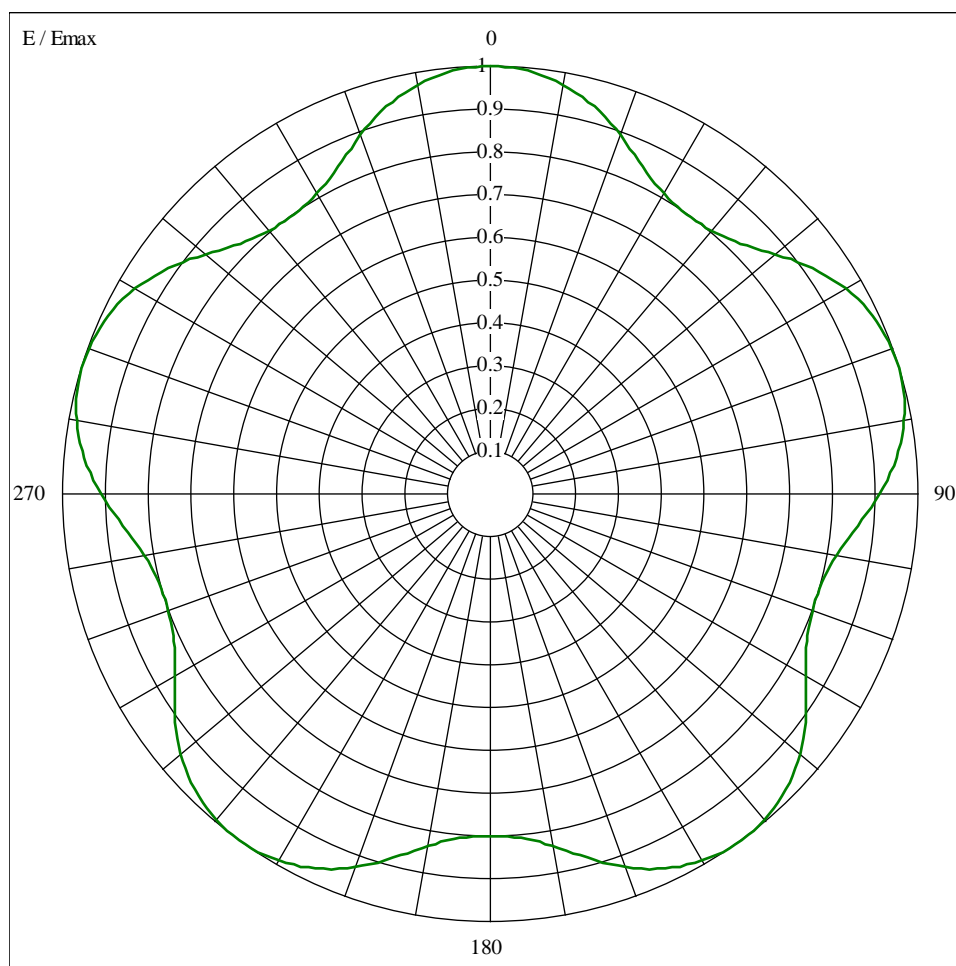




## UHF Omnislot Pattern ( 360° ) Coverage

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	1.00	60	0.96	120	0.85	180	0.80	240	0.85	300	0.96
10	0.97	70	1.00	130	0.95	190	0.84	250	0.80	310	0.87
20	0.89	80	0.98	140	1.00	200	0.93	260	0.82	320	0.80
30	0.81	90	0.91	150	0.99	210	0.99	270	0.91	330	0.81
40	0.80	100	0.82	160	0.93	220	1.00	280	0.98	340	0.89
50	0.87	110	0.8	170	0.84	230	0.95	290	1.00	350	0.97

