

IES ROAD REPORT

PHOTOMETRIC FILENAME : W4CR-XX-L15-930-XXX-DIM-UNV-S-XXX_.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] W4CR_BARBARA-SPOT DISTRIBUTION
[TESTLAB] LEDIL INC.
[TESTDATE] 07/03/2025
[ISSUEDATE] 2025-07-15
[MANUFAC] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] W4CR-xx-L15-930-xxx-DIM-UNV-S-xxx
[LUMINAIRE] 4 INCH ROUND OUTDOOR LED CYLINDER
[MORE] WITH SPOT DISTRIBUTION & MICROPRISM LENS
[MORE] 0-10 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 | 1643 |
| Downward Total Efficiency | N.A. (absolute) |
| Total Luminaire Efficiency | N.A. (absolute) |
| Luminaire Efficacy Rating (LER) | 121 |
| Total Luminaire Watts | 13.6 |
| Ballast Factor | 1.00 |
| Upward Waste Light Ratio | 0.00 |
| Maximum Candela | 7367.027 |
| Maximum Candela Angle | 90H 0V |
| Maximum Candela (<90 Degrees Vertical) | 7367.027 |
| Maximum Candela Angle (<90 Degrees Vertical) | 90H 0V |
| Maximum Candela At 90 Degrees Vertical | .076 (0.0% Luminaire Lumens) |
| Maximum Candela from 80 to <90 Degrees Vertical | .335 (0.0% Luminaire Lumens) |
| Cutoff Classification (deprecated) | N.A. (absolute) |

IES ROAD REPORT**PHOTOMETRIC FILENAME : W4CR-XX-L15-930-XXX-DIM-UNV-S-XXX_.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

| | Lumens | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30) | 746.1 | N.A. | 45.4 |
| FM - Front-Medium (30-60) | 73.3 | N.A. | 4.5 |
| FH - Front-High (60-80) | 2.2 | N.A. | 0.1 |
| FVH - Front-Very High (80-90) | 0.1 | N.A. | 0.0 |
| BL - Back-Low (0-30) | 746.1 | N.A. | 45.4 |
| BM - Back-Medium (30-60) | 73.3 | N.A. | 4.5 |
| BH - Back-High (60-80) | 2.2 | N.A. | 0.1 |
| BVH - Back-Very High (80-90) | 0.1 | N.A. | 0.0 |
| UL - Uplight-Low (90-100) | 0.1 | N.A. | 0.0 |
| UH - Uplight-High (100-180) | < 0.05 | N.A. | 0.0 |
| Total | 1643.5 | N.A. | 100.0 |
| BUG Rating | B2-U1-G0 | | |

IES ROAD REPORT
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CANDELA TABULATION

