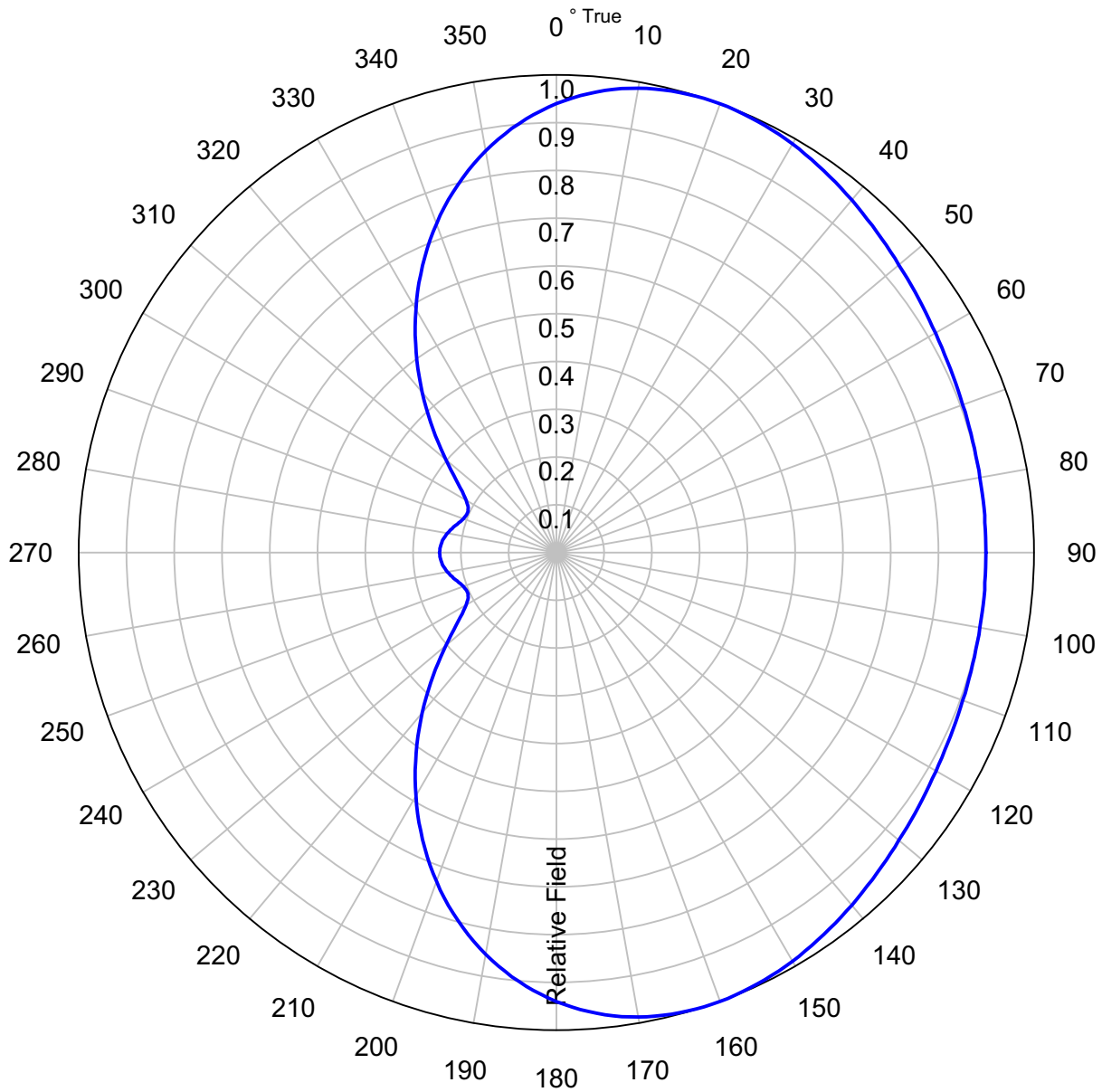


**AZIMUTH PATTERN**

Type: ATW-C170

| | Numeric | dBd |
|---------------|-------------------|-------------|
| Directivity: | <u>1.70</u> | <u>2.30</u> |
| Peak(s) at: | <u></u> | |
| Polarization: | <u>Horizontal</u> | |
| Channel: | <u>48</u> | |
| Location: | <u></u> | |
| Note: | <u></u> | |





AZIMUTH PATTERN FCC FILING FORMAT

Type: ATW-C170

Polarization: Horizontal

° True

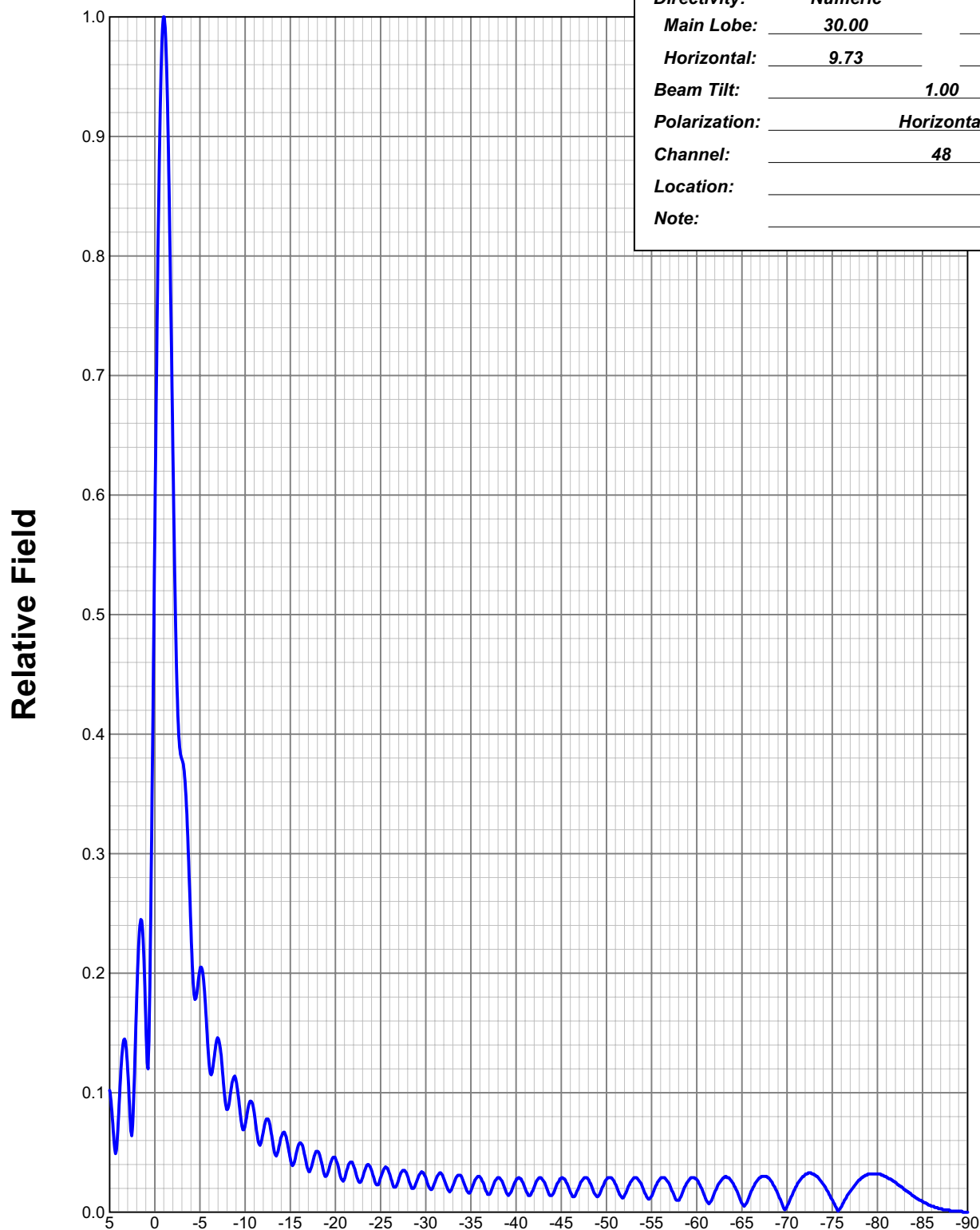
| Angle | Field | ERP (kW) | ERP (dBk) |
|--------------|--------------|-----------------|------------------|
| 0 | 0.940 | 223.045 | 23.484 |
| 10 | 0.987 | 245.908 | 23.908 |
| 20 | 1.000 | 252.428 | 24.021 |
| 30 | 0.988 | 246.406 | 23.917 |
| 40 | 0.963 | 234.094 | 23.694 |
| 50 | 0.936 | 221.151 | 23.447 |
| 60 | 0.917 | 212.264 | 23.269 |
| 70 | 0.905 | 206.745 | 23.154 |
| 80 | 0.900 | 204.467 | 23.106 |
| 90 | 0.899 | 204.013 | 23.097 |
| 100 | 0.900 | 204.467 | 23.106 |
| 110 | 0.905 | 206.745 | 23.154 |
| 120 | 0.917 | 212.264 | 23.269 |
| 130 | 0.936 | 221.151 | 23.447 |
| 140 | 0.963 | 234.094 | 23.694 |
| 150 | 0.988 | 246.406 | 23.917 |
| 160 | 1.000 | 252.428 | 24.021 |
| 170 | 0.987 | 245.908 | 23.908 |
| 180 | 0.940 | 223.045 | 23.484 |
| 190 | 0.854 | 184.100 | 22.651 |
| 200 | 0.733 | 135.627 | 21.323 |
| 210 | 0.588 | 87.275 | 19.409 |
| 220 | 0.437 | 48.206 | 16.831 |
| 230 | 0.302 | 23.022 | 13.622 |
| 240 | 0.218 | 11.996 | 10.791 |
| 250 | 0.207 | 10.816 | 10.341 |
| 260 | 0.232 | 13.587 | 11.331 |
| 270 | 0.245 | 15.152 | 11.805 |
| 280 | 0.232 | 13.587 | 11.331 |
| 290 | 0.207 | 10.816 | 10.341 |
| 300 | 0.218 | 11.996 | 10.791 |
| 310 | 0.302 | 23.022 | 13.622 |
| 320 | 0.437 | 48.206 | 16.831 |
| 330 | 0.588 | 87.275 | 19.409 |
| 340 | 0.733 | 135.627 | 21.323 |
| 350 | 0.854 | 184.100 | 22.651 |



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7777 Gardner Road
Chandler, Indiana U.S.A 47610

**ELEVATION PATTERN**

| | | |
|---------------|------------|-------|
| Type: | ATW30H4H | |
| Directivity: | Numeric | dBd |
| Main Lobe: | 30.00 | 14.77 |
| Horizontal: | 9.73 | 9.88 |
| Beam Tilt: | 1.00 | |
| Polarization: | Horizontal | |
| Channel: | 48 | |
| Location: | | |
| Note: | | |





ELEVATION TABULATED DATA

Type: ATW30H4H

Polarization: Horizontal

| Angle | Field | dB | Angle | Field | dB | Angle | Field | dB | Angle | Field | dB |
|-------|-------|--------|--------|-------|--------|--------|-------|--------|--------|-------|--------|
| 5.00 | 0.102 | -19.83 | -6.50 | 0.125 | -18.06 | -42.00 | 0.021 | -33.56 | -88.00 | 0.002 | -56.48 |
| 4.75 | 0.084 | -21.51 | -6.75 | 0.140 | -17.08 | -43.00 | 0.026 | -31.54 | -89.00 | 0.001 | -60.00 |
| 4.50 | 0.058 | -24.66 | -7.00 | 0.145 | -16.74 | -44.00 | 0.014 | -36.77 | -90.00 | 0.000 | -40.00 |
| 4.25 | 0.052 | -25.68 | -7.25 | 0.137 | -17.27 | -45.00 | 0.029 | -30.90 | | | |
| 4.00 | 0.082 | -21.67 | -7.50 | 0.117 | -18.60 | -46.00 | 0.017 | -35.39 | | | |
| 3.75 | 0.119 | -18.49 | -7.75 | 0.096 | -20.35 | -47.00 | 0.022 | -33.15 | | | |
| 3.50 | 0.142 | -16.98 | -8.00 | 0.086 | -21.31 | -48.00 | 0.028 | -31.21 | | | |
| 3.25 | 0.143 | -16.89 | -8.25 | 0.092 | -20.72 | -49.00 | 0.013 | -37.72 | | | |
| 3.00 | 0.119 | -18.45 | -8.50 | 0.105 | -19.53 | -50.00 | 0.028 | -31.21 | | | |
| 2.75 | 0.081 | -21.83 | -8.75 | 0.113 | -18.94 | -51.00 | 0.024 | -32.58 | | | |
| 2.50 | 0.069 | -23.29 | -9.00 | 0.110 | -19.17 | -52.00 | 0.014 | -37.08 | | | |
| 2.25 | 0.116 | -18.71 | -9.25 | 0.097 | -20.26 | -53.00 | 0.029 | -30.90 | | | |
| 2.00 | 0.180 | -14.89 | -9.50 | 0.080 | -21.94 | -54.00 | 0.021 | -33.56 | | | |
| 1.75 | 0.229 | -12.80 | -9.75 | 0.069 | -23.22 | -55.00 | 0.013 | -37.39 | | | |
| 1.50 | 0.244 | -12.23 | -10.00 | 0.073 | -22.73 | -56.00 | 0.029 | -30.90 | | | |
| 1.25 | 0.221 | -13.11 | -11.00 | 0.083 | -21.57 | -57.00 | 0.023 | -32.77 | | | |
| 1.00 | 0.161 | -15.84 | -12.00 | 0.067 | -23.48 | -58.00 | 0.010 | -40.00 | | | |
| 0.75 | 0.120 | -18.42 | -13.00 | 0.061 | -24.22 | -59.00 | 0.026 | -31.87 | | | |
| 0.50 | 0.217 | -13.25 | -14.00 | 0.063 | -24.01 | -60.00 | 0.028 | -31.21 | | | |
