



## IES ROAD REPORT

PHOTOMETRIC FILENAME : VA1-L110-740-T5-F-S-XXX-DIM-UNV\_.IES

### DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM ATAL011764  
[TESTLAB] ATAL-LABS  
[ISSUE DATE] 2023-01-18  
[MANUFAC] WILLIAMS OUTDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMCAT] VA1-L110-740-T5-F-S-xxx-DIM-UNV\_  
[LUMINAIRE] VA1 LED AREA LIGHT FIXTURE WITH TYPE  
[MORE] VSM OPTICS AND CLEAR LENS  
[LAMP] LED  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Outdoor, Architectural, Area, Parking, Site  
[SEARCH\_MOUNTING] Pole

### CHARACTERISTICS

|   |                                 |
|---|---------------------------------|
| IES Classification                              | Type VS                         |
| Longitudinal Classification                     | Short                           |
| Lumens Per Lamp                                 | N.A. (absolute)                 |
| Total Lamp Lumens                               | N.A. (absolute)                 |
| Luminaire Lumens                                | 11720                           |
| Downward Total Efficiency                       | N.A. (absolute)                 |
| Total Luminaire Efficiency                      | N.A. (absolute)                 |
| Luminaire Efficacy Rating (LER)                 | 133                             |
| Total Luminaire Watts                           | 88                              |
| Ballast Factor                                  | 1.00                            |
| Upward Waste Light Ratio                        | 0.00                            |
| Maximum Candela                                 | 5532.379                        |
| Maximum Candela Angle                           | 45H 67.5V                       |
| Maximum Candela (<90 Degrees Vertical)          | 5532.379                        |
| Maximum Candela Angle (<90 Degrees Vertical)    | 45H 67.5V                       |
| Maximum Candela At 90 Degrees Vertical          | 0 (0.0% Luminaire Lumens)       |
| Maximum Candela from 80 to <90 Degrees Vertical | 265.466 (2.3% Luminaire Lumens) |
| Cutoff Classification (deprecated)              | N.A. (absolute)                 |

**IES ROAD REPORT****PHOTOMETRIC FILENAME : VA1-L110-740-T5-F-S-XXX-DIM-UNV\_.IES****LUMINAIRE CLASSIFICATION SYSTEM (LCS)**

|                               | Lumens   | % Lamp | % Luminaire |
|-------------------------------|----------|--------|-------------|
| FL - Front-Low (0-30)         | 601.6    | N.A.   | 5.1         |
| FM - Front-Medium (30-60)     | 2736.2   | N.A.   | 23.3        |
| FH - Front-High (60-80)       | 2482.6   | N.A.   | 21.2        |
| FVH - Front-Very High (80-90) | 39.7     | N.A.   | 0.3         |
| BL - Back-Low (0-30)          | 601.6    | N.A.   | 5.1         |
| BM - Back-Medium (30-60)      | 2736.2   | N.A.   | 23.3        |
| BH - Back-High (60-80)        | 2482.6   | N.A.   | 21.2        |
| BVH - Back-Very High (80-90)  | 39.7     | N.A.   | 0.3         |
| UL - Uplight-Low (90-100)     | 0.0      | N.A.   | 0.0         |
| UH - Uplight-High (100-180)   | 0.0      | N.A.   | 0.0         |
| Total                         | 11720.2  | N.A.   | 100.0       |
| BUG Rating                    | B3-U0-G2 |        |             |

