ENGINEERING STATEMENT

OF

JOHN F.X. BROWNE, P.E.

IN SUPPORT OF AN APPLICATION FOR

MINOR MODIFICATION OF A POST-TRANSITION CONSTRUCTION PERMIT

WRBJ-DT

MAGEE, MS

Background

Roberts Broadcasting Company of Jackson, MS, LLC is the licensee of WRBJ-DT which has been authorized to operate its post-transition DTV facility on Channel 34 (BPCDT-20080317AIP) at Magee, MS, with an ERP of 98 kW at a HAAT of 374.6m. The tower is located at the following coordinates:

(NAD27)
32° 07' 18'' N
89° 32' 52'' W

WRBJ now wishes to "maximize" the post-transition facility ERP to 968 kW. All other facility parameters will remain the same.

Antenna System and Tower

WRBJ proposes to operate with its existing directional Dielectric TFU-31ETT-R (specifications attached hereto as Exhibit 1a-1d) analog antenna (which will be used for post-transition operation). The antenna is installed on a tower (ASR#1250734) that has an overall height of 511.1m AMSL (with appurtenances). The antenna has a center-of-radiation of 501.2m AMSL (with a calculated HAAT of 374.6m). No modifications of the tower or antenna system are necessary to effect the proposed change in ERP.

Coverage

The entire principal community of Magee, MS is well within the predicted F(50,90) 48 dBu contour based on the proposed 968 kW ERP.

Interference

Studies were conducted with the proposed parameters using software that emulates the software used by the FCC (OET-69 analysis). The results of the study indicate that there are no post-transition domestic stations that would receive more than 0.5% new interference.

Environmental/RFR

The proposed construction does not require preparation of an Environmental Assessment as it does not involve any of the factors listed in Section 1.1306.

The additional ground level RFR contributed to the site by this proposal in public areas is calculated to be 0.002237 mW/cm^2 which is less than 5% of the MPE for public exposure (0.40 mW/cm^2) at the proposed frequency and, therefore, the proposal is excluded from further consideration.

WRBJ agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be encouraged to wear personal RFR monitors when on the structure. The tower base is enclosed by a locked security fence and appropriate signage warning of RFR hazards is posted.

Certification

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

John F. X. Browne, P.E.
June 10, 2008

WRBJ-DT Directional
(Pattern Rotated 120 degrees)
Antenna Data
Table #1

Actual Bearing	Pattern Azimuth	Relative Field	ERP (dBk)	41 dBu	48 dBu
N000E	0	0.971	29.60	102.2 km	89.0 km
	10	0.991	29.78		
	20	1.000	29.86		
	30	0.979	29.67		
	40	0.922	29.15		
N045E	45	0.880	28.75	101.1 km	88.2 km
	50	0.832	28.26		
	60	0.717	26.97		
	70	0.594	25.33		
	80	0.511	24.03		
N090E	90	0.524	24.25	92.7 km	81.2 km
	100	0.592	25.31		
	110	0.627	25.80		
	120	0.592	25.31		
	130	0.524	24.25		
N135E	135	0.506	23.94	93.1 km	81.7 km
	140	0.511	24.03		
	150	0.594	25.33		
	160	0.717	26.97		
	170	0.832	28.26		
N180E	180	0.922	29.15	102.3 km	89.2 km
	190	0.979	29.67		
	200	1.000	29.86		
	210	0.991	29.78		
	220	0.971	29.60		
N225E	225	0.960	29.50	102.5 km	89.4 km
	230	0.949	29.40		
	240	0.923	29.16		
	250	0.893	28.88		
	260	0.883	28.78		
N270E	270	0.915	29.09	102.5 km	89.4 km
	280	0.969	29.59		
	290	0.994	29.81		
	300	0.969	29.59		
	310	0.915	29.09		
N315E	315	0.894	28.89	102.1 km	89.0 km
	320	0.883	28.78		
	330	0.893	28.88		
	340	0.923	29.16		
	350	0.949	29.40		