Model RD280-HP



Pattern: Omnipole  
Horizontal Gain: 1.2(0.8 dB)  
FCC Data Format

Rev. 001  
Date: 6/20/01

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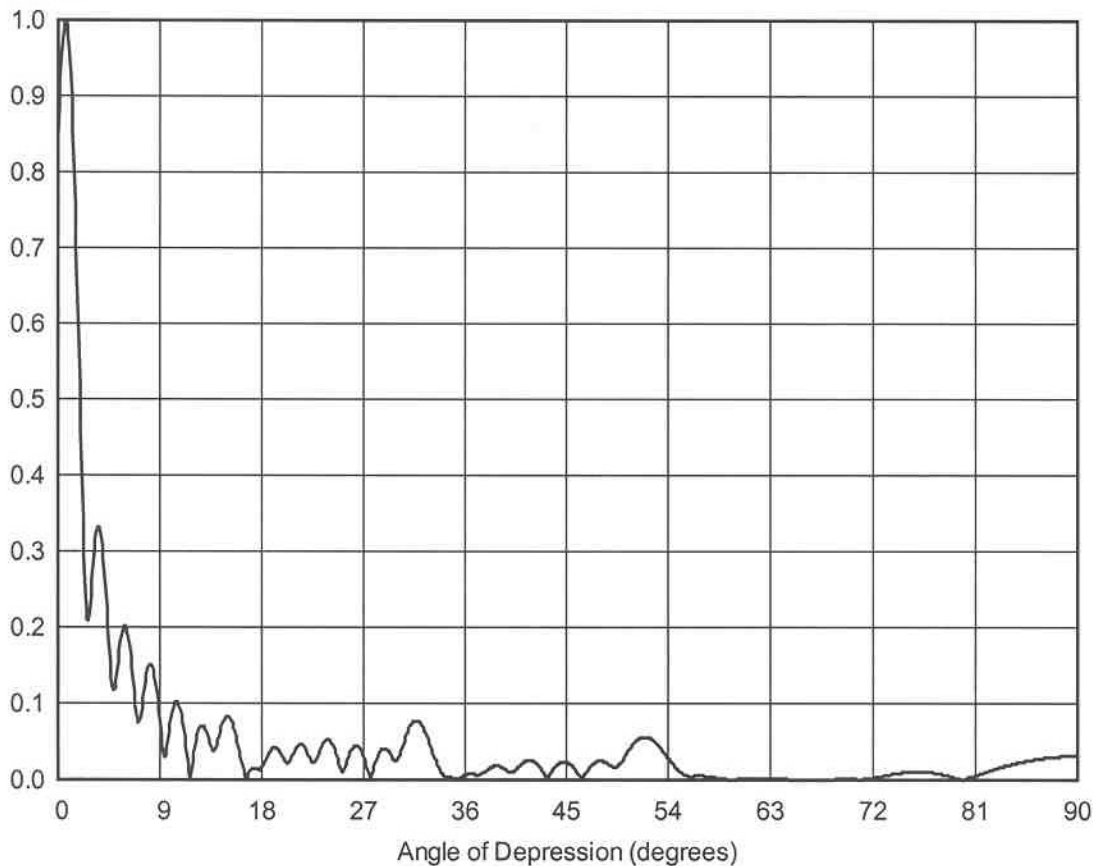


Tel.: (203) 239-3311  
Fax: (203) 239-9260

RFS Broadcast  
59 Dodge Ave.  
North Haven, CT. 06473(USA)