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**CANDELA TABULATION**

| <b>Vert.<br/>Angles</b> | <b>Horizontal Angles</b> |          |           |           |           |           |           |           |           |           |  |
|-------------------------|--------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
|                         | <u>0</u>                 | <u>5</u> | <u>10</u> | <u>15</u> | <u>20</u> | <u>25</u> | <u>30</u> | <u>35</u> | <u>40</u> | <u>45</u> |  |
| 0.0                     | 1280.278                 | 1280.278 | 1280.278  | 1280.278  | 1280.278  | 1280.278  | 1280.278  | 1280.278  | 1280.278  | 1280.278  |  |
| 2.5                     | 1280.859                 | 1282.020 | 1282.020  | 1280.859  | 1281.439  | 1280.859  | 1280.859  | 1280.278  | 1280.859  | 1281.439  |  |
| 5.0                     | 1289.572                 | 1291.895 | 1291.314  | 1290.153  | 1290.734  | 1290.153  | 1289.572  | 1288.410  | 1289.572  | 1290.734  |  |
| 7.5                     | 1305.256                 | 1308.160 | 1308.160  | 1306.418  | 1306.418  | 1306.418  | 1306.998  | 1305.837  | 1306.418  | 1309.322  |  |
| 10.0                    | 1324.425                 | 1326.749 | 1327.330  | 1325.587  | 1326.168  | 1326.749  | 1327.330  | 1327.330  | 1328.491  | 1330.815  |  |
| 12.5                    | 1343.014                 | 1345.918 | 1347.080  | 1345.337  | 1345.918  | 1347.661  | 1348.822  | 1349.403  | 1350.565  | 1352.308  |  |
| 15.0                    | 1365.087                 | 1367.411 | 1366.830  | 1367.411  | 1366.830  | 1367.992  | 1368.573  | 1370.315  | 1372.058  | 1372.639  |  |
| 17.5                    | 1388.904                 | 1391.808 | 1390.646  | 1391.227  | 1389.485  | 1390.646  | 1390.065  | 1390.646  | 1392.389  | 1392.970  |  |
| 20.0                    | 1418.529                 | 1419.691 | 1417.948  | 1417.948  | 1415.625  | 1414.463  | 1414.463  | 1414.463  | 1414.463  | 1415.044  |  |
| 22.5                    | 1447.573                 | 1448.154 | 1446.412  | 1445.250  | 1442.926  | 1441.765  | 1441.184  | 1439.441  | 1438.860  | 1438.860  |  |
| 25.0                    | 1481.846                 | 1482.427 | 1480.103  | 1478.360  | 1474.294  | 1472.552  | 1471.390  | 1469.066  | 1468.485  | 1467.905  |  |
| 27.5                    | 1527.736                 | 1525.412 | 1521.927  | 1519.604  | 1513.795  | 1512.052  | 1509.148  | 1505.662  | 1505.081  | 1505.081  |  |
| 30.0                    | 1579.435                 | 1576.531 | 1573.626  | 1571.884  | 1564.913  | 1562.589  | 1557.361  | 1552.714  | 1553.295  | 1553.876  |  |
| 32.5                    | 1641.590                 | 1639.267 | 1635.200  | 1636.362  | 1629.391  | 1628.230  | 1621.840  | 1615.450  | 1612.546  | 1613.127  |  |
| 35.0                    | 1715.363                 | 1713.039 | 1711.878  | 1713.039  | 1706.650  | 1706.069  | 1702.583  | 1695.613  | 1693.870  | 1691.546  |  |
| 37.5                    | 1802.496                 | 1801.334 | 1802.496  | 1804.820  | 1801.334  | 1803.658  | 1803.077  | 1797.268  | 1793.783  | 1790.297  |  |
| 40.0                    | 1898.343                 | 1902.409 | 1902.990  | 1911.703  | 1912.865  | 1920.416  | 1922.159  | 1919.836  | 1921.578  | 1918.674  |  |
