

IES ROAD REPORT

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

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] W4CR_BARBARA-WIDE DIST
[TESTLAB] LEDIL Inc
[TESTDATE] 07/03/2025
[ISSUEDATE] 2025-07-15
[MANUFAC] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] W4CR-xx-L25-935-xxx-DIM-UNV-W-xxx_
[LUMINAIRE] 4 INCH ROUND OUTDOOR LED CYLINDER
[MORE] WIDE DIST. W/MICROPRISM LENS
[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 | 2512 |
| Downward Total Efficiency | N.A. (absolute) |
| Total Luminaire Efficiency | N.A. (absolute) |
| Luminaire Efficacy Rating (LER) | 109 |
| Total Luminaire Watts | 23.1 |
| Ballast Factor | 1.00 |
| Upward Waste Light Ratio | 0.00 |
| Maximum Candela | 3166.334 |
| Maximum Candela Angle | 90H 2V |
| Maximum Candela (<90 Degrees Vertical) | 3166.334 |
| Maximum Candela Angle (<90 Degrees Vertical) | 90H 2V |
| Maximum Candela At 90 Degrees Vertical | .394 (0.0% Luminaire Lumens) |
| Maximum Candela from 80 to <90 Degrees Vertical | 1.793 (0.1% Luminaire Lumens) |
| Cutoff Classification (deprecated) | N.A. (absolute) |

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

| | Lumens | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30) | 972.2 | N.A. | 38.7 |
| FM - Front-Medium (30-60) | 271.4 | N.A. | 10.8 |
| FH - Front-High (60-80) | 11.6 | N.A. | 0.5 |
| FVH - Front-Very High (80-90) | 0.6 | N.A. | 0.0 |
| BL - Back-Low (0-30) | 972.2 | N.A. | 38.7 |
| BM - Back-Medium (30-60) | 271.4 | N.A. | 10.8 |
| BH - Back-High (60-80) | 11.6 | N.A. | 0.5 |
| BVH - Back-Very High (80-90) | 0.6 | N.A. | 0.0 |
| UL - Uplight-Low (90-100) | 0.4 | N.A. | 0.0 |
| UH - Uplight-High (100-180) | < 0.05 | N.A. | 0.0 |
| Total | 2512.0 | N.A. | 100.0 |
| BUG Rating | B2-U1-G0 | | |

