



IES ROAD REPORT

PHOTOMETRIC FILENAME : VA2-L280-750-T2-F-S-XXX-DIM-UNV_.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM ATAL011765
[TESTLAB] ATAL-LABS
[ISSUEDATE] 2023-01-18
[MANUFAC] WILLIAMS OUTDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] VA2-L280-750-T2-F-S-xxx-DIM-UNV_
[LUMINAIRE] VA2 ARCHITECTURAL LED AREA LIGHT
[MORE] WITH TYPE II OPTICS, CLEAR LENS, (2) LED MODULES
[MORE] AND (2) ELECTRONIC DRIVERS
[LAMP] LED
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Outdoor, Area, Parking
[_SEARCH_MOUNTING] Pole

CHARACTERISTICS

| | |
|---|----------------------------------|
| IES Classification | Type I |
| Longitudinal Classification | Medium |
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 30994 |
| Downward Total Efficiency | N.A. (absolute) |
| Total Luminaire Efficiency | N.A. (absolute) |
| Luminaire Efficacy Rating (LER) | 135 |
| Total Luminaire Watts | 229 |
| Ballast Factor | 1.00 |
| Upward Waste Light Ratio | 0.00 |
| Maximum Candela | 31091.867 |
| Maximum Candela Angle | 77.5H 68V |
| Maximum Candela (<90 Degrees Vertical) | 31091.867 |
| Maximum Candela Angle (<90 Degrees Vertical) | 77.5H 68V |
| Maximum Candela At 90 Degrees Vertical | 0 (0.0% Luminaire Lumens) |
| Maximum Candela from 80 to <90 Degrees Vertical | 1314.957 (4.2% Luminaire Lumens) |
| Cutoff Classification (deprecated) | N.A. (absolute) |

IES ROAD REPORT**PHOTOMETRIC FILENAME : VA2-L280-750-T2-F-S-XXX-DIM-UNV_.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

| | Lumens | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30) | 5512.2 | N.A. | 17.8 |
| FM - Front-Medium (30-60) | 13438.5 | N.A. | 43.4 |
| FH - Front-High (60-80) | 5634.7 | N.A. | 18.2 |
| FVH - Front-Very High (80-90) | 80.1 | N.A. | 0.3 |
| BL - Back-Low (0-30) | 1280.3 | N.A. | 4.1 |
| BM - Back-Medium (30-60) | 2995.8 | N.A. | 9.7 |
| BH - Back-High (60-80) | 1925.8 | N.A. | 6.2 |
| BVH - Back-Very High (80-90) | 126.7 | N.A. | 0.4 |
| UL - Uplight-Low (90-100) | 0.0 | N.A. | 0.0 |
| UH - Uplight-High (100-180) | 0.0 | N.A. | 0.0 |
| Total | 30994.1 | N.A. | 100.0 |
| BUG Rating | B3-U0-G3 | | |