| 42.5                    | 2004.645                 | 2008.711 | 2011.616  | 2024.395  | 2034.271  | 2051.116  | 2055.763  | 2060.991  | 2062.734  | 2070.866  |  |
| 45.0                    | 2116.176                 | 2118.499 | 2123.727  | 2142.316  | 2158.581  | 2186.463  | 2198.081  | 2207.956  | 2216.089  | 2225.383  |  |
| 47.5                    | 2237.001                 | 2241.648 | 2242.228  | 2269.530  | 2297.994  | 2332.266  | 2343.303  | 2358.987  | 2372.928  | 2382.223  |  |
| 50.0                    | 2379.899                 | 2383.965 | 2389.193  | 2420.561  | 2459.481  | 2509.437  | 2521.636  | 2534.996  | 2548.357  | 2561.136  |  |
| 52.5                    | 2553.004                 | 2554.165 | 2561.136  | 2611.093  | 2661.630  | 2732.498  | 2745.859  | 2763.866  | 2771.999  | 2787.683  |  |
| 55.0                    | 2738.888                 | 2744.116 | 2767.932  | 2844.029  | 2928.838  | 3012.486  | 3046.178  | 3063.024  | 3072.899  | 3093.811  |  |
| 57.5                    | 2939.294                 | 2945.684 | 2987.508  | 3101.943  | 3237.871  | 3363.924  | 3423.174  | 3438.858  | 3448.733  | 3475.454  |  |
| 60.0                    | 3135.635                 | 3152.480 | 3229.158  | 3385.416  | 3585.242  | 3768.222  | 3870.458  | 3897.179  | 3896.017  | 3909.959  |  |
| 62.5                    | 3212.312                 | 3247.746 | 3387.159  | 3609.058  | 3893.113  | 4181.233  | 4369.441  | 4427.530  | 4433.920  | 4436.824  |  |
| 65.0                    | 2990.993                 | 3020.619 | 3232.062  | 3524.249  | 3922.738  | 4357.242  | 4738.305  | 4924.770  | 5043.852  | 5088.581  |  |
| 67.5                    | 2392.679                 | 2396.164 | 2653.497  | 2986.927  | 3462.675  | 4019.166  | 4601.796  | 5064.764  | 5389.481  | 5532.379  |  |
| 70.0                    | 1433.632                 | 1422.014 | 1643.333  | 1937.262  | 2393.259  | 2992.155  | 3716.523  | 4394.419  | 4868.424  | 5078.706  |  |
| 72.5                    | 676.154                  | 663.374  | 772.581   | 900.958   | 1194.306  | 1538.192  | 2143.478  | 2789.425  | 3274.467  | 3529.477  |  |
| 75.0                    | 353.180                  | 350.276  | 379.320   | 406.041   | 485.042   | 576.241   | 809.177   | 1140.864  | 1445.831  | 1660.759  |  |
| 77.5                    | 216.671                  | 218.995  | 237.583   | 252.686   | 278.826   | 300.319   | 346.790   | 411.850   | 494.336   | 544.292   |  |
| 80.0                    | 145.803                  | 145.803  | 152.774   | 167.296   | 186.465   | 197.502   | 219.576   | 238.164   | 258.495   | 265.466   |  |
| 82.5                    | 91.199                   | 90.619   | 93.523    | 100.494   | 116.178   | 123.148   | 134.766   | 142.899   | 150.450   | 147.546   |  |
| 85.0                    | 33.111                   | 33.692   | 39.500    | 45.309    | 56.927    | 59.251    | 65.059    | 68.545    | 66.802    | 64.479    |  |
| 87.5                    | 5.228                    | 5.809    | 7.552     | 9.875     | 13.360    | 14.522    | 18.008    | 20.331    | 20.912    | 20.912    |  |
| 90.0                    | 0.000                    | 0.000    | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |  |

