

KHANNA & GULL, Inc. – Consulting Engineers
Radio – Television

STANDARD HORIZONTAL PLANE PATTERN
FOR THE PROPOSED DAYTIME OPERATION OF
WLIE, ISLIP, NEW YORK
540 kHz – 0.175 kW N/4.3 kW D – DA-D

*Exhibit 19 - Form 301, Section III-A AM Engineering
Technical Specifications*

Engineering Exhibit of WLIE, Islip, New York

TABULATION OF
STANDARD HORIZONTAL PLANE PATTERN
FOR THE PROPOSED 4.3 kW DAYTIME OPERATION OF
WLIE, ISLIP, NEW YORK
NOVEMBER 2004
 (Page 1 of 1)

Call: WLIE Frequency: 540.0 kHz
 Power: 4.300 kW
 ERSS: 620.71 mV/m at 1 km
 Multiplying Constant (K factor): 378.45 mV/m at 1 km
 Q Factor (elevation angle = 0 degrees): 20.74

Theoretical Pattern RMS: 614.77 mV/m at 1 km
 Standard Pattern RMS: 645.88 mV/m at 1 km

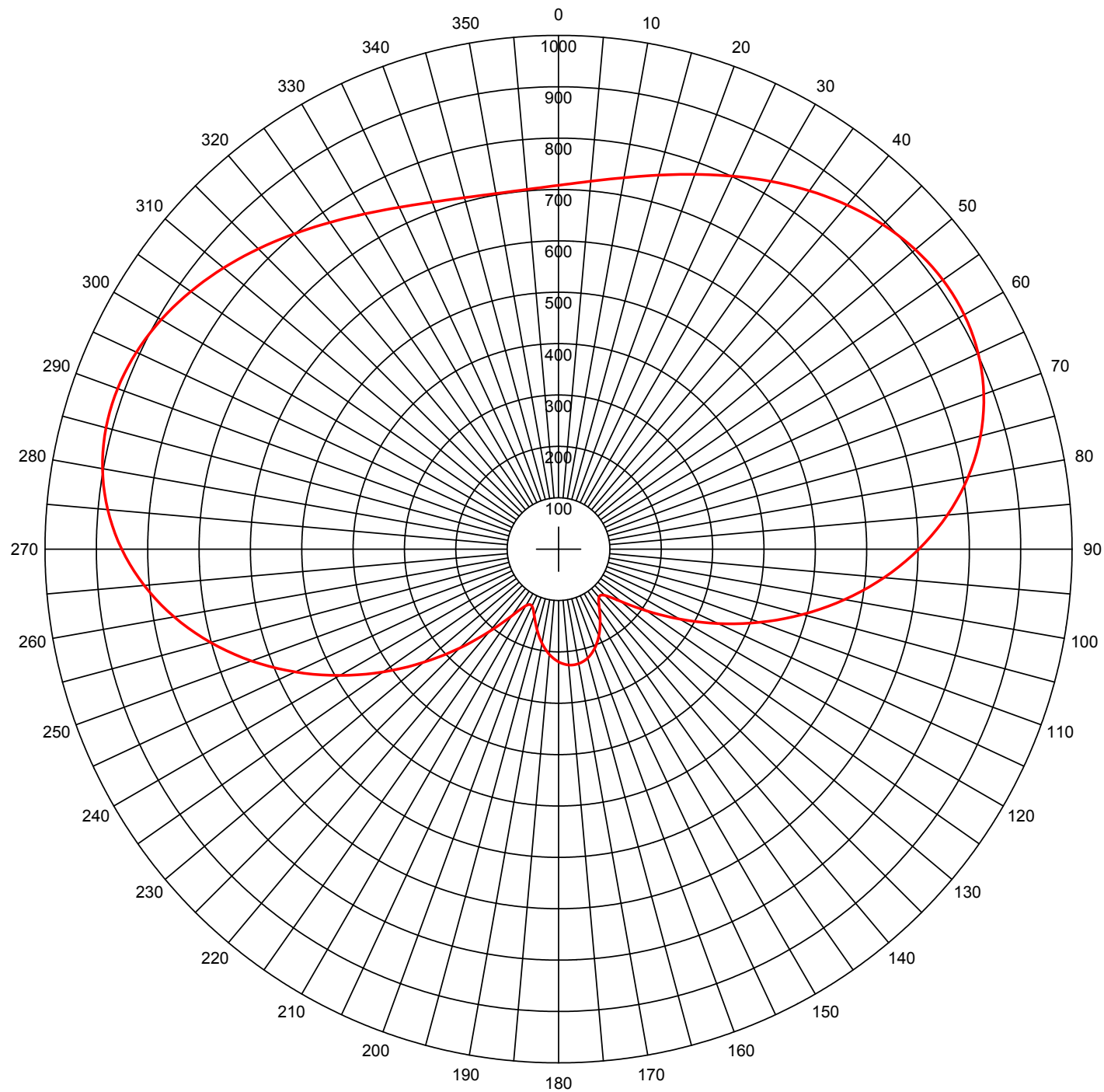
ANTENNA TOWER PARAMETERS:

##	Field Ratio	Phase (degs.)	Spac. (degs.)	Bear. (degs.)	TL SW	HT (degs.)	TLA (degs.)	TLB (degs.)	TLC (degs.)	TLD (degs.)
1	1.000	.0	.0	.0	0	62.3	.0	.0	.0	.0
2	1.300	62.0	142.5	172.5	0	96.2	.0	.0	.0	.0

CALCULATED STANDARD PATTERN DATA:

Azimuth (degs.)	Elevation Angle (0 degs.)	Azimuth (degs.)	Elevation Angle (0 degs.)	Azimuth (degs.)	Elevation Angle (0 degs.)
.0	708.24	120.0	272.50	240.0	491.78
5.0	718.85	125.0	209.42	245.0	565.70
10.0	734.21	130.0	158.46	250.0	636.30
15.0	753.65	135.0	127.34	255.0	701.64
20.0	776.30	140.0	122.41	260.0	760.00
25.0	801.05	145.0	138.16	265.0	810.00
30.0	826.63	150.0	162.13	270.0	850.61
35.0	851.59	155.0	185.93	275.0	881.23
40.0	874.36	160.0	205.59	280.0	901.71
45.0	893.36	165.0	219.35	285.0	912.31
50.0	906.97	170.0	226.38	290.0	913.72
55.0	913.72	175.0	226.38	295.0	906.97
60.0	912.31	180.0	219.35	300.0	893.36
65.0	901.71	185.0	205.59	305.0	874.36
70.0	881.23	190.0	185.93	310.0	851.59
75.0	850.61	195.0	162.13	315.0	826.63
80.0	810.00	200.0	138.16	320.0	801.05
85.0	760.00	205.0	122.41	325.0	776.30
90.0	701.64	210.0	127.34	330.0	753.65
95.0	636.30	215.0	158.46	335.0	734.21
100.0	565.70	220.0	209.42	340.0	718.85
105.0	491.78	225.0	272.50	345.0	708.24
110.0	416.67	230.0	342.70	350.0	702.82
115.0	342.70	235.0	416.67	355.0	702.82

AM Directional Pattern



Theo RMS: 614.774 mV/m@1km
Std RMS: 645.88 mV/m@1km
Q: 20.736 mV/m@1km

Horizontal Plane Standard Pattern

— Pattern (mV/m @ 1km)
— Pattern X10

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Switch	TL Switch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	62.3	0	0	0.0	0.0	0.0	0.0
2	1.300	62.0	142.5	172.5	96.2	0	0	0.0	0.0	0.0	0.0

Call: WLIE
Freq: 540 kHz
ISLIP, NY, US
Lat: 40-45-08 N
Lng: 073-12-50 W
Power: 4.3 kW
Theo RMS: 614.77 mV/m @ 1km