| Vert. Angles | Horizontal Angles | | | | |
|-----------------|-------------------|-------------|-------------|-------------|-------------|
| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
| 0 | 7367.027 | 7367.027 | 7367.027 | 7367.027 | 7367.027 |
| 1 | 7353.552 | 7350.408 | 7351.040 | 7348.279 | 7351.105 |
| 2 | 7261.149 | 7259.879 | 7254.995 | 7252.694 | 7260.582 |
| 3 | 7100.822 | 7095.198 | 7090.870 | 7086.429 | 7104.118 |
| 4 | 6860.999 | 6859.156 | 6851.771 | 6849.572 | 6871.340 |
| 5 | 6540.210 | 6534.423 | 6532.343 | 6529.577 | 6557.034 |
| 6 | 6137.520 | 6135.386 | 6137.321 | 6141.486 | 6164.248 |
| 7 | 5664.239 | 5666.437 | 5680.009 | 5692.295 | 5701.442 |
| 8 | 5137.588 | 5147.156 | 5173.392 | 5195.625 | 5189.357 |
| 9 | 4593.357 | 4607.669 | 4648.671 | 4678.083 | 4654.252 |
| 10 | 4063.422 | 4080.781 | 4131.832 | 4167.820 | 4127.407 |
| 11 | 3559.009 | 3579.335 | 3638.619 | 3675.115 | 3624.972 |
| 12 | 3093.324 | 3120.635 | 3178.428 | 3221.569 | 3164.489 |
| 13 | 2688.295 | 2711.305 | 2772.151 | 2817.978 | 2760.924 |
| 14 | 2337.650 | 2356.819 | 2413.948 | 2458.208 | 2405.428 |
| 15 | 2035.587 | 2054.324 | 2111.042 | 2151.547 | 2098.962 |
| 16 | 1783.003 | 1802.912 | 1844.162 | 1880.280 | 1834.540 |
| 17 | 1581.702 | 1583.312 | 1624.205 | 1653.488 | 1618.262 |
| 18 | 1394.372 | 1406.928 | 1438.512 | 1462.198 | 1435.368 |
| 19 | 1246.147 | 1253.122 | 1287.256 | 1308.268 | 1288.586 |
| 20 | 1122.294 | 1131.614 | 1155.008 | 1172.648 | 1153.052 |
| 21 | 1021.846 | 1027.459 | 1047.363 | 1061.913 | 1043.241 |
| 22 | 936.569 | 941.928 | 957.477 | 967.197 | 951.372 |
| 23 | 865.279 | 868.083 | 880.056 | 888.165 | 873.918 |
| 24 | 803.180 | 804.676 | 814.169 | 818.664 | 806.378 |
| 25 | 746.786 | 748.639 | 754.658 | 756.008 | 745.673 |
| 26 | 695.935 | 695.800 | 698.204 | 697.291 | 688.279 |
| 27 | 643.447 | 640.800 | 641.740 | 640.038 | 631.810 |
| 28 | 587.399 | 584.309 | 583.363 | 582.369 | 576.388 |
| 29 | 528.401 | 525.510 | 524.451 | 526.175 | 521.588 |
| 30 | 465.659 | 464.632 | 463.795 | 467.355 | 464.756 |
| 31 | 402.290 | 402.538 | 402.765 | 408.519 | 406.968 |
| 32 | 341.087 | 342.254 | 342.800 | 350.347 | 351.028 |
| 33 | 281.333 | 283.580 | 285.558 | 293.192 | 296.606 |
| 34 | 225.943 | 229.796 | 232.362 | 240.504 | 245.831 |
| 35 | 178.642 | 181.922 | 183.002 | 190.696 | 198.254 |
| 36 | 134.286 | 138.981 | 142.347 | 147.431 | 155.778 |
| 37 | 99.649 | 105.656 | 107.056 | 111.551 | 120.714 |
| 38 | 73.326 | 77.503 | 78.653 | 83.959 | 90.934 |
| 39 | 55.643 | 56.302 | 58.274 | 61.754 | 65.903 |
| 40 | 40.218 | 41.969 | 44.686 | 47.209 | 49.484 |
| 41 | 30.347 | 31.801 | 33.648 | 35.745 | 38.068 |
| 42 | 23.621 | 24.836 | 26.690 | 28.310 | 30.153 |
| 43 | 19.120 | 19.979 | 21.703 | 23.129 | 24.469 |
| 44 | 15.998 | 16.619 | 18.110 | 19.380 | 19.958 |
| 45 | 13.728 | 14.198 | 15.495 | 16.473 | 16.732 |
| 46 | 12.081 | 12.426 | 13.556 | 14.263 | 14.425 |
| 47 | 10.811 | 11.097 | 12.059 | 12.551 | 12.637 |
| 48 | 9.806 | 10.082 | 10.870 | 11.222 | 11.270 |
| 49 | 9.017 | 9.244 | 9.952 | 10.173 | 10.179 |
| 50 | 8.374 | 8.574 | 9.185 | 9.331 | 9.304 |
| 51 | 7.807 | 7.996 | 8.542 | 8.644 | 8.590 |
| 52 | 7.288 | 7.450 | 7.931 | 7.964 | 7.850 |

