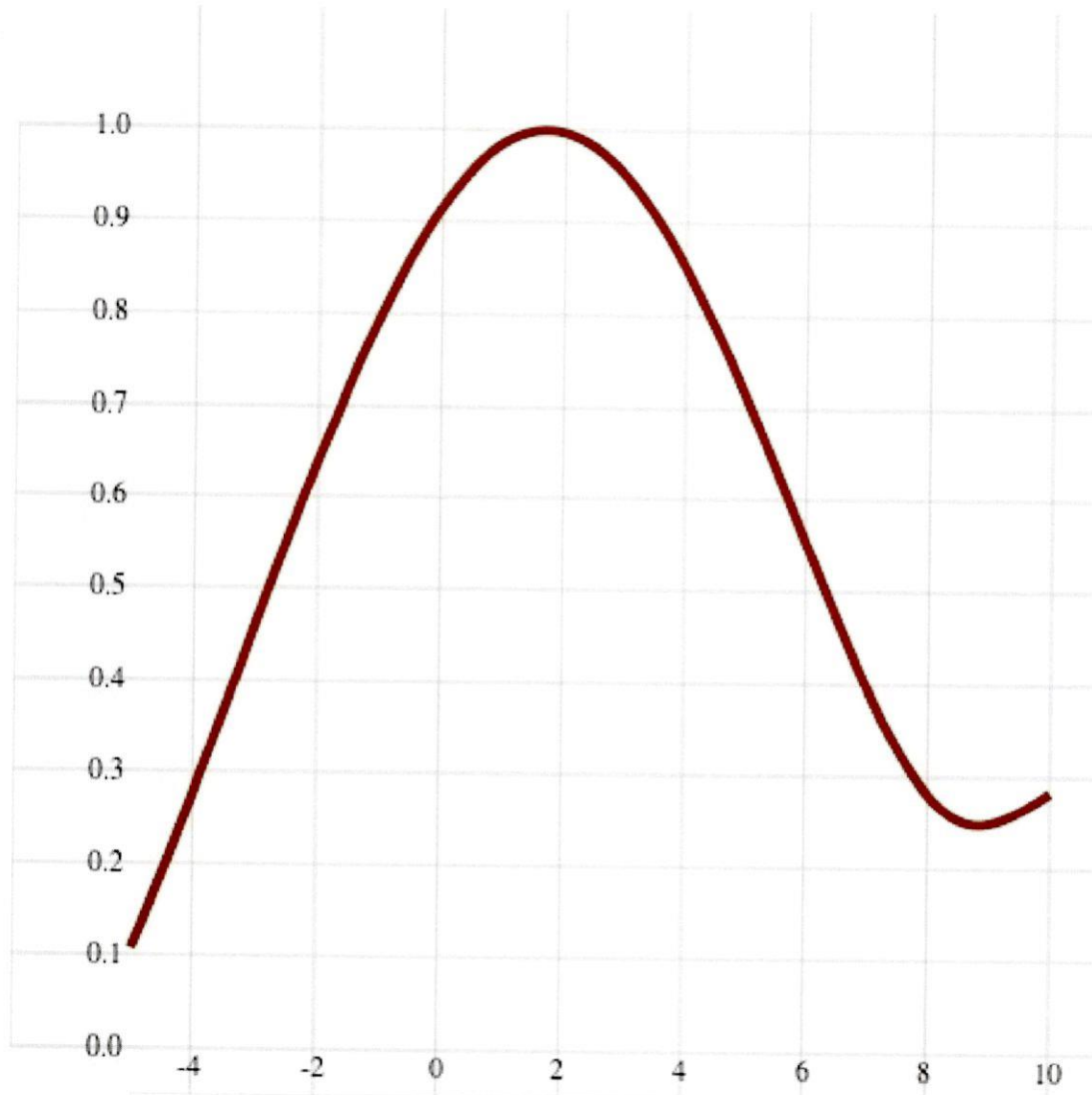
Mechanical Specifications

Mount Type	Side Mount
Length of Antenna	15.85 ft
Center of Radiation	7.92 ft
Radome Diameter	3" Slot Cover
Color	White
Calculated Weight	80 lbs
Windload (Shear)	Contact Alive Telecom 1 2

