



Specification Number
Date
Call Letters
Channel
Location
Customer
Antenna Type

822:2:074629
June 10, 2002
KSHB
42
Kansas City, MO
Scripps-Howard Broadcasting
TFU-30DSC-R 4C130 DC

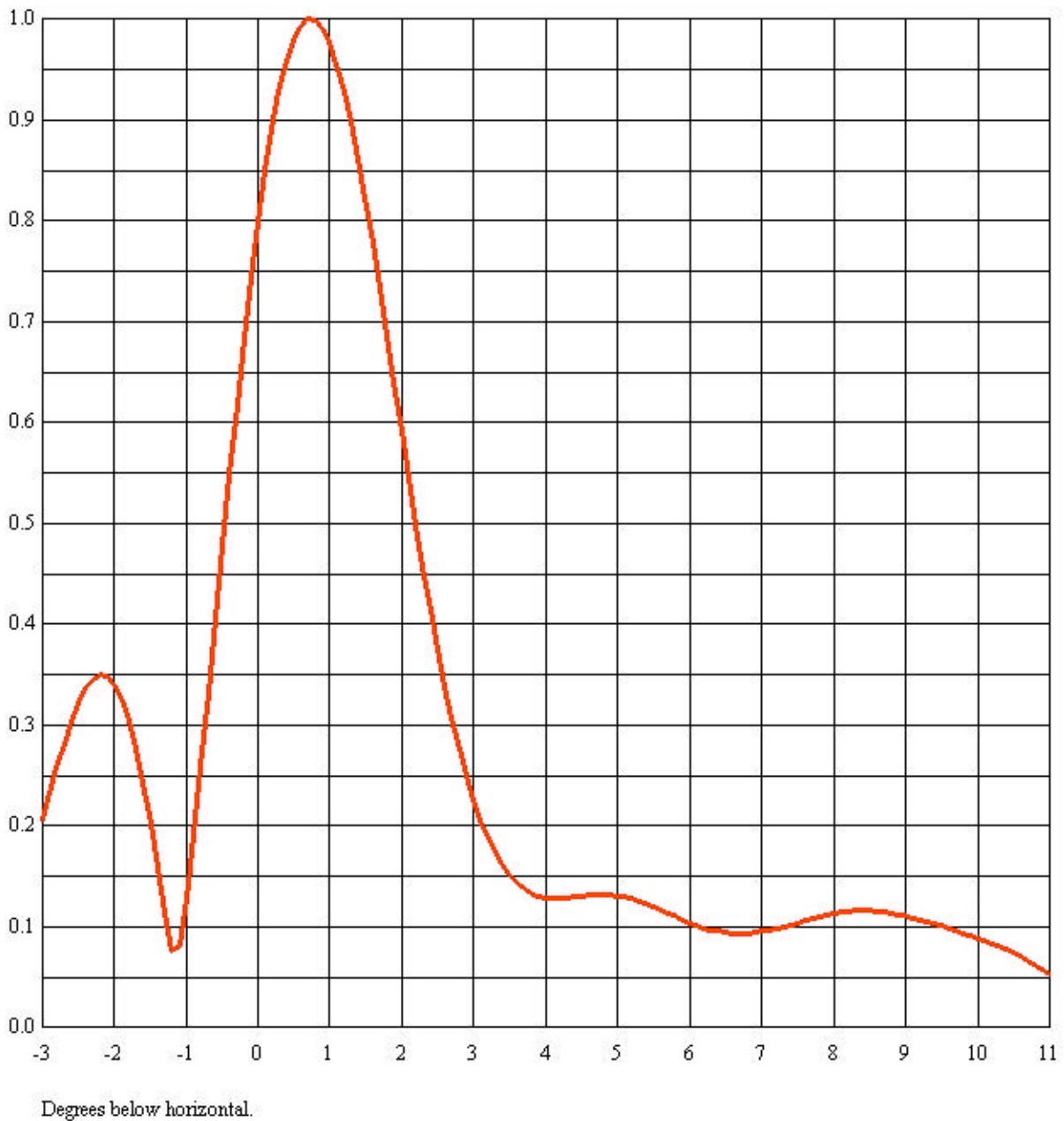
Elevation Pattern

RMS Gain at Main Lobe **22.0**
RMS Gain at Horizontal **14.0**
Calculated / Measured **Calculated**