Engineering Exhibit #1  
Antenna model: RD280-HP  
Vertical Pattern

$E / E_{max}$



Frequency 503.00 MHz

Beamtilt 0.7 °

Spacing 1.150 m

Directivity 14.37 dBd

## Engineering Exhibit #1 Antenna Model: RD280-HP Vertical Pattern Tabulation

Angle	Magnitude	Angle	Magnitude	Angle	Magnitude	Angle	Magnitude
0.0	0.842	5.1	0.128	10.2	0.095	15.3	0.077
0.1	0.884	5.2	0.140	10.3	0.099	15.4	0.074
0.2	0.920	5.3	0.154	10.4	0.101	15.5	0.069
0.3	0.950	5.4	0.168	10.5	0.102	15.6	0.064
0.4	0.973	5.5	0.180	10.6	0.100	15.7	0.058
0.5	0.990	5.6	0.190	10.7	0.096	15.8	0.052
0.6	0.999	5.7	0.197	10.8	0.091	15.9	0.046
0.7	1.000	5.8	0.201	10.9	0.085	16.0	0.039
0.8	0.994	5.9	0.202	11.0	0.076	16.1	0.032
0.9	0.981	6.0	0.200	11.1	0.067	16.2	0.025
1.0	0.960	6.1	0.194	11.2	0.057	16.3	0.019
1.1	0.932	6.2	0.186	11.3	0.046	16.4	0.013
1.2	0.898	6.3	0.176	11.4	0.034	16.5	0.007
1.3	0.858	6.4	0.163	11.5	0.022	16.6	0.002
1.4	0.812	6.5	0.148	11.6	0.010	16.7	0.003
1.5	0.761	6.6	0.133	11.7	0.003	16.8	0.007
1.6	0.707	6.7	0.116	11.8	0.014	16.9	0.010
1.7	0.649	6.8	0.101	11.9	0.024	17.0	0.012
1.8	0.589	6.9	0.087	12.0	0.034	17.1	0.014
1.9	0.527	7.0	0.078	12.1	0.043	17.2	0.015
2.0	0.466	7.1	0.074	12.2	0.051	17.3	0.016
2.1	0.407	7.2	0.076	12.3	0.058	17.4	0.015
2.2	0.351	7.3	0.084	12.4	0.063	17.5	0.015
2.3	0.300	7.4	0.094	12.5	0.067	17.6	0.014
2.4	0.257	7.5	0.106	12.6	0.070	17.7	0.014
2.5	0.227	7.6	0.117	12.7	0.071	17.8	0.014
2.6	0.210	7.7	0.128	12.8	0.071	17.9	0.014
2.7	0.209	7.8	0.137	12.9	0.070	18.0	0.016
2.8	0.220	7.9	0.144	13.0	0.067	18.1	0.018
2.9	0.238	8.0	0.149	13.1	0.063	18.2	0.021
3.0	0.260	8.1	0.151	13.2	0.059	18.3	0.025
3.1	0.281	8.2	0.151	13.3	0.054	18.4	0.028
3.2	0.300	8.3	0.148	13.4	0.049	18.5	0.031
3.3	0.315	8.4	0.144	13.5	0.044	18.6	0.034
3.4	0.326	8.5	0.137	13.6	0.041	18.7	0.037
3.5	0.332	8.6	0.127	13.7	0.039	18.8	0.039
3.6	0.333	8.7	0.117	13.8	0.039	18.9	0.040
3.7	0.330	8.8	0.104	13.9	0.041	19.0	0.042
3.8	0.321	8.9	0.091	14.0	0.046	19.1	0.042
3.9	0.309	9.0	0.076	14.1	0.051	19.2	0.042
4.0	0.293	9.1	0.061	14.2	0.056	19.3	0.041
4.1	0.273	9.2	0.047	14.3	0.062	19.4	0.040
4.2	0.251	9.3	0.036	14.4	0.067	19.5	0.038
4.3	0.227	9.4	0.029	14.5	0.072	19.6	0.036
4.4	0.202	9.5	0.031	14.6	0.076	19.7	0.033
4.5	0.177	9.6	0.040	14.7	0.079	19.8	0.030
4.6	0.154	9.7	0.051	14.8	0.082	19.9	0.028
4.7	0.135	9.8	0.062	14.9	0.083	20.0	0.025
4.8	0.122	9.9	0.072	15.0	0.083	20.1	0.023
4.9	0.116	10.0	0.081	15.1	0.082	20.2	0.022
5.0	0.119	10.1	0.089	15.2	0.080	20.3	0.022