IES ROAD REPORT

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

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 | 3161.076 | 3161.076 | 3161.076 | 3161.076 | 3161.076 |
| 1 | 3156.025 | 3155.875 | 3156.373 | 3160.166 | 3163.771 |
| 2 | 3158.767 | 3157.828 | 3154.692 | 3160.851 | 3166.334 |
| 3 | 3155.800 | 3151.838 | 3154.748 | 3152.796 | 3159.574 |
| 4 | 3151.087 | 3147.904 | 3146.543 | 3150.195 | 3156.598 |
| 5 | 3146.834 | 3145.557 | 3142.713 | 3145.285 | 3149.116 |
| 6 | 3137.925 | 3139.586 | 3132.066 | 3137.840 | 3134.629 |
| 7 | 3125.363 | 3130.564 | 3124.668 | 3124.612 | 3121.063 |
| 8 | 3113.600 | 3112.529 | 3110.070 | 3110.530 | 3111.328 |
| 9 | 3098.522 | 3094.917 | 3091.988 | 3093.546 | 3092.363 |
| 10 | 3069.991 | 3070.902 | 3069.043 | 3067.203 | 3066.086 |
| 11 | 3034.860 | 3037.574 | 3033.828 | 3035.339 | 3031.574 |
| 12 | 2993.843 | 2991.130 | 2990.013 | 2994.556 | 2992.773 |
| 13 | 2940.405 | 2939.541 | 2942.029 | 2947.146 | 2946.836 |
| 14 | 2885.991 | 2881.484 | 2882.986 | 2885.080 | 2890.938 |
| 15 | 2818.170 | 2815.841 | 2812.189 | 2820.554 | 2817.400 |
| 16 | 2745.758 | 2738.961 | 2736.032 | 2742.040 | 2746.209 |
| 17 | 2665.310 | 2657.499 | 2658.006 | 2657.649 | 2667.047 |
| 18 | 2577.408 | 2573.380 | 2574.065 | 2568.724 | 2578.947 |
| 19 | 2484.699 | 2481.300 | 2480.924 | 2481.760 | 2487.600 |
| 20 | 2390.534 | 2390.149 | 2387.718 | 2388.985 | 2396.843 |
| 21 | 2299.553 | 2295.544 | 2294.492 | 2297.665 | 2300.257 |
| 22 | 2200.168 | 2204.252 | 2201.633 | 2204.271 | 2207.416 |
| 23 | 2108.811 | 2107.337 | 2107.196 | 2109.393 | 2116.876 |
| 24 | 2013.267 | 2011.464 | 2013.511 | 2018.083 | 2020.721 |
| 25 | 1916.784 | 1916.192 | 1917.957 | 1923.731 | 1924.679 |
| 26 | 1817.831 | 1818.310 | 1822.554 | 1827.248 | 1826.769 |
| 27 | 1709.012 | 1711.781 | 1721.357 | 1725.591 | 1721.348 |
| 28 | 1596.531 | 1597.132 | 1610.416 | 1614.791 | 1608.341 |
| 29 | 1475.235 | 1478.727 | 1490.444 | 1493.363 | 1489.045 |
| 30 | 1346.775 | 1349.610 | 1362.219 | 1365.120 | 1359.261 |
| 31 | 1208.007 | 1214.588 | 1222.700 | 1228.267 | 1226.023 |
| 32 | 1069.220 | 1076.590 | 1081.838 | 1088.203 | 1086.354 |
| 33 | 928.913 | 933.419 | 940.930 | 947.041 | 946.966 |
| 34 | 788.596 | 796.594 | 801.805 | 810.583 | 813.503 |
| 35 | 657.883 | 666.548 | 669.214 | 677.823 | 682.809 |
| 36 | 540.276 | 546.716 | 549.364 | 555.335 | 564.113 |
| 37 | 434.874 | 439.915 | 442.507 | 447.848 | 457.246 |
| 38 | 350.088 | 348.502 | 353.722 | 359.308 | 364.302 |
| 39 | 273.208 | 277.667 | 278.925 | 284.427 | 291.055 |
| 40 | 214.822 | 219.282 | 222.464 | 227.065 | 233.082 |
| 41 | 169.599 | 173.232 | 176.969 | 185.644 | 193.370 |
| 42 | 136.149 | 138.806 | 145.067 | 149.724 | 153.836 |
| 43 | 113.917 | 114.912 | 119.015 | 124.329 | 127.624 |
| 44 | 94.089 | 95.939 | 99.872 | 105.618 | 107.486 |
| 45 | 80.608 | 82.213 | 85.640 | 89.902 | 91.798 |
| 46 | 70.534 | 71.848 | 74.815 | 78.157 | 79.425 |
| 47 | 62.761 | 63.990 | 66.319 | 69.023 | 70.130 |
| 48 | 56.893 | 57.888 | 59.681 | 61.934 | 63.108 |
| 49 | 52.227 | 53.062 | 54.574 | 56.330 | 57.428 |
| 50 | 48.415 | 49.119 | 50.415 | 51.851 | 52.743 |
| 51 | 45.195 | 45.777 | 46.960 | 48.152 | 48.903 |
| 52 | 42.181 | 42.717 | 43.721 | 44.716 | 45.317 |

