

Radio Station (New 840) : : Modesto, California

Antenna Pattern mv/m at 1 km

Proposed Nighttime Radiation Waterford Site

Power (Kw) = 10

Q(Power) = 31.623

Q(Rad) = 33.276

Q = 33.28

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 = 841.82

Ref: Center	2	NE 1-2	SW 2-3	2-4	Erss =	1331.03
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Phasing deg 0 -152.0 60.0 -90

Spacing deg 0 120 240 360

Meters 119.0 237.9 356.9

Feet 390.3 780.6 1170.9

Power ratio 0.5 1 1 0.5

Orientation 209 209 209

Theoretical pattern

RMS = 1047.55

Standard pattern

RMS = 1100.48

	Start	End	Increment		
Pattern for:	0	55	in	5	degrees elevation
Range from:	0	355	in	5	degrees azimuth

CALCULATED STANDARD PATTERN DATA

Azimuth (degs.)	mv/m	Azimuth (degs.)	mv/m	Azimuth (degs.)	mv/m	Azimuth (degs.)	mv/m
0.0	237.1	90.0	197.5	180.0	1982.1	270.0	599.1
5.0	340.4	95.0	163.4	185.0	2104.3	275.0	369.0
10.0	432.9	100.0	104.9	190.0	2197.8	280.0	172.7
15.0	508.8	105.0	42.0	195.0	2265.4	285.0	40.7
20.0	564.1	110.0	63.2	200.0	2310.2	290.0	95.8
25.0	596.2	115.0	117.8	205.0	2334.6	295.0	140.9
30.0	603.7	120.0	144.7	210.0	2340.2	300.0	138.5
35.0	586.3	125.0	128.7	215.0	2327.2	305.0	98.0
40.0	544.6	130.0	65.8	220.0	2294.9	310.0	42.0
45.0	480.7	135.0	79.7	225.0	2241.3	315.0	64.7
50.0	397.6	140.0	246.1	230.0	2163.7	320.0	130.5
55.0	300.0	145.0	457.8	235.0	2059.0	325.0	180.5
60.0	194.4	150.0	697.1	240.0	1924.7	330.0	202.5
65.0	90.7	155.0	948.6	245.0	1759.4	335.0	191.8
70.0	42.7	160.0	1198.0	250.0	1563.8	340.0	149.4
75.0	111.1	165.0	1433.3	255.0	1341.5	345.0	82.1
80.0	169.9	170.0	1645.6	260.0	1099.3	350.0	43.1
85.0	200.1	175.0	1829.3	265.0	847.5	355.0	130.9

Figure 2