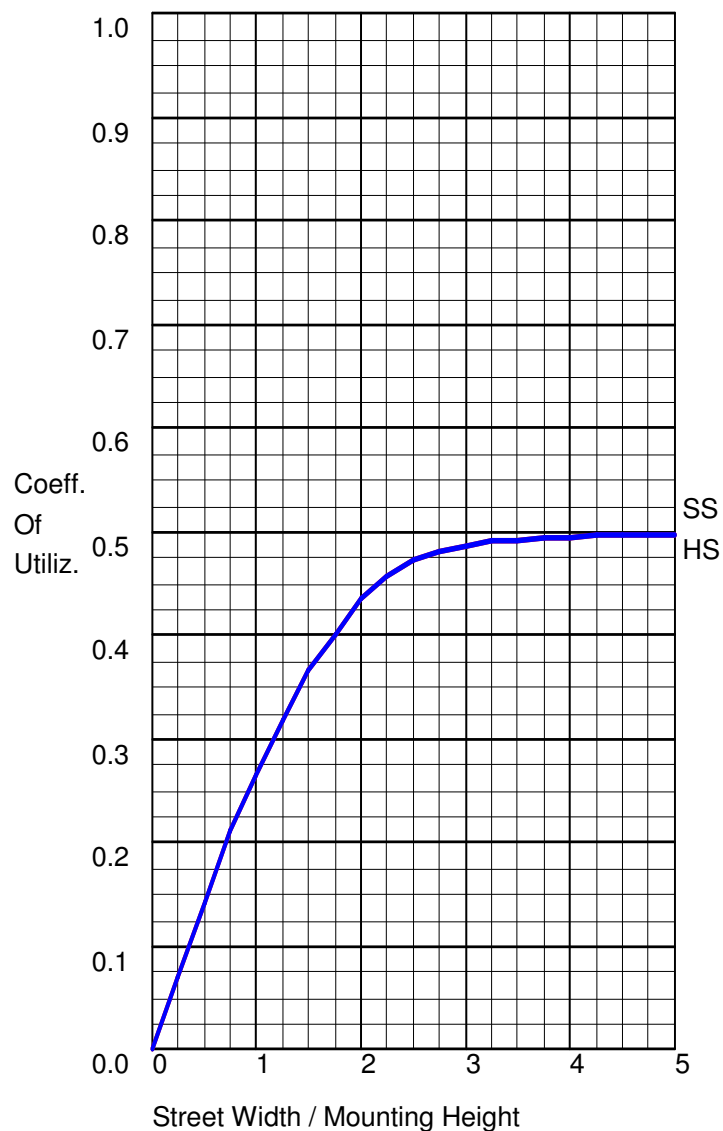
| <b>Vert.<br/>Angles</b> | <b>Horizontal Angles</b> |           |           |           |           |           |           |           |           |  |
|-------------------------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
|                         | <u>50</u>                | <u>55</u> | <u>60</u> | <u>65</u> | <u>70</u> | <u>75</u> | <u>80</u> | <u>85</u> | <u>90</u> |  |
| 0.0                     | 1280.278                 | 1280.278  | 1280.278  | 1280.278  | 1280.278  | 1280.278  | 1280.278  | 1280.278  | 1280.278  |  |
| 2.5                     | 1280.859                 | 1280.278  | 1281.439  | 1281.439  | 1282.020  | 1282.020  | 1280.859  | 1281.439  | 1281.439  |  |
| 5.0                     | 1289.572                 | 1289.572  | 1290.734  | 1290.734  | 1291.895  | 1292.476  | 1291.314  | 1292.476  | 1294.219  |  |
| 7.5                     | 1307.579                 | 1306.998  | 1308.160  | 1308.741  | 1309.903  | 1310.484  | 1309.903  | 1311.646  | 1314.550  |  |
| 10.0                    | 1329.653                 | 1329.072  | 1330.234  | 1330.234  | 1331.396  | 1331.977  | 1331.396  | 1333.719  | 1337.786  |  |
| 12.5                    | 1351.727                 | 1351.146  | 1351.727  | 1352.308  | 1353.470  | 1352.308  | 1352.889  | 1355.793  | 1361.602  |  |
| 15.0                    | 1372.639                 | 1371.477  | 1371.477  | 1372.058  | 1373.220  | 1373.220  | 1374.382  | 1378.448  | 1384.837  |  |
| 17.5                    | 1392.389                 | 1391.227  | 1392.970  | 1392.970  | 1394.132  | 1396.455  | 1398.198  | 1403.426  | 1410.977  |  |
| 20.0                    | 1413.882                 | 1413.301  | 1415.625  | 1416.205  | 1419.691  | 1422.595  | 1424.919  | 1431.889  | 1440.022  |  |
| 22.5                    | 1437.117                 | 1436.537  | 1440.603  | 1442.926  | 1447.573  | 1451.059  | 1455.706  | 1463.257  | 1470.228  |  |
| 25.0                    | 1466.743                 | 1466.743  | 1471.390  | 1474.875  | 1480.684  | 1485.912  | 1490.559  | 1498.692  | 1506.243  |  |
| 27.5                    | 1505.081                 | 1505.081  | 1509.148  | 1514.956  | 1520.184  | 1525.412  | 1531.221  | 1537.611  | 1544.582  |  |