IES ROAD REPORT**PHOTOMETRIC FILENAME : W4CR-XX-L15-930-XXX-DIM-UNV-S-XXX_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|-----|-------|-------|-------|-------|-------|
| 53 | 6.813 | 6.959 | 7.375 | 7.342 | 7.191 |
| 54 | 6.397 | 6.537 | 6.883 | 6.791 | 6.618 |
| 55 | 6.035 | 6.154 | 6.445 | 6.316 | 6.105 |
| 56 | 5.711 | 5.797 | 6.056 | 5.905 | 5.651 |
| 57 | 5.403 | 5.473 | 5.678 | 5.532 | 5.268 |
| 58 | 5.111 | 5.170 | 5.343 | 5.197 | 4.949 |
| 59 | 4.841 | 4.884 | 5.014 | 4.884 | 4.652 |
| 60 | 4.571 | 4.609 | 4.711 | 4.582 | 4.355 |
| 61 | 4.301 | 4.333 | 4.425 | 4.301 | 4.084 |
| 62 | 4.030 | 4.057 | 4.139 | 4.014 | 3.804 |
| 63 | 3.760 | 3.793 | 3.858 | 3.733 | 3.533 |
| 64 | 3.496 | 3.523 | 3.587 | 3.458 | 3.263 |
| 65 | 3.236 | 3.269 | 3.317 | 3.193 | 3.009 |
| 66 | 2.982 | 3.009 | 3.058 | 2.939 | 2.750 |
| 67 | 2.739 | 2.772 | 2.815 | 2.707 | 2.518 |
| 68 | 2.518 | 2.539 | 2.588 | 2.469 | 2.291 |
| 69 | 2.302 | 2.329 | 2.372 | 2.258 | 2.075 |
| 70 | 2.096 | 2.123 | 2.172 | 2.048 | 1.864 |
| 71 | 1.902 | 1.923 | 1.972 | 1.848 | 1.664 |
| 72 | 1.713 | 1.734 | 1.772 | 1.653 | 1.475 |
| 73 | 1.524 | 1.545 | 1.578 | 1.453 | 1.297 |
| 74 | 1.329 | 1.351 | 1.372 | 1.264 | 1.102 |
| 75 | 1.129 | 1.145 | 1.151 | 1.064 | 0.902 |
| 76 | 0.935 | 0.945 | 0.918 | 0.864 | 0.719 |
| 77 | 0.762 | 0.767 | 0.719 | 0.670 | 0.551 |
| 78 | 0.589 | 0.573 | 0.497 | 0.459 | 0.405 |
| 79 | 0.367 | 0.378 | 0.362 | 0.357 | 0.340 |
| 80 | 0.335 | 0.335 | 0.335 | 0.330 | 0.319 |
| 81 | 0.313 | 0.313 | 0.319 | 0.313 | 0.297 |
| 82 | 0.297 | 0.297 | 0.303 | 0.297 | 0.281 |
| 83 | 0.276 | 0.276 | 0.281 | 0.281 | 0.265 |
| 84 | 0.254 | 0.254 | 0.254 | 0.249 | 0.243 |
| 85 | 0.222 | 0.227 | 0.232 | 0.227 | 0.216 |
| 86 | 0.194 | 0.194 | 0.194 | 0.194 | 0.189 |
| 87 | 0.162 | 0.162 | 0.162 | 0.162 | 0.157 |
| 88 | 0.124 | 0.124 | 0.130 | 0.124 | 0.119 |
| 89 | 0.092 | 0.086 | 0.092 | 0.086 | 0.086 |
| 90 | 0.076 | 0.065 | 0.070 | 0.065 | 0.065 |
| 91 | 0.070 | 0.065 | 0.065 | 0.065 | 0.059 |
| 92 | 0.065 | 0.065 | 0.065 | 0.065 | 0.059 |
| 93 | 0.070 | 0.065 | 0.065 | 0.065 | 0.059 |
| 94 | 0.070 | 0.065 | 0.065 | 0.065 | 0.059 |
| 95 | 0.070 | 0.065 | 0.065 | 0.065 | 0.059 |
| 96 | 0.070 | 0.070 | 0.065 | 0.065 | 0.059 |
| 97 | 0.070 | 0.070 | 0.065 | 0.065 | 0.065 |
| 98 | 0.070 | 0.070 | 0.065 | 0.065 | 0.059 |
| 99 | 0.070 | 0.070 | 0.065 | 0.070 | 0.059 |
| 100 | 0.070 | 0.070 | 0.065 | 0.070 | 0.065 |
| 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 |