13.42 dB
11.46 dB

Beam Tilt
Frequency
Drawing#

0.75 degrees
641 MHz
30Q220075D-90



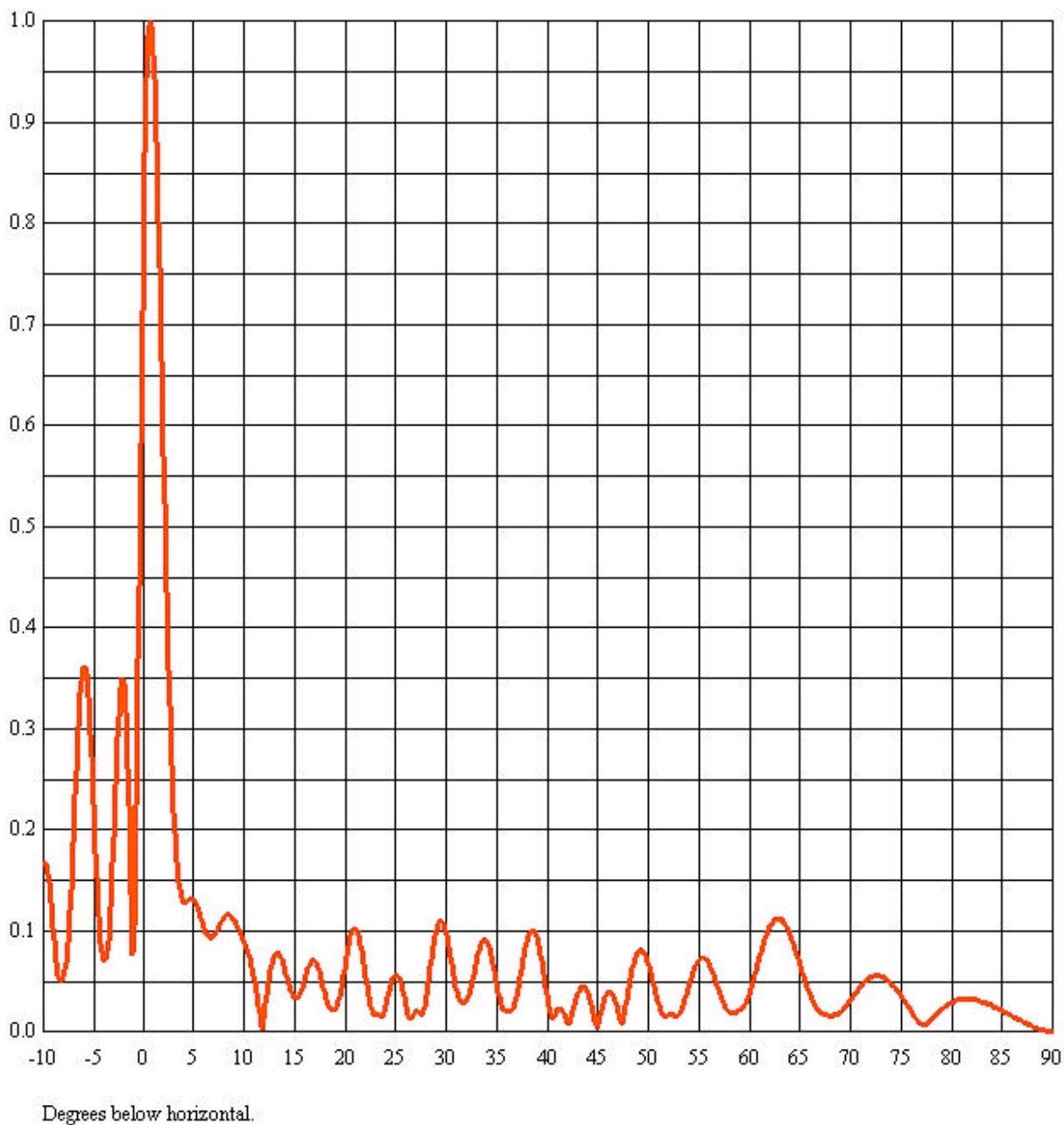


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Elevation Pattern

RMS Gain at Main Lobe	22.0	13.42 dB	Beam Tilt	0.75 degrees
RMS Gain at Horizontal	14.0	11.46 dB	Frequency	641 MHz
Calculated / Measured	Calculated		Drawing#	30Q220075D-90





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Scripps-Howard
Broadcasting

TABULATION OF ELEVATION PATTERN

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.167	2.4	0.414	10.6	0.071	30.5	0.070	51.0	0.027	71.5	0.051
-9.5	0.152	2.6	0.339	10.8	0.062	31.0	0.042	51.5	0.016	72.0	0.054
-9.0	0.096	2.8	0.276	11.0	0.053	31.5	0.030	52.0	0.017	72.5	0.056
-8.5	0.053	3.0	0.226	11.5	0.021	32.0	0.031	52.5	0.017	73.0	0.055
-8.0	0.056	3.2	0.188	12.0	0.017	32.5	0.046	53.0	0.017	73.5	0.053
-7.5	0.095	3.4	0.162	12.5	0.053	33.0	0.070	53.5	0.028	74.0	0.048
-7.0	0.199	3.6	0.144	13.0	0.075	33.5	0.088	54.0	0.045	74.5	0.043
-6.5	0.311	3.8	0.134	13.5	0.077	34.0	0.090	54.5	0.061	75.0	0.036
-6.0	0.363	4.0	0.129	14.0	0.063	34.5	0.073	55.0	0.071	75.5	0.028
-5.5	0.323	4.2	0.129	14.5	0.044	35.0	0.047	55.5	0.073	76.0	0.021
-5.0	0.213	4.4	0.130	15.0	0.034	35.5	0.025	56.0	0.067	76.5	0.013
-4.5	0.105	4.6	0.132	15.5	0.038	36.0	0.021	56.5	0.055	77.0	0.008
-4.0	0.071	4.8	0.132	16.0	0.051	36.5	0.022	57.0	0.040	77.5	0.008
-3.5	0.097	5.0	0.131	16.5	0.066	37.0	0.036	57.5	0.027	78.0	0.013
-3.0	0.206	5.2	0.128	17.0	0.070	37.5	0.064	58.0	0.020	78.5	0.018
-2.8	0.258	5.4	0.123	17.5	0.058	38.0	0.090	58.5	0.020	79.0	0.023
-2.6	0.304	5.6	0.117	18.0	0.037	38.5	0.101	59.0	0.022	79.5	0.026
-2.4	0.337	5.8	0.111	18.5	0.023	39.0	0.092	59.5	0.027	80.0	0.029
-2.2	0.350	6.0	0.104	19.0	0.023	39.5	0.066	60.0	0.038	80.5	0.031
-2.0	0.341	6.2	0.099	19.5	0.037	40.0	0.034	60.5	0.055	81.0	0.032
-1.8	0.305	6.4	0.096	20.0	0.065	40.5	0.014	61.0	0.074	81.5	0.033
-1.6	0.243	6.6	0.094	20.5	0.093	41.0	0.022	61.5	0.091	82.0	0.032
-1.4	0.158	6.8	0.094	21.0	0.103	41.5	0.021	62.0	0.104	82.5	0.032
-1.2	0.077	7.0	0.096	21.5	0.088	42.0	0.010	62.5	0.111	83.0	0.030
-1.0	0.128	7.2	0.099	22.0	0.057	42.5	0.020	63.0	0.112	83.5	0.028
-0.8	0.260	7.4	0.102	22.5	0.026	43.0	0.037	63.5	0.107	84.0	0.026
-0.6	0.406	7.6	0.107	23.0	0.017	43.5	0.045	64.0	0.096	84.5	0.024
-0.4	0.549	7.8	0.110	23.5	0.016	44.0	0.039	64.5	0.082	85.0	0.021
-0.2	0.683	8.0	0.113	24.0	0.024	44.5	0.020	65.0	0.066	85.5	0.019
0.0	0.799	8.2	0.115	24.5	0.045	45.0	0.006	65.5	0.050	86.0	0.016
0.2	0.892	8.4	0.116	25.0	0.057	45.5	0.027	66.0	0.037	86.5	0.013
0.4	0.958	8.6	0.115	25.5	0.050	46.0	0.039	66.5	0.026	87.0	0.011
0.6	0.993	8.8	0.113	26.0	0.028	46.5	0.036	67.0	0.020	87.5	0.008
0.8	0.999	9.0	0.111	26.5	0.013	47.0	0.020	67.5	0.017	88.0	0.006
1.0	0.977	9.2	0.107	27.0	0.021	47.5	0.014	68.0	0.016	88.5	0.004
1.2	0.929	9.4	0.103	27.5	0.018	48.0	0.041	68.5	0.017	89.0	0.002
1.4	0.861	9.6	0.098	28.0	0.032	48.5	0.065	69.0	0.020	89.5	0.001
1.6	0.779	9.8	0.094	28.5	0.068	49.0	0.079	69.5	0.025	90.0	0.000
1.8	0.687	10.0	0.089	29.0	0.099	49.5	0.079	70.0	0.032		
2.0	0.592	10.2	0.084	29.5	0.110	50.0	0.067	70.5	0.039		
2.2	0.499	10.4	0.078	30.0	0.098	50.5	0.048	71.0	0.045		

Azimuth Pattern

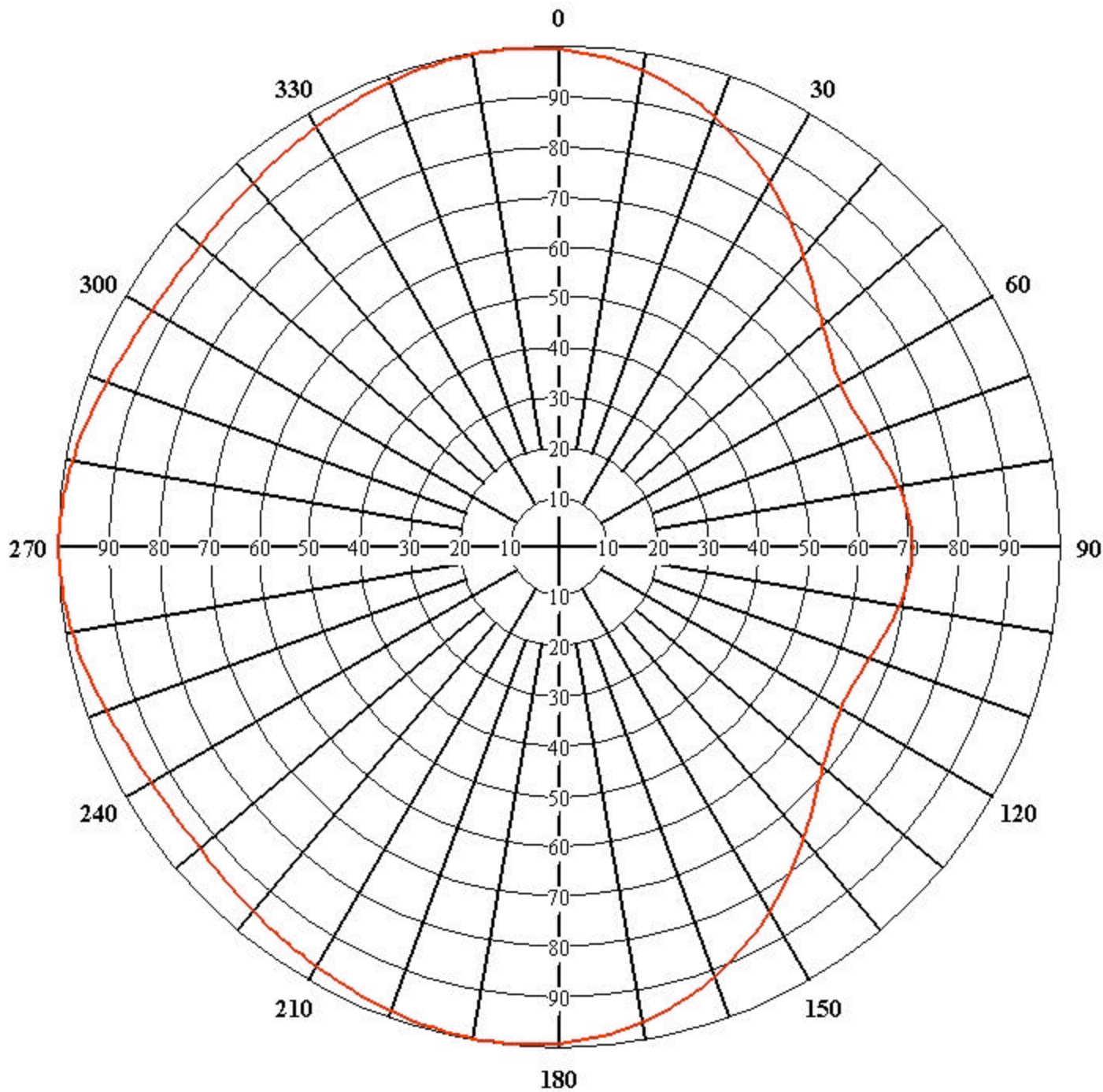
Gain
Calculated / measured

1.3
Calculated

(1.14dB)

Frequency
Drawing#

641 MHz
TFU-4C130-41-42





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822:2:074629
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Scripps-Howard
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TABULATION OF AZIMUTH PATTERN

