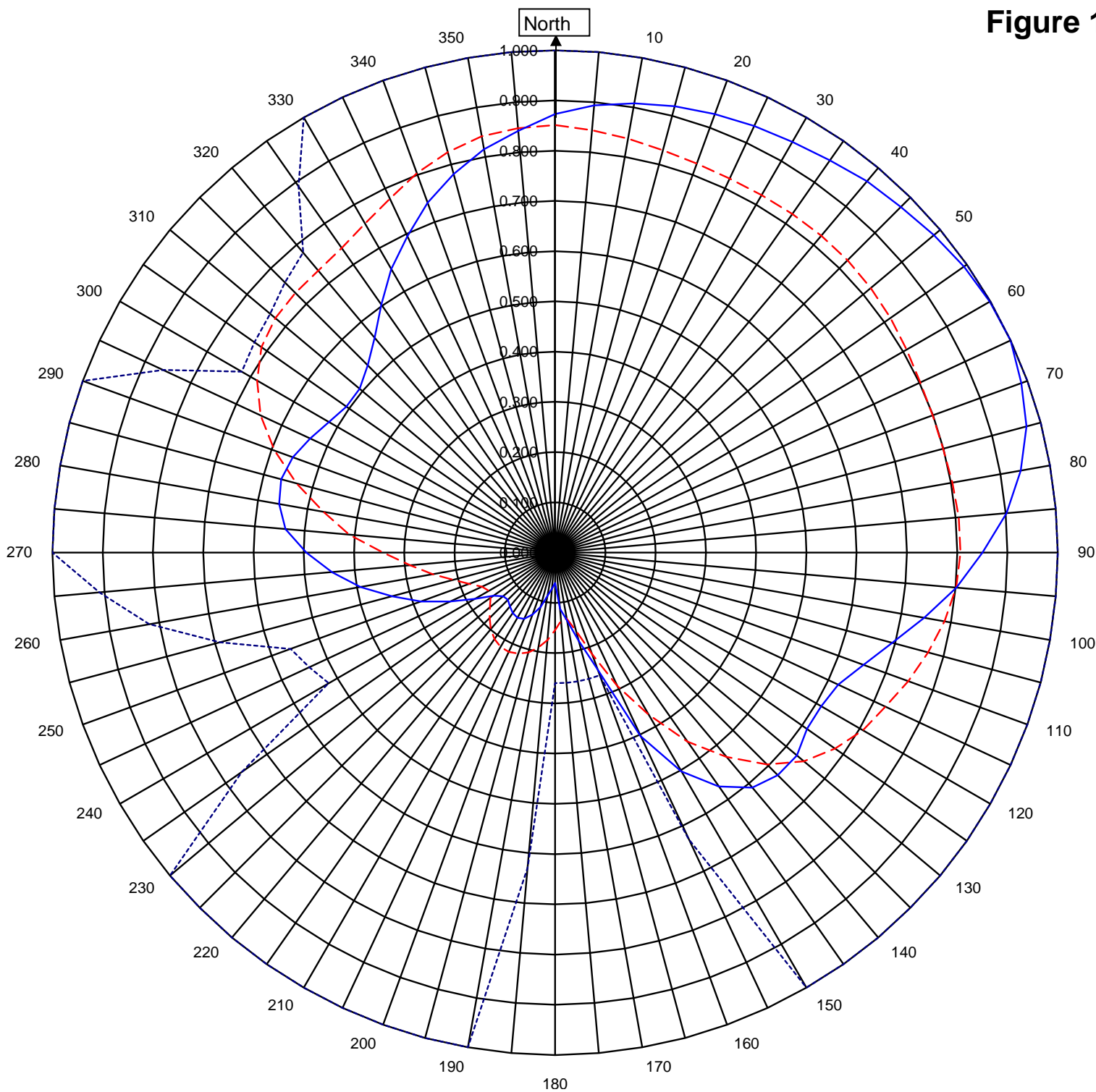


Shively Labs

Shively Labs, a division of Howell Laboratories, Inc. Bridgton, ME (207)647-3327

Figure 1A



W297CP BRIDGEPORT, CT
37857
June 16, 2021