Maxima: N020E 29.86 dBk
N200E 29.86 dBk

Minima: N083E 23.92 dBk
N136E 23.92 dBk

Exhibit 1a

Proposal Number	**DCA-10334**		
Date	**29-Sep-03**		
Call Letters	**New**	Channel	**34**
Location	**Magee, MS**		
Customer	**Roberts Communications**		
Antenna Type	**TFU-31ETT-R 4C140**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**27.50 (14.39 dB)**	Beam Tilt	**0.75 deg**
RMS Gain at Horizontal	**16.40 (12.15 dB)**	Frequency	**593.00 MHz**
Calculated / Measured	**Calculated**	Drawing #	**31E275075**

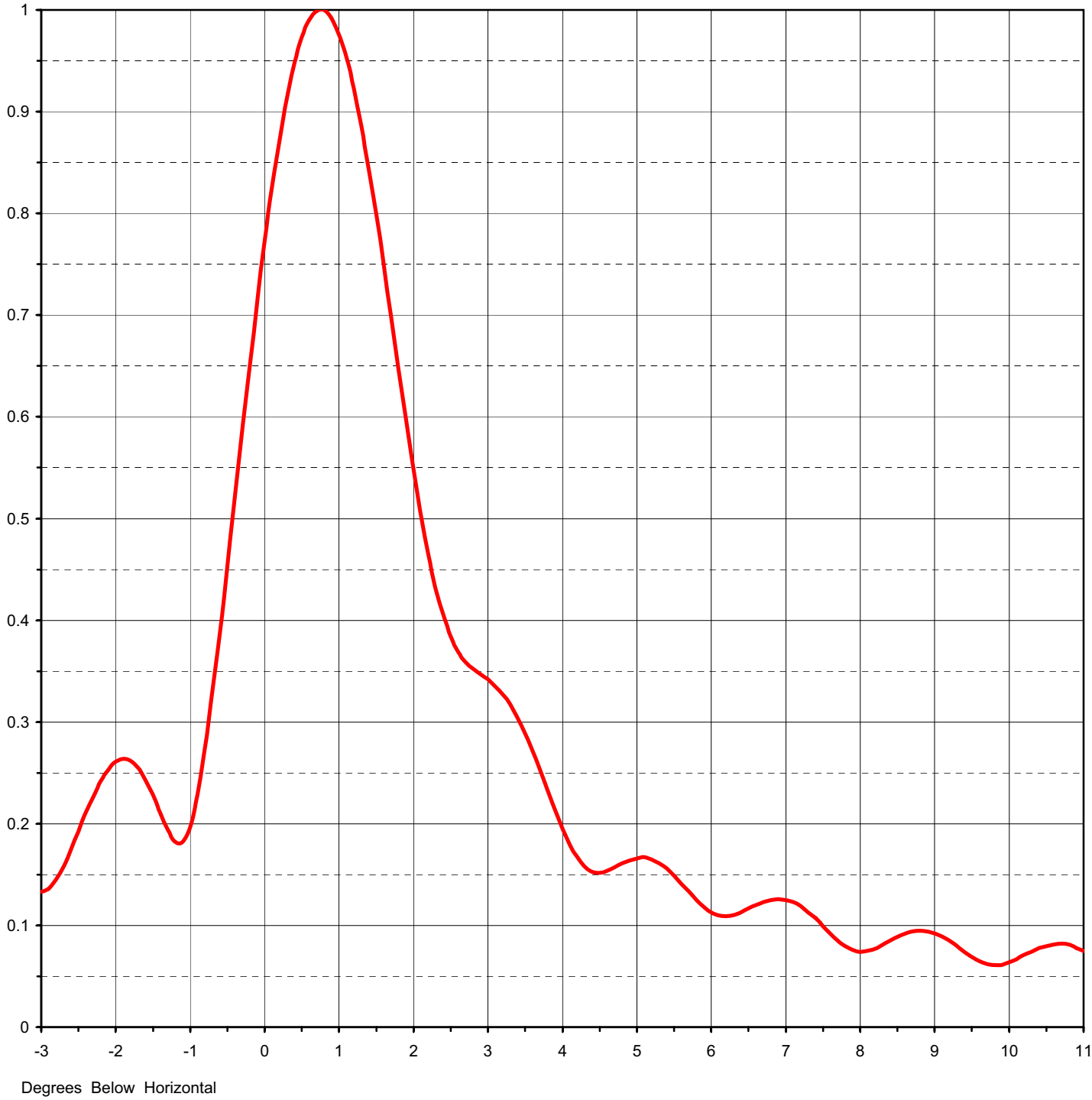

Exhibit 1b

Dielectric

Proposal Number **DCA-10334**
Date **29-Sep-03**
Call Letters **New** Channel **34**
Location **Magee, MS**
Customer **Roberts Communications**
Antenna Type **TFU-31ETT-R 4C140**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **31E275075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.058	2.4	0.405	10.6	0.080	30.5	0.036	51.0	0.031	71.5	0.024
-9.5	0.082	2.6	0.369	10.8	0.082	31.0	0.038	51.5	0.023	72.0	0.025
-9.0	0.070	2.8	0.352	11.0	0.078	31.5	0.025	52.0	0.016	72.5	0.027
-8.5	0.047	3.0	0.342	11.5	0.055	32.0	0.016	52.5	0.021	73.0	0.030
-8.0	0.075	3.2	0.327	12.0	0.050	32.5	0.030	53.0	0.029	73.5	0.033
-7.5	0.097	3.4	0.304	12.5	0.067	33.0	0.038	53.5	0.034	74.0	0.035
-7.0	0.078	3.6	0.271	13.0	0.063	33.5	0.030	54.0	0.032	74.5	0.035
-6.5	0.069	3.8	0.233	13.5	0.043	34.0	0.017	54.5	0.025	75.0	0.035
-6.0	0.108	4.0	0.195	14.0	0.049	34.5	0.023	55.0	0.019	75.5	0.033
-5.5	0.120	4.2	0.167	14.5	0.063	35.0	0.035	55.5	0.020	76.0	0.030
-5.0	0.087	4.4	0.153	15.0	0.054	35.5	0.035	56.0	0.028	76.5	0.027
-4.5	0.097	4.6	0.154	15.5	0.034	36.0	0.023	56.5	0.033	77.0	0.024
-4.0	0.152	4.8	0.161	16.0	0.044	36.5	0.015	57.0	0.034	77.5	0.020
-3.5	0.157	5.0	0.166	16.5	0.056	37.0	0.028	57.5	0.030	78.0	0.018