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

| | | | | | |
|-----|--------|--------|--------|--------|--------|
| 53 | 39.449 | 39.900 | 40.736 | 41.543 | 42.031 |
| 54 | 36.933 | 37.347 | 38.051 | 38.670 | 39.083 |
| 55 | 34.661 | 34.971 | 35.619 | 36.107 | 36.417 |
| 56 | 32.455 | 32.756 | 33.300 | 33.713 | 33.901 |
| 57 | 30.371 | 30.606 | 31.047 | 31.413 | 31.535 |
| 58 | 28.334 | 28.531 | 28.897 | 29.207 | 29.310 |
| 59 | 26.353 | 26.503 | 26.785 | 27.076 | 27.170 |
| 60 | 24.400 | 24.532 | 24.776 | 25.001 | 25.104 |
| 61 | 22.569 | 22.673 | 22.860 | 23.048 | 23.105 |
| 62 | 20.861 | 20.917 | 21.048 | 21.208 | 21.255 |
| 63 | 19.246 | 19.293 | 19.377 | 19.499 | 19.565 |
| 64 | 17.753 | 17.791 | 17.847 | 17.950 | 18.016 |
| 65 | 16.411 | 16.448 | 16.458 | 16.533 | 16.636 |
| 66 | 15.153 | 15.190 | 15.181 | 15.247 | 15.312 |
| 67 | 14.017 | 14.045 | 14.017 | 14.064 | 14.120 |
| 68 | 12.965 | 12.975 | 12.956 | 12.956 | 13.022 |
| 69 | 11.979 | 11.970 | 11.942 | 11.923 | 11.970 |
| 70 | 11.041 | 11.022 | 10.965 | 10.928 | 10.965 |
| 71 | 10.130 | 10.092 | 10.017 | 9.961 | 9.980 |
| 72 | 9.229 | 9.191 | 9.107 | 9.022 | 9.060 |
| 73 | 8.356 | 8.290 | 8.177 | 8.093 | 8.140 |
| 74 | 7.454 | 7.379 | 7.267 | 7.173 | 7.229 |
| 75 | 6.487 | 6.431 | 6.309 | 6.243 | 6.281 |
| 76 | 5.426 | 5.379 | 5.248 | 5.220 | 5.239 |
| 77 | 4.225 | 4.206 | 4.075 | 4.056 | 4.075 |
| 78 | 2.854 | 2.854 | 2.751 | 2.694 | 2.713 |
| 79 | 1.981 | 2.000 | 1.953 | 1.943 | 1.915 |
| 80 | 1.793 | 1.784 | 1.774 | 1.765 | 1.756 |
| 81 | 1.671 | 1.671 | 1.671 | 1.662 | 1.662 |
| 82 | 1.577 | 1.568 | 1.577 | 1.568 | 1.568 |
| 83 | 1.465 | 1.465 | 1.474 | 1.465 | 1.465 |
| 84 | 1.352 | 1.343 | 1.361 | 1.343 | 1.343 |
| 85 | 1.220 | 1.211 | 1.220 | 1.211 | 1.211 |
| 86 | 1.070 | 1.070 | 1.070 | 1.061 | 1.061 |
| 87 | 0.901 | 0.892 | 0.901 | 0.892 | 0.882 |
| 88 | 0.714 | 0.704 | 0.714 | 0.704 | 0.695 |
| 89 | 0.516 | 0.507 | 0.507 | 0.488 | 0.488 |
| 90 | 0.394 | 0.376 | 0.376 | 0.347 | 0.329 |
| 91 | 0.366 | 0.347 | 0.357 | 0.338 | 0.329 |
| 92 | 0.366 | 0.347 | 0.357 | 0.329 | 0.329 |
| 93 | 0.366 | 0.357 | 0.357 | 0.338 | 0.329 |
| 94 | 0.366 | 0.357 | 0.357 | 0.338 | 0.338 |
| 95 | 0.376 | 0.357 | 0.357 | 0.338 | 0.338 |
| 96 | 0.376 | 0.357 | 0.357 | 0.338 | 0.338 |
| 97 | 0.376 | 0.366 | 0.366 | 0.347 | 0.347 |
| 98 | 0.376 | 0.366 | 0.376 | 0.347 | 0.357 |
| 99 | 0.385 | 0.376 | 0.376 | 0.357 | 0.357 |
| 100 | 0.385 | 0.376 | 0.385 | 0.357 | 0.366 |
| 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 |