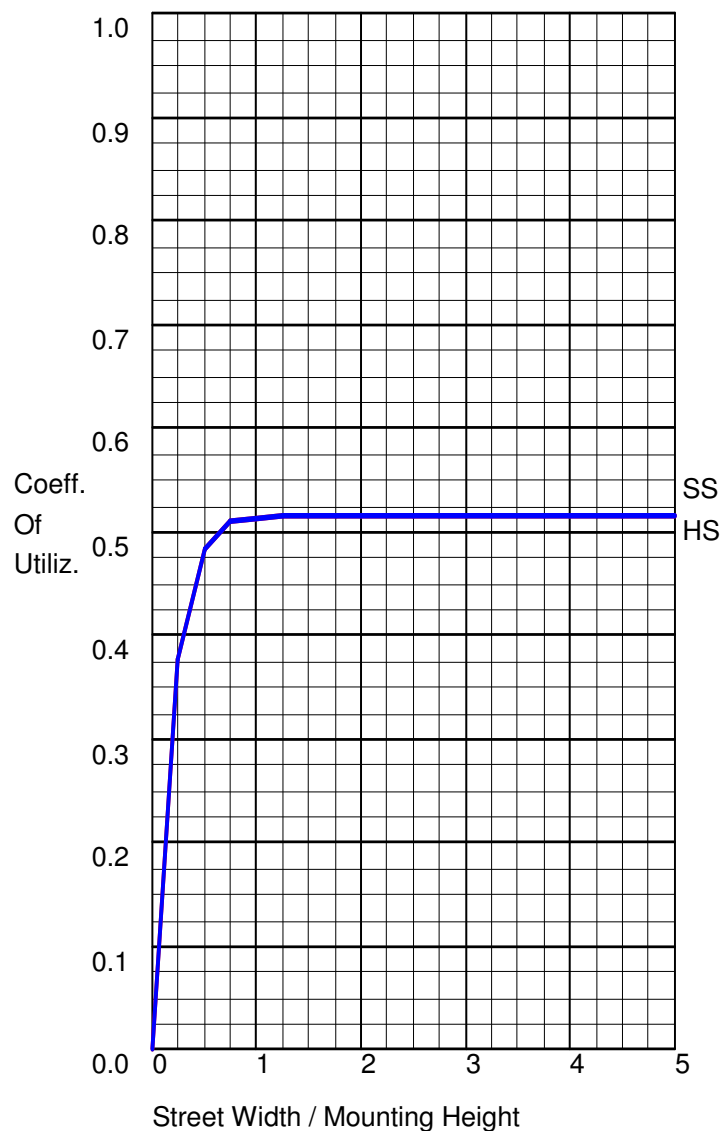
IES ROAD REPORT**PHOTOMETRIC FILENAME : W4CR-XX-L15-930-XXX-DIM-UNV-S-XXX_IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|-----|-------|-------|-------|-------|-------|
| 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-L15-930-XXX-DIM-UNV-S-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 |

