



Date
Call Letters
Location
Customer
Antenna Type

16 Jan 2003

Channel

Exhibit No.

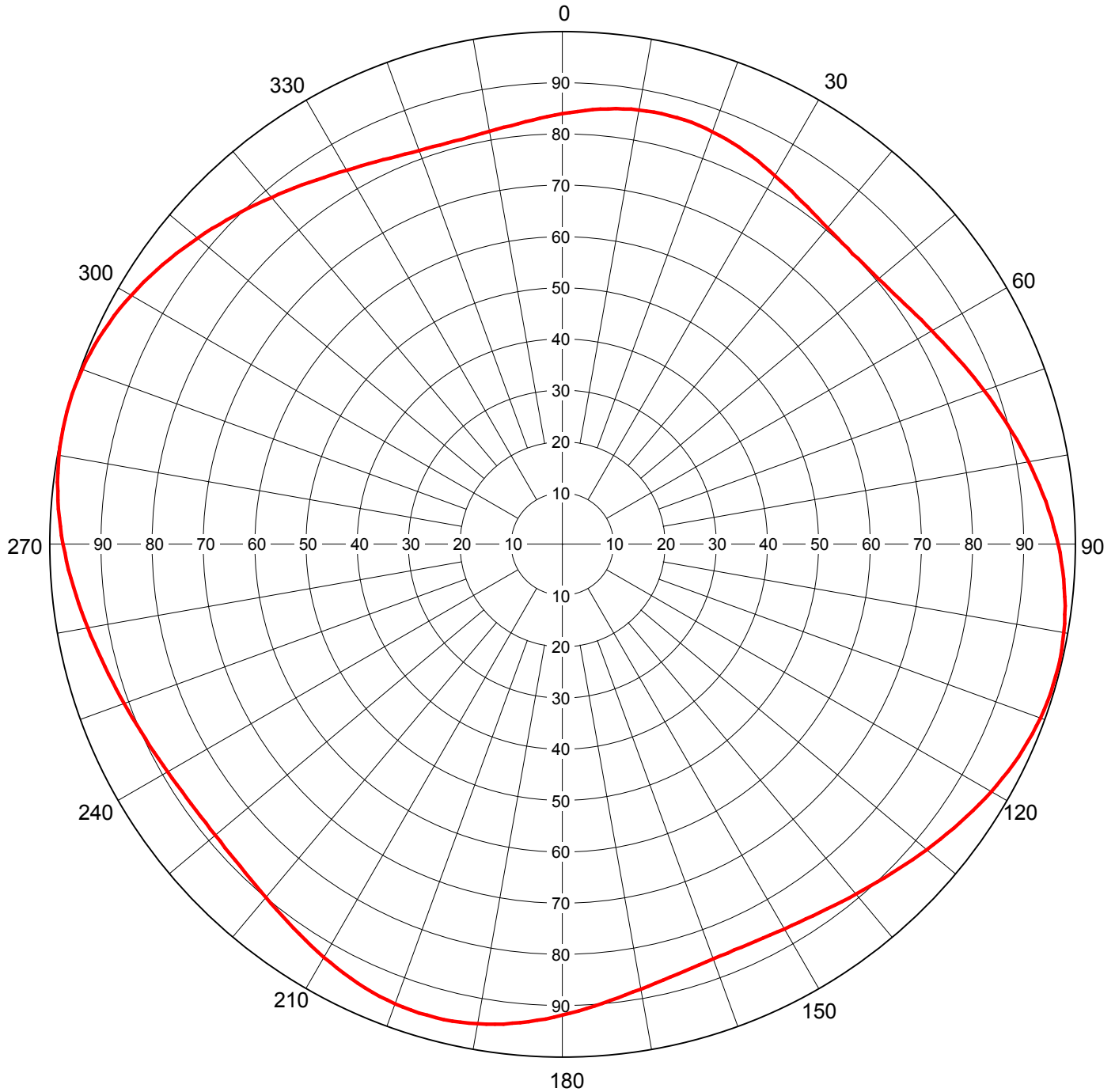
AZIMUTH PATTERN

Gain
Calculated / Measured

1.20 (0.79 dB)
Calculated

Frequency
Drawing #

731 MHz
TFU-O4SP120-7310



Remarks:



Exhibit No.