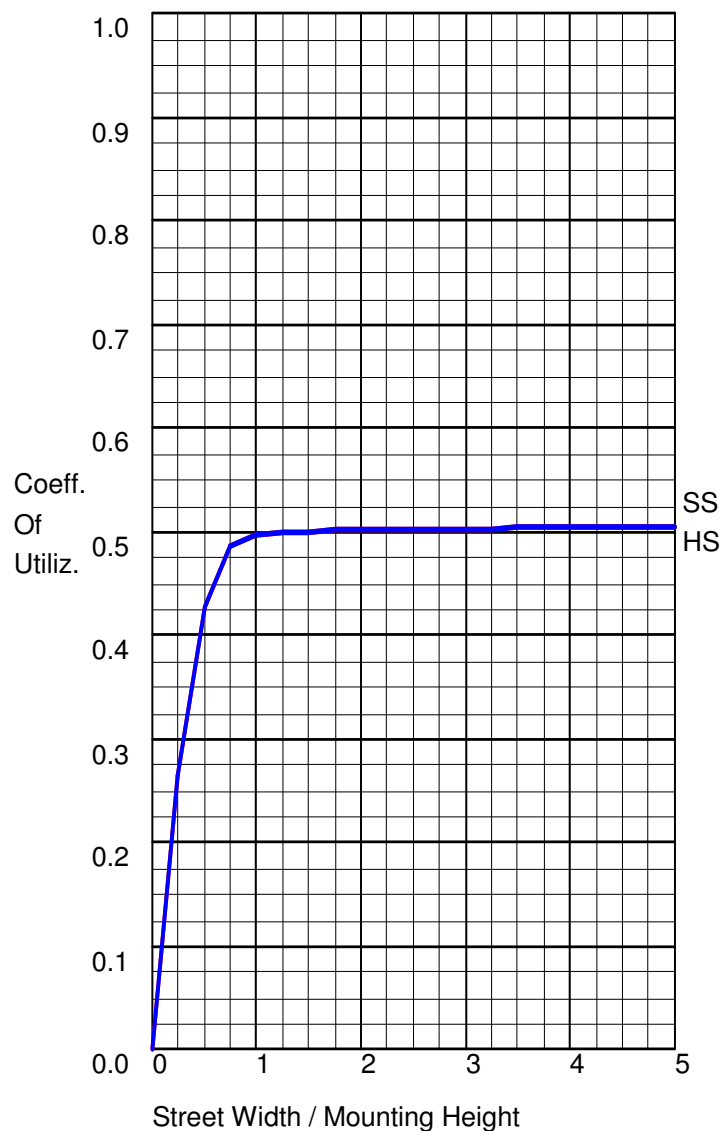
IES ROAD REPORT**PHOTOMETRIC FILENAME : W4CR-XX-L25-935-XXX-DIM-UNV-W-XXX_.IES_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|-----|-------|-------|-------|-------|-------|
| 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-L25-935-XXX-DIM-UNV-W-XXX_.IES_.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 |