Angle	Magnitude	Angle	Magnitude	Angle	Magnitude	Angle	Magnitude
20.4	0.023	25.5	0.023	30.6	0.050	35.7	0.004
20.5	0.025	25.6	0.028	30.7	0.054	35.8	0.005
20.6	0.028	25.7	0.032	30.8	0.059	35.9	0.006
20.7	0.032	25.8	0.036	30.9	0.063	36.0	0.006
20.8	0.035	25.9	0.039	31.0	0.066	36.1	0.007
20.9	0.038	26.0	0.041	31.1	0.069	36.2	0.007
21.0	0.041	26.1	0.043	31.2	0.072	36.3	0.008
21.1	0.043	26.2	0.044	31.3	0.074	36.4	0.008
21.2	0.045	26.3	0.045	31.4	0.076	36.5	0.008
21.3	0.046	26.4	0.045	31.5	0.077	36.6	0.008
21.4	0.046	26.5	0.044	31.6	0.078	36.7	0.008
21.5	0.046	26.6	0.042	31.7	0.078	36.8	0.008
21.6	0.045	26.7	0.040	31.8	0.077	36.9	0.007
21.7	0.044	26.8	0.037	31.9	0.076	37.0	0.007
21.8	0.042	26.9	0.033	32.0	0.075	37.1	0.007
21.9	0.039	27.0	0.030	32.1	0.073	37.2	0.007
22.0	0.036	27.1	0.025	32.2	0.070	37.3	0.007
22.1	0.033	27.2	0.020	32.3	0.067	37.4	0.008
22.2	0.030	27.3	0.015	32.4	0.064	37.5	0.008
22.3	0.027	27.4	0.010	32.5	0.061	37.6	0.009
22.4	0.024	27.5	0.005	32.6	0.057	37.7	0.010
22.5	0.023	27.6	0.001	32.7	0.053	37.8	0.011
22.6	0.022	27.7	0.006	32.8	0.049	37.9	0.012
22.7	0.024	27.8	0.011	32.9	0.045	38.0	0.013
22.8	0.026	27.9	0.016	33.0	0.041	38.1	0.015
22.9	0.030	28.0	0.021	33.1	0.037	38.2	0.016
23.0	0.033	28.1	0.025	33.2	0.033	38.3	0.016
23.1	0.037	28.2	0.029	33.3	0.029	38.4	0.017
23.2	0.041	28.3	0.033	33.4	0.025	38.5	0.018
23.3	0.044	28.4	0.036	33.5	0.021	38.6	0.018
23.4	0.047	28.5	0.038	33.6	0.018	38.7	0.019
23.5	0.049	28.6	0.040	33.7	0.015	38.8	0.019
23.6	0.051	28.7	0.041	33.8	0.012	38.9	0.019
23.7	0.052	28.8	0.041	33.9	0.010	39.0	0.019
23.8	0.053	28.9	0.041	34.0	0.008	39.1	0.018
23.9	0.052	29.0	0.041	34.1	0.006	39.2	0.017
24.0	0.051	29.1	0.039	34.2	0.005	39.3	0.017
24.1	0.049	29.2	0.038	34.3	0.004	39.4	0.016
24.2	0.047	29.3	0.036	34.4	0.004	39.5	0.015
24.3	0.044	29.4	0.033	34.5	0.004	39.6	0.014
24.4	0.040	29.5	0.031	34.6	0.003	39.7	0.013
24.5	0.036	29.6	0.028	34.7	0.003	39.8	0.011
24.6	0.032	29.7	0.026	34.8	0.003	39.9	0.011
24.7	0.027	29.8	0.025	34.9	0.003	40.0	0.010
24.8	0.022	29.9	0.025	35.0	0.002	40.1	0.010
24.9	0.017	30.0	0.026	35.1	0.002	40.2	0.010
25.0	0.013	30.1	0.029	35.2	0.001	40.3	0.011
25.1	0.010	30.2	0.032	35.3	0.001	40.4	0.012
25.2	0.011	30.3	0.036	35.4	0.001	40.5	0.013
25.3	0.014	30.4	0.041	35.5	0.002	40.6	0.015
25.4	0.019	30.5	0.045	35.6	0.003	40.7	0.016

