

TECHNICAL EXHIBIT
APPLICATION FOR LICENSE
TELEVISION STATION KTRE-DT
LUFKIN, TEXAS
CH 11 10 KW (MAX-DA) 204 M

Technical Statement

This Technical Exhibit was prepared on behalf of Television Station KTRE-DT on Channel 11 assigned to Lufkin, Texas in support of its application for license. The station is presently operating on automatic program test authority with the authorized facilities of 10 kilowatts with an antenna height above average terrain of 204 meters on Channel 11.¹

Figure 1 is a tabulation of the carrier transmission system losses. An ERI ABW8V3-HTO-9/11 antenna was installed in lieu of the authorized Dielectric TF-10HT. However, the install ERI antenna satisfies the Commission policy in that the azimuth directional relative field values are within 0.5 dB for the same bearing that is authorized. Also, the electrical beamtilt is 1.5 degrees.

Charles A. Cooper

December 19, 2005

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
941.329.6000

¹ See FCC Construction Permit File Number: BMPCDT-20000501ADE.

Figure 1

TECHNICAL EXHIBIT
APPLICATION FOR LICENSE
TELEVISION STATION KTRE-DT
LUFKIN, TEXAS
CH 11 10 KW (MAX-DA) 204 M

KTRE-DT Transmission System

Description	System
Transmitter Power Output (1.6 kW):	2.0 dBk
Transmission Line Loss (Andrew 4" Heliax line) 570 feet:	1.0 dB
Antenna <i>ERI ABW8V3-HTO-9/11</i> (7.94 Power Gain):	9.0 dB
Maximum Effective Radiated Power (10 kW):	10.0 dBk

**TRANSMITTING ANTENNA
INFORMATION**

AZIMUTH PATTERN

TYPE: CH11HAZ-032905

	Numeric	dB
Directivity:	1.00	0.00

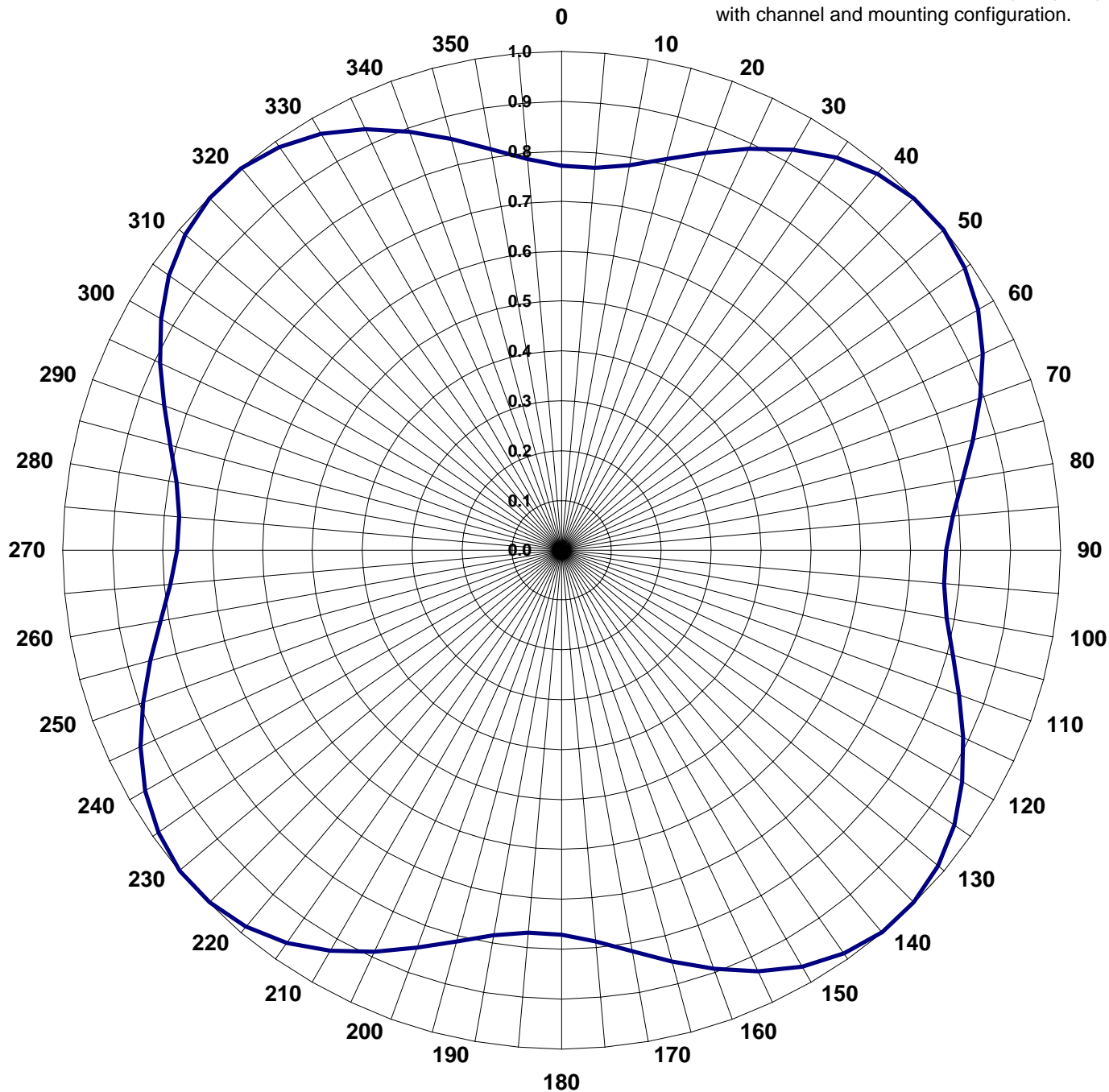
Peak(s) at:

Polarization: Horizontal

Frequency: 11 (KTRE-DT)

Location: Lufkin, TX

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



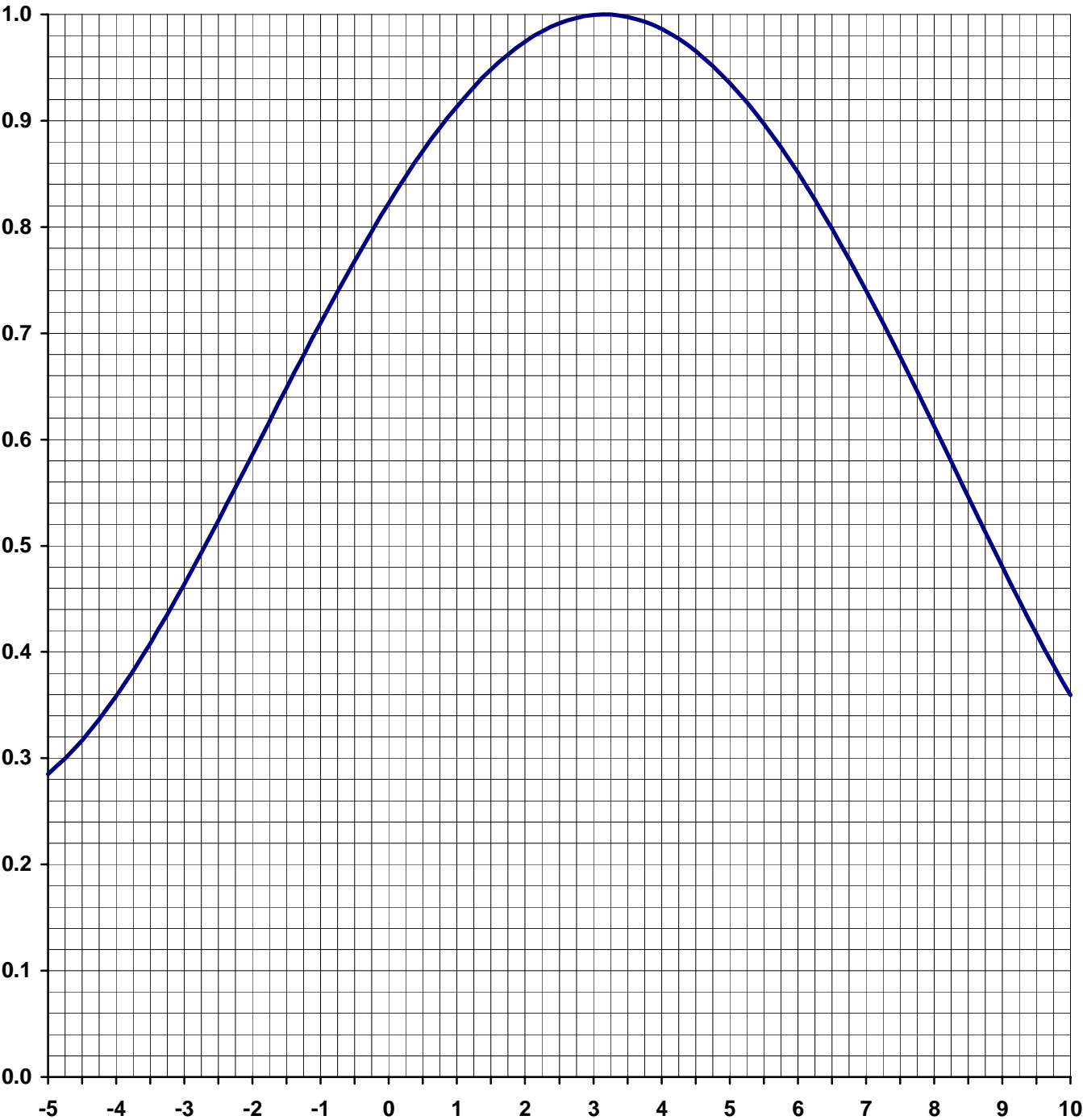
TABULATED DATA FOR AZIMUTH PATTERN

TYPE: CH11HAZ-032905

ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB	ANGLE	FIELD	dB
0	0.771	-2.26	92	0.769	-2.29	184	0.769	-2.28	276	0.772	-2.25
2	0.769	-2.29	94	0.769	-2.28	186	0.772	-2.25	278	0.777	-2.19
4	0.769	-2.28	96	0.772	-2.25	188	0.777	-2.19	280	0.784	-2.11
6	0.772	-2.25	98	0.777	-2.19	190	0.784	-2.11	282	0.794	-2.01
8	0.777	-2.19	100	0.784	-2.11	192	0.794	-2.01	284	0.805	-1.88
10	0.784	-2.11	102	0.794	-2.01	194	0.805	-1.88	286	0.818	-1.74
12	0.794	-2.01	104	0.805	-1.88	196	0.818	-1.74	288	0.833	-1.59
14	0.805	-1.88	106	0.818	-1.74	198	0.833	-1.59	290	0.848	-1.43
16	0.818	-1.74	108	0.833	-1.59	200	0.848	-1.43	292	0.864	-1.27
18	0.833	-1.59	110	0.848	-1.43	202	0.864	-1.27	294	0.880	-1.11
20	0.848	-1.43	112	0.864	-1.27	204	0.880	-1.11	296	0.896	-0.95
22	0.864	-1.27	114	0.880	-1.11	206	0.896	-0.95	298	0.912	-0.80
24	0.880	-1.11	116	0.896	-0.95	208	0.912	-0.80	300	0.927	-0.66
26	0.896	-0.95	118	0.912	-0.80	210	0.927	-0.66	302	0.941	-0.53
28	0.912	-0.80	120	0.927	-0.66	212	0.941	-0.53	304	0.954	-0.41
30	0.927	-0.66	122	0.941	-0.53	214	0.954	-0.41	306	0.966	-0.30
32	0.941	-0.53	124	0.954	-0.41	216	0.966	-0.30	308	0.976	-0.21
34	0.954	-0.41	126	0.966	-0.30	218	0.976	-0.21	310	0.985	-0.13
36	0.966	-0.30	128	0.976	-0.21	220	0.985	-0.13	312	0.992	-0.07
38	0.976	-0.21	130	0.985	-0.13	222	0.992	-0.07	314	0.996	-0.03