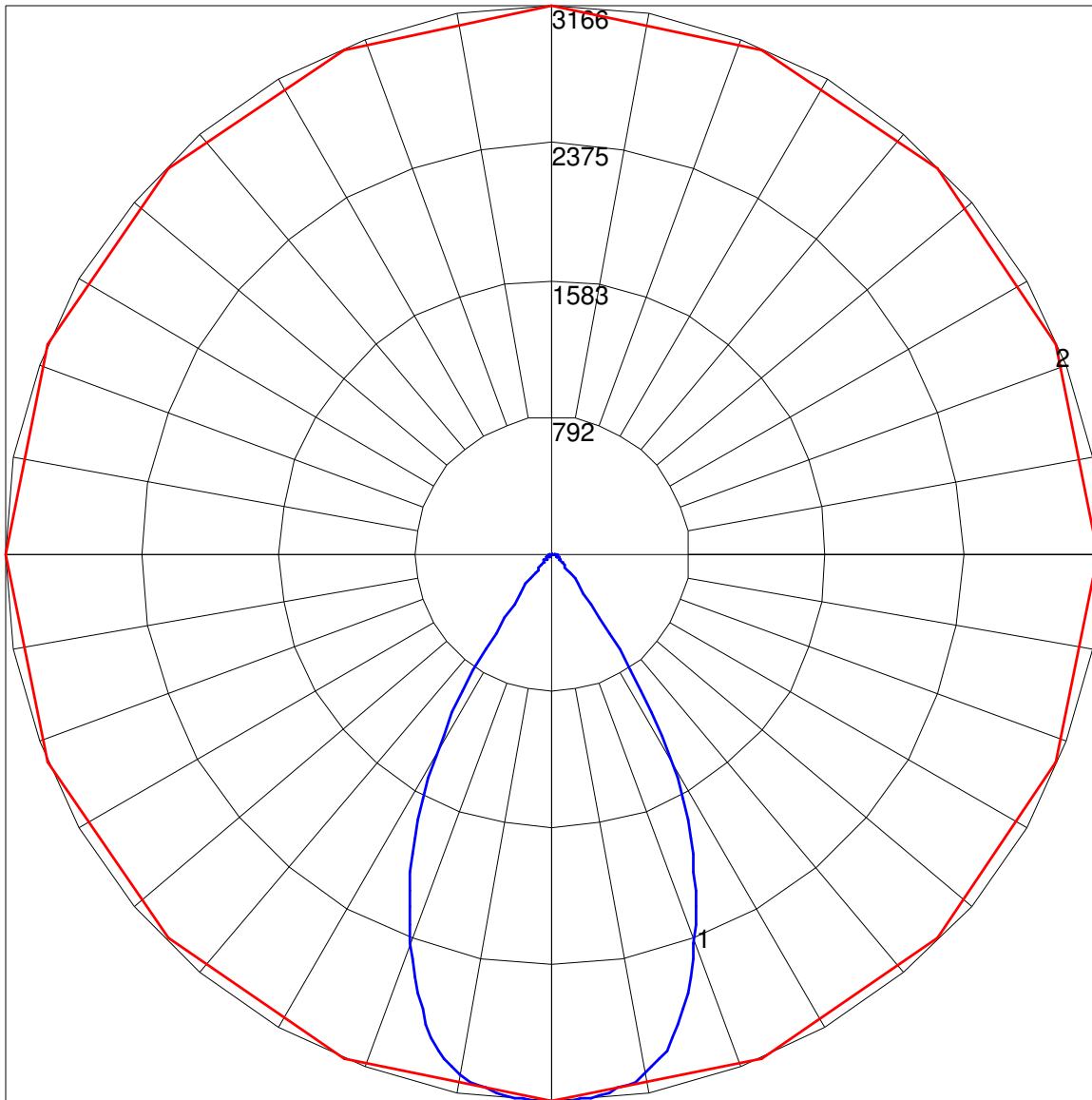
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