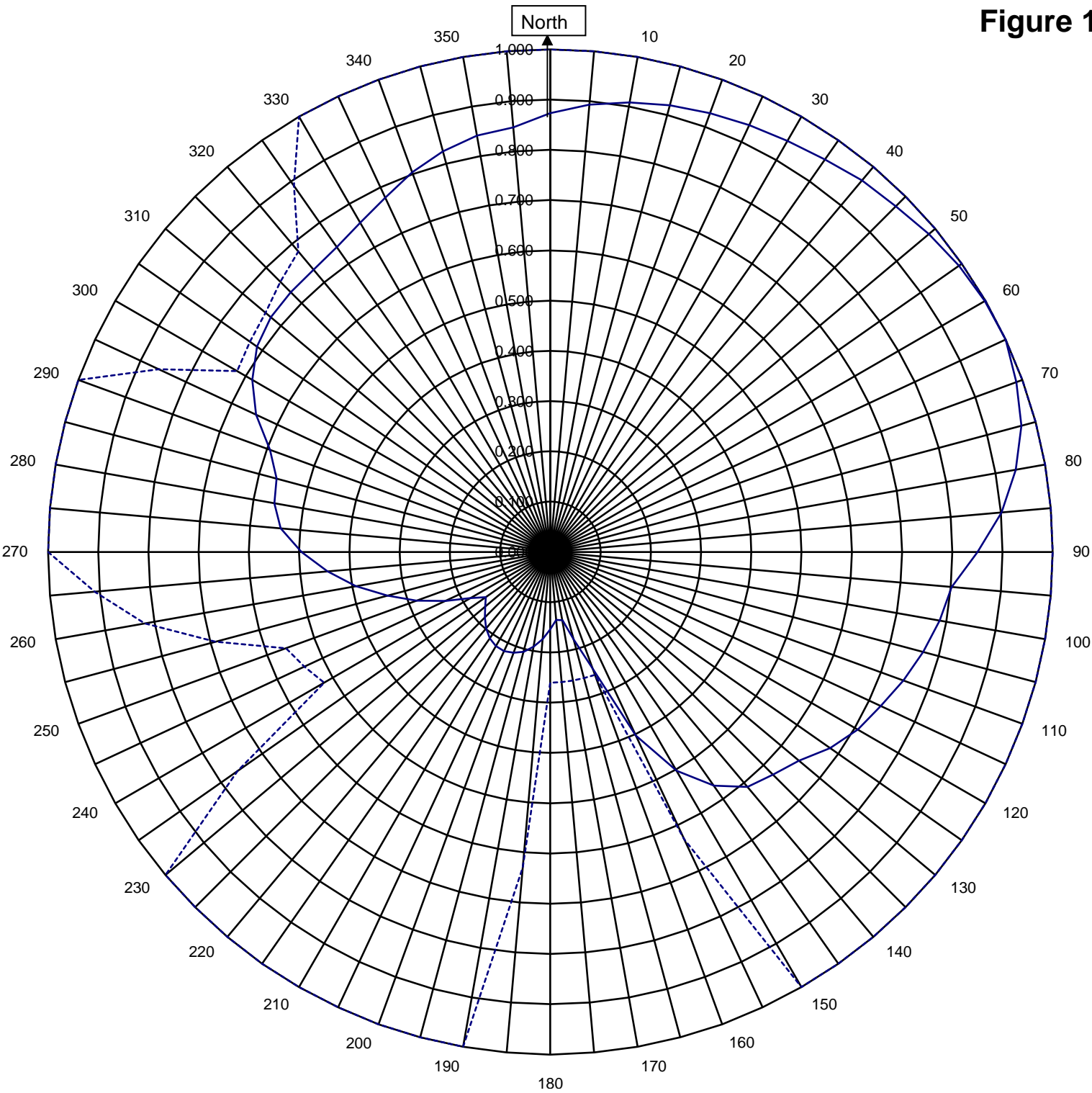
Horizontal RMS	0.645	Frequency	107.3 / 482.85 mHz
Vertical RMS	0.619	Plot	Relative Field
H/V Composite RMS	0.677	Scale	4.5 : 1
FCC Composite RMS	0.915		See Figure 2 for Mechanical Details