Date **16 Jan 2003**
Call Letters
Location
Customer
Antenna Type **TFU-26DSC-R O4SP120-7310**
Channel **57**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **TFU-O4SP120-7310**

Angle	Field	ERP (kW)	ERP (dBk)
0	0.839	703.9	29.48
10	0.860	739.6	28.69
20	0.856	732.7	28.65
30	0.830	688.9	28.38
40	0.805	648.0	28.12
50	0.805	648.0	28.12
60	0.832	692.2	28.40
70	0.875	765.6	28.84
80	0.923	851.9	29.30
90	0.967	935.1	29.71
100	0.993	986.0	29.94
110	0.992	984.1	29.93
120	0.966	933.2	29.70
130	0.927	859.3	29.34
140	0.891	793.9	29.00
150	0.866	750.0	28.75
160	0.861	741.3	28.70
170	0.881	776.2	28.90
180	0.919	844.6	29.27
190	0.950	902.5	29.55
200	0.954	910.1	29.59
210	0.930	864.9	29.37
220	0.899	808.2	29.08
230	0.883	779.7	28.92
240	0.888	788.5	28.97
250	0.909	826.3	29.17
260	0.940	883.6	29.46
270	0.973	946.7	29.76
280	0.997	994.0	29.97
290	0.996	992.0	29.97
300	0.970	940.9	29.74
310	0.928	861.2	29.35
320	0.882	777.9	28.91
330	0.842	709.0	28.51
340	0.817	667.5	28.24
350	0.817	667.5	28.24

Maxima

Angle	Field	ERP (kW)	ERP (dBk)
285	1.000	1000.0	30.00
106	0.996	992.0	29.97
196	0.956	913.9	29.61

Minima

Angle	Field	ERP (kW)	ERP (dBk)
45	0.801	641.6	28.07
345	0.813	661.0	28.20
157	0.860	739.6	28.69
232	0.883	779.7	28.92

Remarks:

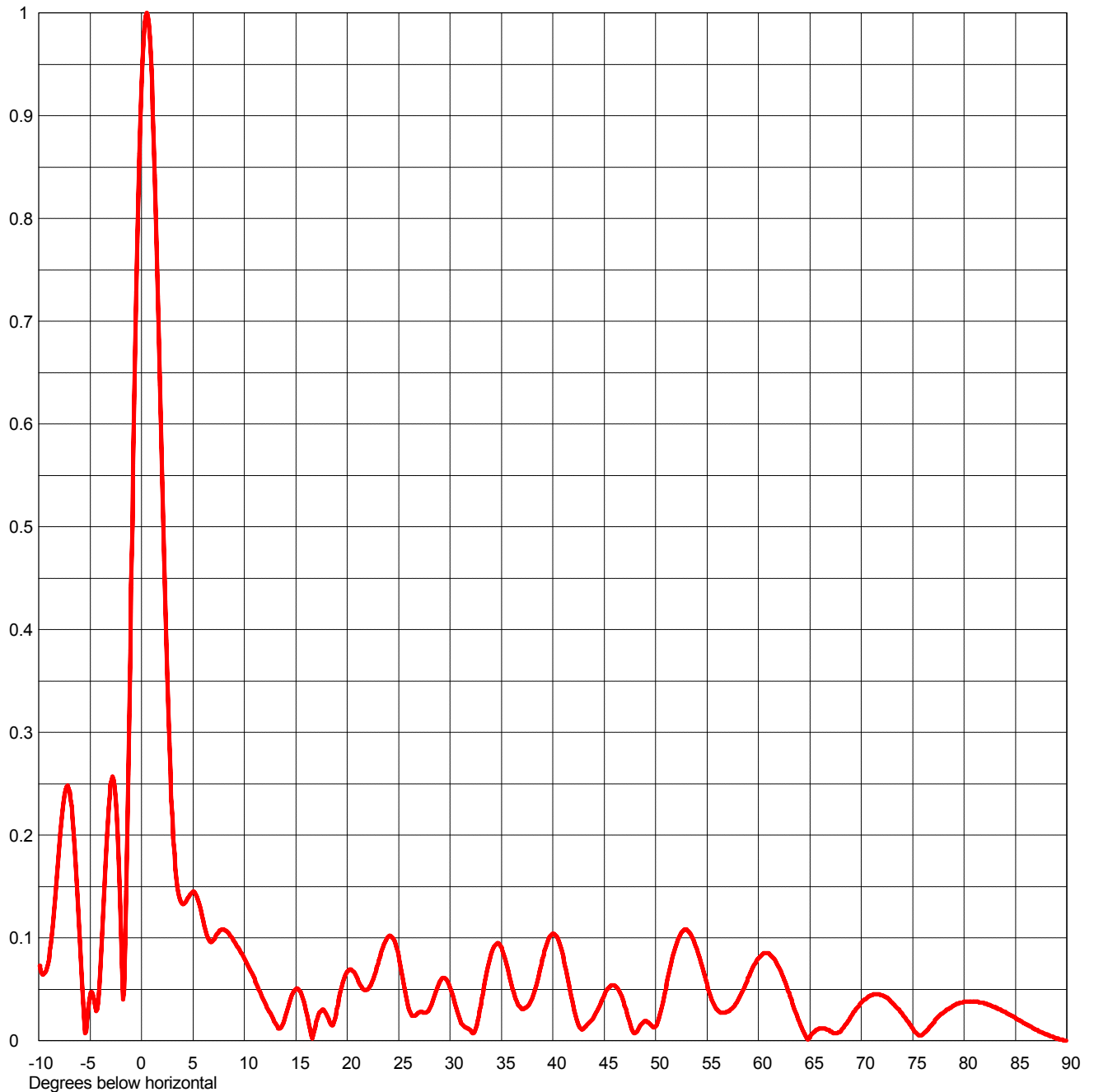


Exhibit No.

Date	16 Jan 2003
Call Letters	Channel 57
Location	
Customer	
Antenna Type	TFU-26DSC-R O4SP120-7310

ELEVATION PATTERN

RMS Gain at Main Lobe	22.5 (13.52 dB)	Beam Tilt	0.50 Degrees
RMS Gain at Horizontal	19.4 (12.88 dB)	Frequency	731.00 MHz
Calculated / Measured	Calculated	Drawing #	26Q225050-90



Remarks:

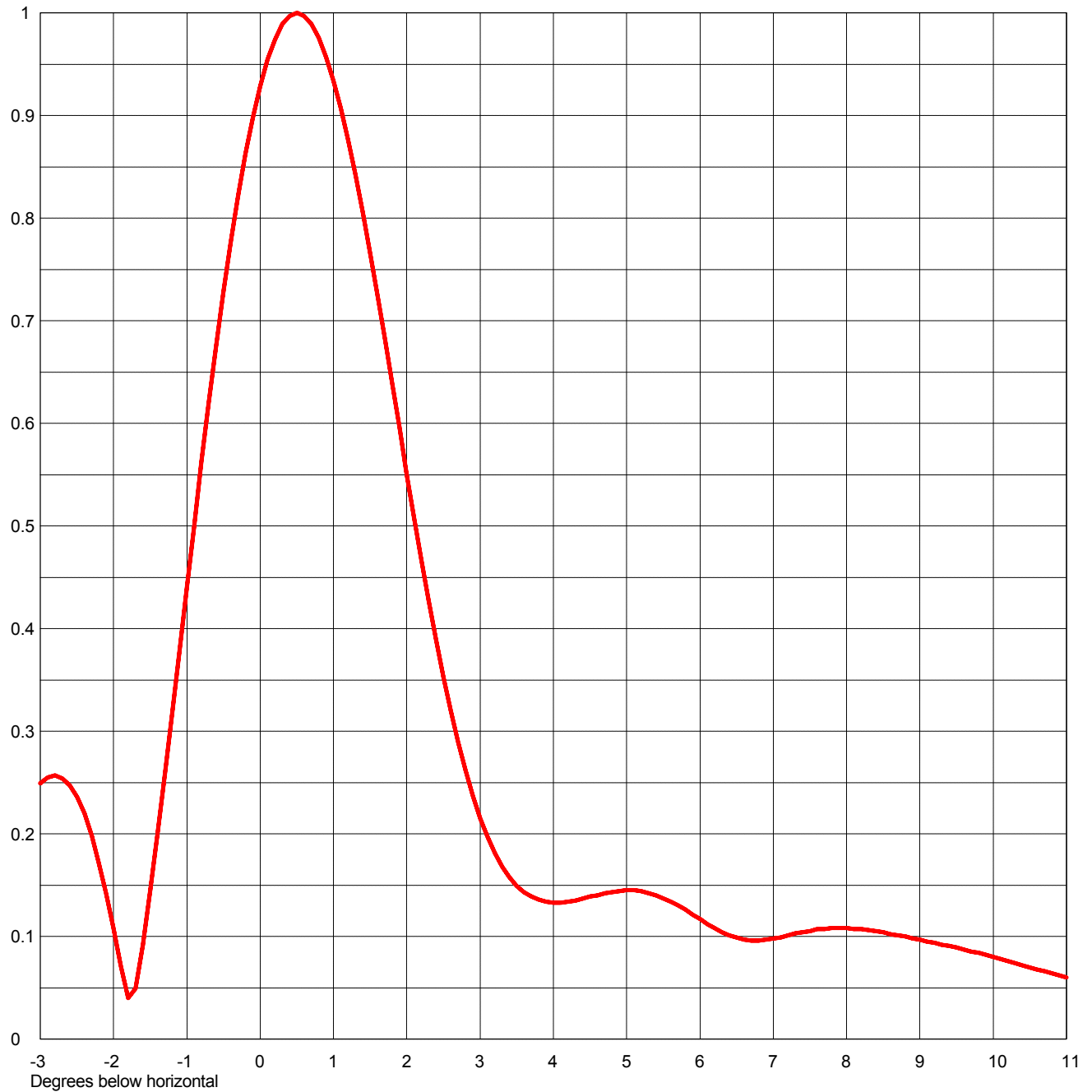


Exhibit No.

Date	16 Jan 2003
Call Letters	Channel 57
Location	
Customer	
Antenna Type	TFU-26DSC-R O4SP120-7310

ELEVATION PATTERN

RMS Gain at Main Lobe	22.5 (13.52 dB)	Beam Tilt	0.50 Degrees
RMS Gain at Horizontal	19.4 (12.88 dB)	Frequency	731.00 MHz
Calculated / Measured	Calculated	Drawing #	26Q225050



Remarks:



Exhibit No.

Date 16 Jan 2003
Call Letters
Location
Customer
Antenna Type TFU-26DSC-R O4SP120-7310
Channel 57