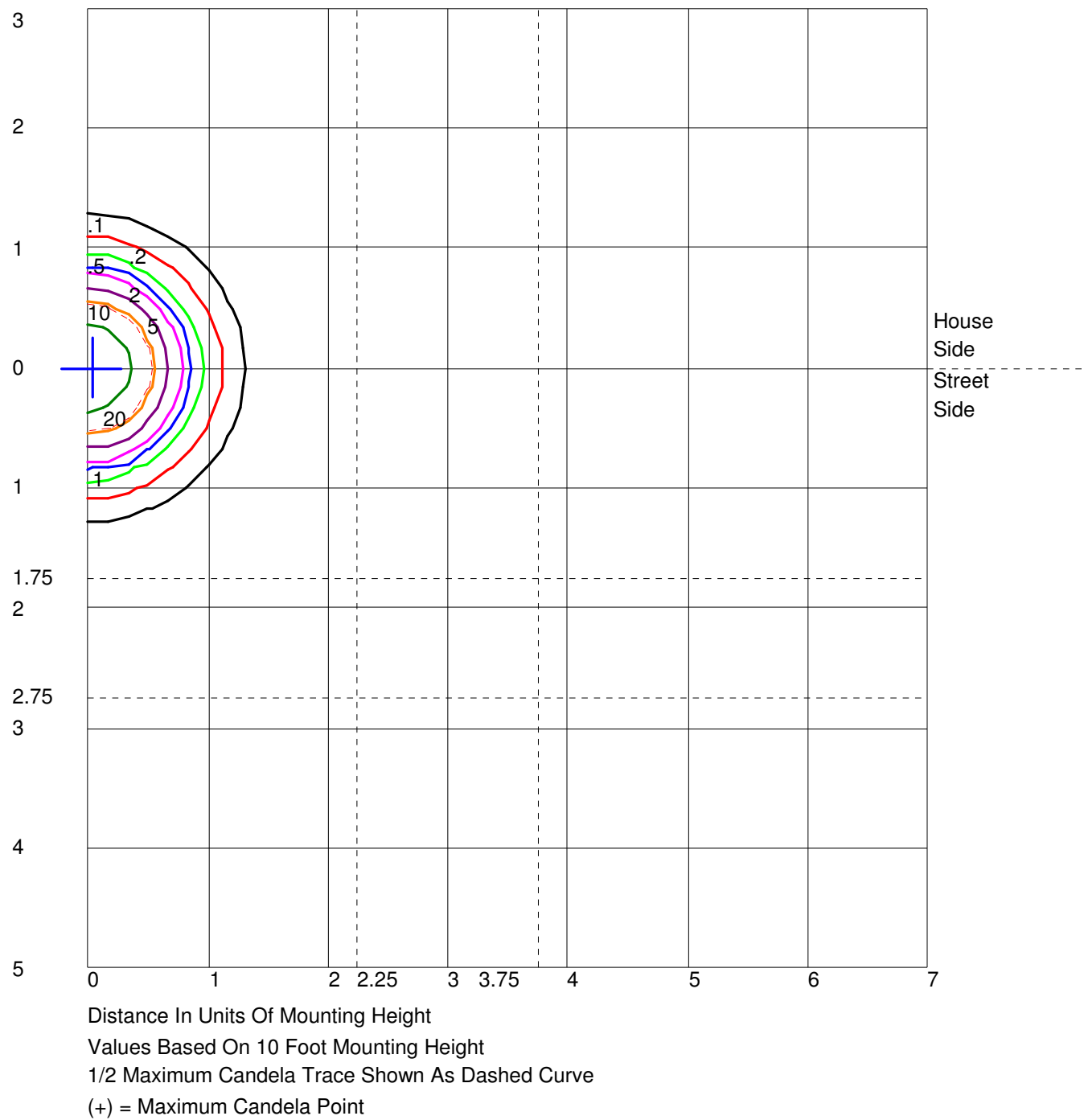
| | Lumens | Percent Of Luminaire |
|----------------------|--------|-------------------------|
| Downward Street Side | 1255.9 | 50.0 |
| Downward House Side | 1255.9 | 50.0 |
| Downward Total | 2511.8 | 100.0 |
| Upward Street Side | 0.2 | 0.0 |
| Upward House Side | 0.2 | 0.0 |
| Upward Total | 0.4 | 0.0 |
| Total Flux | 2512.2 | 100.0 |