Antenna Model	6815-1-DA
Pattern Type	Directional Azimuth

Shively Labs

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Figure 1B



W297CP BRIDGEPORT, CT
37857
June 16, 2021

 H/V Composite RMS	0.677
 FCC Composite RMS	0.915

Frequency	107.3 / 482.85 mHz
Plot	Relative Field
Scale	4.5 : 1
See Figure 2 for Mechanical Details	

Antenna Model	6815-1-DA
Pattern Type	Directional H/V Composite

Figure 1C

Tabulation of Horizontal Azimuth Pattern
W297CP BRIDGEPORT, CT

Azimuth	Rel Field	Azimuth	Rel Field
0	0.873	180	0.061
10	0.908	190	0.087
20	0.929	200	0.131
30	0.944	210	0.150
40	0.965	220	0.139
45	0.973	225	0.133
50	0.984	230	0.135
60	0.999	240	0.184
70	0.987	250	0.284
80	0.941	260	0.393
90	0.850	270	0.495
100	0.746	280	0.557
110	0.653	290	0.555
120	0.611	300	0.520
130	0.628	310	0.508
135	0.626	315	0.527
140	0.610	320	0.559
150	0.503	330	0.652
160	0.248	340	0.742
170	0.138	350	0.815

Figure 1D

Tabulation of Vertical Azimuth Pattern
W297CP BRIDGEPORT, CT

Azimuth	Rel Field	Azimuth	Rel Field
0	0.851	180	0.154
10	0.836	190	0.192
20	0.824	200	0.214
30	0.822	210	0.217
40	0.824	220	0.199
45	0.823	225	0.184
50	0.820	230	0.169
60	0.807	240	0.152
70	0.799	250	0.182
80	0.803	260	0.247
90	0.806	270	0.342
100	0.787	280	0.468
110	0.748	290	0.594
120	0.707	300	0.685
130	0.646	310	0.726
135	0.597	315	0.731
140	0.531	320	0.733
150	0.372	330	0.756
160	0.215	340	0.804
170	0.133	350	0.841