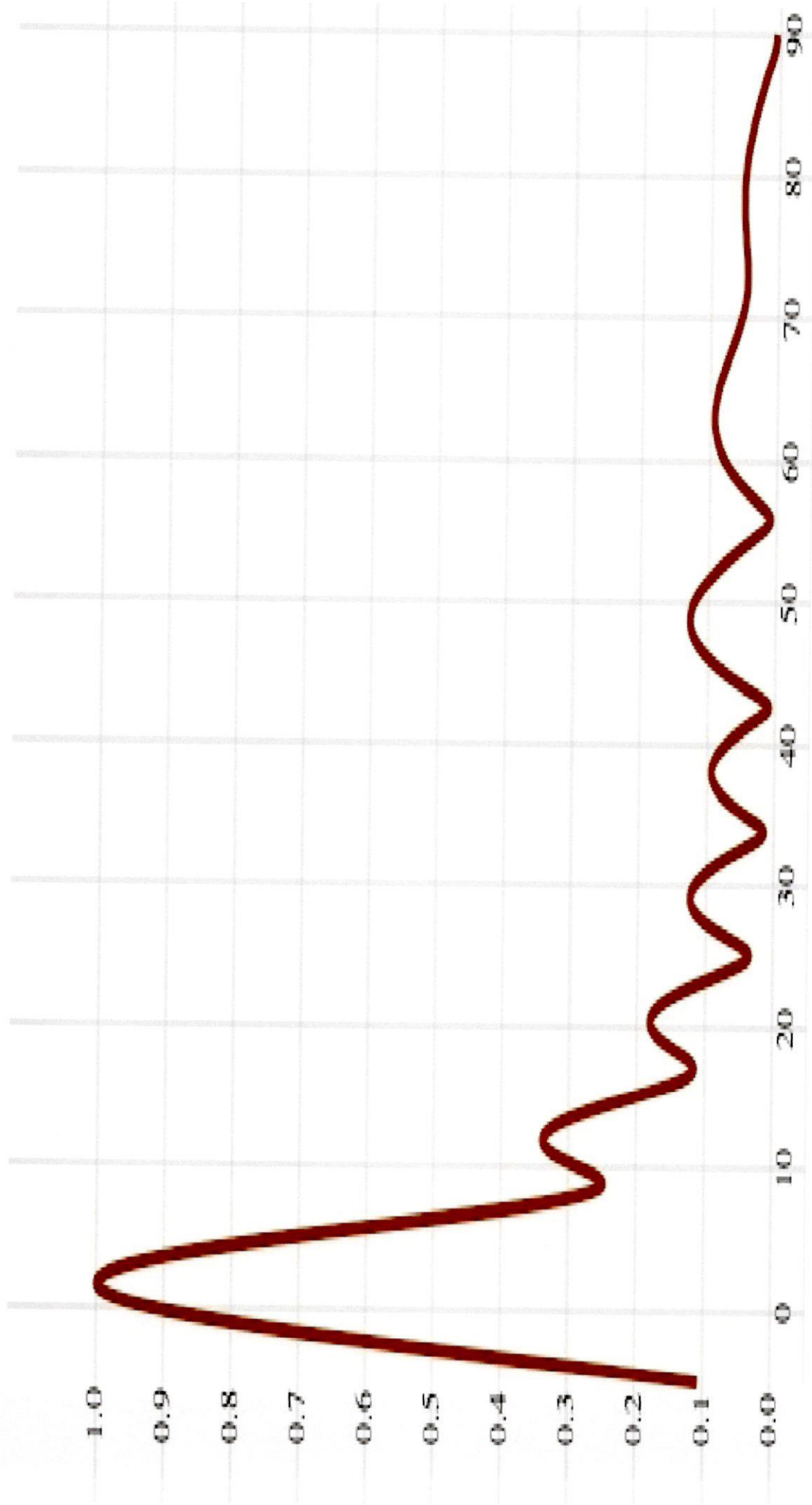
Horizontal Azimuth Pattern



Elevation pattern -5 to 10



Elevation pattern -5 to 90



Azimuth Horizontal Pattern Tabulation

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	0.995	-0.04	90°	0.734	-2.69	180°	0.705	-3.04	270°	0.663	-3.57
2°	0.996	-0.03	92°	0.726	-2.78	182°	0.706	-3.02	272°	0.669	-3.49
4°	0.997	-0.03	94°	0.718	-2.88	184°	0.706	-3.02	274°	0.675	-3.41
6°	0.998	-0.02	96°	0.710	-2.97	186°	0.707	-3.01	276°	0.682	-3.32
8°	0.999	-0.01	98°	0.702	-3.07	188°	0.708	-3.00	278°	0.688	-3.25
10°	1.000	0.00	100°	0.694	-3.17	190°	0.709	-2.99	280°	0.694	-3.17
12°	0.999	-0.01	102°	0.688	-3.25	192°	0.708	-3.00	282°	0.702	-3.07
14°	0.998	-0.02	104°	0.682	-3.32	194°	0.707	-3.01	284°	0.710	-2.97
16°	0.997	-0.03	106°	0.675	-3.41	196°	0.706	-3.02	286°	0.718	-2.88
18°	0.996	-0.03	108°	0.669	-3.49	198°	0.706	-3.02	288°	0.726	-2.78
20°	0.995	-0.04	110°	0.663	-3.57	200°	0.705	-3.04	290°	0.734	-2.69
22°	0.992	-0.07	112°	0.660	-3.61	202°	0.703	-3.06	292°	0.743	-2.58
24°	0.988	-0.10	114°	0.656	-3.66	204°	0.701	-3.09	294°	0.753	-2.46
26°	0.985	-0.13	116°	0.653	-3.70	206°	0.698	-3.12	296°	0.762	-2.36
28°	0.982	-0.16	118°	0.649	-3.76	208°	0.696	-3.15	298°	0.771	-2.26
30°	0.979	-0.18	120°	0.645	-3.81	210°	0.694	-3.17	300°	0.781	-2.15
32°	0.974	-0.23	122°	0.644	-3.82	212°	0.691	-3.21	302°	0.790	-2.05
34°	0.969	-0.27	124°	0.643	-3.84	214°	0.688	-3.25	304°	0.800	-1.94
36°	0.963	-0.33	126°	0.643	-3.84	216°	0.685	-3.29	306°	0.810	-1.83
38°	0.958	-0.37	128°	0.642	-3.85	218°	0.682	-3.32	308°	0.820	-1.72
40°	0.953	-0.42	130°	0.641	-3.86	220°	0.678	-3.38	310°	0.829	-1.63