-3.0	0.133	5.2	0.165	17.0	0.045	37.5	0.036	58.0	0.023	78.5	0.016
-2.8	0.145	5.4	0.156	17.5	0.030	38.0	0.031	58.5	0.018	79.0	0.016
-2.6	0.175	5.6	0.141	18.0	0.043	38.5	0.019	59.0	0.021	79.5	0.016
-2.4	0.211	5.8	0.125	18.5	0.053	39.0	0.018	59.5	0.028	80.0	0.017
-2.2	0.242	6.0	0.113	19.0	0.040	39.5	0.031	60.0	0.033	80.5	0.019
-2.0	0.261	6.2	0.109	19.5	0.025	40.0	0.036	60.5	0.034	81.0	0.020
-1.8	0.262	6.4	0.113	20.0	0.040	40.5	0.029	61.0	0.031	81.5	0.021
-1.6	0.243	6.6	0.120	20.5	0.048	41.0	0.017	61.5	0.026	82.0	0.022
-1.4	0.210	6.8	0.125	21.0	0.036	41.5	0.019	62.0	0.022	82.5	0.022
-1.2	0.182	7.0	0.125	21.5	0.024	42.0	0.031	62.5	0.021	83.0	0.021
-1.0	0.197	7.2	0.119	22.0	0.039	42.5	0.035	63.0	0.026	83.5	0.021
-0.8	0.274	7.4	0.107	22.5	0.046	43.0	0.029	63.5	0.031	84.0	0.019
-0.6	0.389	7.6	0.092	23.0	0.034	43.5	0.018	64.0	0.034	84.5	0.018
-0.4	0.520	7.8	0.080	23.5	0.021	44.0	0.019	64.5	0.035	85.0	0.016
-0.2	0.651	8.0	0.074	24.0	0.035	44.5	0.030	65.0	0.032	85.5	0.015
0.0	0.772	8.2	0.077	24.5	0.044	45.0	0.035	65.5	0.027	86.0	0.013
0.2	0.873	8.4	0.085	25.0	0.034	45.5	0.030	66.0	0.022	86.5	0.011
0.4	0.947	8.6	0.092	25.5	0.020	46.0	0.020	66.5	0.020	87.0	0.009
0.6	0.990	8.8	0.094	26.0	0.032	46.5	0.016	67.0	0.022	87.5	0.007
0.8	1.000	9.0	0.092	26.5	0.042	47.0	0.026	67.5	0.027	88.0	0.005
1.0	0.976	9.2	0.085	27.0	0.035	47.5	0.033	68.0	0.031	88.5	0.003
1.2	0.922	9.4	0.074	27.5	0.019	48.0	0.033	68.5	0.034	89.0	0.002
1.4	0.844	9.6	0.065	28.0	0.027	48.5	0.025	69.0	0.035	89.5	0.001
1.6	0.749	9.8	0.062	28.5	0.039	49.0	0.017	69.5	0.034	90.0	0.000
1.8	0.647	10.0	0.061	29.0	0.036	49.5	0.021	70.0	0.031		
2.0	0.548	10.2	0.067	29.5	0.021	50.0	0.030	70.5	0.028		
2.2	0.465	10.4	0.074	30.0	0.022	50.5	0.034	71.0	0.025		

Exhibit 1c

Dielectric

Proposal Number	**DCA-10334**		
Date	**29-Sep-03**		
Call Letters	**New**	Channel	**34**
Location	**Magee, MS**		
Customer	**Roberts Communications**		
Antenna Type	**TFU-31ETT-R 4C140**		

AZIMUTH PATTERN

Gain	**1.40**	**(1.46 dB)**	
Calculated / Measured	**Calculated**		
Frequency	**593.00 MHz**		
Drawing #	**TFU-4C140-34**		

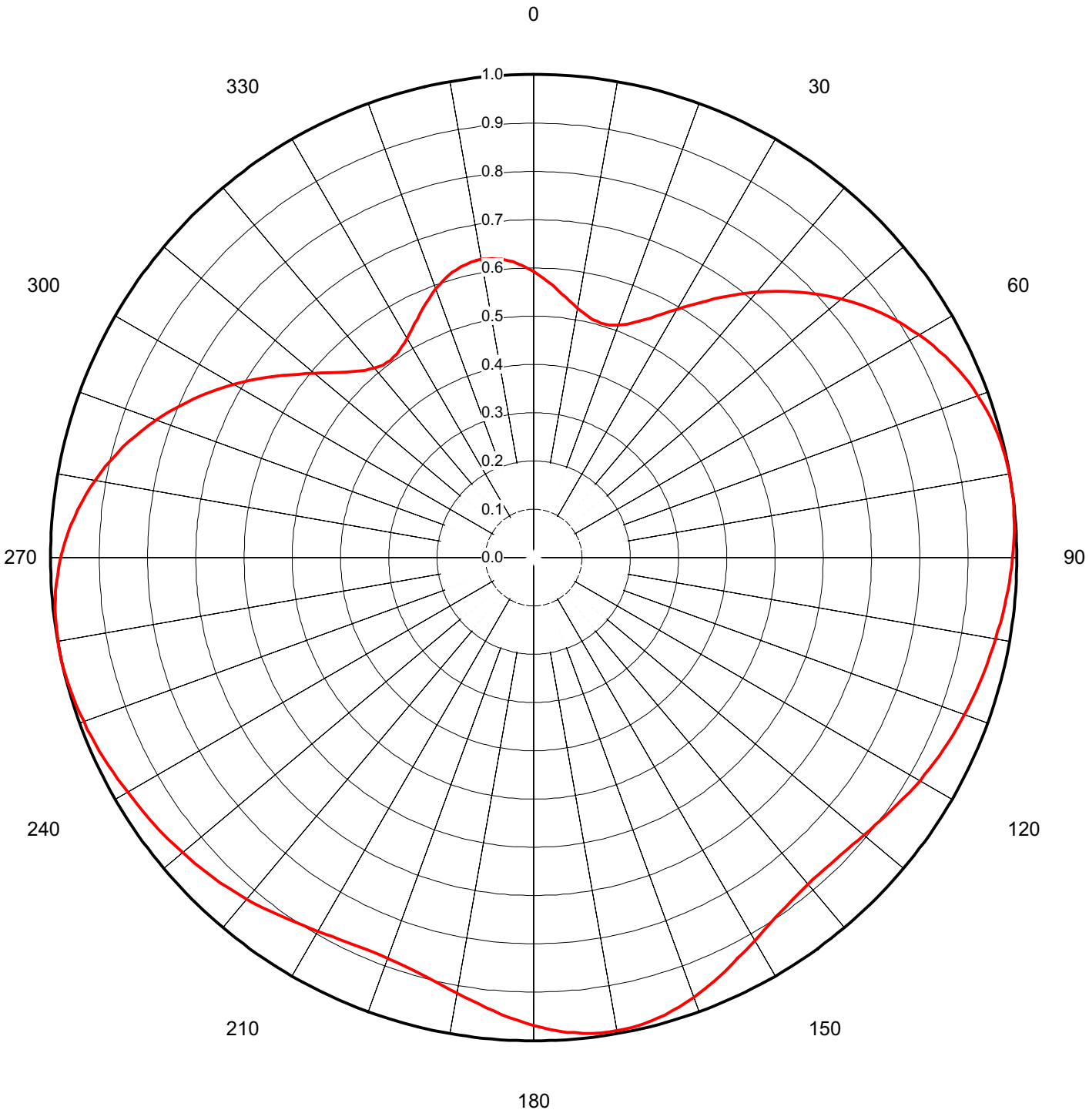

Exhibit 1d

Dielectric

Proposal Number	**DCA-10334**
Date	**29-Sep-03**
Call Letters	**New** Channel **34**
Location	**Magee, MS**
Customer	**Roberts Communications**
Antenna Type	**TFU-31ETT-R 4C140**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-4C140-34**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.592	45	0.777	90	0.991	135	0.883	180	0.969	225	0.937	270	0.979	315	0.543
1	0.585	46	0.788	91	0.989	136	0.882	181	0.964	226	0.940	271	0.975	316	0.535
2	0.578	47	0.800	92	0.988	137	0.882	182	0.959	227	0.942	272	0.970	317	0.528
3	0.571	48	0.811	93	0.986	138	0.882	183	0.953	228	0.945	273	0.965	318	0.521
4	0.564	49	0.821	94	0.984	139	0.882	184	0.948	229	0.947	274	0.960	319	0.516
5	0.557	50	0.832	95	0.981	140	0.883	185	0.942	230	0.949	275	0.955	320	0.511
6	0.550	51	0.842	96	0.979	141	0.884	186	0.937	231	0.952	276	0.949	321	0.509
7	0.543	52	0.852	97	0.977	142	0.886	187	0.931	232	0.954	277	0.942	322	0.506
8	0.536	53	0.862	98	0.975	143	0.888	188	0.926	233	0.956	278	0.936	323	0.505
9	0.530	54	0.871	99	0.973	144	0.891	189	0.920	234	0.958	279	0.929	324	0.505
10	0.524	55	0.880	100	0.971	145	0.894	190	0.915	235	0.960	280	0.922	325	0.506
11	0.519	56	0.889	101	0.969	146	0.897	191	0.910	236	0.962	281	0.914	326	0.508
12	0.514	57	0.898	102	0.967	147	0.901	192	0.906	237	0.964	282	0.906	327	0.511
13	0.511	58	0.906	103	0.964	148	0.906	193	0.901	238	0.967	283	0.898	328	0.514
14	0.508	59	0.914	104	0.962	149	0.910	194	0.897	239	0.969	284	0.889	329	0.519
15	0.506	60	0.922	105	0.960	150	0.915	195	0.894	240	0.971	285	0.880	330	0.524
16	0.505	61	0.929	106	0.958	151	0.920	196	0.891	241	0.973	286	0.871	331	0.530
17	0.505	62	0.936	107	0.956	152	0.926	197	0.888	242	0.975	287	0.862	332	0.536
18	0.506	63	0.942	108	0.954	153	0.931	198	0.886	243	0.977	288	0.852	333	0.543
19	0.509	64	0.949	109	0.952	154	0.937	199	0.884	244	0.979	289	0.842	334	0.550
20	0.511	65	0.955	110	0.949	155	0.942	200	0.883	245	0.981	290	0.832	335	0.557
21	0.516	66	0.960	111	0.947	156	0.948	201	0.882	246	0.984	291	0.821	336	0.564
22	0.521	67	0.965	112	0.945	157	0.953	202	0.882	247	0.986	292	0.811	337	0.571
23	0.528	68	0.970	113	0.942	158	0.959	203	0.882	248	0.988	293	0.800	338	0.578
24	0.535	69	0.975	114	0.940	159	0.964	204	0.882	249	0.989	294	0.788	339	0.585
25	0.543	70	0.979	115	0.937	160	0.969	205	0.883	250	0.991	295	0.777	340	0.592
26	0.552	71	0.982	116	0.935	161	0.973	206	0.885	251	0.993	296	0.765	341	0.598
