



Proposal Number

DCA-9481

Date

13-Jul-01

Call Letters

WCGV-DT

Channel

25

Location

Milwaukee, WI

Customer

Antenna Type

TFU-28DSC-R CT170 DC

Exhibit 1

AZIMUTH PATTERN

Gain

1.70

(2.30 dB)

Calculated / Measured

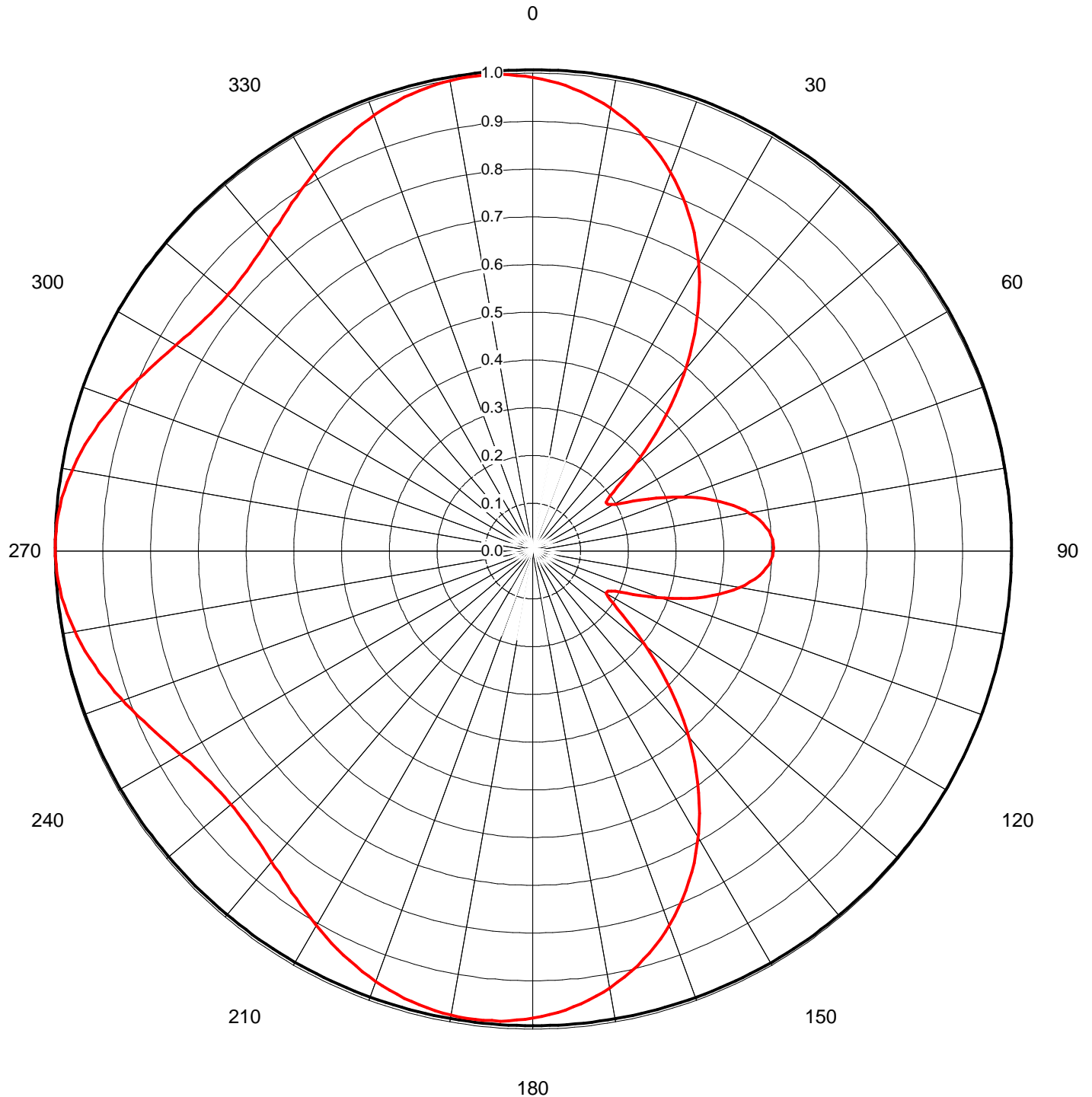
Calculated

Frequency

539.00 MHz

Drawing #

TFU-CT170-25





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Location **Milwaukee, WI**

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Antenna Type **TFU-28DSC-R CT170 DC**