Figure 1E

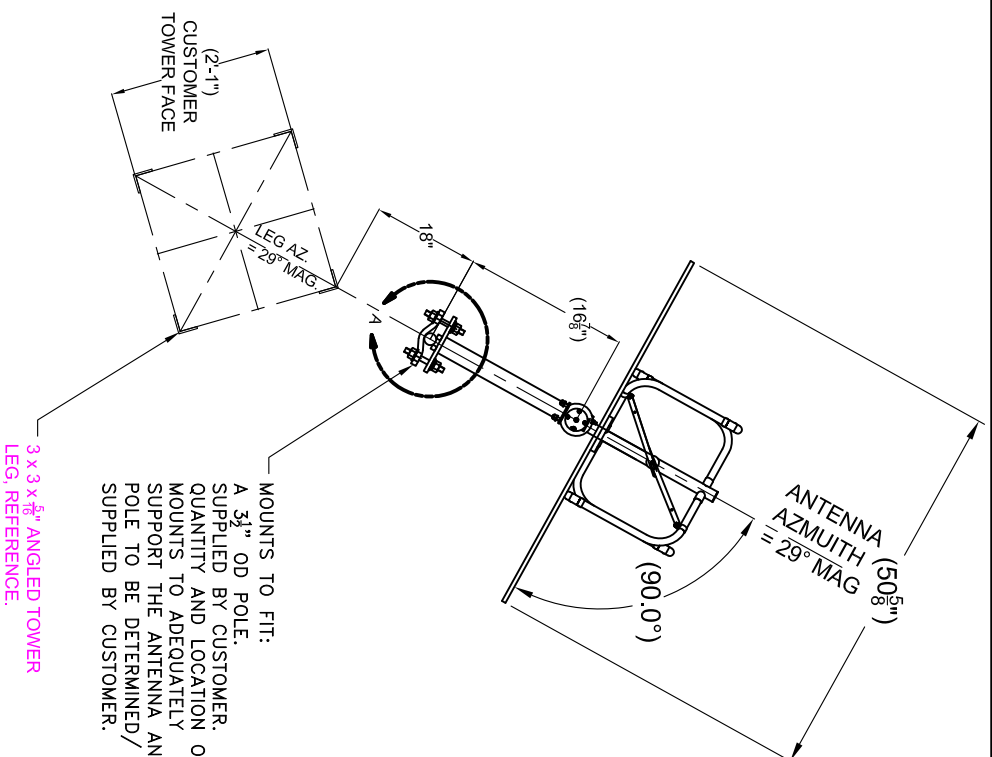
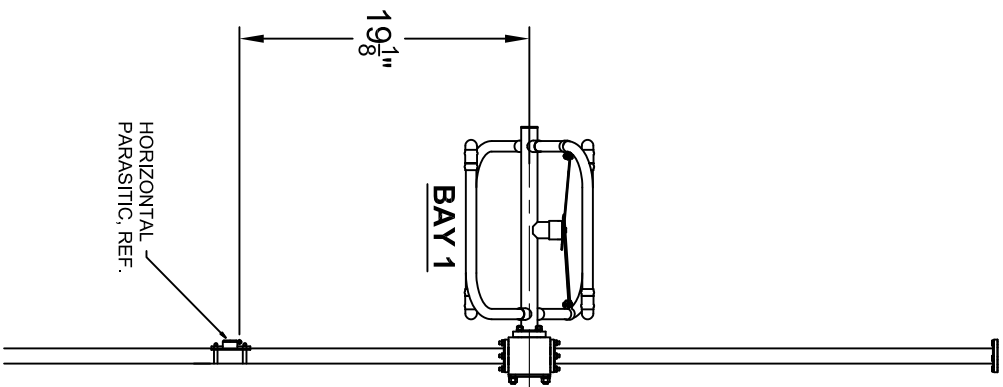
Tabulation of Composite Azimuth Pattern
W297CP BRIDGEPORT, CT

Azimuth	Rel Field	Azimuth	Rel Field
0	0.873	180	0.154
10	0.908	190	0.192
20	0.929	200	0.214
30	0.944	210	0.217
40	0.965	220	0.199
45	0.973	225	0.184
50	0.984	230	0.169
60	0.999	240	0.184
70	0.987	250	0.284
80	0.941	260	0.393
90	0.850	270	0.495
100	0.787	280	0.557
110	0.748	290	0.594
120	0.707	300	0.685
130	0.646	310	0.726
135	0.626	315	0.731
140	0.610	320	0.733
150	0.503	330	0.756
160	0.248	340	0.804
170	0.138	350	0.841

Figure 1F

Tabulation of FCC Directional Composite
W297CP BRIDGEPORT, CT

Azimuth	Rel Field	Azimuth	Rel Field
0	1.000	180	0.260
10	1.000	190	1.000
20	1.000	200	1.000
30	1.000	210	1.000
40	1.000	220	1.000
50	1.000	230	1.000
60	1.000	240	0.520
70	1.000	250	0.560
80	1.000	260	0.820
90	1.000	270	1.000
100	1.000	280	1.000
110	1.000	290	1.000
120	1.000	300	0.720
130	1.000	310	0.740
140	1.000	320	0.780
150	1.000	330	1.000
160	0.260	340	1.000
170	0.260	350	1.000