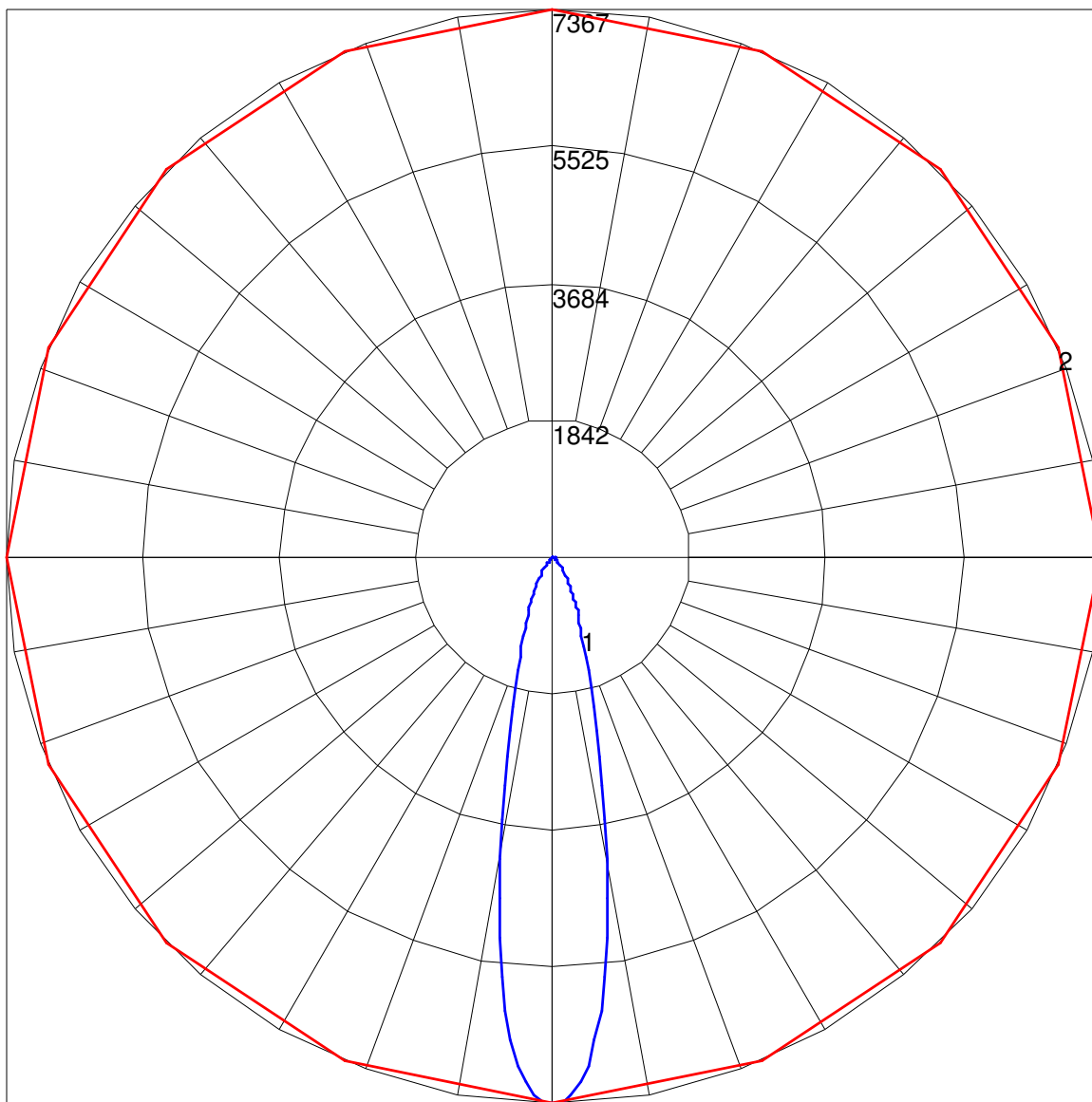
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

| | Lumens | Percent Of Luminaire |
|----------------------|--------|-------------------------|
| Downward Street Side | 821.7 | 50.0 |
| Downward House Side | 821.7 | 50.0 |
| Downward Total | 1643.4 | 100.0 |
| Upward Street Side | 0.0 | 0.0 |
| Upward House Side | 0.0 | 0.0 |
| Upward Total | 0.0 | 0.0 |
| Total Flux | 1643.4 | 100.0 |