IES ROAD REPORT
PHOTOMETRIC FILENAME : VA2-L280-750-T2-F-S-XXX-DIM-UNV_.IES

CANDELA TABULATION

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-----------------|-------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | <u>0.0</u> | <u>5.0</u> | <u>15.0</u> | <u>25.0</u> | <u>35.0</u> | <u>45.0</u> | <u>55.0</u> | <u>65.0</u> | <u>75.0</u> | <u>77.5</u> |
| 0.0 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 |
| 2.5 | 8581.894 | 8523.016 | 8481.146 | 8422.268 | 8335.912 | 8159.276 | 8031.052 | 7833.481 | 7613.667 | 7552.172 |
| 5.0 | 10458.162 | 10471.246 | 10361.339 | 10196.479 | 99938.721 | 9540.963 | 9160.214 | 8668.250 | 8129.183 | 7983.949 |
| 7.5 | 12326.578 | 12342.279 | 12181.344 | 11906.577 | 11500.968 | 10887.322 | 10281.526 | 9501.710 | 8655.166 | 8435.352 |
| 10.0 | 13918.919 | 13896.676 | 13720.040 | 13407.329 | 12941.533 | 12185.269 | 11391.061 | 10331.245 | 9175.915 | 8881.521 |
| 12.5 | 14626.772 | 14588.828 | 14507.706 | 14358.547 | 14065.462 | 13362.843 | 12465.270 | 11184.332 | 9722.832 | 9348.626 |
| 15.0 | 14553.501 | 14529.949 | 14527.332 | 14552.192 | 14560.043 | 14274.808 | 13474.058 | 12080.596 | 10336.479 | 99878.534 |
| 17.5 | 14506.398 | 14488.080 | 14488.080 | 14503.781 | 14595.370 | 14679.109 | 14315.369 | 13014.805 | 11033.864 | 10488.255 |
| 20.0 | 14497.239 | 14497.239 | 14549.575 | 14569.202 | 14601.912 | 14764.155 | 14874.062 | 14009.200 | 11831.997 | 11201.341 |
| 22.5 | 14208.079 | 14243.406 | 14414.809 | 14580.977 | 14679.109 | 14787.707 | 15163.222 | 14885.838 | 12698.168 | 11992.932 |
| 25.0 | 13433.497 | 13471.441 | 13780.227 | 14273.500 | 14667.333 | 14892.380 | 15324.157 | 15685.280 | 13649.386 | 12864.337 |
| 27.5 | 12389.382 | 12437.794 | 12768.823 | 13471.441 | 14375.556 | 14961.726 | 15498.176 | 16318.553 | 14614.996 | 13751.442 |
| 30.0 | 11555.922 | 11588.632 | 11920.970 | 12524.149 | 13611.442 | 14834.810 | 15697.055 | 16788.274 | 15564.905 | 14655.557 |
| 32.5 | 11026.014 | 11071.808 | 11358.351 | 11859.474 | 12764.897 | 14472.379 | 15915.561 | 17167.714 | 16478.179 | 15519.111 |
| 35.0 | 10507.881 | 10552.367 | 10876.854 | 11366.202 | 12118.540 | 13934.620 | 16115.748 | 17471.266 | 17235.752 | 16240.048 |
| 37.5 | 9697.972 | 9776.477 | 10170.310 | 10744.704 | 11561.155 | 13449.198 | 16386.590 | 17730.332 | 17846.781 | 16882.479 |
| 40.0 | 8478.530 | 8558.343 | 9076.475 | 9873.300 | 10807.508 | 12774.056 | 16840.610 | 18015.567 | 18426.409 | 17569.397 |
| 42.5 | 6973.852 | 6907.123 | 7476.284 | 8469.371 | 9777.786 | 11792.745 | 16964.910 | 18893.513 | 18962.859 | 18201.362 |
| 45.0 | 5380.203 | 5334.408 | 5724.316 | 6551.234 | 8165.818 | 10651.807 | 16225.655 | 20501.556 | 19439.122 | 18758.747 |
| 47.5 | 4336.087 | 4288.985 | 4483.938 | 4884.313 | 6072.354 | 8988.811 | 14794.249 | 21770.718 | 20476.696 | 19600.058 |
| 50.0 | 3829.731 | 3794.404 | 3853.282 | 3956.647 | 4439.452 | 6272.542 | 12987.328 | 22455.019 | 22536.141 | 21698.755 |
| 52.5 | 3596.833 | 3564.123 | 3573.282 | 3517.020 | 3702.815 | 4236.648 | 9937.412 | 23187.732 | 25749.608 | 24791.848 |
| 55.0 | 3226.552 | 3192.533 | 3344.309 | 3378.328 | 3414.963 | 3603.375 | 6375.907 | 23474.275 | 28662.140 | 27822.138 |
| 57.5 | 2815.709 | 2790.849 | 2967.485 | 3255.337 | 3337.767 | 3390.103 | 4898.706 | 21876.700 | 29584.573 | 28939.524 |
| 60.0 | 2441.502 | 2425.802 | 2608.980 | 2940.009 | 3197.766 | 3206.925 | 4555.901 | 18629.214 | 29288.871 | 29097.842 |
| 62.5 | 2012.342 | 2022.810 | 2260.941 | 2599.821 | 2870.663 | 2900.756 | 4258.891 | 14956.492 | 29020.646 | 29359.525 |
| 65.0 | 1589.724 | 1605.425 | 1871.034 | 2219.072 | 2475.521 | 2475.521 | 3740.759 | 11431.622 | 28925.132 | 29729.807 |
| 67.5 | 1088.601 | 1088.601 | 1411.780 | 1802.996 | 2051.595 | 2042.436 | 3049.915 | 8419.651 | 30081.771 | 30980.652 |
| 68.0 | 983.928 | 983.928 | 1279.630 | 1715.332 | 1965.239 | 1953.464 | 2896.831 | 7913.294 | 30242.706 | 31091.867 |
| 70.0 | 783.741 | 786.357 | 881.872 | 1359.443 | 1626.360 | 1615.893 | 2288.418 | 6099.831 | 28205.503 | 28881.954 |
| 72.5 | 611.030 | 621.497 | 692.152 | 914.582 | 1256.078 | 1277.013 | 1610.659 | 3848.049 | 20054.078 | 20043.610 |
| 75.0 | 457.945 | 467.104 | 528.600 | 643.740 | 972.152 | 1068.975 | 1059.816 | 1931.221 | 8057.220 | 7608.434 |
| 77.5 | 319.253 | 333.646 | 383.366 | 465.796 | 752.339 | 959.068 | 624.114 | 943.367 | 1682.622 | 1669.538 |
| 80.0 | 211.963 | 223.739 | 259.066 | 303.552 | 553.460 | 693.460 | 382.057 | 514.207 | 689.535 | 703.927 |
| 82.5 | 117.757 | 125.608 | 145.234 | 168.786 | 340.188 | 327.104 | 215.888 | 266.917 | 363.739 | 351.964 |
| 85.0 | 45.795 | 51.028 | 58.879 | 66.729 | 163.552 | 113.832 | 85.047 | 99.440 | 136.075 | 132.150 |
| 87.5 | 5.234 | 6.542 | 7.850 | 7.850 | 24.860 | 9.159 | 7.850 | 7.850 | 13.084 | 13.084 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

