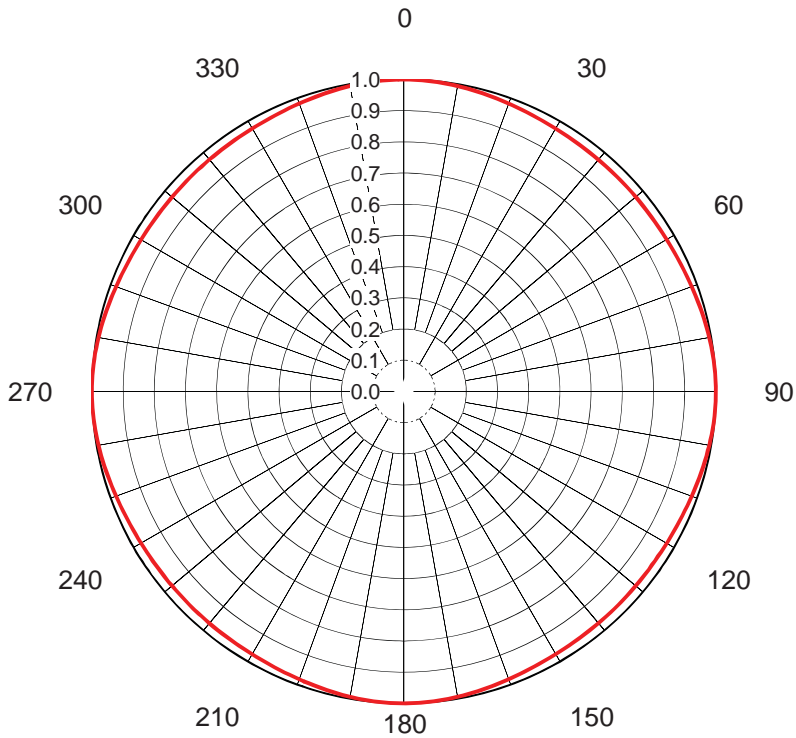


## AZIMUTH PATTERN Horizontal Polarization



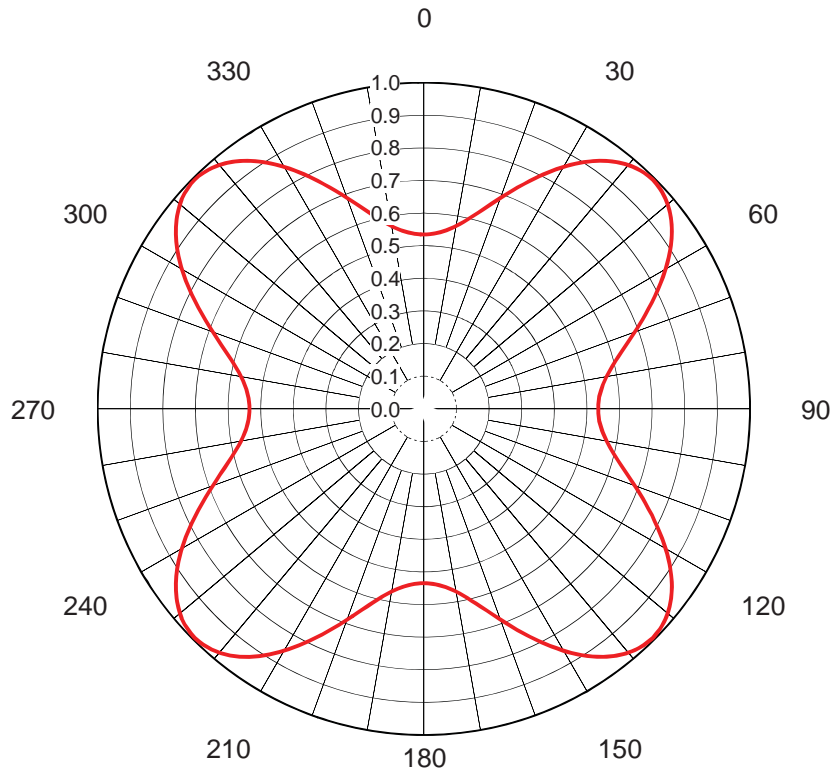
Proposal No. **C-70410**  
 Date **8-Mar-17**  
 Call Letters **WEYI**  
 Channel **18**  
 Frequency **497 MHz**  
 Antenna Type **TFU-24GTH/VP-R-O4**  
 Gain **1.04 (0.16dB)**  
**Calculated**  
 Circularity **+/- 1.0 dB**  
 Drawing # **H1275-O4-CH18**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.971	72	0.984	108	0.984	144	0.971	180	1.000	216	0.971	252	0.984	288	0.984
1	1.000	37	0.970	73	0.985	109	0.983	145	0.971	181	1.000	217	0.970	253	0.985	289	0.983
2	1.000	38	0.970	74	0.987	110	0.982	146	0.971	182	1.000	218	0.970	254	0.987	290	0.982
3	0.999	39	0.970	75	0.988	111	0.981	147	0.971	183	0.999	219	0.970	255	0.988	291	0.981
4	0.999	40	0.970	76	0.989	112	0.979	148	0.972	184	0.999	220	0.970	256	0.989	292	0.979
5	0.998	41	0.970	77	0.991	113	0.978	149	0.972	185	0.998	221	0.970	257	0.991	293	0.978
6	0.998	42	0.970	78	0.992	114	0.977	150	0.973	186	0.998	222	0.970	258	0.992	294	0.977
7	0.997	43	0.970	79	0.993	115	0.976	151	0.973	187	0.997	223	0.970	259	0.993	295	0.976
8	0.996	44	0.970	80	0.994	116	0.976	152	0.974	188	0.996	224	0.970	260	0.994	296	0.976
9	0.995	45	0.970	81	0.995	117	0.975	153	0.975	189	0.995	225	0.970	261	0.995	297	0.975
10	0.994	46	0.970	82	0.996	118	0.974	154	0.976	190	0.994	226	0.970	262	0.996	298	0.974
11	0.993	47	0.970	83	0.997	119	0.973	155	0.976	191	0.993	227	0.970	263	0.997	299	0.973
12	0.992	48	0.970	84	0.998	120	0.973	156	0.977	192	0.992	228	0.970	264	0.998	300	0.973
13	0.991	49	0.970	85	0.998	121	0.972	157	0.978	193	0.991	229	0.970	265	0.998	301	0.972
14	0.989	50	0.970	86	0.999	122	0.972	158	0.979	194	0.989	230	0.970	266	0.999	302	0.972
15	0.988	51	0.970	87	0.999	123	0.971	159	0.981	195	0.988	231	0.970	267	0.999	303	0.971