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.994	45	0.723	90	0.707	135	0.723	180	0.994	225	0.943	270	1.000	315	0.943
1	0.992	46	0.715	91	0.707	136	0.730	181	0.995	226	0.942	271	1.000	316	0.944
2	0.990	47	0.709	92	0.707	137	0.738	182	0.996	227	0.941	272	0.999	317	0.946
3	0.988	48	0.702	93	0.706	138	0.746	183	0.997	228	0.940	273	0.999	318	0.948
4	0.985	49	0.695	94	0.705	139	0.754	184	0.998	229	0.939	274	0.998	319	0.949
5	0.983	50	0.689	95	0.703	140	0.761	185	0.999	230	0.938	275	0.997	320	0.951
6	0.980	51	0.684	96	0.701	141	0.770	186	0.999	231	0.937	276	0.996	321	0.953
7	0.977	52	0.678	97	0.699	142	0.778	187	0.999	232	0.937	277	0.994	322	0.955
8	0.973	53	0.673	98	0.697	143	0.786	188	0.999	233	0.937	278	0.992	323	0.957
9	0.970	54	0.668	99	0.694	144	0.794	189	0.999	234	0.937	279	0.990	324	0.959
10	0.966	55	0.665	100	0.691	145	0.802	190	0.999	235	0.937	280	0.988	325	0.961
11	0.962	56	0.661	101	0.688	146	0.810	191	0.998	236	0.937	281	0.986	326	0.963
12	0.957	57	0.658	102	0.685	147	0.818	192	0.998	237	0.938	282	0.984	327	0.965
13	0.953	58	0.655	103	0.681	148	0.827	193	0.997	238	0.939	283	0.981	328	0.967
14	0.948	59	0.653	104	0.678	149	0.835	194	0.996	239	0.940	284	0.979	329	0.969
15	0.943	60	0.651	105	0.675	150	0.842	195	0.995	240	0.941	285	0.976	330	0.971
16	0.937	61	0.650	106	0.671	151	0.850	196	0.994	241	0.942	286	0.973	331	0.973
17	0.932	62	0.649	107	0.668	152	0.858	197	0.993	242	0.944	287	0.970	332	0.975
18	0.926	63	0.649	108	0.665	153	0.865	198	0.992	243	0.946	288	0.968	333	0.977
19	0.920	64	0.649	109	0.662	154	0.873	199	0.990	244	0.948	289	0.965	334	0.978
20	0.914	65	0.650	110	0.659	155	0.880	200	0.989	245	0.950	290	0.962	335	0.980
21	0.907	66	0.651	111	0.657	156	0.887	201	0.987	246	0.952	291	0.959	336	0.982
22	0.901	67	0.653	112	0.655	157	0.894	202	0.986	247	0.954	292	0.957	337	0.984
23	0.894	68	0.655	113	0.653	158	0.901	203	0.984	248	0.957	293	0.954	338	0.986
24	0.887	69	0.657	114	0.651	159	0.908	204	0.982	249	0.959	294	0.952	339	0.987
25	0.880	70	0.659	115	0.650	160	0.914	205	0.980	250	0.962	295	0.950	340	0.989
26	0.873	71	0.662	116	0.649	161	0.920	206	0.978	251	0.965	296	0.948	341	0.990
27	0.865	72	0.665	117	0.649	162	0.926	207	0.977	252	0.968	297	0.946	342	0.992
28	0.858	73	0.668	118	0.649	163	0.932	208	0.975	253	0.970	298	0.944	343	0.993
29	0.850	74	0.671	119	0.650	164	0.937	209	0.973	254	0.973	299	0.942	344	0.994
30	0.842	75	0.675	120	0.651	165	0.943	210	0.971	255	0.976	300	0.941	345	0.995
31	0.835	76	0.678	121	0.653	166	0.948	211	0.969	256	0.979	301	0.940	346	0.996
32	0.827	77	0.681	122	0.655	167	0.953	212	0.967	257	0.981	302	0.939	347	0.997
33	0.818	78	0.685	123	0.658	168	0.957	213	0.965	258	0.984	303	0.938	348	0.998
34	0.810	79	0.688	124	0.661	169	0.962	214	0.963	259	0.986	304	0.937	349	0.998
35	0.802	80	0.691	125	0.665	170	0.966	215	0.961	260	0.988	305	0.937	350	0.999
36	0.794	81	0.926	126	0.668	171	0.970	216	0.959	261	0.990	306	0.937	351	0.999
37	0.786	82	0.697	127	0.673	172	0.973	217	0.957	262	0.992	307	0.937	352	0.999
38	0.778	83	0.699	128	0.678	173	0.977	218	0.955	263	0.994	308	0.937	353	0.999
39	0.770	84	0.701	129	0.684	174	0.980	219	0.953	264	0.996	309	0.937	354	0.999
40	0.761	85	0.703	130	0.689	175	0.983	220	0.951	265	0.997	310	0.938	355	0.999
41	0.754	86	0.705	131	0.695	176	0.985	221	0.949	266	0.998	311	0.939	356	0.998
42	0.746	87	0.706	132	0.702	177	0.988	222	0.948	267	0.999	312	0.940	357	0.997
43	0.738	88	0.707	133	0.709	178	0.990	223	0.946	268	0.999	313	0.941	358	0.996
44	0.730	89	0.707	134	0.715	179	0.992	224	0.944	269	1.000	314	0.942	359	0.995