| 0.25 | 0.385 | -8.29 | -15.00 | 0.045 | -26.94 | -61.00 | 0.011 | -39.17 | | | |
| 0.00 | 0.570 | -4.89 | -16.00 | 0.058 | -24.81 | -62.00 | 0.017 | -35.39 | | | |
| -0.25 | 0.742 | -2.59 | -17.00 | 0.035 | -29.12 | -63.00 | 0.029 | -30.75 | | | |
| -0.50 | 0.879 | -1.12 | -18.00 | 0.051 | -25.85 | -64.00 | 0.025 | -32.22 | | | |
| -0.75 | 0.970 | -0.26 | -19.00 | 0.030 | -30.31 | -65.00 | 0.007 | -42.50 | | | |
| -1.00 | 1.000 | 0.00 | -20.00 | 0.045 | -26.94 | -66.00 | 0.017 | -35.39 | | | |
| -1.25 | 0.972 | -0.25 | -21.00 | 0.028 | -31.06 | -67.00 | 0.029 | -30.75 | | | |
| -1.50 | 0.891 | -1.01 | -22.00 | 0.039 | -28.18 | -68.00 | 0.029 | -30.90 | | | |
| -1.75 | 0.772 | -2.25 | -23.00 | 0.029 | -30.75 | -69.00 | 0.015 | -36.48 | | | |
| -2.00 | 0.637 | -3.91 | -24.00 | 0.035 | -29.12 | -70.00 | 0.005 | -46.02 | | | |
| -2.25 | 0.514 | -5.78 | -25.00 | 0.029 | -30.75 | -71.00 | 0.021 | -33.35 | | | |
| -2.50 | 0.428 | -7.36 | -26.00 | 0.032 | -29.90 | -72.00 | 0.032 | -30.03 | | | |
| -2.75 | 0.389 | -8.20 | -27.00 | 0.028 | -31.21 | -73.00 | 0.032 | -30.03 | | | |
| -3.00 | 0.379 | -8.43 | -28.00 | 0.030 | -30.46 | -74.00 | 0.024 | -32.58 | | | |
| -3.25 | 0.369 | -8.66 | -29.00 | 0.026 | -31.70 | -75.00 | 0.010 | -39.58 | | | |
| -3.50 | 0.341 | -9.36 | -30.00 | 0.029 | -30.75 | -76.00 | 0.005 | -46.94 | | | |
| -3.75 | 0.293 | -10.66 | -31.00 | 0.025 | -32.04 | -77.00 | 0.018 | -35.14 | | | |
| -4.00 | 0.237 | -12.51 | -32.00 | 0.028 | -31.06 | -78.00 | 0.027 | -31.37 | | | |
| -4.25 | 0.192 | -14.33 | -33.00 | 0.022 | -33.15 | -79.00 | 0.032 | -29.90 | | | |
| -4.50 | 0.178 | -14.97 | -34.00 | 0.029 | -30.75 | -80.00 | 0.032 | -29.90 | | | |
| -4.75 | 0.189 | -14.47 | -35.00 | 0.018 | -34.89 | -81.00 | 0.029 | -30.60 | | | |
| -5.00 | 0.203 | -13.85 | -36.00 | 0.029 | -30.60 | -82.00 | 0.025 | -32.04 | | | |
| -5.25 | 0.203 | -13.85 | -37.00 | 0.015 | -36.48 | -83.00 | 0.019 | -34.42 | | | |
| -5.50 | 0.185 | -14.66 | -38.00 | 0.029 | -30.75 | -84.00 | 0.013 | -37.39 | | | |
| -5.75 | 0.155 | -16.19 | -39.00 | 0.015 | -36.19 | -85.00 | 0.009 | -40.92 | | | |
| -6.00 | 0.126 | -18.03 | -40.00 | 0.027 | -31.37 | -86.00 | 0.005 | -46.02 | | | |
| -6.25 | 0.115 | -18.79 | -41.00 | 0.020 | -33.98 | -87.00 | 0.003 | -50.46 | | | |



Electronics Research, Inc.
7777 Gardner Road
Chandler, Indiana U.S.A 47610