

Radio Station (New 840) : : Modesto, California

Antenna Pattern mv/m at 1 km

Daytime Radiation Pattern West Modesto

Power (Kw) = 25

Q(Power) = 50

Q(Rad) = 106.51

Q = 106.51

Tower height = A =

+Top Loading = B =

G = A + B =

Degrees	Meters	Feet
61	60.5	198.4
0	0.0	0.0
61	60.5	198.4

Antenna System parameters: One ohm loss resistance

K = 3432.36

Erss = 4260.55

Ref: North	1	Ctr	2	S	3
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Phasing deg 0 150.0 300

Spacing deg 0 55 110

Meters 54.5 109.1

Feet 178.9 357.8

Field ratio 0.52 1 0.52

Orientation 300 300

Theoretical pattern
RMS = 1551.12

Standard pattern
RMS = 1632.51

	Start	End	Increment		
Pattern for:	5	60	in	5	degrees elevation
Range from:	0	355	in	5	degrees azimuth

CALCULATED STANDARD PATTERN DATA

Azimuth (deg.)	mv/m	Azimuth (deg.)	mv/m	Azimuth (deg.)	mv/m	Azimuth (deg.)	mv/m
0.0	179.6	90.0	2803.4	180.0	1594.0	270.0	116.3
5.0	162.7	95.0	2945.4	185.0	1365.6	275.0	136.6
10.0	133.5	100.0	3063.9	190.0	1141.2	280.0	164.8
15.0	111.9	105.0	3157.4	195.0	925.3	285.0	192.8
20.0	144.8	110.0	3224.8	200.0	722.6	290.0	215.6
25.0	240.3	115.0	3265.6	205.0	537.7	295.0	230.2
30.0	375.1	120.0	3279.2	210.0	375.1	300.0	235.3
35.0	537.7	125.0	3265.6	215.0	240.3	305.0	230.2
40.0	722.6	130.0	3224.8	220.0	144.8	310.0	215.6
45.0	925.3	135.0	3157.4	225.0	111.9	315.0	192.8
50.0	1141.2	140.0	3063.9	230.0	133.5	320.0	164.8
55.0	1365.6	145.0	2945.4	235.0	162.7	325.0	136.6
60.0	1594.0	150.0	2803.4	240.0	179.6	330.0	116.3
65.0	1821.6	155.0	2639.6	245.0	181.4	335.0	112.9
70.0	2044.0	160.0	2456.5	250.0	169.8	340.0	127.1
75.0	2256.9	165.0	2256.9	255.0	149.4	345.0	149.4
80.0	2456.5	170.0	2044.0	260.0	127.1	350.0	169.8
85.0	2639.6	175.0	1821.6	265.0	112.9	355.0	181.4

Figure 1