40	0.985	-0.13	132	0.992	-0.07	224	0.996	-0.03	316	0.999	-0.01
42	0.992	-0.07	134	0.996	-0.03	226	0.999	-0.01	318	1.000	0.00
44	0.996	-0.03	136	0.999	-0.01	228	1.000	0.00	320	0.999	-0.01
46	0.999	-0.01	138	1.000	0.00	230	0.999	-0.01	322	0.995	-0.04
48	1.000	0.00	140	0.999	-0.01	232	0.995	-0.04	324	0.990	-0.09
50	0.999	-0.01	142	0.995	-0.04	234	0.990	-0.09	326	0.983	-0.15
52	0.995	-0.04	144	0.990	-0.09	236	0.983	-0.15	328	0.974	-0.23
54	0.990	-0.09	146	0.983	-0.15	238	0.974	-0.23	330	0.964	-0.32
56	0.983	-0.15	148	0.974	-0.23	240	0.964	-0.32	332	0.952	-0.43
58	0.974	-0.23	150	0.964	-0.32	242	0.952	-0.43	334	0.938	-0.55
60	0.964	-0.32	152	0.952	-0.43	244	0.938	-0.55	336	0.924	-0.69
62	0.952	-0.43	154	0.938	-0.55	246	0.924	-0.69	338	0.909	-0.83
64	0.938	-0.55	156	0.924	-0.69	248	0.909	-0.83	340	0.893	-0.98
66	0.924	-0.69	158	0.909	-0.83	250	0.893	-0.98	342	0.877	-1.14
68	0.909	-0.83	160	0.893	-0.98	252	0.877	-1.14	344	0.861	-1.30
70	0.893	-0.98	162	0.877	-1.14	254	0.861	-1.30	346	0.845	-1.46
72	0.877	-1.14	164	0.861	-1.30	256	0.845	-1.46	348	0.830	-1.62
74	0.861	-1.30	166	0.845	-1.46	258	0.830	-1.62	350	0.816	-1.77
76	0.845	-1.46	168	0.830	-1.62	260	0.816	-1.77	352	0.803	-1.90
78	0.830	-1.62	170	0.816	-1.77	262	0.803	-1.90	354	0.792	-2.02
80	0.816	-1.77	172	0.803	-1.90	264	0.792	-2.02	356	0.783	-2.13
82	0.803	-1.90	174	0.792	-2.02	266	0.783	-2.13	358	0.776	-2.21
84	0.792	-2.02	176	0.783	-2.13	268	0.776	-2.21	360	0.771	-2.26
86	0.783	-2.13	178	0.776	-2.21	270	0.771	-2.26			
88	0.776	-2.21	180	0.771	-2.26	272	0.769	-2.29			
90	0.771	-2.26	182	0.769	-2.29	274	0.769	-2.28			