27	0.562	72	0.986	117	0.932	162	0.977	207	0.886	252	0.995	297	0.753	342	0.604
28	0.572	73	0.989	118	0.929	163	0.981	208	0.888	253	0.996	298	0.741	343	0.608
29	0.583	74	0.992	119	0.926	164	0.985	209	0.891	254	0.997	299	0.729	344	0.613
30	0.594	75	0.994	120	0.923	165	0.987	210	0.893	255	0.998	300	0.717	345	0.617
31	0.605	76	0.996	121	0.920	166	0.990	211	0.896	256	0.999	301	0.704	346	0.621
32	0.617	77	0.997	122	0.917	167	0.992	212	0.898	257	1.000	302	0.692	347	0.623
33	0.629	78	0.998	123	0.914	168	0.993	213	0.901	258	1.000	303	0.679	348	0.625
34	0.642	79	0.999	124	0.911	169	0.994	214	0.904	259	1.000	304	0.667	349	0.626
35	0.654	80	1.000	125	0.908	170	0.994	215	0.908	260	1.000	305	0.654	350	0.627
36	0.667	81	1.000	126	0.904	171	0.994	216	0.911	261	0.999	306	0.642	351	0.626
37	0.679	82	1.000	127	0.901	172	0.993	217	0.914	262	0.998	307	0.629	352	0.625
38	0.692	83	1.000	128	0.898	173	0.992	218	0.917	263	0.997	308	0.617	353	0.623
39	0.704	84	0.999	129	0.896	174	0.990	219	0.920	264	0.996	309	0.605	354	0.621
40	0.717	85	0.998	130	0.893	175	0.987	220	0.923	265	0.994	310	0.594	355	0.617
41	0.729	86	0.997	131	0.891	176	0.985	221	0.926	266	0.992	311	0.583	356	0.613
42	0.741	87	0.996	132	0.888	177	0.981	222	0.929	267	0.989	312	0.572	357	0.608
43	0.753	88	0.995	133	0.886	178	0.977	223	0.932	268	0.986	313	0.562	358	0.604
44	0.765	89	0.993	134	0.885	179	0.973	224	0.935	269	0.982	314	0.552	359	0.598