Exhibit 2

Channel **25**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **28Q215075-90**

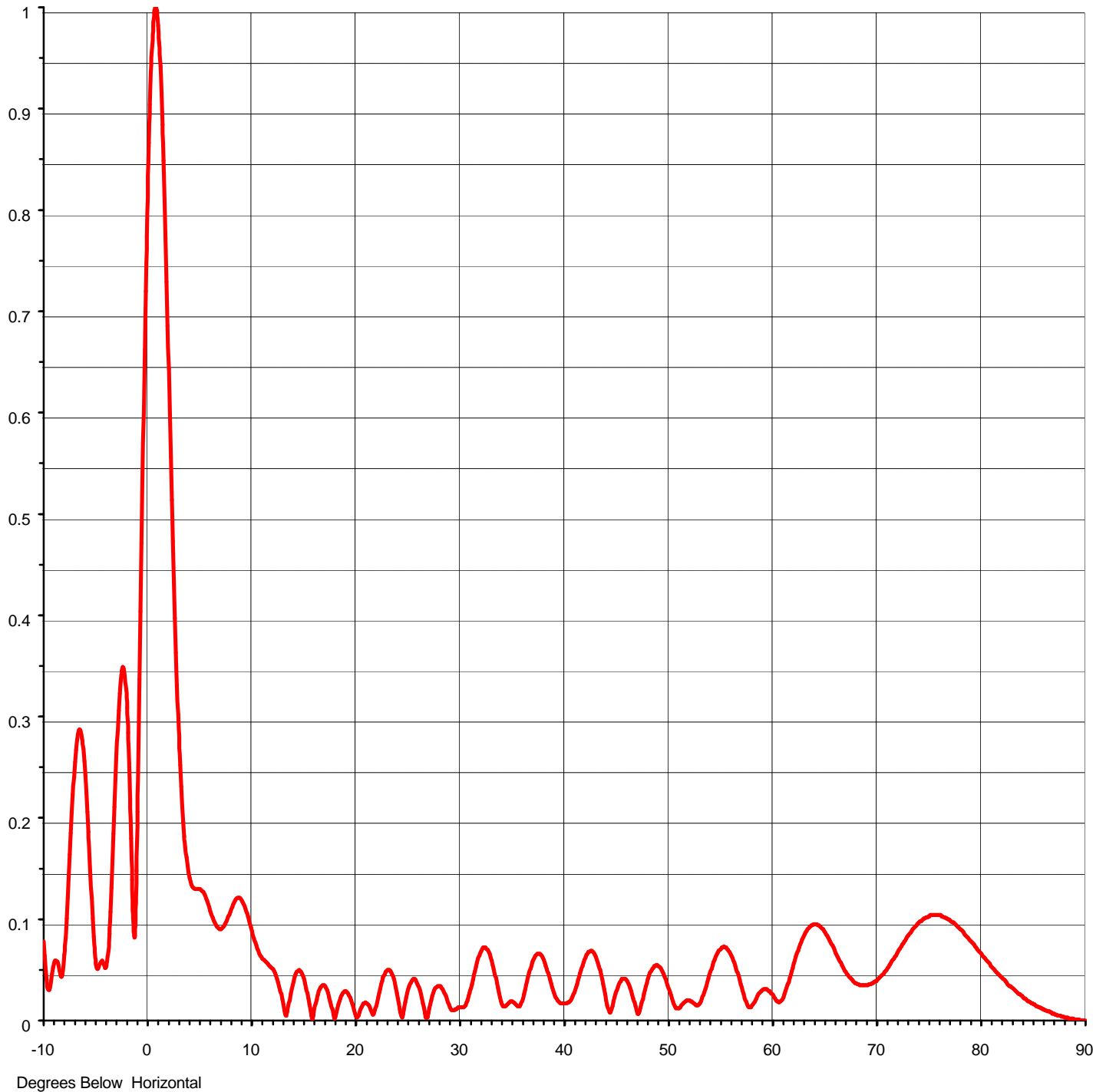
Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.078	2.4	0.473	10.6	0.071	30.5	0.014	51.0	0.012	71.5	0.060
-9.5	0.030	2.6	0.397	10.8	0.066	31.0	0.027	51.5	0.017	72.0	0.068
-9.0	0.056	2.8	0.331	11.0	0.063	31.5	0.049	52.0	0.020	72.5	0.076
-8.5	0.050	3.0	0.275	11.5	0.057	32.0	0.067	52.5	0.017	73.0	0.084
-8.0	0.065	3.2	0.231	12.0	0.052	32.5	0.072	53.0	0.016	73.5	0.091
-7.5	0.164	3.4	0.196	12.5	0.041	33.0	0.062	53.5	0.028	74.0	0.097
-7.0	0.255	3.6	0.171	13.0	0.021	33.5	0.042	54.0	0.045	74.5	0.101
-6.5	0.287	3.8	0.153	13.5	0.010	34.0	0.019	54.5	0.060	75.0	0.103
-6.0	0.242	4.0	0.141	14.0	0.035	34.5	0.015	55.0	0.070	75.5	0.104
-5.5	0.143	4.2	0.134	14.5	0.049	35.0	0.019	55.5	0.072	76.0	0.104
-5.0	0.057	4.4	0.131	15.0	0.044	35.5	0.015	56.0	0.066	76.5	0.102
-4.5	0.058	4.6	0.130	15.5	0.022	36.0	0.019	56.5	0.054	77.0	0.099
-4.0	0.053	4.8	0.130	16.0	0.006	36.5	0.039	57.0	0.036	77.5	0.095
-3.5	0.131	5.0	0.130	16.5	0.029	37.0	0.058	57.5	0.019	78.0	0.090
-3.0	0.263	5.2	0.128	17.0	0.035	37.5	0.066	58.0	0.013	78.5	0.084
-2.8	0.306	5.4	0.125	17.5	0.023	38.0	0.062	58.5	0.022	79.0	0.078
-2.6	0.336	5.6	0.120	18.0	0.002	38.5	0.047	59.0	0.029	79.5	0.072
-2.4	0.349	5.8	0.115	18.5	0.019	39.0	0.030	59.5	0.031	80.0	0.066
-2.2	0.340	6.0	0.108	19.0	0.029	39.5	0.019	60.0	0.026	80.5	0.059