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # 26Q225050

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.079	2.4	0.389	10.6	0.068	30.5	0.035	51.0	0.051	71.5	0.045
-9.5	0.065	2.6	0.320	10.8	0.064	31.0	0.019	51.5	0.074	72.0	0.044
-9.0	0.080	2.8	0.262	11.0	0.060	31.5	0.013	52.0	0.093	72.5	0.042
-8.5	0.125	3.0	0.215	11.5	0.048	32.0	0.010	52.5	0.105	73.0	0.037
-8.0	0.189	3.2	0.181	12.0	0.037	32.5	0.012	53.0	0.108	73.5	0.032
-7.5	0.239	3.4	0.158	12.5	0.027	33.0	0.035	53.5	0.102	74.0	0.026
-7.0	0.242	3.6	0.143	13.0	0.017	33.5	0.062	54.0	0.090	74.5	0.019
-6.5	0.189	3.8	0.136	13.5	0.012	34.0	0.084	54.5	0.073	75.0	0.012
-6.0	0.098	4.0	0.133	14.0	0.024	34.5	0.094	55.0	0.055	75.5	0.006
-5.5	0.007	4.2	0.134	14.5	0.041	35.0	0.091	55.5	0.039	76.0	0.006
-5.0	0.045	4.4	0.137	15.0	0.050	35.5	0.075	56.0	0.030	76.5	0.011
-4.5	0.034	4.6	0.140	15.5	0.047	36.0	0.054	56.5	0.027	77.0	0.017
-4.0	0.070	4.8	0.143	16.0	0.029	36.5	0.038	57.0	0.028	77.5	0.023
-3.5	0.174	5.0	0.145	16.5	0.005	37.0	0.031	57.5	0.032	78.0	0.027
-3.0	0.249	5.2	0.144	17.0	0.018	37.5	0.033	58.0	0.039	78.5	0.031
-2.8	0.257	5.4	0.140	17.5	0.029	38.0	0.041	58.5	0.049	79.0	0.034
-2.6	0.247	5.6	0.134	18.0	0.025	38.5	0.058	59.0	0.061	79.5	0.036
-2.4	0.220	5.8	0.126	18.5	0.015	39.0	0.079	59.5	0.072	80.0	0.038
-2.2	0.172	6.0	0.117	19.0	0.030	39.5	0.096	60.0	0.080	80.5	0.038
-2.0	0.108	6.2	0.108	19.5	0.053	40.0	0.104	60.5	0.085	81.0	0.038
-1.8	0.040	6.4	0.101	20.0	0.067	40.5	0.099	61.0	0.085	81.5	0.037
-1.6	0.092	6.6	0.097	20.5	0.068	41.0	0.082	61.5	0.080	82.0	0.036
-1.4	0.201	6.8	0.096	21.0	0.060	41.5	0.059	62.0	0.071	82.5	0.035
-1.2	0.319	7.0	0.098	21.5	0.051	42.0	0.034	62.5	0.059	83.0	0.033
-1.0	0.442	7.2	0.101	22.0	0.050	42.5	0.015	63.0	0.046	83.5	0.030
-0.8	0.562	7.4	0.104	22.5	0.059	43.0	0.012	63.5	0.031	84.0	0.028
-0.6	0.675	7.6	0.107	23.0	0.075	43.5	0.017	64.0	0.018	84.5	0.025
-0.4	0.777	7.8	0.108	23.5	0.091	44.0	0.023	64.5	0.006	85.0	0.022
-0.2	0.863	8.0	0.108	24.0	0.101	44.5	0.033	65.0	0.003	85.5	0.019
0.0	0.929	8.2	0.107	24.5	0.099	45.0	0.044	65.5	0.009	86.0	0.016
0.2	0.974	8.4	0.105	25.0	0.082	45.5	0.052	66.0	0.012	86.5	0.014
0.4	0.997	8.6	0.102	25.5	0.056	46.0	0.054	66.5	0.012	87.0	0.011
0.6	0.997	8.8	0.100	26.0	0.031	46.5	0.047	67.0	0.009	87.5	0.008
0.8	0.976	9.0	0.097	26.5	0.024	47.0	0.034	67.5	0.007	88.0	0.006
1.0	0.934	9.2	0.094	27.0	0.027	47.5	0.018	68.0	0.009	88.5	0.004
1.2	0.876	9.4	0.091	27.5	0.027	48.0	0.007	68.5	0.016	89.0	0.002
1.4	0.805	9.6	0.087	28.0	0.031	48.5	0.015	69.0	0.023	89.5	0.001
1.6	0.724	9.8	0.084	28.5	0.044	49.0	0.019	69.5	0.031	90.0	0.000
1.8	0.638	10.0	0.080	29.0	0.057	49.5	0.016	70.0	0.037		
2.0	0.551	10.2	0.076	29.5	0.061	50.0	0.014	70.5	0.041		
2.2	0.467	10.4	0.072	30.0	0.052	50.5	0.029	71.0	0.044		

Remarks: