

IES ROAD REPORT

PHOTOMETRIC FILENAME : W4CR-XX-L25-935-XXX-DIM-UNV-N-XXX_.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] W4CR_BARBARA-NARROW
[TESTLAB] LEDIL Inc
[TESTDATE] 07/03/2025
[ISSUEDATE] 2025-07-15
[MANUFAC] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMINAIRE] 4 INCH ROUND OUTDOOR LED CYLINDER
[MORE] NARROW DIST. W/MICROPRISM LENS
[LUMCAT] W4CR-xx-L25-935-xxx-DIM-UNV-N-xxx
[MORE] 0-10V LED DRIVER

CHARACTERISTICS

| | |
|---|-------------------------------|
| IES Classification | Type VS |
| Longitudinal Classification | Very Short |
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2617 |
| Downward Total Efficiency | N.A. (absolute) |
| Total Luminaire Efficiency | N.A. (absolute) |
| Luminaire Efficacy Rating (LER) | 113 |
| Total Luminaire Watts | 23.1 |
| Ballast Factor | 1.00 |
| Upward Waste Light Ratio | 0.00 |
| Maximum Candela | 7422.099 |
| Maximum Candela Angle | 90H 0V |
| Maximum Candela (<90 Degrees Vertical) | 7422.099 |
| Maximum Candela Angle (<90 Degrees Vertical) | 90H 0V |
| Maximum Candela At 90 Degrees Vertical | .239 (0.0% Luminaire Lumens) |
| Maximum Candela from 80 to <90 Degrees Vertical | 1.196 (0.0% Luminaire Lumens) |
| Cutoff Classification (deprecated) | N.A. (absolute) |

IES ROAD REPORT**PHOTOMETRIC FILENAME : W4CR-XX-L25-935-XXX-DIM-UNV-N-XXX_.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

| | Lumens | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30) | 1150.2 | N.A. | 44.0 |
| FM - Front-Medium (30-60) | 150.2 | N.A. | 5.7 |
| FH - Front-High (60-80) | 7.5 | N.A. | 0.3 |
| FVH - Front-Very High (80-90) | 0.4 | N.A. | 0.0 |
| BL - Back-Low (0-30) | 1150.2 | N.A. | 44.0 |
| BM - Back-Medium (30-60) | 150.2 | N.A. | 5.7 |
| BH - Back-High (60-80) | 7.5 | N.A. | 0.3 |
| BVH - Back-Very High (80-90) | 0.4 | N.A. | 0.0 |
| UL - Uplight-Low (90-100) | 0.2 | N.A. | 0.0 |
| UH - Uplight-High (100-180) | < 0.05 | N.A. | 0.0 |
| Total | 2616.8 | N.A. | 100.0 |
| BUG Rating | B3-U1-G0 | | |

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CANDELA TABULATION

| Vert. Angles | Horizontal Angles | | | | |
|-----------------|-------------------|----------|----------|----------|----------|
| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
| 0 | 7422.099 | 7422.099 | 7422.099 | 7422.099 | 7422.099 |
| 1 | 7413.290 | 7412.953 | 7411.517 | 7411.154 | 7413.857 |
| 2 | 7376.874 | 7374.712 | 7373.285 | 7361.409 | 7358.937 |
| 3 | 7308.882 | 7297.831 | 7299.692 | 7292.735 | 7296.271 |
| 4 | 7200.371 | 7194.291 | 7188.123 | 7180.608 | 7186.820 |
| 5 | 7049.595 | 7058.848 | 7040.520 | 7028.973 | 7044.225 |
| 6 | 6862.821 | 6869.264 | 6855.793 | 6850.635 | 6861.447 |
| 7 | 6653.456 | 6644.567 | 6635.394 | 6637.087 | 6645.515 |
| 8 | 6398.627 | 6385.679 | 6382.205 | 6380.397 | 6392.920 |
| 9 | 6101.844 | 6094.320 | 6084.961 | 6084.943 | 6108.225 |
| 10 | 5769.682 | 5761.174 | 5755.033 | 5754.563 | 5784.367 |
| 11 | 5397.382 | 5390.257 | 5394.219 | 5400.954 | 5427.727 |
| 12 | 4995.926 | 4991.787 | 5001.518 | 5013.216 | 5048.240 |
| 13 | 4575.583 | 4579.500 | 4595.240 | 4611.316 | 4643.628 |
| 14 | 4150.685 | 4158.147 | 4185.390 | 4205.543 | 4230.216 |
| 15 | 3734.242 | 3747.554 | 3782.914 | 3805.895 | 3829.424 |
| 16 | 3336.747 | 3357.352 | 3397.481 | 3428.747 | 3440.933 |
| 17 | 2978.503 | 2999.604 | 3046.841 | 3071.611 | 3078.958 |
| 18 | 2658.102 | 2666.804 | 2719.172 | 2744.465 | 2752.264 |
| 19 | 2354.627 | 2380.328 | 2434.327 | 2455.082 | 2462.580 |
| 20 | 2100.383 | 2126.953 | 2174.606 | 2204.871 | 2211.775 |
| 21 | 1885.515 | 1908.291 | 1955.324 | 1978.836 | 1976.478 |
| 22 | 1705.237 | 1728.208 | 1768.992 | 1788.250 | 1784.493 |
| 23 | 1557.891 | 1574.809 | 1611.818 | 1628.861 | 1622.426 |
| 24 | 1431.779 | 1445.977 | 1481.656 | 1493.895 | 1487.187 |
| 25 | 1321.806 | 1336.810 | 1369.122 | 1378.764 | 1370.053 |
| 26 | 1223.141 | 1238.065 | 1266.841 | 1274.968 | 1267.382 |
| 27 | 1131.584 | 1142.653 | 1169.922 | 1176.862 | 1170.312 |
| 28 | 1039.087 | 1047.365 | 1071.311 | 1077.248 | 1072.835 |
| 29 | 945.447 | 952.537 | 969.393 | 976.820 | 975.065 |
| 30 | 847.926 | 850.673 | 865.473 | 873.564 | 871.375 |
| 31 | 744.954 | 746.602 | 757.370 | 764.619 | 764.734 |
| 32 | 643.861 | 642.903 | 649.754 | 657.260 | 657.429 |
| 33 | 541.022 | 539.311 | 545.231 | 551.825 | 551.080 |
| 34 | 442.445 | 441.754 | 445.653 | 451.370 | 451.538 |
| 35 | 356.294 | 351.411 | 355.231 | 357.801 | 356.436 |
| 36 | 273.732 | 272.598 | 274.610 | 276.045 | 273.395 |
| 37 | 206.272 | 206.715 | 204.606 | 204.490 | 207.415 |
| 38 | 153.000 | 155.278 | 150.324 | 151.502 | 152.078 |
| 39 | 112.180 | 111.063 | 111.817 | 109.761 | 109.326 |
| 40 | 85.876 | 81.950 | 82.092 | 81.968 | 81.950 |
| 41 | 62.506 | 62.568 | 63.676 | 64.110 | 64.846 |
| 42 | 49.886 | 50.445 | 52.164 | 53.139 | 54.353 |
| 43 | 42.929 | 43.452 | 45.331 | 46.634 | 47.609 |
| 44 | 39.340 | 39.730 | 41.556 | 42.920 | 43.541 |
| 45 | 37.745 | 38.011 | 39.801 | 40.891 | 41.396 |
| 46 | 37.222 | 37.559 | 39.119 | 39.960 | 40.421 |
| 47 | 37.390 | 37.718 | 39.021 | 39.695 | 40.155 |
| 48 | 37.842 | 38.064 | 39.172 | 39.659 | 40.155 |
| 49 | 38.108 | 38.348 | 39.278 | 39.615 | 40.049 |
| 50 | 38.135 | 38.321 | 39.154 | 39.411 | 39.739 |
| 51 | 37.718 | 37.860 | 38.640 | 38.835 | 39.065 |
| 52 | 36.584 | 36.761 | 37.444 | 37.541 | 37.683 |

IES ROAD REPORT**PHOTOMETRIC FILENAME : W4CR-XX-L25-935-XXX-DIM-UNV-N-XXX_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|-----|--------|--------|--------|--------|--------|
| 53 | 34.882 | 35.033 | 35.680 | 35.671 | 35.760 |
| 54 | 32.711 | 32.888 | 33.438 | 33.349 | 33.455 |
| 55 | 30.283 | 30.389 | 30.885 | 30.752 | 30.814 |
| 56 | 27.651 | 27.704 | 28.049 | 27.961 | 27.979 |
| 57 | 24.850 | 24.912 | 25.125 | 25.072 | 25.036 |
| 58 | 22.174 | 22.218 | 22.324 | 22.280 | 22.245 |
| 59 | 19.692 | 19.674 | 19.701 | 19.648 | 19.630 |
| 60 | 17.432 | 17.397 | 17.353 | 17.344 | 17.335 |
| 61 | 15.483 | 15.421 | 15.367 | 15.332 | 15.350 |
| 62 | 13.816 | 13.728 | 13.684 | 13.648 | 13.666 |
| 63 | 12.434 | 12.363 | 12.274 | 12.248 | 12.283 |
| 64 | 11.264 | 11.211 | 11.140 | 11.096 | 11.158 |
| 65 | 10.334 | 10.280 | 10.218 | 10.156 | 10.227 |
| 66 | 9.500 | 9.474 | 9.403 | 9.359 | 9.438 |
| 67 | 8.809 | 8.783 | 8.703 | 8.676 | 8.756 |
| 68 | 8.162 | 8.145 | 8.082 | 8.038 | 8.136 |
| 69 | 7.577 | 7.568 | 7.489 | 7.453 | 7.542 |
| 70 | 7.037 | 7.019 | 6.939 | 6.886 | 6.957 |
| 71 | 6.496 | 6.496 | 6.390 | 6.328 | 6.372 |
| 72 | 5.982 | 5.973 | 5.858 | 5.778 | 5.831 |
| 73 | 5.459 | 5.450 | 5.317 | 5.220 | 5.264 |
| 74 | 4.910 | 4.901 | 4.759 | 4.644 | 4.688 |
| 75 | 4.334 | 4.289 | 4.165 | 4.032 | 4.068 |
| 76 | 3.669 | 3.616 | 3.465 | 3.359 | 3.394 |
| 77 | 2.916 | 2.880 | 2.685 | 2.606 | 2.606 |
| 78 | 2.038 | 2.021 | 1.826 | 1.719 | 1.737 |
| 79 | 1.320 | 1.338 | 1.285 | 1.294 | 1.294 |
| 80 | 1.196 | 1.196 | 1.179 | 1.179 | 1.179 |
| 81 | 1.117 | 1.117 | 1.117 | 1.126 | 1.117 |
| 82 | 1.063 | 1.055 | 1.055 | 1.063 | 1.063 |
| 83 | 0.993 | 0.984 | 0.984 | 0.984 | 0.993 |
| 84 | 0.913 | 0.904 | 0.904 | 0.913 | 0.913 |
| 85 | 0.824 | 0.824 | 0.824 | 0.824 | 0.824 |
| 86 | 0.727 | 0.718 | 0.718 | 0.718 | 0.727 |
| 87 | 0.603 | 0.603 | 0.603 | 0.603 | 0.603 |
| 88 | 0.470 | 0.470 | 0.470 | 0.461 | 0.461 |
| 89 | 0.328 | 0.319 | 0.319 | 0.319 | 0.319 |
| 90 | 0.239 | 0.222 | 0.222 | 0.213 | 0.204 |
| 91 | 0.222 | 0.213 | 0.204 | 0.195 | 0.195 |
| 92 | 0.222 | 0.213 | 0.204 | 0.204 | 0.195 |
| 93 | 0.222 | 0.213 | 0.213 | 0.204 | 0.204 |
| 94 | 0.222 | 0.213 | 0.213 | 0.204 | 0.204 |
| 95 | 0.222 | 0.213 | 0.213 | 0.204 | 0.213 |
| 96 | 0.230 | 0.213 | 0.213 | 0.204 | 0.204 |
| 97 | 0.230 | 0.222 | 0.213 | 0.213 | 0.213 |
| 98 | 0.230 | 0.222 | 0.222 | 0.222 | 0.222 |
| 99 | 0.248 | 0.222 | 0.222 | 0.222 | 0.222 |
| 100 | 0.248 | 0.230 | 0.222 | 0.222 | 0.222 |
| 101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 102 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 103 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 104 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 105 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 106 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 107 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 108 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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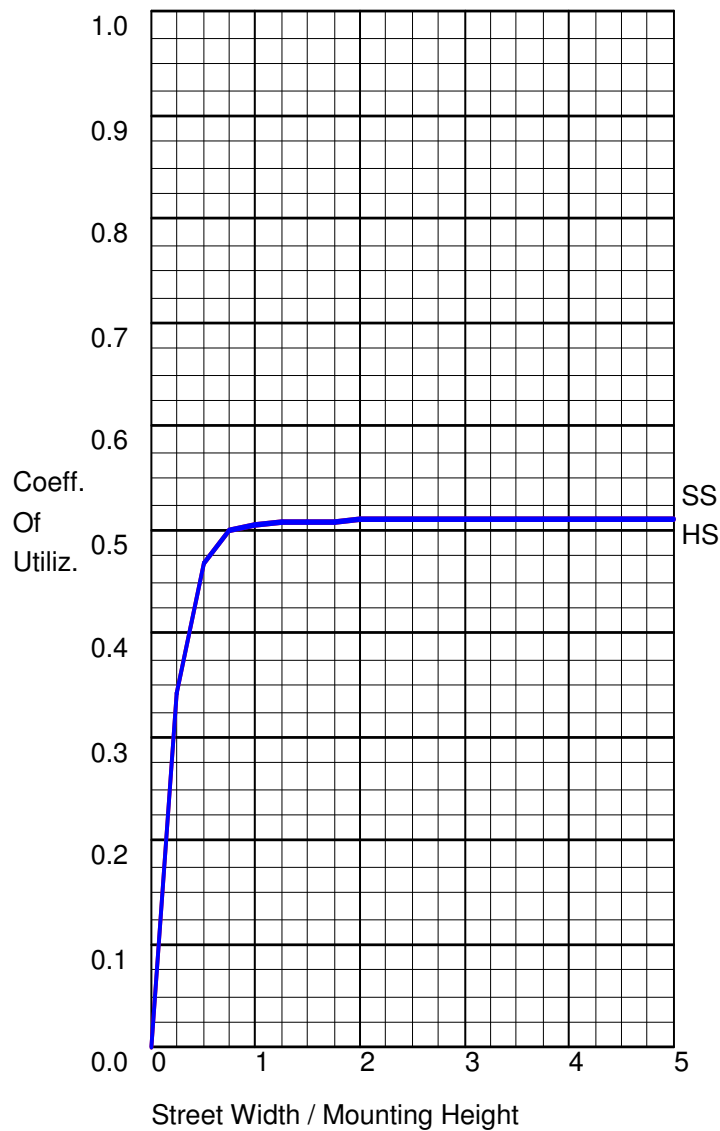
CANDELA TABULATION - (Cont.)

| | | | | | |
|-----|-------|-------|-------|-------|-------|
| 109 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 110 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 111 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 112 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 113 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 114 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 116 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 117 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 118 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 119 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 121 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 123 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 124 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 126 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 127 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 128 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 129 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 131 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 132 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 133 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 134 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 136 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 141 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 143 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 144 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 146 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 148 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 149 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 151 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 153 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 154 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 156 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 158 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 159 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 161 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 163 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 164 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES ROAD REPORT**PHOTOMETRIC FILENAME : W4CR-XX-L25-935-XXX-DIM-UNV-N-XXX_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|-----|-------|-------|-------|-------|-------|
| 165 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 166 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 167 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 168 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 169 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 171 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 173 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 174 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 176 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 178 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 179 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

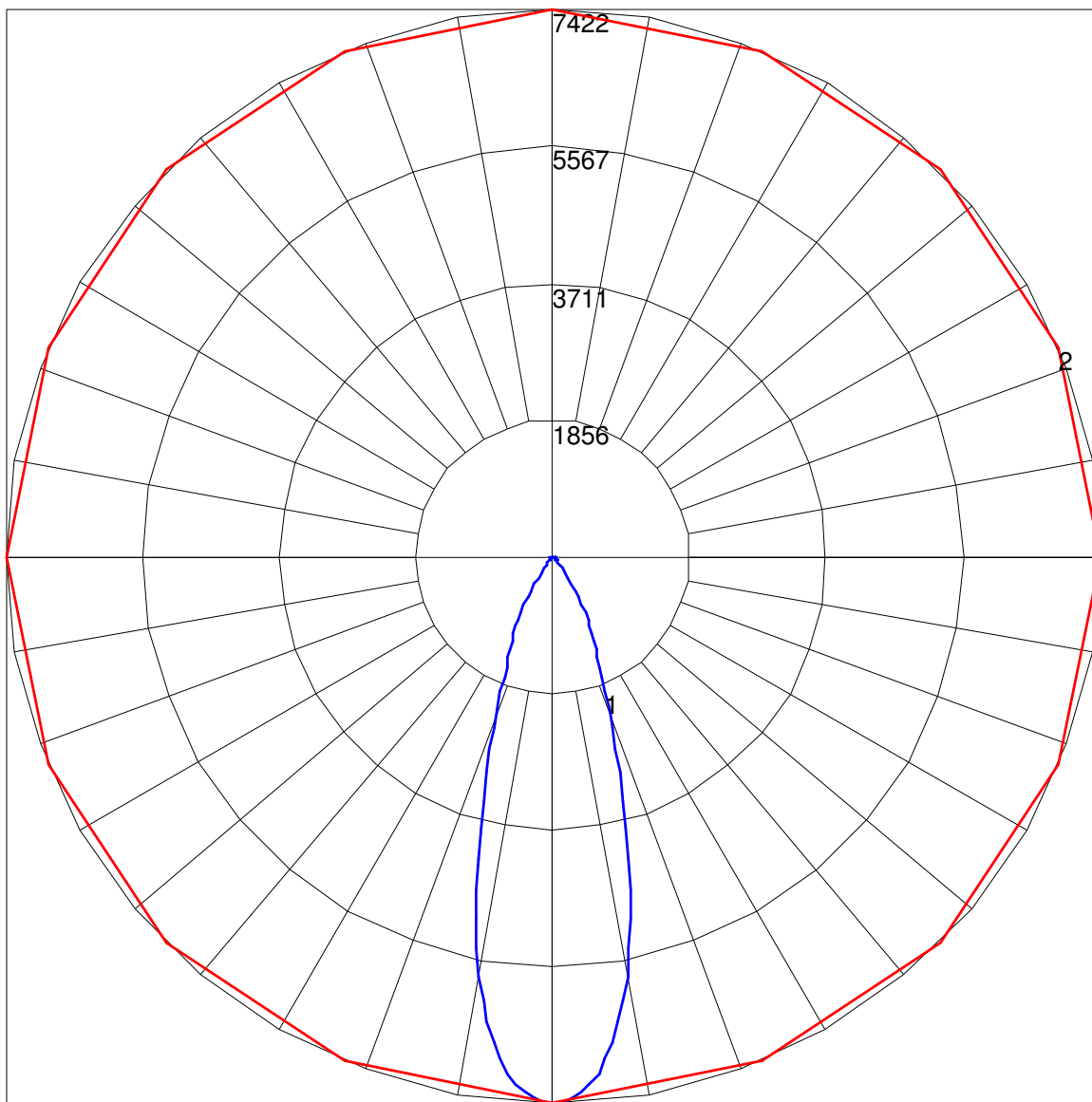
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

| | Lumens | Percent Of Luminaire |
|----------------------|--------|-------------------------|
| Downward Street Side | 1308.4 | 50.0 |
| Downward House Side | 1308.4 | 50.0 |
| Downward Total | 2616.8 | 100.0 |
| Upward Street Side | 0.1 | 0.0 |
| Upward House Side | 0.1 | 0.0 |
| Upward Total | 0.2 | 0.0 |
| Total Flux | 2617.0 | 100.0 |

POLAR GRAPH



Maximum Candela = 7422.099 Located At Horizontal Angle = 90, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE

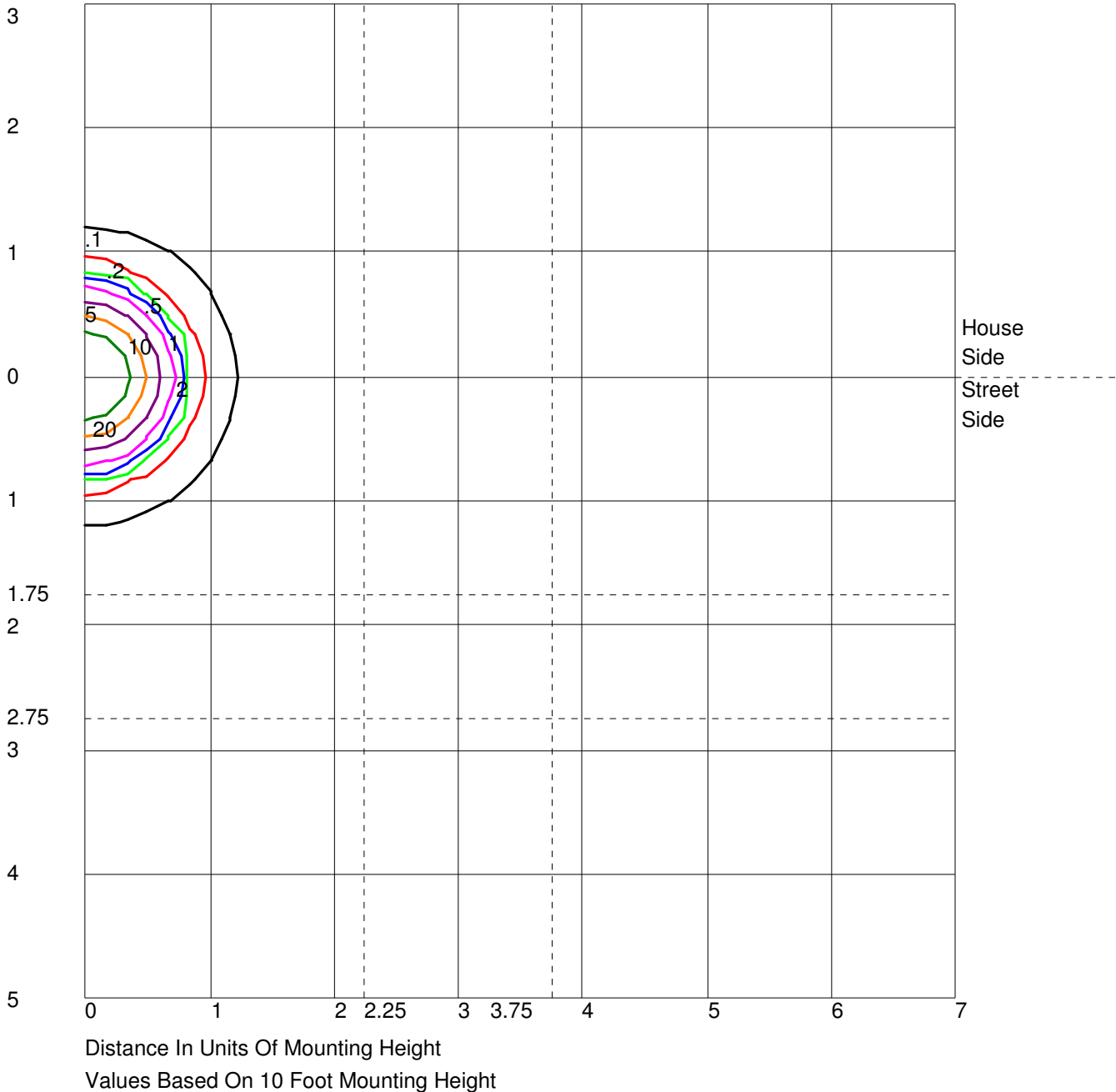


PHOTO IES R