TOWER MAKE: UNKNOWN

ANTENNA HEADING 29° MAGNETIC NORTH

SHIVELY LABS			
A DIVISION OF HOWELL LABORATORIES INC., BRIDGTON, MAINE			
SHIP ORDER	PRODUCTION	SCALE	OPEN TO HEE
37857	107.3 MHZ	N.T.S.	APPROVED BY: ASH
TITLE			
MODEL-6815-1-DIRECTIONAL ANTENNA			
DATE			
6-16-21			
FIGURE 2			

Antenna Mfg.: Shively Labs

Antenna Type: 6815-1DA

Station: W297CP

Frequency: 107.3

Channel #: 297

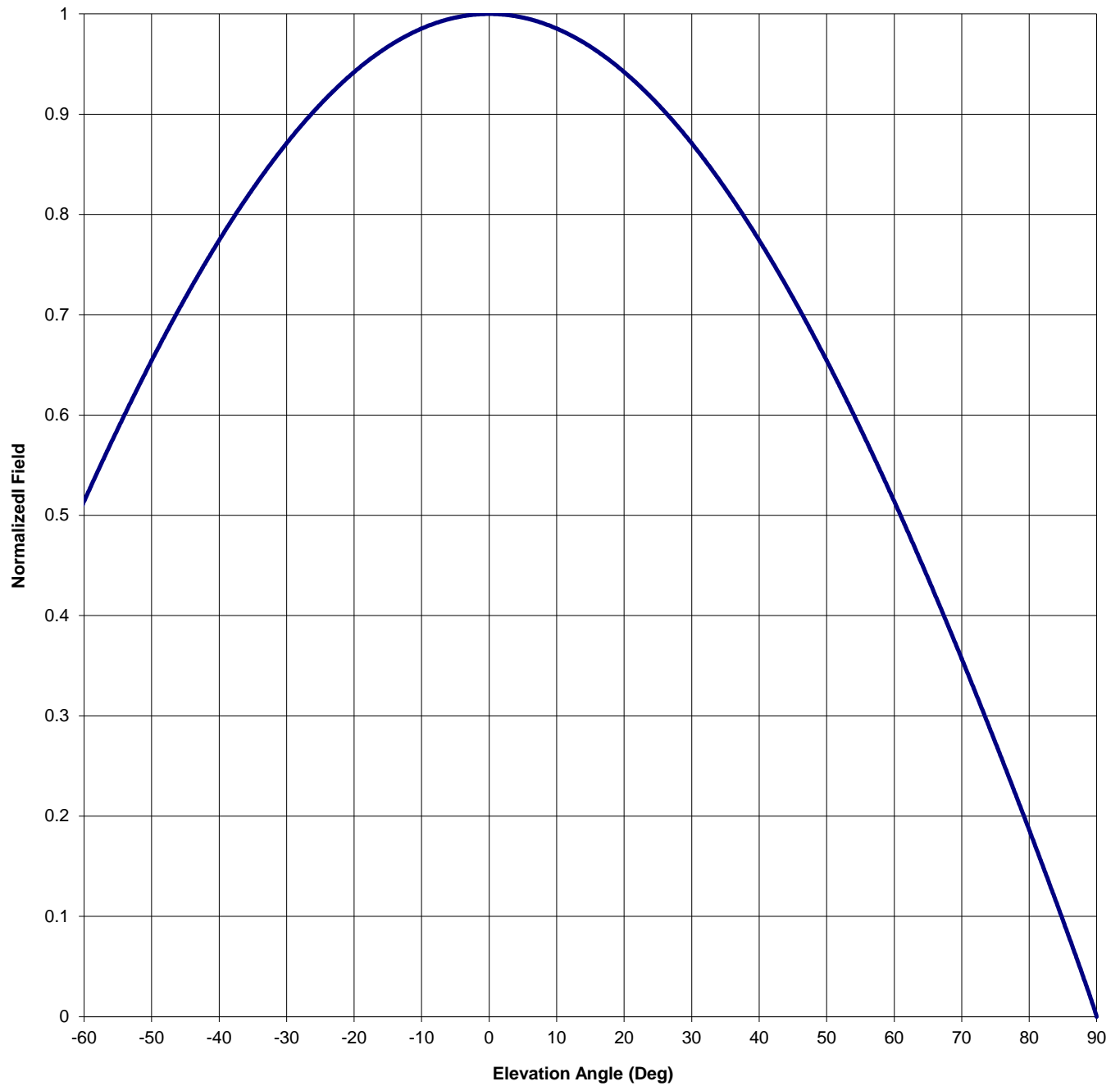
Figure: Figure 3

Date: 6/16/2021

Beam Tilt 0

Gain (Max) 1.152 0.616 dB

Gain (Horizon) 1.152 0.616 dB



Antenna Mfg.: Shively Labs

Date: 6/16/2021

Antenna Type: 6815-1DA

Station: W297CP

Beam Tilt 0

Frequency: 107.3

Gain (Max) 1.152

0.616 dB

Channel #: 297

Gain (Horizon) 1.152

0.616 dB

Figure: Figure 3

Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field
-90	0.000	-44	0.729	0	1.000	46	0.705
-89	0.021	-43	0.741	1	1.000	47	0.693
-88	0.040	-42	0.752	2	0.999	48	0.680
-87	0.059	-41	0.763	3	0.999	49	0.667
-86	0.078	-40	0.774	4	0.998	50	0.654
-85	0.096	-39	0.785	5	0.996	51	0.641
-84	0.114	-38	0.796	6	0.995	52	0.628
-83	0.133	-37	0.806	7	0.993	53	0.614
-82	0.151	-36	0.816	8	0.991	54	0.600
-81	0.168	-35	0.826	9	0.988	55	0.586
-80	0.186	-34	0.835	10	0.985	56	0.572
-79	0.204	-33	0.845	11	0.982	57	0.558
-78	0.221	-32	0.854	12	0.979	58	0.544
-77	0.239	-31	0.862	13	0.975	59	0.529
-76	0.256	-30	0.871	14	0.971	60	0.514
-75	0.273	-29	0.879	15	0.967	61	0.499
-74	0.290	-28	0.887	16	0.963	62	0.484
-73	0.307	-27	0.895	17	0.958	63	0.469
-72	0.324	-26	0.903	18	0.953	64	0.453
-71	0.341	-25	0.910	19	0.948	65	0.437
-70	0.357	-24	0.917	20	0.942	66	0.422
-69	0.373	-23	0.924	21	0.936	67	0.406
-68	0.390	-22	0.930	22	0.930	68	0.390
-67	0.406	-21	0.936	23	0.924	69	0.373
-66	0.422	-20	0.942	24	0.917	70	0.357
-65	0.437	-19	0.948	25	0.910	71	0.341
-64	0.453	-18	0.953	26	0.903	72	0.324
-63	0.469	-17	0.958	27	0.895	73	0.307
-62	0.484	-16	0.963	28	0.887	74	0.290
-61	0.499	-15	0.967	29	0.879	75	0.273
-60	0.514	-14	0.971	30	0.871	76	0.256
-59	0.529	-13	0.975	31	0.862	77	0.239
-58	0.544	-12	0.979	32	0.854	78	0.221
-57	0.558	-11	0.982	33	0.845	79	0.204
-56	0.572	-10	0.985	34	0.835	80	0.186
-55	0.586	-9	0.988	35	0.826	81	0.168
-54	0.600	-8	0.991	36	0.816	82	0.151
-53	0.614	-7	0.993	37	0.806	83	0.133
-52	0.628	-6	0.995	38	0.796	84	0.114
-51	0.641	-5	0.996	39	0.785	85	0.096
-50	0.654	-4	0.998	40	0.774	86	0.078
-49	0.667	-3	0.999	41	0.763	87	0.059
-48	0.680	-2	0.999	42	0.752	88	0.040
-47	0.693	-1	1.000	43	0.741	89	0.021
-46	0.705	0	1.000	44	0.729	90	0.000
-45	0.717			45	0.717		