ELEVATION PATTERN

TYPE:	ABW8V6H-CH11	
Directivity:	Numeric	dBd
Main Lobe:	7.94	9.00
Horizontal:	5.37	7.30
Beam Tilt:	1.50	
Polarization:	Horizontal	
Frequency:	11 (Digital)	
Location:	Lufkin, TX	



TABULATED DATA FOR ELEVATION PATTERN

TYPE: ABW8V6H-CH11

-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
-5.00	0.285	-10.91	6.75	0.770	-2.27	27.00	0.176	-15.09	50.50	0.051	-25.93	74.00	0.036	-28.83
-4.75	0.300	-10.47	7.00	0.740	-2.61	27.50	0.163	-15.78	51.00	0.041	-27.79	74.50	0.035	-29.02
-4.50	0.317	-9.98	7.25	0.710	-2.98	28.00	0.147	-16.65	51.50	0.031	-30.23	75.00	0.035	-29.24
-4.25	0.337	-9.46	7.50	0.678	-3.38	28.50	0.130	-17.71	52.00	0.021	-33.72	75.50	0.034	-29.50
-4.00	0.359	-8.91	7.75	0.645	-3.80	29.00	0.113	-18.94	52.50	0.011	-39.58	76.00	0.032	-29.79
-3.75	0.382	-8.35	8.00	0.613	-4.26	29.50	0.097	-20.30	53.00	0.002	-56.48	76.50	0.031	-30.12
-3.50	0.408	-7.78	8.25	0.579	-4.74	30.00	0.083	-21.67	53.50	0.009	-40.63	77.00	0.030	-30.46
-3.25	0.435	-7.22	8.50	0.546	-5.25	30.50	0.073	-22.76	54.00	0.018	-34.70	77.50	0.029	-30.81
-3.00	0.464	-6.67	8.75	0.513	-5.80	31.00	0.069	-23.19	54.50	0.027	-31.40	78.00	0.028	-31.18
-2.75	0.493	-6.14	9.00	0.480	-6.37	31.50	0.072	-22.84	55.00	0.035	-29.17	78.50	0.027	-31.54
-2.50	0.524	-5.62	9.25	0.448	-6.97	32.00	0.080	-21.99	55.50	0.042	-27.58	79.00	0.025	-31.90
-2.25	0.555	-5.12	9.50	0.417	-7.59	32.50	0.089	-21.00	56.00	0.048	-26.38	79.50	0.025	-32.22
-2.00	0.586	-4.65	9.75	0.388	-8.23	33.00	0.099	-20.07	56.50	0.053	-25.45	80.00	0.024	-32.54
-1.75	0.617	-4.19	10.00	0.359	-8.89	33.50	0.108	-19.31	57.00	0.058	-24.76	80.50	0.023	-32.80
-1.50	0.648	-3.77	10.50	0.309	-10.20	34.00	0.116	-18.73	57.50	0.061	-24.26	81.00	0.022	-33.03
-1.25	0.679	-3.36	11.00	0.269	-11.40	34.50	0.121	-18.33	58.00	0.064	-23.90	81.50	0.022	-33.19
-1.00	0.709	-2.98	11.50	0.243	-12.28	35.00	0.124	-18.12	58.50	0.066	-23.68	82.00	0.022	-33.31
-0.75	0.739	-2.63	12.00	0.231	-12.73	35.50	0.125	-18.08	59.00	0.066	-23.57	82.50	0.021	-33.43
-0.50	0.768	-2.29	12.50	0.231	-12.74	36.00	0.123	-18.22	59.50	0.066	-23.57	83.00	0.021	-33.47
-0.25	0.796	-1.99	13.00	0.239	-12.44	36.50	0.118	-18.54	60.00	0.066	-23.68	83.50	0.021	-33.51
0.00	0.822	-1.70	13.50	0.250	-12.04	37.00	0.112	-19.05	60.50	0.064	-23.86	84.00	0.021	-33.51