POLAR GRAPH



Maximum Candela = 7367.027 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

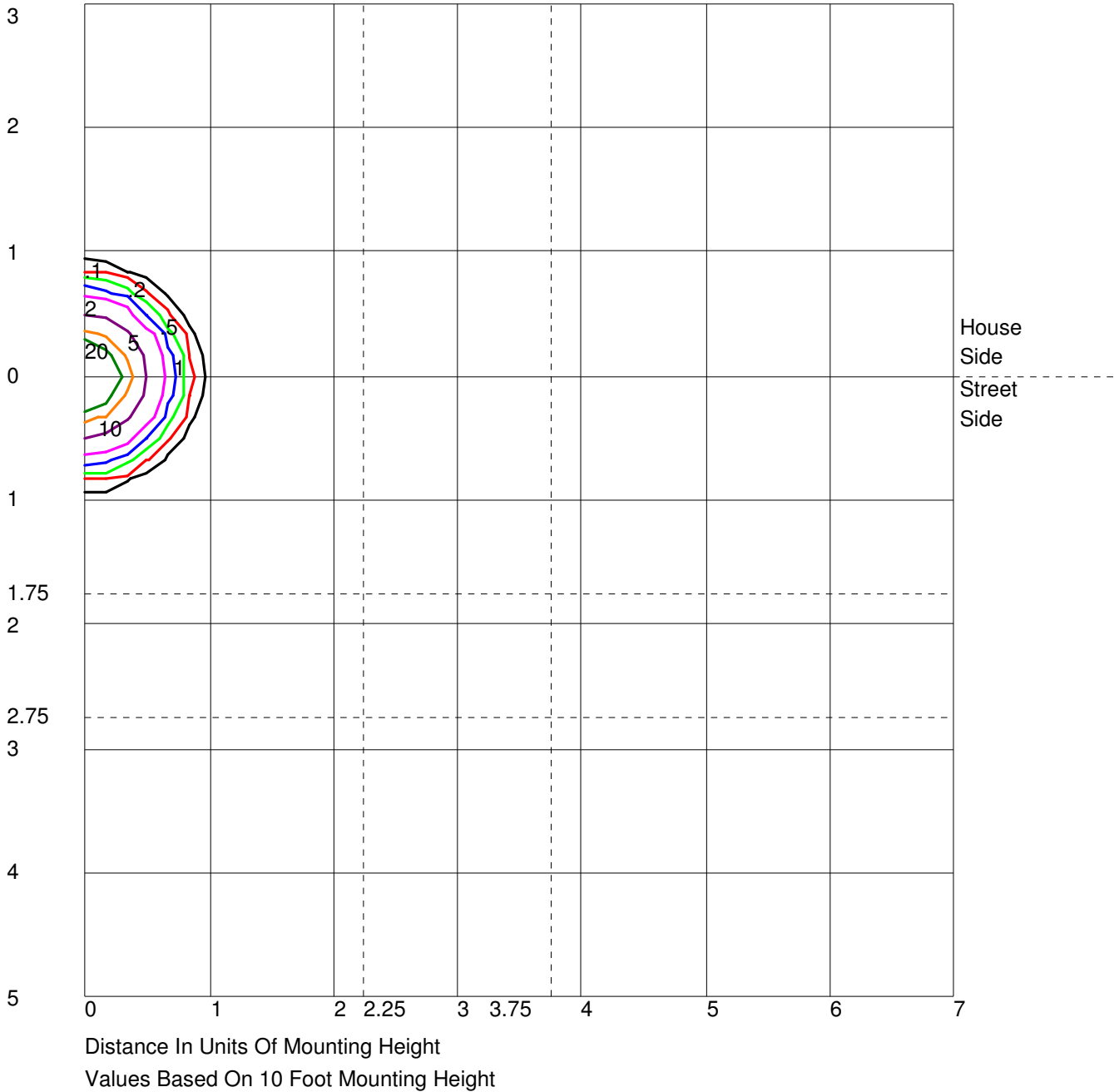


PHOTO IES R