-2.0	0.309	6.2	0.102	19.5	0.023	40.0	0.017	60.5	0.019	81.0	0.053
-1.8	0.254	6.4	0.097	20.0	0.007	40.5	0.018	61.0	0.021	81.5	0.047
-1.6	0.180	6.6	0.093	20.5	0.011	41.0	0.027	61.5	0.035	82.0	0.042
-1.4	0.101	6.8	0.091	21.0	0.018	41.5	0.043	62.0	0.052	82.5	0.036
-1.2	0.101	7.0	0.090	21.5	0.010	42.0	0.060	62.5	0.069	83.0	0.032
-1.0	0.206	7.2	0.092	22.0	0.014	42.5	0.068	63.0	0.082	83.5	0.027
-0.8	0.337	7.4	0.095	22.5	0.036	43.0	0.065	63.5	0.091	84.0	0.023
-0.6	0.471	7.6	0.099	23.0	0.049	43.5	0.050	64.0	0.095	84.5	0.019
-0.4	0.601	7.8	0.104	23.5	0.047	44.0	0.026	64.5	0.093	85.0	0.016
-0.2	0.720	8.0	0.110	24.0	0.027	44.5	0.008	65.0	0.087	85.5	0.013
0.0	0.823	8.2	0.115	24.5	0.003	45.0	0.026	65.5	0.078	86.0	0.011
0.2	0.904	8.4	0.119	25.0	0.027	45.5	0.039	66.0	0.067	86.5	0.009
0.4	0.962	8.6	0.121	25.5	0.040	46.0	0.040	66.5	0.057	87.0	0.007
0.6	0.994	8.8	0.121	26.0	0.036	46.5	0.029	67.0	0.048	87.5	0.005
0.8	1.000	9.0	0.119	26.5	0.017	47.0	0.010	67.5	0.041	88.0	0.003
1.0	0.982	9.2	0.115	27.0	0.007	47.5	0.017	68.0	0.037	88.5	0.002
1.2	0.942	9.4	0.110	27.5	0.027	48.0	0.037	68.5	0.035	89.0	0.001
1.4	0.884	9.6	0.103	28.0	0.034	48.5	0.051	69.0	0.035	89.5	0.000
1.6	0.811	9.8	0.099	28.5	0.029	49.0	0.055	69.5	0.037	90.0	0.000
1.8	0.729	10.0	0.092	29.0	0.016	49.5	0.048	70.0	0.040		
2.0	0.643	10.2	0.084	29.5	0.010	50.0	0.035	70.5	0.045		
2.2	0.556	10.4	0.077	30.0	0.013	50.5	0.019	71.0	0.052		



Proposal Number	DCA-9481	Exhibit 3
Date	13-Jul-01	
Call Letters	WCGV-DT	Channel 25
Location	Milwaukee, WI	
Customer		
Antenna Type	TFU-28DSC-R CT170 DC	

ELEVATION PATTERN

RMS Gain at Main Lobe	21.50 (13.32 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	14.60 (11.64 dB)	Frequency	539.00 MHz
Calculated / Measured	Calculated	Drawing #	28Q215075-90





Proposal Number
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13-Jul-01
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Milwaukee, WI

Channel

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Exhibit 4

TFU-28DSC-R CT170 DC

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-CT170-25**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.984	45	0.392	90	0.503	135	0.392	180	0.984	225	0.836	270	1.000	315	0.836
1	0.981	46	0.371	91	0.502	136	0.414	181	0.987	226	0.833	271	1.000	316	0.839
2	0.977	47	0.350	92	0.501	137	0.435	182	0.989	227	0.832	272	0.999	317	0.842
3	0.973	48	0.329	93	0.497	138	0.457	183	0.991	228	0.830	273	0.998	318	0.845
4	0.969	49	0.308	94	0.494	139	0.478	184	0.992	229	0.830	274	0.996	319	0.850
5	0.964	50	0.288	95	0.489	140	0.499	185	0.993	230	0.830	275	0.994	320	0.854
6	0.959	51	0.269	96	0.483	141	0.520	186	0.994	231	0.830	276	0.991	321	0.859
7	0.953	52	0.250	97	0.476	142	0.540	187	0.994	232	0.831	277	0.988	322	0.864
8	0.947	53	0.234	98	0.468	143	0.560	188	0.994	233	0.833	278	0.985	323	0.869
9	0.940	54	0.217	99	0.459	144	0.580	189	0.994	234	0.834	279	0.981	324	0.875
10	0.934	55	0.205	100	0.450	145	0.600	190	0.993	235	0.837	280	0.977	325	0.881
11	0.926	56	0.193	101	0.438	146	0.619	191	0.992	236	0.840	281	0.972	326	0.886
12	0.918	57	0.186	102	0.427	147	0.637	192	0.990	237	0.844	282	0.967	327	0.892
13	0.910	58	0.180	103	0.414	148	0.656	193	0.988	238	0.848	283	0.962	328	0.898
14	0.901	59	0.180	104	0.401	149	0.673	194	0.986	239	0.852	284	0.956	329	0.904
15	0.891	60	0.180	105	0.387	150	0.691	195	0.983	240	0.857	285	0.950	330	0.911
16	0.882	61	0.187	106	0.373	151	0.707	196	0.980	241	0.862	286	0.945	331	0.917
17	0.871	62	0.193	107	0.357	152	0.724	197	0.977	242	0.868	287	0.938	332	0.923
18	0.860	63	0.205	108	0.342	153	0.740	198	0.973	243	0.873	288	0.932	333	0.928
19	0.849	64	0.216	109	0.326	154	0.755	199	0.969	244	0.879	289	0.925	334	0.934
20	0.837	65	0.231	110	0.310	155	0.770	200	0.965	245	0.886	290	0.919	335	0.940
21	0.824	66	0.245	111	0.293	156	0.785	201	0.960	246	0.892	291	0.912	336	0.945
22	0.812	67	0.261	112	0.277	157	0.798	202	0.956	247	0.899	292	0.905	337	0.951
23	0.798	68	0.277	113	0.261	158	0.812	203	0.951	248	0.905	293	0.899	338	0.956
24	0.785	69	0.293	114	0.245	159	0.824	204	0.945	249	0.912	294	0.892	339	0.960
25	0.770	70	0.310	115	0.231	160	0.837	205	0.940	250	0.919	295	0.886	340	0.965
26	0.755	71	0.326	116	0.216	161	0.849	206	0.934	251	0.925	296	0.879	341	0.969
27	0.740	72	0.342	117	0.205	162	0.860	207	0.928	252	0.932	297	0.873	342	0.973
28	0.724	73	0.357	118	0.193	163	0.871	208	0.923	253	0.938	298	0.868	343	0.977
29	0.707	74	0.373	119	0.187	164	0.882	209	0.917	254	0.945	299	0.862	344	0.980
30	0.691	75	0.387	120	0.180	165	0.891	210	0.911	255	0.950	300	0.857	345	0.983
31	0.673	76	0.401	121	0.180	166	0.901	211	0.904	256	0.956	301	0.852	346	0.986
32	0.656	77	0.414	122	0.180	167	0.909	212	0.898	257	0.962	302	0.848	347	0.988
33	0.637	78	0.427	123	0.186	168	0.918	213	0.892	258	0.967	303	0.844	348	0.990
34	0.619	79	0.438	124	0.193	169	0.926	214	0.886	259	0.972	304	0.840	349	0.992
35	0.600	80	0.450	125	0.205	170	0.934	215	0.881	260	0.977	305	0.837	350	0.993
36	0.580	81	0.459	126	0.217	171	0.940	216	0.875	261	0.981	306	0.834	351	0.994
37	0.560	82	0.468	127	0.234	172	0.947	217	0.869	262	0.985	307	0.833	352	0.994
38	0.540	83	0.476	128	0.250	173	0.953	218	0.864	263	0.988	308	0.831	353	0.994
39	0.520	84	0.483	129	0.269	174	0.959	219	0.859	264	0.991	309	0.830	354	0.994
40	0.499	85	0.489	130	0.288	175	0.964	220	0.854	265	0.994	310	0.830	355	0.993
41	0.478	86	0.494	131	0.308	176	0.969	221	0.850	266	0.996	311	0.830	356	0.992
42	0.457	87	0.497	132	0.329	177	0.973	222	0.845	267	0.998	312	0.830	357	0.991
43	0.435	88	0.501	133	0.350	178	0.977	223	0.842	268	0.999	313	0.832	358	0.989
44	0.414	89	0.502	134	0.371	179	0.981	224	0.839	269	1.000	314	0.833	359	0.987