POLAR GRAPH

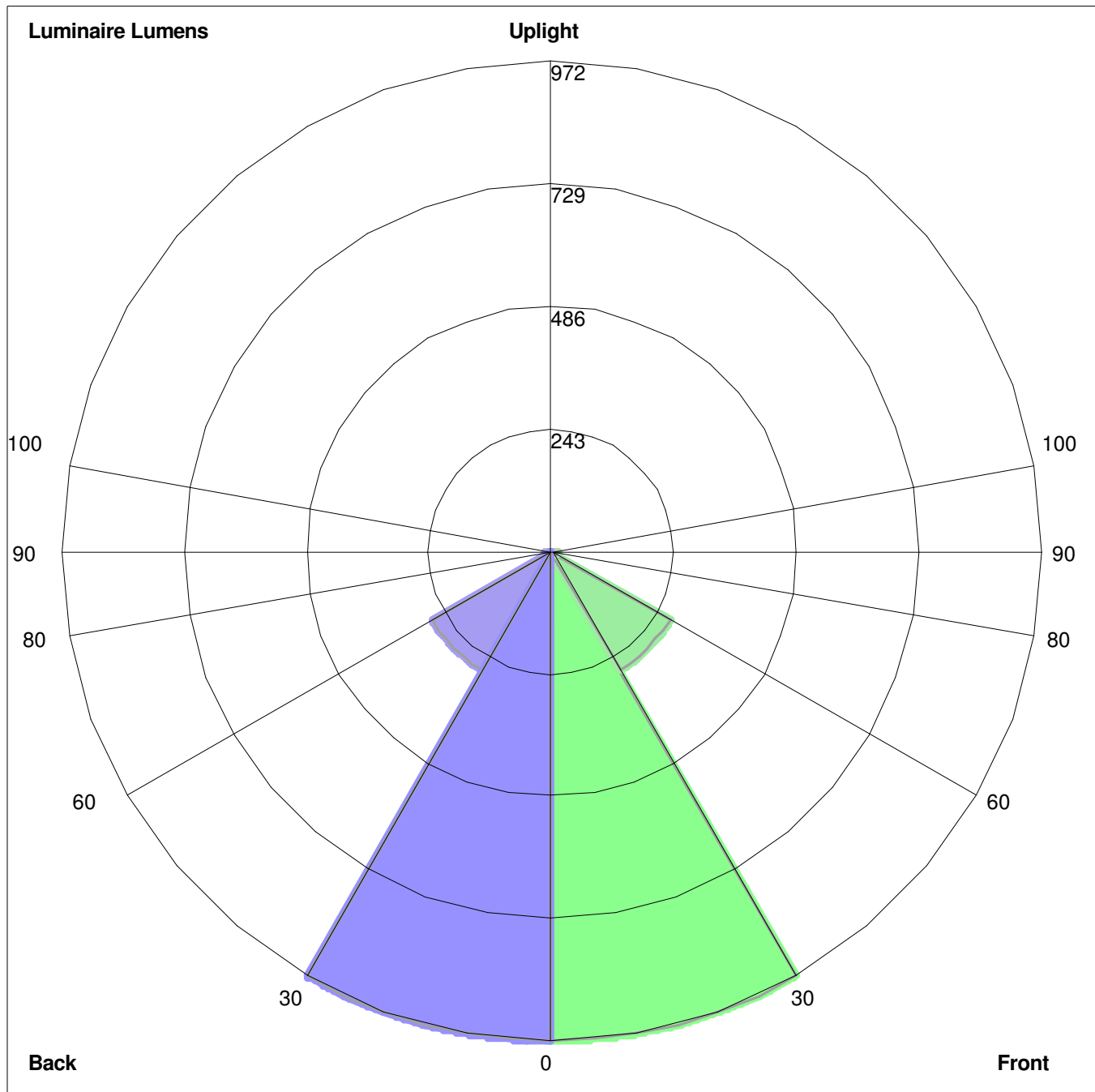


Maximum Candela = 3166.334 Located At Horizontal Angle = 90, Vertical Angle = 2
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=972.2, Medium=271.4, High=11.6, Very High=0.6
Back: Low=972.2, Medium=271.4, High=11.6, Very High=0.6
Uplight: Low=0.4, High=0.0

BUG Rating : B2-U1-G0