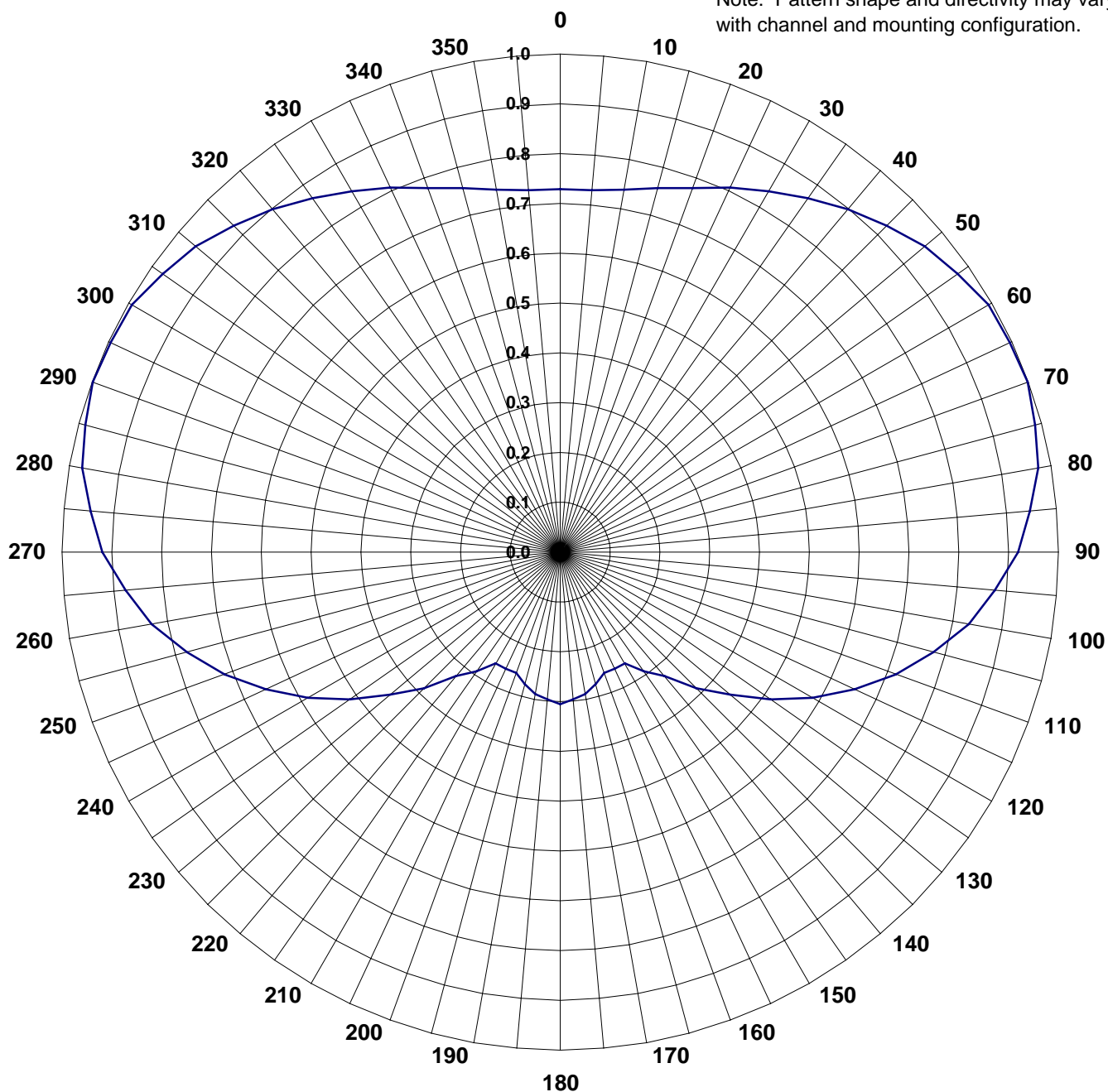


Exhibit 1a**AZIMUTH PATTERN****TYPE:****ALP-P****Directivity:****Numeric****1.88****dB****(2.74)****Peak(s) at:****Polarization:****Horizontal****Channel:****Location:**

Note: Pattern shape and directivity may vary with channel and mounting configuration.



TABULATED DATA FOR AZIMUTH PATTERN**TYPE: ALP-P**

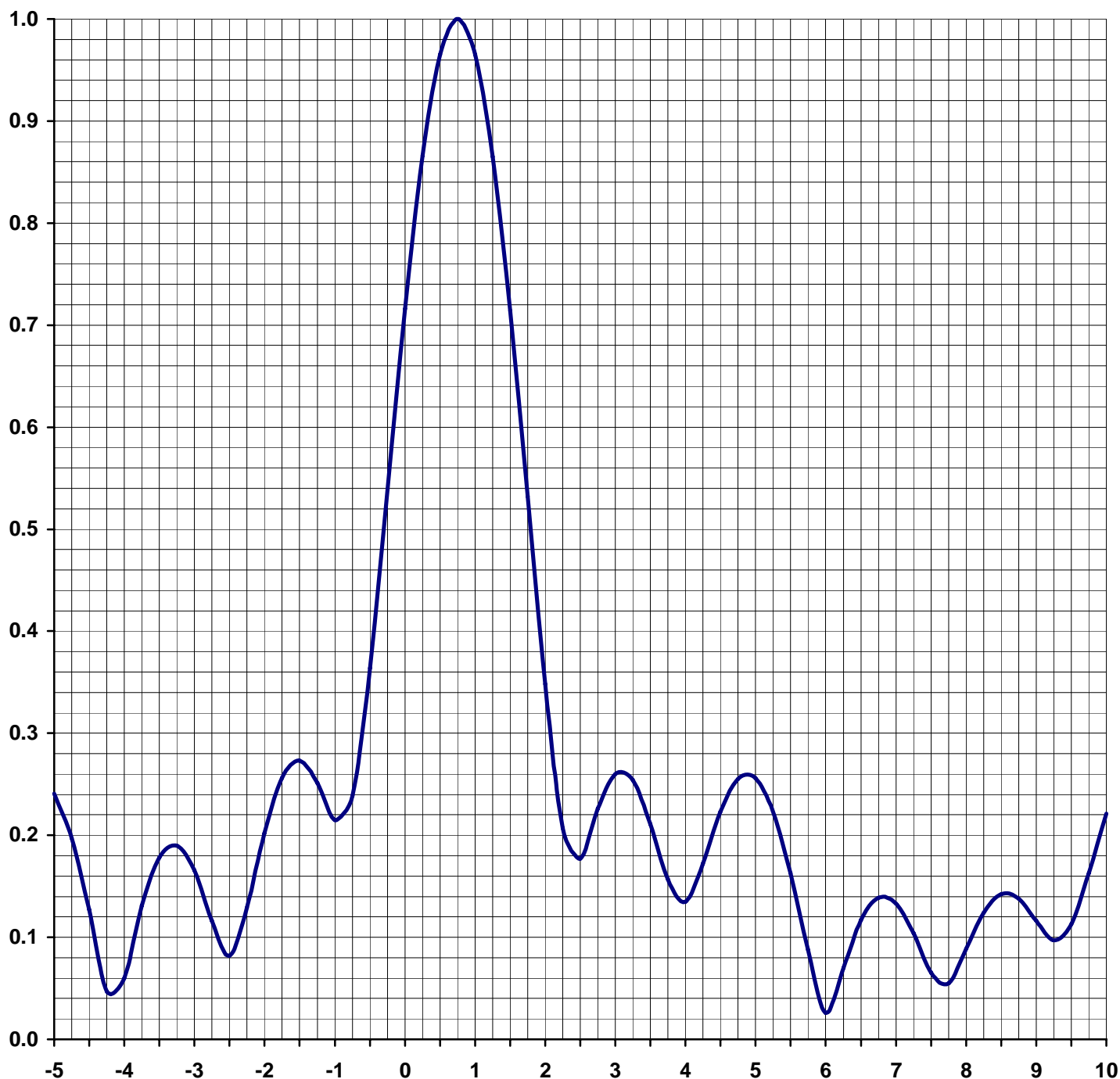
Exhibit 1b

| ANGLE | FIELD | dB | ANGLE | FIELD | dB | ANGLE | FIELD | dB | ANGLE | FIELD | dB |
|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|-------|
| 0 | 0.729 | -2.75 | 92 | 0.902 | -0.90 | 184 | 0.299 | -10.49 | 276 | 0.952 | -0.43 |
| 2 | 0.727 | -2.77 | 94 | 0.884 | -1.07 | 186 | 0.296 | -10.57 | 278 | 0.963 | -0.33 |
| 4 | 0.728 | -2.76 | 96 | 0.867 | -1.24 | 188 | 0.292 | -10.69 | 280 | 0.974 | -0.23 |
| 6 | 0.732 | -2.71 | 98 | 0.850 | -1.41 | 190 | 0.289 | -10.78 | 282 | 0.979 | -0.18 |
| 8 | 0.735 | -2.67 | 100 | 0.833 | -1.59 | 192 | 0.283 | -10.96 | 284 | 0.984 | -0.14 |
| 10 | 0.739 | -2.63 | 102 | 0.810 | -1.83 | 194 | 0.277 | -11.15 | 286 | 0.990 | -0.09 |
| 12 | 0.745 | -2.56 | 104 | 0.786 | -2.09 | 196 | 0.271 | -11.34 | 288 | 0.995 | -0.04 |
| 14 | 0.752 | -2.48 | 106 | 0.763 | -2.35 | 198 | 0.265 | -11.54 | 290 | 0.999 | -0.01 |
| 16 | 0.760 | -2.38 | 108 | 0.740 | -2.62 | 200 | 0.259 | -11.73 | 292 | 1.000 | 0.00 |
| 18 | 0.769 | -2.28 | 110 | 0.717 | -2.89 | 202 | 0.259 | -11.73 | 294 | 1.000 | 0.00 |
| 20 | 0.778 | -2.18 | 112 | 0.690 | -3.22 | 204 | 0.259 | -11.73 | 296 | 0.996 | -0.03 |
| 22 | 0.789 | -2.06 | 114 | 0.664 | -3.56 | 206 | 0.259 | -11.73 | 298 | 0.994 | -0.05 |
| 24 | 0.801 | -1.93 | 116 | 0.637 | -3.92 | 208 | 0.259 | -11.73 | 300 | 0.993 | -0.06 |
| 26 | 0.813 | -1.80 | 118 | 0.611 | -4.28 | 210 | 0.259 | -11.73 | 302 | 0.985 | -0.13 |
| 28 | 0.824 | -1.68 | 120 | 0.585 | -4.66 | 212 | 0.273 | -11.28 | 304 | 0.978 | -0.19 |
| 30 | 0.836 | -1.56 | 122 | 0.557 | -5.08 | 214 | 0.286 | -10.87 | 306 | 0.970 | -0.26 |
| 32 | 0.848 | -1.43 | 124 | 0.529 | -5.53 | 216 | 0.299 | -10.49 | 308 | 0.963 | -0.33 |
| 34 | 0.861 | -1.30 | 126 | 0.502 | -5.99 | 218 | 0.313 | -10.09 | 310 | 0.955 | -0.40 |
| 36 | 0.874 | -1.17 | 128 | 0.474 | -6.48 | 220 | 0.326 | -9.74 | 312 | 0.944 | -0.50 |
| 38 | 0.886 | -1.05 | 130 | 0.446 | -7.01 | 222 | 0.350 | -9.12 | 314 | 0.933 | -0.60 |
| 40 | 0.899 | -0.92 | 132 | 0.422 | -7.49 | 224 | 0.374 | -8.54 | 316 | 0.921 | -0.71 |
| 42 | 0.910 | -0.82 | 134 | 0.398 | -8.00 | 226 | 0.398 | -8.00 | 318 | 0.910 | -0.82 |
| 44 | 0.921 | -0.71 | 136 | 0.374 | -8.54 | 228 | 0.422 | -7.49 | 320 | 0.899 | -0.92 |
| 46 | 0.933 | -0.60 | 138 | 0.350 | -9.12 | 230 | 0.446 | -7.01 | 322 | 0.886 | -1.05 |
| 48 | 0.944 | -0.50 | 140 | 0.326 | -9.74 | 232 | 0.474 | -6.48 | 324 | 0.874 | -1.17 |
| 50 | 0.955 | -0.40 | 142 | 0.313 | -10.09 | 234 | 0.502 | -5.99 | 326 | 0.861 | -1.30 |
| 52 | 0.963 | -0.33 | 144 | 0.299 | -10.49 | 236 | 0.529 | -5.53 | 328 | 0.848 | -1.43 |
| 54 | 0.970 | -0.26 | 146 | 0.286 | -10.87 | 238 | 0.557 | -5.08 | 330 | 0.836 | -1.56 |
| 56 | 0.978 | -0.19 | 148 | 0.273 | -11.28 | 240 | 0.585 | -4.66 | 332 | 0.824 | -1.68 |
| 58 | 0.985 | -0.13 | 150 | 0.259 | -11.73 | 242 | 0.611 | -4.28 | 334 | 0.813 | -1.80 |
| 60 | 0.993 | -0.06 | 152 | 0.259 | -11.73 | 244 | 0.637 | -3.92 | 336 | 0.801 | -1.93 |
| 62 | 0.994 | -0.05 | 154 | 0.259 | -11.73 | 246 | 0.664 | -3.56 | 338 | 0.789 | -2.06 |
| 64 | 0.996 | -0.03 | 156 | 0.259 | -11.73 | 248 | 0.690 | -3.22 | 340 | 0.778 | -2.18 |
| 66 | 1.000 | 0.00 | 158 | 0.259 | -11.73 | 250 | 0.717 | -2.89 | 342 | 0.769 | -2.28 |
| 68 | 1.000 | 0.00 | 160 | 0.259 | -11.73 | 252 | 0.740 | -2.62 | 344 | 0.760 | -2.38 |
| 70 | 0.999 | -0.01 | 162 | 0.265 | -11.54 | 254 | 0.763 | -2.35 | 346 | 0.752 | -2.48 |
| 72 | 0.995 | -0.04 | 164 | 0.271 | -11.34 | 256 | 0.786 | -2.09 | 348 | 0.745 | -2.56 |
| 74 | 0.990 | -0.09 | 166 | 0.277 | -11.15 | 258 | 0.810 | -1.83 | 350 | 0.739 | -2.63 |
| 76 | 0.984 | -0.14 | 168 | 0.283 | -10.96 | 260 | 0.833 | -1.59 | 352 | 0.735 | -2.67 |
| 78 | 0.979 | -0.18 | 170 | 0.289 | -10.78 | 262 | 0.850 | -1.41 | 354 | 0.732 | -2.71 |
| 80 | 0.974 | -0.23 | 172 | 0.292 | -10.69 | 264 | 0.867 | -1.24 | 356 | 0.728 | -2.76 |
| 82 | 0.963 | -0.33 | 174 | 0.296 | -10.57 | 266 | 0.884 | -1.07 | 358 | 0.727 | -2.77 |
| 84 | 0.952 | -0.43 | 176 | 0.299 | -10.49 | 268 | 0.902 | -0.90 | 360 | 0.729 | -2.75 |
| 86 | 0.941 | -0.53 | 178 | 0.302 | -10.40 | 270 | 0.919 | -0.73 | | | |
| 88 | 0.930 | -0.63 | 180 | 0.305 | -10.31 | 272 | 0.930 | -0.63 | | | |
| 90 | 0.919 | -0.73 | 182 | 0.302 | -10.40 | 274 | 0.941 | -0.53 | | | |

Exhibit 1c

ELEVATION PATTERN

| | | |
|---------------|--------------|----------------|
| TYPE: | ALP24L3 | |
| Directivity: | Numeric | dBd |
| Main Lobe: | <u>25.21</u> | <u>(14.02)</u> |
| Horizontal: | <u>12.92</u> | <u>(11.11)</u> |
| Beam Tilt: | 0.75 | |
| Polarization: | Horizontal | |
| Channel: | | |
| Location: | | |



TABULATED DATA FOR ELEVATION PATTERN**TYPE:** ALP24L3 Exhibit 1d**-5 to 10 degrees in 0.25 increments****10 to 90 degrees in 0.50 increments**

| ANGLE | FIELD | dB | ANGLE | FIELD | dB | ANGLE | FIELD | dB | ANGLE | FIELD | dB | ANGLE | FIELD | dB |
|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|
| -5.00 | 0.241 | -12.35 | 6.75 | 0.139 | -17.15 | 27.00 | 0.015 | -36.50 | 50.50 | 0.012 | -38.64 | 74.00 | 0.046 | -26.72 |
| -4.75 | 0.197 | -14.09 | 7.00 | 0.133 | -17.52 | 27.50 | 0.007 | -43.35 | 51.00 | 0.011 | -39.37 | 74.50 | 0.052 | -25.65 |
| -4.50 | 0.127 | -17.91 | 7.25 | 0.104 | -19.66 | 28.00 | 0.015 | -36.62 | 51.50 | 0.017 | -35.61 | 75.00 | 0.057 | -24.95 |
| -4.25 | 0.047 | -26.55 | 7.50 | 0.065 | -23.69 | 28.50 | 0.012 | -38.77 | 52.00 | 0.027 | -31.37 | 75.50 | 0.059 | -24.61 |
| -4.00 | 0.060 | -24.39 | 7.75 | 0.055 | -25.15 | 29.00 | 0.004 | -47.53 | 52.50 | 0.035 | -29.05 | 76.00 | 0.059 | -24.58 |
| -3.75 | 0.131 | -17.68 | 8.00 | 0.089 | -20.97 | 29.50 | 0.003 | -51.42 | 53.00 | 0.037 | -28.62 | 76.50 | 0.057 | -24.84 |
| -3.50 | 0.178 | -15.01 | 8.25 | 0.124 | -18.10 | 30.00 | 0.000 | -82.12 | 53.50 | 0.031 | -30.28 | 77.00 | 0.054 | -25.36 |
| -3.25 | 0.190 | -14.43 | 8.50 | 0.142 | -16.94 | 30.50 | 0.005 | -45.56 | 54.00 | 0.017 | -35.41 | 77.50 | 0.049 | -26.14 |
| -3.00 | 0.166 | -15.59 | 8.75 | 0.138 | -17.20 | 31.00 | 0.008 | -41.73 | 54.50 | 0.006 | -44.41 | 78.00 | 0.044 | -27.17 |
| -2.75 | 0.116 | -18.71 | 9.00 | 0.116 | -18.67 | 31.50 | 0.020 | -33.96 | 55.00 | 0.022 | -33.28 | 78.50 | 0.038 | -28.45 |
| -2.50 | 0.082 | -21.72 | 9.25 | 0.097 | -20.29 | 32.00 | 0.048 | -26.36 | 55.50 | 0.035 | -29.10 | 79.00 | 0.032 | -30.00 |
| -2.25 | 0.129 | -17.80 | 9.50 | 0.113 | -18.98 | 32.50 | 0.081 | -21.79 | 56.00 | 0.040 | -27.92 | 79.50 | 0.026 | -31.87 |
| -2.00 | 0.202 | -13.90 | 9.75 | 0.163 | -15.75 | 33.00 | 0.106 | -19.51 | 56.50 | 0.036 | -28.97 | 80.00 | 0.020 | -34.10 |
| -1.75 | 0.256 | -11.84 | 10.00 | 0.221 | -13.11 | 33.50 | 0.109 | -19.24 | 57.00 | 0.024 | -32.38 | 80.50 | 0.014 | -36.81 |
| -1.50 | 0.273 | -11.28 | 10.50 | 0.300 | -10.47 | 34.00 | 0.088 | -21.08 | 57.50 | 0.020 | -33.89 | 81.00 | 0.010 | -40.15 |
| -1.25 | 0.251 | -12.02 | 11.00 | 0.292 | -10.68 | 34.50 | 0.052 | -25.70 | 58.00 | 0.036 | -28.78 | 81.50 | 0.006 | -44.27 |
| -1.00 | 0.215 | -13.37 | 11.50 | 0.212 | -13.47 | 35.00 | 0.028 | -31.08 | 58.50 | 0.055 | -25.22 | 82.00 | 0.004 | -48.19 |
| -0.75 | 0.239 | -12.42 | 12.00 | 0.107 | -19.39 | 35.50 | 0.042 | -27.57 | 59.00 | 0.066 | -23.58 | 82.50 | 0.004 | -48.05 |
| -0.50 | 0.364 | -8.77 | 12.50 | 0.034 | -29.41 | 36.00 | 0.048 | -26.37 | 59.50 | 0.067 | -23.46 | 83.00 | 0.005 | -45.57 |
| -0.25 | 0.539 | -5.38 | 13.00 | 0.027 | -31.32 | 36.50 | 0.036 | -28.80 | 60.00 | 0.059 | -24.54 | 83.50 | 0.007 | -43.64 |
| 0.00 | 0.716 | -2.90 | 13.50 | 0.020 | -33.78 | 37.00 | 0.029 | -30.82 | 60.50 | 0.055 | -25.19 | 84.00 | 0.008 | -42.43 |
| 0.25 | 0.866 | -1.25 | 14.00 | 0.006 | -43.79 | 37.50 | 0.046 | -26.67 | 61.00 | 0.074 | -22.58 | 84.50 | 0.008 | -41.77 |
| 0.50 | 0.965 | -0.31 | 14.50 | 0.000 | -70.92 | 38.00 | 0.060 | -24.47 | 61.50 | 0.114 | -18.84 | 85.00 | 0.008 | -41.53 |
| 0.75 | 1.000 | 0.00 | 15.00 | 0.011 | -39.26 | 38.50 | 0.055 | -25.23 | 62.00 | 0.161 | -15.84 | 85.50 | 0.008 | -41.62 |
| 1.00 | 0.965 | -0.31 | 15.50 | 0.020 | -33.87 | 39.00 | 0.032 | -29.79 | 62.50 | 0.207 | -13.70 | 86.00 | 0.008 | -42.00 |
| 1.25 | 0.865 | -1.26 | 16.00 | 0.015 | -36.38 | 39.50 | 0.007 | -43.57 | 63.00 | 0.243 | -12.28 | 86.50 | 0.007 | -42.66 |
| 1.50 | 0.714 | -2.93 | 16.50 | 0.007 | -42.73 | 40.00 | 0.026 | -31.68 | 63.50 | 0.268 | -11.45 | 87.00 | 0.007 | -43.62 |
| 1.75 | 0.532 | -5.49 | 17.00 | 0.028 | -30.98 | 40.50 | 0.038 | -28.47 | 64.00 | 0.277 | -11.14 | 87.50 | 0.006 | -44.90 |
| 2.00 | 0.348 | -9.17 | 17.50 | 0.033 | -29.73 | 41.00 | 0.032 | -29.81 | 64.50 | 0.272 | -11.32 | 88.00 | 0.005 | -46.62 |
| 2.25 | 0.207 | -13.69 | 18.00 | 0.018 | -35.12 | 41.50 | 0.017 | -35.32 | 65.00 | 0.252 | -11.96 | 88.50 | 0.004 | -48.96 |
| 2.50 | 0.177 | -15.05 | 18.50 | 0.036 | -28.93 | 42.00 | 0.021 | -33.43 | 65.50 | 0.221 | -13.10 | 89.00 | 0.002 | -52.37 |
| 2.75 | 0.226 | -12.94 | 19.00 | 0.060 | -24.43 | 42.50 | 0.037 | -28.74 | 66.00 | 0.183 | -14.76 | 89.50 | 0.001 | -58.33 |
| 3.00 | 0.260 | -11.71 | 19.50 | 0.056 | -25.10 | 43.00 | 0.041 | -27.82 | 66.50 | 0.141 | -17.02 | 90.00 | 0.000 | -99.99 |
| 3.25 | 0.254 | -11.92 | 20.00 | 0.061 | -24.28 | 43.50 | 0.033 | -29.76 | 67.00 | 0.100 | -19.99 | | | |
| 3.50 | 0.211 | -13.50 | 20.50 | 0.134 | -17.49 | 44.00 | 0.028 | -31.00 | 67.50 | 0.066 | -23.55 | | | |
| 3.75 | 0.157 | -16.11 | 21.00 | 0.210 | -13.54 | 44.50 | 0.045 | -26.84 | 68.00 | 0.049 | -26.27 | | | |
| 4.00 | 0.135 | -17.40 | 21.50 | 0.246 | -12.18 | 45.00 | 0.066 | -23.59 | 68.50 | 0.051 | -25.88 | | | |
| 4.25 | 0.172 | -15.31 | 22.00 | 0.223 | -13.05 | 45.50 | 0.077 | -22.29 | 69.00 | 0.061 | -24.29 | | | |
| 4.50 | 0.223 | -13.03 | 22.50 | 0.152 | -16.38 | 46.00 | 0.074 | -22.61 | 69.50 | 0.069 | -23.24 | | | |
| 4.75 | 0.255 | -11.86 | 23.00 | 0.070 | -23.15 | 46.50 | 0.060 | -24.48 | 70.00 | 0.071 | -22.94 | | | |
| 5.00 | 0.256 | -11.85 | 23.50 | 0.043 | -27.35 | 47.00 | 0.040 | -28.06 | 70.50 | 0.068 | -23.32 | | | |
| 5.25 | 0.223 | -13.04 | 24.00 | 0.059 | -24.58 | 47.50 | 0.020 | -33.94 | 71.00 | 0.061 | -24.30 | | | |
| 5.50 | 0.163 | -15.74 | 24.50 | 0.048 | -26.37 | 48.00 | 0.007 | -43.67 | 71.50 | 0.051 | -25.81 | | | |
| 5.75 | 0.088 | -21.06 | 25.00 | 0.028 | -30.98 | 48.50 | 0.001 | -65.03 | 72.00 | 0.042 | -27.61 | | | |
| 6.00 | 0.026 | -31.63 | 25.50 | 0.039 | -28.19 | 49.00 | 0.003 | -51.79 | 72.50 | 0.035 | -29.03 | | | |
| 6.25 | 0.070 | -23.12 | 26.00 | 0.048 | -26.43 | 49.50 | 0.007 | -42.55 | 73.00 | 0.035 | -29.13 | | | |
| 6.50 | 0.117 | -18.63 | 26.50 | 0.037 | -28.62 | 50.00 | 0.011 | -38.91 | 73.50 | 0.040 | -28.05 | | | |