0.25	0.847	-1.44	14.00	0.261	-11.66	37.50	0.103	-19.78	61.00	0.062	-24.14	84.50	0.021	-33.51
0.50	0.871	-1.20	14.50	0.270	-11.39	38.00	0.092	-20.73	61.50	0.060	-24.51	85.00	0.021	-33.51
0.75	0.893	-0.98	15.00	0.274	-11.25	38.50	0.080	-21.97	62.00	0.057	-24.94	85.50	0.021	-33.56
1.00	0.913	-0.79	15.50	0.273	-11.27	39.00	0.066	-23.58	62.50	0.053	-25.45	86.00	0.021	-33.56
1.25	0.932	-0.61	16.00	0.268	-11.45	39.50	0.052	-25.68	63.00	0.050	-26.00	86.50	0.021	-33.60
1.50	0.948	-0.46	16.50	0.257	-11.80	40.00	0.037	-28.54	63.50	0.047	-26.63	87.00	0.021	-33.64
1.75	0.962	-0.33	17.00	0.242	-12.33	40.50	0.024	-32.58	64.00	0.043	-27.27	87.50	0.021	-33.72
2.00	0.974	-0.23	17.50	0.223	-13.05	41.00	0.014	-37.39	64.50	0.040	-27.94	88.00	0.020	-33.81
2.25	0.984	-0.14	18.00	0.201	-13.95	41.50	0.017	-35.39	65.00	0.037	-28.57	88.50	0.020	-33.89
2.50	0.992	-0.07	18.50	0.177	-15.03	42.00	0.029	-30.87	65.50	0.035	-29.14	89.00	0.020	-34.07
2.75	0.997	-0.03	19.00	0.154	-16.27	42.50	0.041	-27.72	66.00	0.033	-29.60	89.50	0.019	-34.24
3.00	1.000	0.00	19.50	0.133	-17.55	43.00	0.053	-25.50	66.50	0.032	-29.95	90.00	0.019	-34.42
3.25	1.000	0.00	20.00	0.117	-18.67	43.50	0.064	-23.89	67.00	0.031	-30.12			
3.50	0.998	-0.02	20.50	0.109	-19.28	44.00	0.073	-22.70	67.50	0.031	-30.14			
3.75	0.993	-0.06	21.00	0.110	-19.15	44.50	0.081	-21.82	68.00	0.032	-30.03			
4.00	0.986	-0.12	21.50	0.120	-18.42	45.00	0.087	-21.19	68.50	0.032	-29.84			
4.25	0.977	-0.20	22.00	0.134	-17.44	45.50	0.092	-20.76	69.00	0.033	-29.60			
4.50	0.965	-0.31	22.50	0.150	-16.47	46.00	0.094	-20.52	69.50	0.034	-29.37			
4.75	0.952	-0.43	23.00	0.165	-15.63	46.50	0.095	-20.44	70.00	0.035	-29.12			
5.00	0.936	-0.58	23.50	0.179	-14.96	47.00	0.094	-20.52	70.50	0.036	-28.92			
5.25	0.917	-0.75	24.00	0.189	-14.47	47.50	0.092	-20.74	71.00	0.037	-28.75			
5.50	0.897	-0.94	24.50	0.196	-14.15	48.00	0.088	-21.13	71.50	0.037	-28.66			
5.75	0.875	-1.16	25.00	0.199	-14.01	48.50	0.082	-21.68	72.00	0.037	-28.59			
6.00	0.851	-1.40	25.50	0.199	-14.04	49.00	0.076	-22.40	72.50	0.037	-28.57			
6.25	0.826	-1.66	26.00	0.195	-14.22	49.50	0.068	-23.32	73.00	0.037	-28.61			
6.50	0.799	-1.95	26.50	0.187	-14.57	50.00	0.060	-24.48	73.50	0.037	-28.71			