| Vert. Angles | Horizontal Angles | | | | | | | | | |
|-----------------|-------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | <u>85.0</u> | <u>90.0</u> | <u>95.0</u> | <u>105.0</u> | <u>115.0</u> | <u>125.0</u> | <u>135.0</u> | <u>145.0</u> | <u>155.0</u> | <u>165.0</u> |
| 0.0 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 | 7172.731 |
| 2.5 | 7388.620 | 7260.395 | 7116.469 | 6848.244 | 6587.870 | 6336.654 | 6090.672 | 5912.728 | 5775.344 | 5673.288 |
| 5.0 | 7563.947 | 7246.003 | 6917.590 | 6292.168 | 5690.297 | 5140.763 | 4659.266 | 4288.985 | 4014.217 | 3824.497 |
| 7.5 | 7736.658 | 7251.236 | 6742.263 | 5759.643 | 4856.837 | 4075.713 | 3455.524 | 3032.906 | 2764.681 | 2623.372 |
| 10.0 | 7928.995 | 7263.012 | 6577.402 | 5262.445 | 4104.498 | 3213.467 | 2679.634 | 2436.269 | 2340.755 | 2293.652 |
| 12.5 | 8156.659 | 7306.190 | 6447.869 | 4813.659 | 3473.842 | 2656.083 | 2368.231 | 2276.642 | 2228.231 | 2195.520 |
| 15.0 | 8417.034 | 7396.470 | 6358.897 | 4406.742 | 2971.411 | 2391.783 | 2259.633 | 2198.137 | 2157.576 | 2134.025 |
| 17.5 | 8750.680 | 7546.938 | 6314.411 | 4032.535 | 2627.297 | 2279.259 | 2188.978 | 2143.184 | 2113.090 | 2086.922 |
| 20.0 | 9173.298 | 7753.668 | 6311.794 | 3713.282 | 2437.577 | 2216.455 | 2137.950 | 2106.548 | 2085.614 | 2055.520 |
| 22.5 | 9620.776 | 8008.809 | 6349.738 | 3441.132 | 2338.138 | 2170.661 | 2101.315 | 2079.072 | 2071.221 | 2035.894 |
| 25.0 | 10106.198 | 8303.202 | 6420.393 | 3213.467 | 2279.259 | 2127.483 | 2072.529 | 2055.520 | 2054.212 | 2004.492 |

IES ROAD REPORT
PHOTOMETRIC FILENAME : VA2-L280-750-T2-F-S-XXX-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

| | | | | | | | | | |
|------|--------------------|-----------|----------|----------|----------|----------|----------|----------|----------|
| 27.5 | 10637.4148630.306 | 6514.599 | 3028.981 | 2229.539 | 2085.614 | 2038.511 | 2030.660 | 2018.884 | 1962.623 |
| 30.0 | 11185.6408961.335 | 6629.739 | 2879.822 | 2182.436 | 2039.819 | 1995.333 | 1991.408 | 1966.548 | 1911.594 |
| 32.5 | 11697.2319289.747 | 6740.954 | 2762.064 | 2139.259 | 1992.716 | 1944.305 | 1933.837 | 1890.660 | 1812.155 |
| 35.0 | 12139.4759551.430 | 6839.085 | 2663.933 | 2096.081 | 1944.305 | 1886.735 | 1844.865 | 1757.201 | 1670.846 |
| 37.5 | 12542.4679818.347 | 6941.142 | 2576.269 | 2038.511 | 1891.968 | 1797.762 | 1719.257 | 1628.977 | 1594.958 |
| 40.0 | 13014.80510158.534 | 7109.927 | 2514.774 | 1978.324 | 1816.080 | 1682.622 | 1579.257 | 1553.089 | 1533.462 |
| 42.5 | 13408.63710479.096 | 7297.031 | 2478.138 | 1920.753 | 1715.332 | 1576.640 | 1474.584 | 1500.752 | 1500.752 |
| 45.0 | 13848.26510845.452 | 7518.153 | 2459.820 | 1857.949 | 1615.893 | 1457.574 | 1410.471 | 1451.032 | 1482.434 |
| 47.5 | 14413.50011357.043 | 7864.883 | 2474.213 | 1788.603 | 1537.388 | 1362.060 | 1354.210 | 1407.855 | 1445.799 |
| 50.0 | 15912.94412745.271 | 8865.820 | 2637.765 | 1733.650 | 1468.042 | 1335.892 | 1308.415 | 1367.294 | 1419.630 |
| 52.5 | 18519.30715154.063 | 10921.340 | 3197.766 | 1669.538 | 1369.911 | 1330.658 | 1257.387 | 1345.051 | 1417.014 |
| 55.0 | 20737.07016934.816 | 12569.943 | 3513.094 | 1543.930 | 1261.312 | 1208.976 | 1207.667 | 1338.509 | 1428.789 |
| 57.5 | 20645.48116677.058 | 12571.252 | 3250.103 | 1376.453 | 1152.714 | 1121.312 | 1176.265 | 1335.892 | 1418.322 |
| 60.0 | 20071.08716008.458 | 11947.138 | 2711.036 | 1220.751 | 1067.667 | 1061.125 | 1151.405 | 1308.415 | 1363.368 |
| 62.5 | 19657.62815376.494 | 11423.772 | 2285.801 | 1087.293 | 994.395 | 1003.554 | 1118.695 | 1242.994 | 1275.705 |
| 65.0 | 19567.34714952.567 | 11171.248 | 1966.548 | 970.844 | 915.891 | 944.676 | 1061.125 | 1143.555 | 1218.134 |
| 67.5 | 20095.94714582.286 | 10840.219 | 1645.986 | 863.554 | 830.844 | 885.797 | 982.620 | 1057.199 | 1479.817 |
| 68.0 | 20116.88114423.968 | 10742.088 | 1570.098 | 843.928 | 813.834 | 871.404 | 964.302 | 1050.657 | 1580.565 |
| 70.0 | 18532.39112426.018 | 9347.317 | 1316.266 | 768.040 | 748.413 | 817.759 | 887.105 | 1134.396 | 1990.099 |
| 72.5 | 13797.2378236.473 | 6101.139 | 905.423 | 679.067 | 673.834 | 739.255 | 785.049 | 1486.360 | 2368.231 |
| 75.0 | 5003.379 | 3407.113 | 2584.120 | 629.348 | 583.553 | 607.105 | 654.208 | 684.301 | 1810.846 |
| 77.5 | 1193.275 | 926.358 | 688.226 | 430.469 | 457.945 | 511.590 | 561.310 | 608.413 | 1780.753 |
| 80.0 | 542.992 | 457.945 | 370.281 | 291.777 | 333.646 | 406.917 | 450.095 | 507.665 | 1314.957 |
| 82.5 | 300.935 | 273.459 | 228.973 | 179.253 | 223.739 | 285.234 | 316.636 | 349.347 | 760.189 |
| 85.0 | 112.524 | 103.365 | 95.514 | 79.813 | 113.832 | 143.926 | 160.935 | 174.019 | 371.590 |
| 87.5 | 9.159 | 6.542 | 9.159 | 9.159 | 22.243 | 31.402 | 37.944 | 47.103 | 113.832 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

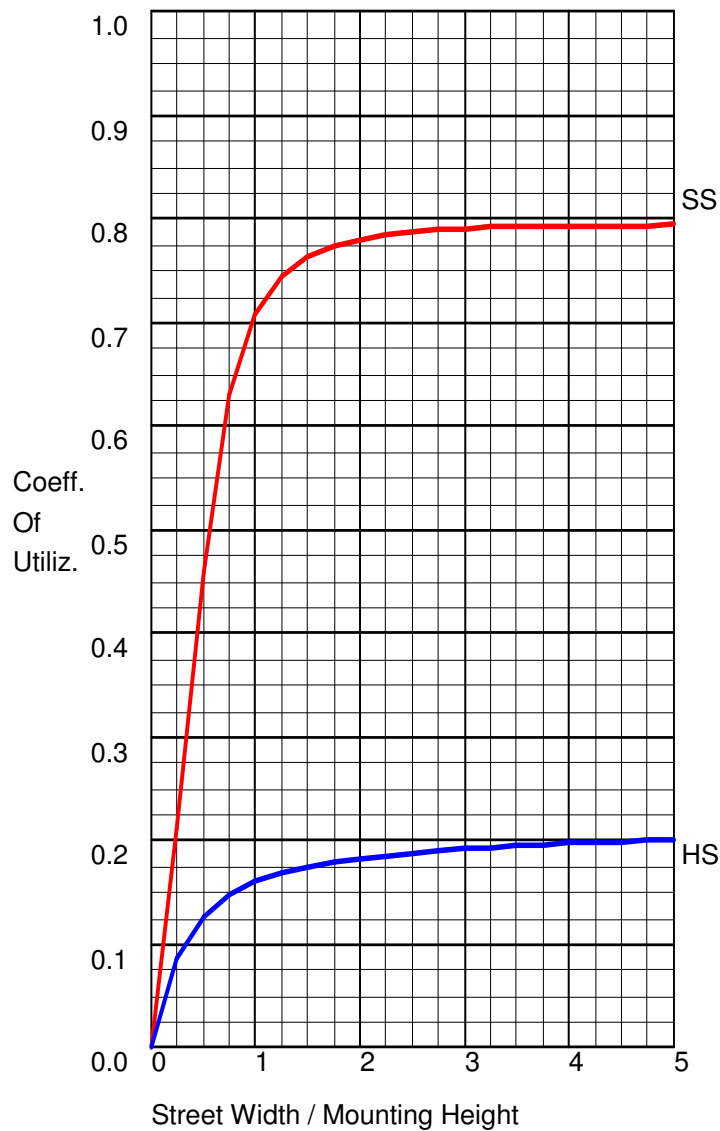
Vert. Horizontal Angles

| | <u>175.0</u> | <u>180.0</u> |
|------|--------------|--------------|
| 0.0 | 7172.731 | 7172.731 |
| 2.5 | 5622.259 | 5679.830 |
| 5.0 | 3726.366 | 3766.927 |
| 7.5 | 2569.727 | 2586.737 |
| 10.0 | 2277.951 | 2270.100 |
| 12.5 | 2183.745 | 2178.511 |
| 15.0 | 2119.632 | 2117.016 |
| 17.5 | 2072.529 | 2068.604 |
| 20.0 | 2037.202 | 2033.277 |
| 22.5 | 2009.726 | 2003.183 |
| 25.0 | 1969.165 | 1963.931 |
| 27.5 | 1922.062 | 1923.370 |
| 30.0 | 1857.949 | 1852.716 |
| 32.5 | 1733.650 | 1725.799 |
| 35.0 | 1632.902 | 1634.210 |
| 37.5 | 1583.182 | 1597.575 |
| 40.0 | 1524.304 | 1536.079 |
| 42.5 | 1462.808 | 1468.042 |
| 45.0 | 1445.799 | 1420.939 |
| 47.5 | 1409.163 | 1396.079 |
| 50.0 | 1384.303 | 1400.004 |
| 52.5 | 1405.238 | 1426.172 |
| 55.0 | 1432.714 | 1453.649 |
| 57.5 | 1431.406 | 1451.032 |
| 60.0 | 1385.612 | 1402.621 |

IES ROAD REPORT**PHOTOMETRIC FILENAME : VA2-L280-750-T2-F-S-XXX-DIM-UNV_.IES****CANDELA TABULATION - (Cont.)**

| | | |
|-------------|----------|----------|
| 62.5 | 1311.032 | 1333.275 |
| 65.0 | 1318.882 | 1369.911 |
| 67.5 | 1642.061 | 1715.332 |
| 68.0 | 1717.949 | 1791.220 |
| 70.0 | 1960.006 | 2031.969 |
| 72.5 | 2098.698 | 2153.651 |
| 75.0 | 1821.314 | 1822.622 |
| 77.5 | 1294.022 | 1245.611 |
| 80.0 | 855.703 | 802.058 |
| 82.5 | 515.516 | 488.039 |
| 85.0 | 180.561 | 143.926 |
| 87.5 | 27.477 | 7.850 |
| 90.0 | 0.000 | 0.000 |

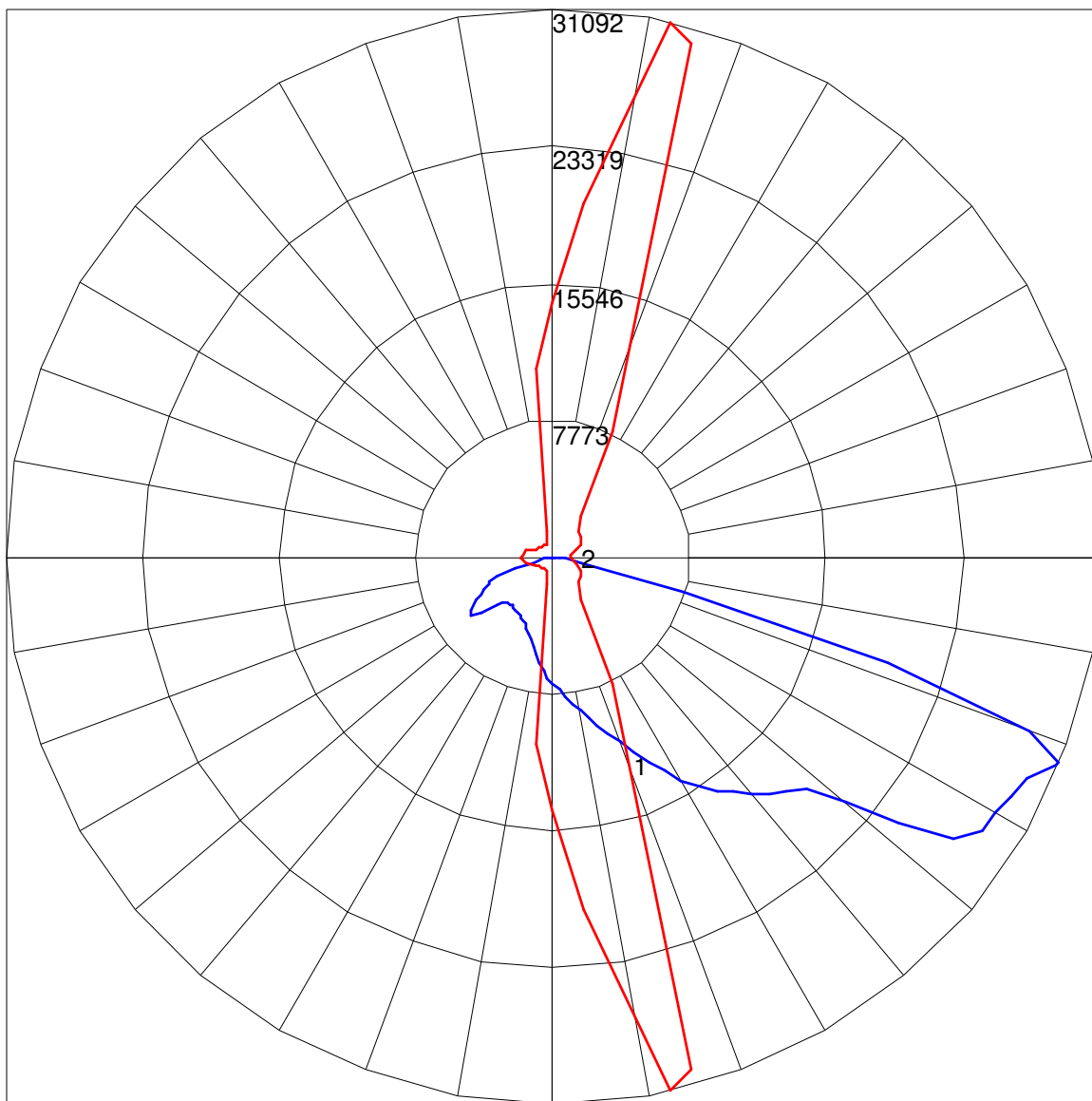
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

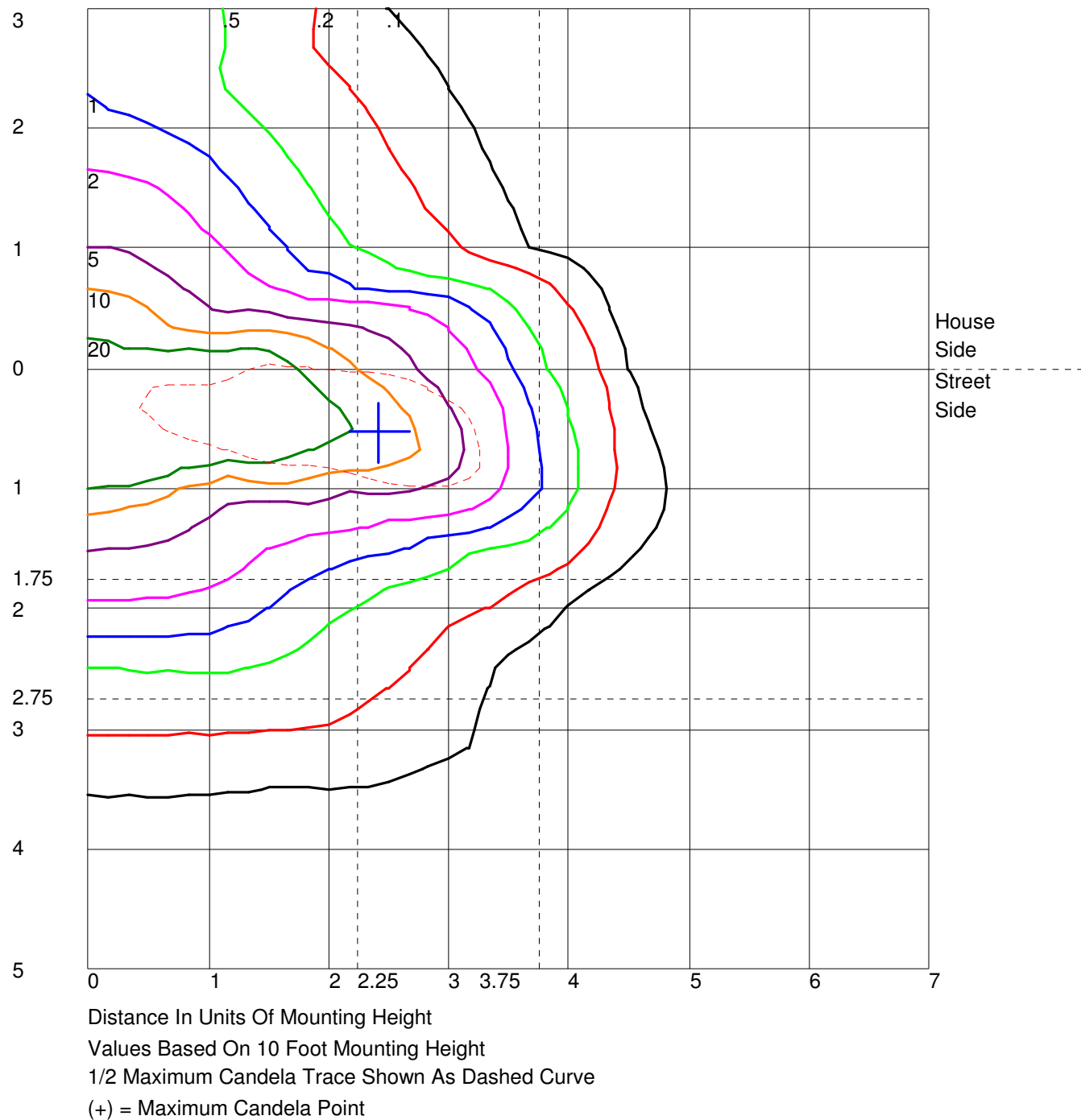
| | Lumens | Percent Of Luminaire |
|----------------------|---------|-------------------------|
| Downward Street Side | 24665.4 | 79.6 |
| Downward House Side | 6328.6 | 20.4 |
| Downward Total | 30994.0 | 100.0 |
| Upward Street Side | 0.0 | 0.0 |
| Upward House Side | 0.0 | 0.0 |
| Upward Total | 0.0 | 0.0 |
| Total Flux | 30994.0 | 100.0 |

POLAR GRAPH

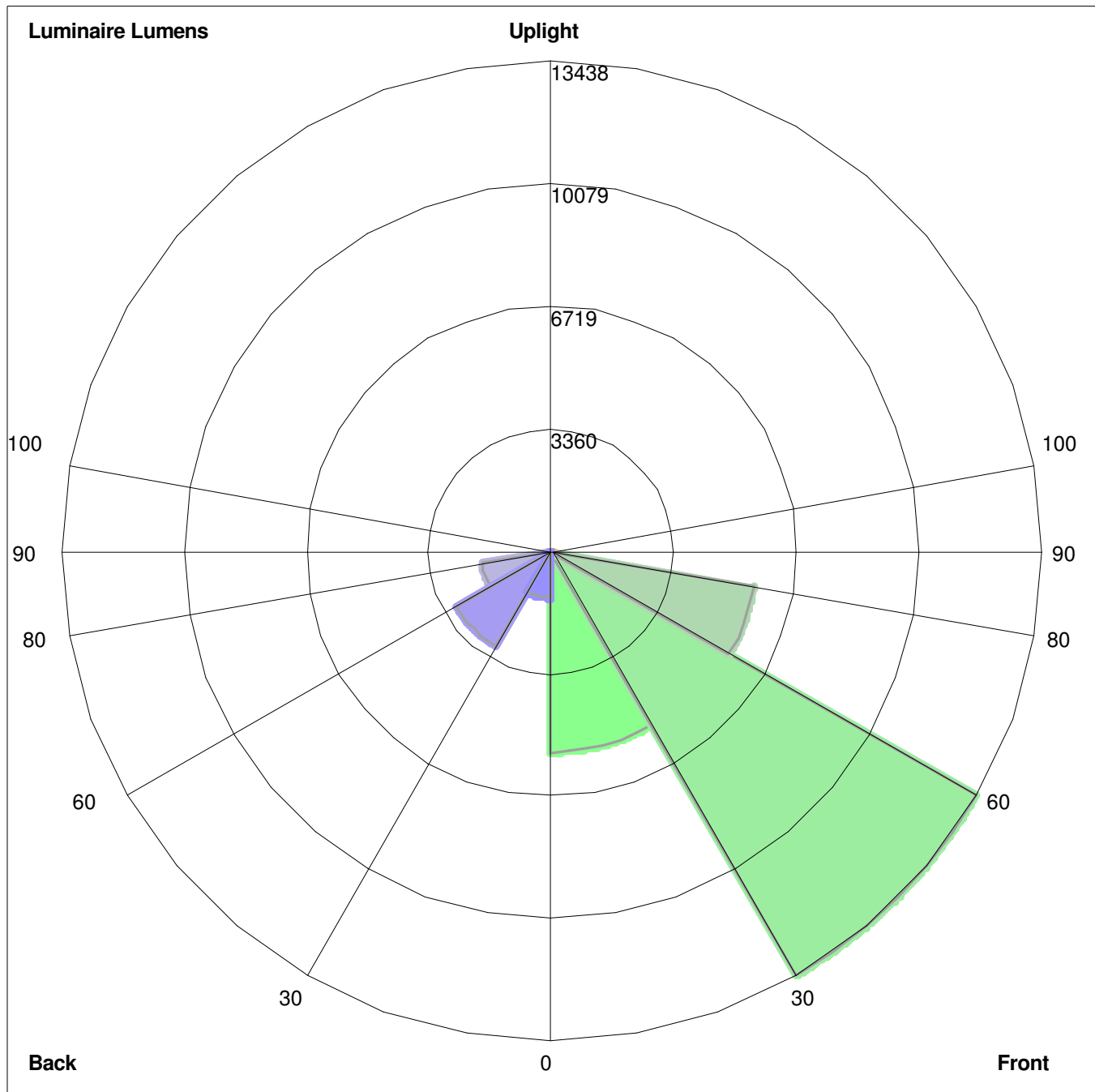


Maximum Candela = 31091.867 Located At Horizontal Angle = 77.5, Vertical Angle = 68
1 - Vertical Plane Through Horizontal Angles (77.5 - 257.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (68) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=5512.2, Medium=13438.5, High=5634.7, Very High=80.1
Back: Low=1280.3, Medium=2995.8, High=1925.8, Very High=126.7
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G3