42°	0.946	-0.48	132°	0.642	-3.85	222°	0.675	-3.41	312°	0.839	-1.52
44°	0.939	-0.55	134°	0.643	-3.84	224°	0.672	-3.45	314°	0.848	-1.43
46°	0.932	-0.61	136°	0.645	-3.81	226°	0.668	-3.50	316°	0.858	-1.33
48°	0.925	-0.68	138°	0.646	-3.80	228°	0.665	-3.54	318°	0.867	-1.24
50°	0.918	-0.74	140°	0.647	-3.78	230°	0.661	-3.60	320°	0.876	-1.15
52°	0.910	-0.82	142°	0.650	-3.74	232°	0.659	-3.62	322°	0.885	-1.06
54°	0.901	-0.91	144°	0.653	-3.70	234°	0.656	-3.66	324°	0.893	-0.98
56°	0.893	-0.98	146°	0.656	-3.66	236°	0.653	-3.70	326°	0.901	-0.91
58°	0.885	-1.06	148°	0.659	-3.62	238°	0.650	-3.74	328°	0.910	-0.82
60°	0.876	-1.15	150°	0.661	-3.60	240°	0.647	-3.78	330°	0.918	-0.74
62°	0.867	-1.24	152°	0.665	-3.54	242°	0.646	-3.80	332°	0.925	-0.68
64°	0.858	-1.33	154°	0.668	-3.50	244°	0.645	-3.81	334°	0.932	-0.61
66°	0.848	-1.43	156°	0.672	-3.45	246°	0.643	-3.84	336°	0.939	-0.55
68°	0.839	-1.52	158°	0.675	-3.41	248°	0.642	-3.85	338°	0.946	-0.48
70°	0.829	-1.63	160°	0.679	-3.36	250°	0.641	-3.86	340°	0.953	-0.42
72°	0.820	-1.72	162°	0.682	-3.32	252°	0.642	-3.85	342°	0.958	-0.37
74°	0.810	-1.83	164°	0.685	-3.29	254°	0.643	-3.84	344°	0.963	-0.33
76°	0.800	-1.94	166°	0.688	-3.25	256°	0.644	-3.82	346°	0.969	-0.27
78°	0.790	-2.05	168°	0.691	-3.21	258°	0.644	-3.82	348°	0.974	-0.23
80°	0.781	-2.15	170°	0.694	-3.17	260°	0.645	-3.81	350°	0.979	-0.18
82°	0.771	-2.26	172°	0.696	-3.15	262°	0.649	-3.76	352°	0.982	-0.16
84°	0.762	-2.36	174°	0.698	-3.12	264°	0.653	-3.70	354°	0.985	-0.13
86°	0.753	-2.46	176°	0.701	-3.09	266°	0.656	-3.66	356°	0.988	-0.10
88°	0.743	-2.58	178°	0.703	-3.06	268°	0.660	-3.61	358°	0.992	-0.07