Angle	Magnitude	Angle	Magnitude	Angle	Magnitude	Angle	Magnitude
40.8	0.018	45.9	0.011	51.0	0.048	56.1	0.005
40.9	0.019	46.0	0.008	51.1	0.050	56.2	0.005
41.0	0.021	46.1	0.006	51.2	0.051	56.3	0.005
41.1	0.022	46.2	0.004	51.3	0.053	56.4	0.005
41.2	0.023	46.3	0.002	51.4	0.054	56.5	0.006
41.3	0.024	46.4	0.002	51.5	0.055	56.6	0.006
41.4	0.025	46.5	0.004	51.6	0.055	56.7	0.006
41.5	0.025	46.6	0.006	51.7	0.056	56.8	0.006
41.6	0.026	46.7	0.008	51.8	0.056	56.9	0.006
41.7	0.026	46.8	0.011	51.9	0.056	57.0	0.006
41.8	0.026	46.9	0.013	52.0	0.056	57.1	0.005
41.9	0.025	47.0	0.015	52.1	0.056	57.2	0.005
42.0	0.025	47.1	0.017	52.2	0.056	57.3	0.005
42.1	0.024	47.2	0.018	52.3	0.055	57.4	0.005
42.2	0.023	47.3	0.020	52.4	0.055	57.5	0.005
42.3	0.021	47.4	0.021	52.5	0.054	57.6	0.005
42.4	0.020	47.5	0.022	52.6	0.053	57.7	0.004
42.5	0.018	47.6	0.023	52.7	0.052	57.8	0.004
42.6	0.016	47.7	0.024	52.8	0.050	57.9	0.004
42.7	0.014	47.8	0.025	52.9	0.049	58.0	0.004
42.8	0.012	47.9	0.025	53.0	0.047	58.1	0.003
42.9	0.010	48.0	0.025	53.1	0.046	58.2	0.003
43.0	0.008	48.1	0.025	53.2	0.044	58.3	0.003
43.1	0.006	48.2	0.025	53.3	0.042	58.4	0.003
43.2	0.005	48.3	0.024	53.4	0.040	58.5	0.002
43.3	0.004	48.4	0.024	53.5	0.039	58.6	0.002
43.4	0.005	48.5	0.023	53.6	0.037	58.7	0.002
43.5	0.007	48.6	0.022	53.7	0.035	58.8	0.002
43.6	0.009	48.7	0.021	53.8	0.033	58.9	0.001
43.7	0.011	48.8	0.020	53.9	0.031	59.0	0.001
43.8	0.013	48.9	0.019	54.0	0.029	59.1	0.001
43.9	0.015	49.0	0.018	54.1	0.027	59.2	0.001
44.0	0.017	49.1	0.017	54.2	0.025	59.3	0.001
44.1	0.018	49.2	0.017	54.3	0.023	59.4	0.001
44.2	0.020	49.3	0.017	54.4	0.021	59.5	0.001
44.3	0.021	49.4	0.017	54.5	0.019	59.6	0.001
44.4	0.022	49.5	0.018	54.6	0.018	59.7	0.001
44.5	0.023	49.6	0.019	54.7	0.016	59.8	0.001
44.6	0.024	49.7	0.020	54.8	0.014	59.9	0.001
44.7	0.024	49.8	0.022	54.9	0.013	60.0	0.001
44.8	0.024	49.9	0.024	55.0	0.011	60.1	0.001
44.9	0.024	50.0	0.026	55.1	0.010	60.2	0.001
45.0	0.023	50.1	0.029	55.2	0.009	60.3	0.001
45.1	0.023	50.2	0.031	55.3	0.008	60.4	0.001
45.2	0.022	50.3	0.033	55.4	0.007	60.5	0.001
45.3	0.021	50.4	0.036	55.5	0.006	60.6	0.001
45.4	0.020	50.5	0.038	55.6	0.006	60.7	0.002
45.5	0.018	50.6	0.040	55.7	0.005	60.8	0.002
45.6	0.016	50.7	0.042	55.8	0.005	60.9	0.002
45.7	0.015	50.8	0.044	55.9	0.005	61.0	0.002
45.8	0.013	50.9	0.046	56.0	0.005	61.1	0.002