16	0.987	52	0.970	88	1.000	124	0.971	160	0.982	196	0.987	232	0.970	268	1.000	304	0.971
17	0.985	53	0.970	89	1.000	125	0.971	161	0.983	197	0.985	233	0.970	269	1.000	305	0.971
18	0.984	54	0.971	90	1.000	126	0.971	162	0.984	198	0.984	234	0.971	270	1.000	306	0.971
19	0.983	55	0.971	91	1.000	127	0.970	163	0.985	199	0.983	235	0.971	271	1.000	307	0.970
20	0.982	56	0.971	92	1.000	128	0.970	164	0.987	200	0.982	236	0.971	272	1.000	308	0.970
21	0.981	57	0.971	93	0.999	129	0.970	165	0.988	201	0.981	237	0.971	273	0.999	309	0.970
22	0.979	58	0.972	94	0.999	130	0.970	166	0.989	202	0.979	238	0.972	274	0.999	310	0.970
23	0.978	59	0.972	95	0.998	131	0.970	167	0.991	203	0.978	239	0.972	275	0.998	311	0.970
24	0.977	60	0.973	96	0.998	132	0.970	168	0.992	204	0.977	240	0.973	276	0.998	312	0.970
25	0.976	61	0.973	97	0.997	133	0.970	169	0.993	205	0.976	241	0.973	277	0.997	313	0.970
26	0.976	62	0.974	98	0.996	134	0.970	170	0.994	206	0.976	242	0.974	278	0.996	314	0.970
27	0.975	63	0.975	99	0.995	135	0.970	171	0.995	207	0.975	243	0.975	279	0.995	315	0.970
28	0.974	64	0.976	100	0.994	136	0.970	172	0.996	208	0.974	244	0.976	280	0.994	316	0.970
29	0.973	65	0.976	101	0.993	137	0.970	173	0.997	209	0.973	245	0.976	281	0.993	317	0.970
30	0.973	66	0.977	102	0.992	138	0.970	174	0.998	210	0.973	246	0.977	282	0.992	318	0.970
31	0.972	67	0.978	103	0.991	139	0.970	175	0.998	211	0.972	247	0.978	283	0.991	319	0.970
32	0.972	68	0.979	104	0.989	140	0.970	176	0.999	212	0.972	248	0.979	284	0.989	320	0.970
33	0.971	69	0.981	105	0.988	141	0.970	177	0.999	213	0.971	249	0.981	285	0.988	321	0.970
34	0.971	70	0.982	106	0.987	142	0.970	178	1.000	214	0.971	250	0.982	286	0.987	322	0.970
35	0.971	71	0.983	107	0.985	143	0.970	179	1.000	215	0.971	251	0.983	287	0.985	323	0.970

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## AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70410**  
 Date **8-Mar-17**  
 Call Letters **WEYI**  
 Channel **18**  
 Frequency **497 MHz**  
 Antenna Type **TFU-24GTH/VP-R-O4**  
 Gain **1.69 (2.28dB)**  
 Calculated  
 Circularity **+/- 3.0 dB**  
 Drawing # **V1275-O4-CH18**



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.534	36	0.940	72	0.658	108	0.658	144	0.940	180	0.534	216	0.940	252	0.658	288	0.658
1	0.535	37	0.951	73	0.644	109	0.672	145	0.928	181	0.535	217	0.951	253	0.644	289	0.672
2	0.536	38	0.960	74	0.630	110	0.688	146	0.915	182	0.536	218	0.960	254	0.630	290	0.688
3	0.537	39	0.969	75	0.618	111	0.704	147	0.901	183	0.537	219	0.969	255	0.618	291	0.704
4	0.540	40	0.976	76	0.606	112	0.720	148	0.887	184	0.540	220	0.976	256	0.606	292	0.720
5	0.543	41	0.982	77	0.596	113	0.737	149	0.872	185	0.543	221	0.982	257	0.596	293	0.737
6	0.546	42	0.987	78	0.586	114	0.754	150	0.856	186	0.546	222	0.987	258	0.586	294	0.754
7	0.551	43	0.990	79	0.577	115	0.771	151	0.840	187	0.551	223	0.990	259	0.577	295	0.771
8	0.556	44	0.992	80	0.569	116	0.789	152	0.823	188	0.556	224	0.992	260	0.569	296	0.789
9	0.562	45	0.993	81	0.562	117	0.806	153	0.806	189	0.562	225	0.993	261	0.562	297	0.806
10	0.569	46	0.992	82	0.556	118	0.823	154	0.789	190	0.569	226	0.992	262	0.556	298	0.823
11	0.577	47	0.990	83	0.551	119	0.840	155	0.771	191	0.577	227	0.990	263	0.551	299	0.840
12	0.586	48	0.987	84	0.546	120	0.856	156	0.754	192	0.586	228	0.987	264	0.546	300	0.856
13	0.596	49	0.982	85	0.543	121	0.872	157	0.737	193	0.596	229	0.982	265	0.543	301	0.872
14	0.606	50	0.976	86	0.540	122	0.887	158	0.720	194	0.606	230	0.976	266	0.540	302	0.887
15	0.618	51	0.969	87	0.537	123	0.901	159	0.704	195	0.618	231	0.969	267	0.537	303	0.901
16	0.630	52	0.960	88	0.536	124	0.915	160	0.688	196	0.630	232	0.960	268	0.536	304	0.915
17	0.644	53	0.951	89	0.535	125	0.928	161	0.672	197	0.644	233	0.951	269	0.535	305	0.928
18	0.658	54	0.940	90	0.534	126	0.940	162	0.658	198	0.658	234	0.940	270	0.534	306	0.940
19	0.672	55	0.928	91	0.535	127	0.951	163	0.644	199	0.672	235	0.928	271	0.535	307	0.951
20	0.688	56	0.915	92	0.536	128	0.960	164	0.630	200	0.688	236	0.915	272	0.536	308	0.960
21	0.704	57	0.901	93	0.537	129	0.969	165	0.618	201	0.704	237	0.901	273	0.537	309	0.969
22	0.720	58	0.887	94	0.540	130	0.976	166	0.606	202	0.720	238	0.887	274	0.540	310	0.976
23	0.737	59	0.872	95	0.543	131	0.982	167	0.596	203	0.737	239	0.872	275	0.543	311	0.982
24	0.754	60	0.856	96	0.546	132	0.987	168	0.586	204	0.754	240	0.856	276	0.546	312	0.987
25	0.771	61	0.840	97	0.551	133	0.990	169	0.577	205	0.771	241	0.840	277	0.551	313	0.990
26	0.789	62	0.823	98	0.556	134	0.992	170	0.569	206	0.789	242	0.823	278	0.556	314	0.992
27	0.806	63	0.806	99	0.562	135	0.993	171	0.562	207	0.806	243	0.806	279	0.562	315	0.993
28	0.823	64	0.789	100	0.569	136	0.992	172	0.556	208	0.823	244	0.789	280	0.569	316	0.992
29	0.840	65	0.771	101	0.577	137	0.990	173	0.551	209	0.840	245	0.771	281	0.577	317	0.990
30	0.856	66	0.754	102	0.586	138	0.987	174	0.546	210	0.856	246	0.754	282	0.586	318	0.987
31	0.872	67	0.737	103	0.596	139	0.982	175	0.543	211	0.872	247	0.737	283	0.596	319	0.982
32	0.887	68	0.720	104	0.606	140	0.976	176	0.540	212	0.887	248	0.720	284	0.606	320	0.976
33	0.901	69	0.704	105	0.618	141	0.969	177	0.537	213	0.901	249	0.704	285	0.618	321	0.969
34	0.915	70	0.688	106	0.630	142	0.960	178	0.536	214	0.915	250	0.688	286	0.630	322	0.960
35	0.928	71	0.672	107	0.644	143	0.951	179	0.535	215	0.928	251	0.672	287	0.644	323	0.951

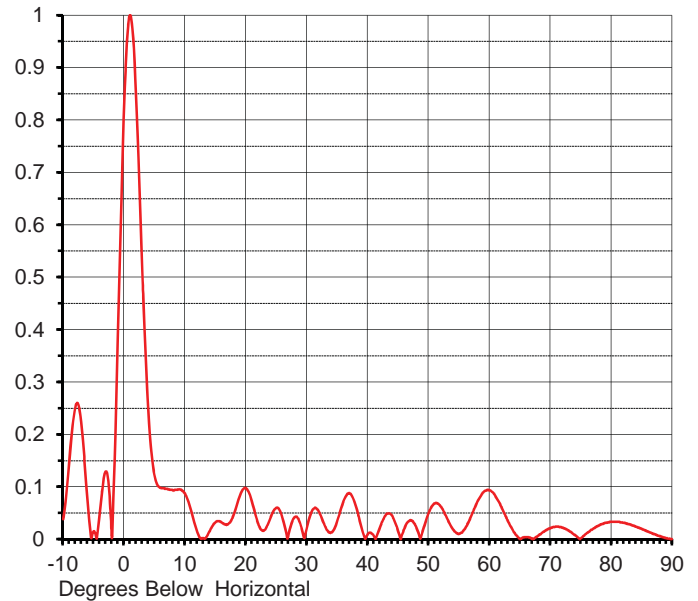
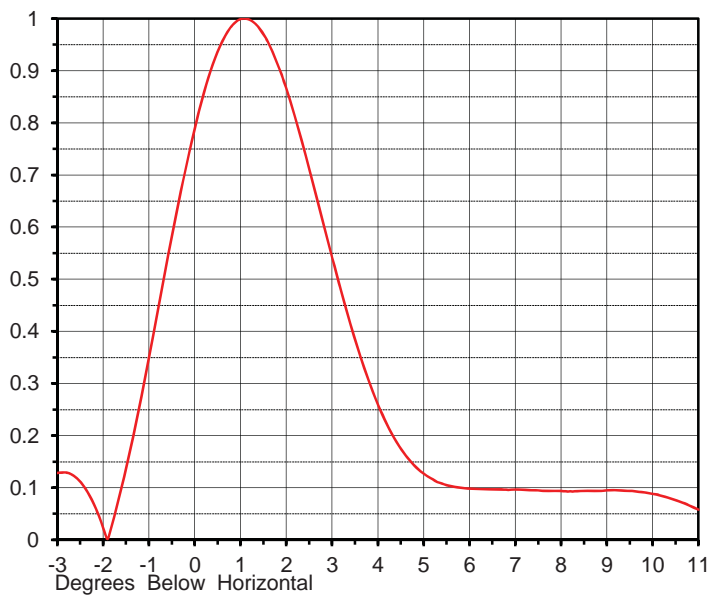
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## ELEVATION PATTERN

Proposal No. **C-70410**  
 Date **8-Mar-17**  
 Call Letters **WEYI**  
 Channel **18**  
 Frequency **497 MHz**  
 Antenna Type **TFU-24GTH/VP-R-04**

RMS Directivity at Main Lobe **20.0 ( 13.01 dB )**  
 RMS Directivity at Horizontal **12.5 ( 10.97 dB )**  
**Calculated**

Beam Tilt **1.00 deg**  
 Drawing Number **24G200100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.038	10.0	0.087	30.0	0.022	50.0	0.051	70.0	0.021
-9.0	0.148	11.0	0.054	31.0	0.057	51.0	0.068	71.0	0.024
-8.0	0.253	12.0	0.014	32.0	0.052	52.0	0.062	72.0	0.022
-7.0	0.218	13.0	0.002	33.0	0.024	53.0	0.040	73.0	0.016
-6.0	0.072	14.0	0.014	34.0	0.013	54.0	0.018	74.0	0.008
-5.0	0.015	15.0	0.032	35.0	0.035	55.0	0.010	75.0	0.002
-4.0	0.049	16.0	0.032	36.0	0.072	56.0	0.021	76.0	0.012
-3.0	0.129	17.0	0.028	37.0	0.087	57.0	0.045	77.0	0.020
-2.0	0.002	18.0	0.047	38.0	0.064	58.0	0.072	78.0	0.027
-1.0	0.395	19.0	0.083	39.0	0.021	59.0	0.090	79.0	0.031
0.0	0.824	20.0	0.097	40.0	0.009	60.0	0.093	80.0	0.033
1.0	1.000	21.0	0.071	41.0	0.006	61.0	0.081	81.0	0.033
2.0	0.838	22.0	0.030	42.0	0.023	62.0	0.059	82.0	0.031
3.0	0.509	23.0	0.017	43.0	0.047	63.0	0.034	83.0	0.028
4.0	0.240	24.0	0.040	44.0	0.044	64.0	0.013	84.0	0.024
5.0	0.121	25.0	0.060	45.0	0.014	65.0	0.000	85.0	0.019
6.0	0.098	26.0	0.040	46.0	0.020	66.0	0.004	86.0	0.014
7.0	0.096	27.0	0.009	47.0	0.036	67.0	0.001	87.0	0.010
8.0	0.093	28.0	0.042	48.0	0.021	68.0	0.007	88.0	0.005
9.0	0.095	29.0	0.026	49.0	0.015	69.0	0.015	89.0	0.002
								90.0	0.000

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***FutureFill** refers to broadband panels or limited bandwidth slotted coaxial antennas that can be modified in the field to provide the flexibility to customize the null structure at a future date.*

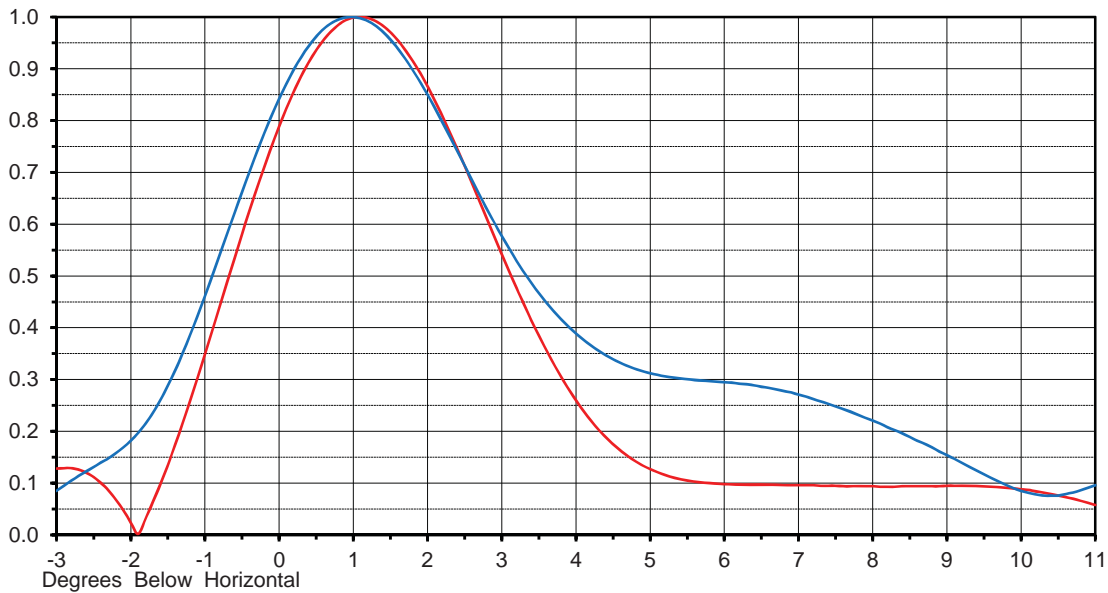
## FutureFill OVERLAY

Proposal No. **C-70410**  
 Date **8-Mar-17**  
 Call Letters **WEYI**  
 Channel **18**  
 Frequency **497 MHz**  
 Antenna Type **TFU-24GTH/VP-R-04**

RMS Directivity 20.0 **(13.01dB)**  
 RMS Directivity 13.8 **(11.38dB)**  
 Calculated

Beam Tilt 1.00  
 Beam Tilt 0.95

Drawing No. 24G200100 **Red**  
 Drawing No. 24G20010-FF **Blue**



Tabulations for 24G20010-FF

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.176	10.0	0.085	30.0	0.027	50.0	0.004	70.0	0.012
-9.0	0.323	11.0	0.096	31.0	0.061	51.0	0.033	71.0	0.014
-8.0	0.448	12.0	0.142	32.0	0.056	52.0	0.055	72.0	0.018
-7.0	0.368	13.0	0.147	33.0	0.025	53.0	0.065	73.0	0.021
-6.0	0.178	14.0	0.149	34.0	0.013	54.0	0.068	74.0	0.023
-5.0	0.184	15.0	0.170	35.0	0.027	55.0	0.069	75.0	0.025
-4.0	0.118	16.0	0.164	36.0	0.061	56.0	0.081	76.0	0.028
-3.0	0.085	17.0	0.143	37.0	0.076	57.0	0.112	77.0	0.032
-2.0	0.182	18.0	0.130	38.0	0.057	58.0	0.145	78.0	0.035
-1.0	0.461	19.0	0.103	39.0	0.039	59.0	0.164	79.0	0.037
0.0	0.842	20.0	0.052	40.0	0.042	60.0	0.161	80.0	0.037
1.0	1.000	21.0	0.012	41.0	0.042	61.0	0.137	81.0	0.036
2.0	0.850	22.0	0.058	42.0	0.075	62.0	0.102	82.0	0.033
3.0	0.577	23.0	0.069	43.0	0.108	63.0	0.067	83.0	0.029
4.0	0.389	24.0	0.091	44.0	0.104	64.0	0.048	84.0	0.025
5.0	0.312	25.0	0.120	45.0	0.069	65.0	0.047	85.0	0.020
6.0	0.295	26.0	0.095	46.0	0.060	66.0	0.048	86.0	0.015
7.0	0.271	27.0	0.030	47.0	0.083	67.0	0.043	87.0	0.010
8.0	0.221	28.0	0.041	48.0	0.081	68.0	0.032	88.0	0.005
9.0	0.154	29.0	0.038	49.0	0.048	69.0	0.020	89.0	0.002
								90.0	0.000

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