Azimuth Pattern Tabulation, FCC

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
0°	0.995	-0.04	90°	0.734	-2.69	180°	0.705	-3.04	270°	0.663	-3.57
10°	1.000	0.00	100°	0.694	-3.17	190°	0.709	-2.99	280°	0.694	-3.17
20°	0.995	-0.04	110°	0.663	-3.57	200°	0.705	-3.04	290°	0.734	-2.69
30°	0.979	-0.18	120°	0.645	-3.81	210°	0.694	-3.17	300°	0.781	-2.15
40°	0.953	-0.42	130°	0.641	-3.86	220°	0.678	-3.38	310°	0.829	-1.63
50°	0.918	-0.74	140°	0.647	-3.78	230°	0.661	-3.60	320°	0.876	-1.15
60°	0.876	-1.15	150°	0.661	-3.60	240°	0.647	-3.78	330°	0.918	-0.74
70°	0.829	-1.63	160°	0.679	-3.36	250°	0.641	-3.86	340°	0.953	-0.42
80°	0.781	-2.15	170°	0.694	-3.17	260°	0.645	-3.81	350°	0.979	-0.18



Elevation Pattern Tabulation

-5 to 10 in 0.25 increments, 10 to 90 in 0.50 increments

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-5.00	0.107	-19.41	8.75	0.248	-12.11	35.00	0.043	-27.33	62.50	0.093	-20.63
-4.75	0.147	-16.65	9.00	0.249	-12.08	35.50	0.057	-24.88	63.00	0.093	-20.63
-4.50	0.189	-14.47	9.25	0.255	-11.87	36.00	0.070	-23.10	63.50	0.093	-20.63
-4.25	0.232	-12.69	9.50	0.263	-11.60	36.50	0.080	-21.94	64.00	0.092	-20.72
-4.00	0.277	-11.15	9.75	0.273	-11.28	37.00	0.087	-21.21	64.50	0.090	-20.92
-3.75	0.322	-9.84	10.00	0.284	-10.93	37.50	0.092	-20.72	65.00	0.088	-21.11
-3.50	0.368	-8.68	10.50	0.307	-10.26	38.00	0.094	-20.54	65.50	0.086	-21.31
-3.25	0.413	-7.68	11.00	0.325	-9.76	38.50	0.093	-20.63	66.00	0.082	-21.72
-3.00	0.460	-6.74	11.50	0.336	-9.47	39.00	0.089	-21.01	66.50	0.079	-22.05
-2.75	0.506	-5.92	12.00	0.340	-9.37	39.50	0.082	-21.72	67.00	0.075	-22.50
-2.50	0.551	-5.18	12.50	0.334	-9.53	40.00	0.073	-22.73	67.50	0.072	-22.85
-2.25	0.596	-4.50	13.00	0.321	-9.87	40.50	0.063	-24.01	68.00	0.068	-23.35
-2.00	0.639	-3.89	13.50	0.300	-10.46	41.00	0.050	-26.02	68.50	0.064	-23.88
-1.75	0.681	-3.34	14.00	0.273	-11.28	41.50	0.036	-28.87	69.00	0.060	-24.44
-1.50	0.722	-2.83	14.50	0.242	-12.32	42.00	0.021	-33.56	69.50	0.057	-24.88
-1.25	0.760	-2.38	15.00	0.208	-13.64	42.50	0.006	-44.44	70.00	0.054	-25.35
-1.00	0.797	-1.97	15.50	0.175	-15.14	43.00	0.012	-38.42	70.50	0.051	-25.85
-0.75	0.831	-1.61	16.00	0.145	-16.77	43.50	0.028	-31.06	71.00	0.049	-26.20
-0.50	0.862	-1.29	16.50	0.123	-18.20	44.00	0.044	-27.13	71.50	0.048	-26.38
-0.25	0.891	-1.00	17.00	0.114	-18.86	44.50	0.059	-24.58	72.00	0.046	-26.74
0.00	0.917	-0.75	17.50	0.118	-18.56	45.00	0.073	-22.73	72.50	0.046	-26.74
0.25	0.939	-0.55	18.00	0.130	-17.72	45.50	0.086	-21.31	73.00	0.046	-26.74