Angle	Magnitude	Angle	Magnitude	Angle	Magnitude	Angle	Magnitude
61.2	0.002	66.3	0.001	71.4	0.001	76.5	0.011
61.3	0.002	66.4	0.001	71.5	0.002	76.6	0.011
61.4	0.002	66.5	0.001	71.6	0.002	76.7	0.011
61.5	0.002	66.6	0.001	71.7	0.002	76.8	0.010
61.6	0.002	66.7	0.001	71.8	0.002	76.9	0.010
61.7	0.003	66.8	0.001	71.9	0.002	77.0	0.010
61.8	0.003	66.9	0.001	72.0	0.003	77.1	0.010
61.9	0.003	67.0	0.001	72.1	0.003	77.2	0.010
62.0	0.003	67.1	0.001	72.2	0.003	77.3	0.009
62.1	0.003	67.2	0.000	72.3	0.003	77.4	0.009
62.2	0.003	67.3	0.000	72.4	0.004	77.5	0.009
62.3	0.003	67.4	0.000	72.5	0.004	77.6	0.009
62.4	0.003	67.5	0.000	72.6	0.004	77.7	0.008
62.5	0.003	67.6	0.000	72.7	0.005	77.8	0.008
62.6	0.003	67.7	0.000	72.8	0.005	77.9	0.008
62.7	0.003	67.8	0.000	72.9	0.005	78.0	0.008
62.8	0.003	67.9	0.000	73.0	0.005	78.1	0.007
62.9	0.003	68.0	0.000	73.1	0.006	78.2	0.007
63.0	0.003	68.1	0.001	73.2	0.006	78.3	0.007
63.1	0.002	68.2	0.001	73.3	0.006	78.4	0.006
63.2	0.002	68.3	0.001	73.4	0.007	78.5	0.006
63.3	0.002	68.4	0.001	73.5	0.007	78.6	0.005
63.4	0.002	68.5	0.001	73.6	0.007	78.7	0.005
63.5	0.002	68.6	0.001	73.7	0.007	78.8	0.005
63.6	0.002	68.7	0.001	73.8	0.008	78.9	0.004
63.7	0.002	68.8	0.001	73.9	0.008	79.0	0.004
63.8	0.002	68.9	0.001	74.0	0.008	79.1	0.003
63.9	0.002	69.0	0.001	74.1	0.009	79.2	0.003
64.0	0.002	69.1	0.001	74.2	0.009	79.3	0.003
64.1	0.001	69.2	0.001	74.3	0.009	79.4	0.002
64.2	0.001	69.3	0.001	74.4	0.009	79.5	0.002
64.3	0.001	69.4	0.001	74.5	0.009	79.6	0.001
64.4	0.001	69.5	0.001	74.6	0.010	79.7	0.001
64.5	0.001	69.6	0.001	74.7	0.010	79.8	0.000
64.6	0.001	69.7	0.001	74.8	0.010	79.9	0.000
64.7	0.001	69.8	0.001	74.9	0.010	80.0	0.001
64.8	0.001	69.9	0.001	75.0	0.010	80.1	0.001
64.9	0.001	70.0	0.001	75.1	0.010	80.2	0.002
65.0	0.001	70.1	0.001	75.2	0.011	80.3	0.002
65.1	0.001	70.2	0.001	75.3	0.011	80.4	0.003
65.2	0.001	70.3	0.001	75.4	0.011	80.5	0.003
65.3	0.001	70.4	0.001	75.5	0.011	80.6	0.004
65.4	0.001	70.5	0.001	75.6	0.011	80.7	0.004
65.5	0.001	70.6	0.001	75.7	0.011	80.8	0.005
65.6	0.001	70.7	0.001	75.8	0.011	80.9	0.005
65.7	0.001	70.8	0.001	75.9	0.011	81.0	0.006
65.8	0.001	70.9	0.001	76.0	0.011	81.1	0.006
65.9	0.001	71.0	0.001	76.1	0.011	81.2	0.007
66.0	0.001	71.1	0.001	76.2	0.011	81.3	0.007
66.1	0.001	71.2	0.001	76.3	0.011	81.4	0.008
66.2	0.001	71.3	0.001	76.4	0.011	81.5	0.008

Angle	Magnitude	Angle	Magnitude
81.6	0.009	86.7	0.028
81.7	0.009	86.8	0.028
81.8	0.010	86.9	0.028
81.9	0.010	87.0	0.029
82.0	0.011	87.1	0.029
82.1	0.011	87.2	0.029
82.2	0.012	87.3	0.029
82.3	0.012	87.4	0.029
82.4	0.013	87.5	0.030
82.5	0.013	87.6	0.030
82.6	0.014	87.7	0.030
82.7	0.014	87.8	0.030
82.8	0.015	87.9	0.030
82.9	0.015	88.0	0.030
83.0	0.016	88.1	0.030
83.1	0.016	88.2	0.031
83.2	0.017	88.3	0.031
83.3	0.017	88.4	0.031
83.4	0.017	88.5	0.031
83.5	0.018	88.6	0.031
83.6	0.018	88.7	0.031
83.7	0.019	88.8	0.031
83.8	0.019	88.9	0.031
83.9	0.019	89.0	0.032
84.0	0.020	89.1	0.032
84.1	0.020	89.2	0.032
84.2	0.021	89.3	0.032
84.3	0.021	89.4	0.032
84.4	0.021	89.5	0.032
84.5	0.022	89.6	0.032
84.6	0.022	89.7	0.032
84.7	0.022	89.8	0.032
84.8	0.023	89.9	0.032
84.9	0.023	90.0	0.032
85.0	0.023		
85.1	0.024		
85.2	0.024		
85.3	0.024		
85.4	0.025		
85.5	0.025		
85.6	0.025		
85.7	0.026		
85.8	0.026		
85.9	0.026		
86.0	0.026		
86.1	0.027		
86.2	0.027		
86.3	0.027		
86.4	0.027		
86.5	0.028		
86.6	0.028		