0.50	0.958	-0.37	18.50	0.147	-16.65	46.00	0.097	-20.26	73.50	0.046	-26.74
0.75	0.974	-0.23	19.00	0.162	-15.81	46.50	0.107	-19.41	74.00	0.046	-26.74
1.00	0.986	-0.12	19.50	0.173	-15.24	47.00	0.115	-18.79	74.50	0.047	-26.56
1.25	0.994	-0.05	20.00	0.180	-14.89	47.50	0.121	-18.34	75.00	0.048	-26.38
1.50	0.999	-0.01	20.50	0.182	-14.80	48.00	0.125	-18.06	75.50	0.049	-26.20
1.75	1.000	0.00	21.00	0.178	-14.99	48.50	0.127	-17.92	76.00	0.049	-26.20
2.00	0.997	-0.03	21.50	0.169	-15.44	49.00	0.127	-17.92	76.50	0.050	-26.02
2.25	0.990	-0.09	22.00	0.156	-16.14	49.50	0.125	-18.06	77.00	0.051	-25.85
2.50	0.981	-0.17	22.50	0.138	-17.20	50.00	0.122	-18.27	77.50	0.051	-25.85
2.75	0.967	-0.29	23.00	0.117	-18.64	50.50	0.116	-18.71	78.00	0.051	-25.85
3.00	0.951	-0.44	23.50	0.093	-20.63	51.00	0.110	-19.17	78.50	0.051	-25.85
3.25	0.931	-0.62	24.00	0.069	-23.22	51.50	0.101	-19.91	79.00	0.051	-25.85
3.50	0.907	-0.85	24.50	0.047	-26.56	52.00	0.092	-20.72	79.50	0.051	-25.85
3.75	0.881	-1.10	25.00	0.033	-29.63	52.50	0.082	-21.72	80.00	0.050	-26.02
4.00	0.852	-1.39	25.50	0.037	-28.64	53.00	0.071	-22.97	80.50	0.049	-26.20
4.25	0.820	-1.72	26.00	0.054	-25.35	53.50	0.059	-24.58	81.00	0.048	-26.38
4.50	0.786	-2.09	26.50	0.072	-22.85	54.00	0.047	-26.56	81.50	0.047	-26.56
4.75	0.750	-2.50	27.00	0.089	-21.01	54.50	0.034	-29.37	82.00	0.045	-26.94
5.00	0.713	-2.94	27.50	0.104	-19.66	55.00	0.022	-33.15	82.50	0.043	-27.33
5.25	0.674	-3.43	28.00	0.114	-18.86	55.50	0.011	-39.17	83.00	0.041	-27.74
5.50	0.634	-3.96	28.50	0.121	-18.34	56.00	0.007	-43.10	83.50	0.039	-28.18
5.75	0.593	-4.54	29.00	0.124	-18.13	56.50	0.016	-35.92	84.00	0.037	-28.64
6.00	0.552	-5.16	29.50	0.123	-18.20	57.00	0.027	-31.37	84.50	0.034	-29.37
6.25	0.512	-5.81	30.00	0.118	-18.56	57.50	0.037	-28.64	85.00	0.032	-29.90
6.50	0.472	-6.52	30.50	0.109	-19.25	58.00	0.047	-26.56	85.50	0.029	-30.75
6.75	0.433	-7.27	31.00	0.098	-20.18	58.50	0.056	-25.04	86.00	0.026	-31.70
7.00	0.396	-8.05	31.50	0.084	-21.51	59.00	0.064	-23.88	86.50	0.023	-32.77
7.25	0.361	-8.85	32.00	0.068	-23.35	59.50	0.071	-22.97	87.00	0.020	-33.98
7.50	0.330	-9.63	32.50	0.050	-26.02	60.00	0.077	-22.27	87.50	0.017	-35.39
7.75	0.303	-10.37	33.00	0.032	-29.90	60.50	0.082	-21.72	88.00	0.013	-37.72
8.00	0.281	-11.03	33.50	0.016	-35.92	61.00	0.086	-21.31	88.50	0.010	-40.00
8.25	0.264	-11.57	34.00	0.013	-37.72	61.50	0.089	-21.01	89.00	0.007	-43.10
8.50	0.253	-11.94	34.50	0.028	-31.06	62.00	0.091	-20.82	89.50	0.006	-44.44
8.75	0.248	-12.11	35.00	0.043	-27.33	62.50	0.093	-20.63	90.00	0.005	-46.02