**IES ROAD REPORT**  
**PHOTOMETRIC FILENAME : VA1-L110-740-T5-F-S-XXX-DIM-UNV\_.IES**

**CANDELA TABULATION - (Cont.)**

|      |          |          |          |          |          |          |          |          |          |
|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 30.0 | 1553.876 | 1554.457 | 1557.942 | 1563.170 | 1568.979 | 1574.207 | 1580.016 | 1585.244 | 1590.472 |
| 32.5 | 1614.288 | 1616.612 | 1621.259 | 1627.068 | 1631.715 | 1635.200 | 1639.267 | 1642.752 | 1647.399 |
| 35.0 | 1693.870 | 1696.194 | 1702.002 | 1708.973 | 1710.716 | 1714.782 | 1715.363 | 1720.591 | 1723.495 |
| 37.5 | 1794.364 | 1794.945 | 1801.334 | 1806.562 | 1810.048 | 1810.048 | 1810.048 | 1810.629 | 1815.857 |
| 40.0 | 1920.416 | 1917.512 | 1924.483 | 1927.387 | 1927.387 | 1916.931 | 1914.027 | 1913.446 | 1917.512 |
| 42.5 | 2066.219 | 2060.410 | 2062.734 | 2059.830 | 2049.374 | 2029.623 | 2021.491 | 2021.491 | 2029.043 |
| 45.0 | 2223.640 | 2210.861 | 2205.052 | 2194.596 | 2174.265 | 2149.286 | 2137.669 | 2133.022 | 2146.963 |
| 47.5 | 2380.480 | 2368.862 | 2355.502 | 2344.465 | 2312.516 | 2283.472 | 2270.111 | 2262.560 | 2273.596 |
| 50.0 | 2561.136 | 2555.327 | 2541.386 | 2528.025 | 2483.878 | 2443.216 | 2424.627 | 2414.171 | 2425.789 |
| 52.5 | 2795.815 | 2799.881 | 2791.168 | 2753.991 | 2690.674 | 2631.424 | 2600.056 | 2586.114 | 2594.247 |
| 55.0 | 3111.818 | 3122.855 | 3104.847 | 3038.045 | 2949.750 | 2858.551 | 2805.690 | 2778.388 | 2781.874 |
| 57.5 | 3498.109 | 3509.146 | 3487.072 | 3381.931 | 3273.886 | 3133.892 | 3047.920 | 2996.802 | 2988.089 |
| 60.0 | 3946.555 | 3956.430 | 3942.488 | 3819.340 | 3672.956 | 3473.712 | 3331.975 | 3248.908 | 3233.224 |
| 62.5 | 4465.869 | 4495.494 | 4480.391 | 4303.801 | 4048.791 | 3761.251 | 3531.219 | 3385.416 | 3340.107 |
| 65.0 | 5098.456 | 5071.735 | 4910.248 | 4536.156 | 4104.556 | 3690.964 | 3384.836 | 3164.679 | 3085.097 |
| 67.5 | 5471.967 | 5205.339 | 4778.386 | 4207.373 | 3660.177 | 3162.355 | 2786.521 | 2534.415 | 2431.017 |
| 70.0 | 4978.212 | 4547.193 | 3906.473 | 3206.503 | 2574.497 | 2086.550 | 1695.613 | 1498.692 | 1411.558 |
| 72.5 | 3445.248 | 2948.589 | 2209.118 | 1529.479 | 1100.202 | 907.928  | 751.669  | 686.029  | 654.080  |
| 75.0 | 1501.596 | 1116.467 | 729.015  | 571.594  | 485.042  | 442.637  | 399.070  | 381.063  | 370.607  |
| 77.5 | 470.519  | 404.298  | 353.180  | 322.974  | 296.253  | 275.922  | 255.010  | 237.002  | 229.451  |
| 80.0 | 261.981  | 242.230  | 225.966  | 210.282  | 196.921  | 181.818  | 160.325  | 152.774  | 149.869  |
| 82.5 | 151.612  | 145.222  | 138.251  | 128.957  | 120.825  | 108.626  | 95.847   | 94.685   | 96.427   |
| 85.0 | 66.221   | 66.802   | 64.479   | 60.412   | 57.508   | 50.537   | 45.890   | 45.309   | 45.309   |
| 87.5 | 21.493   | 20.912   | 18.588   | 17.427   | 16.265   | 15.103   | 12.780   | 13.360   | 12.780   |
| 90.0 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |

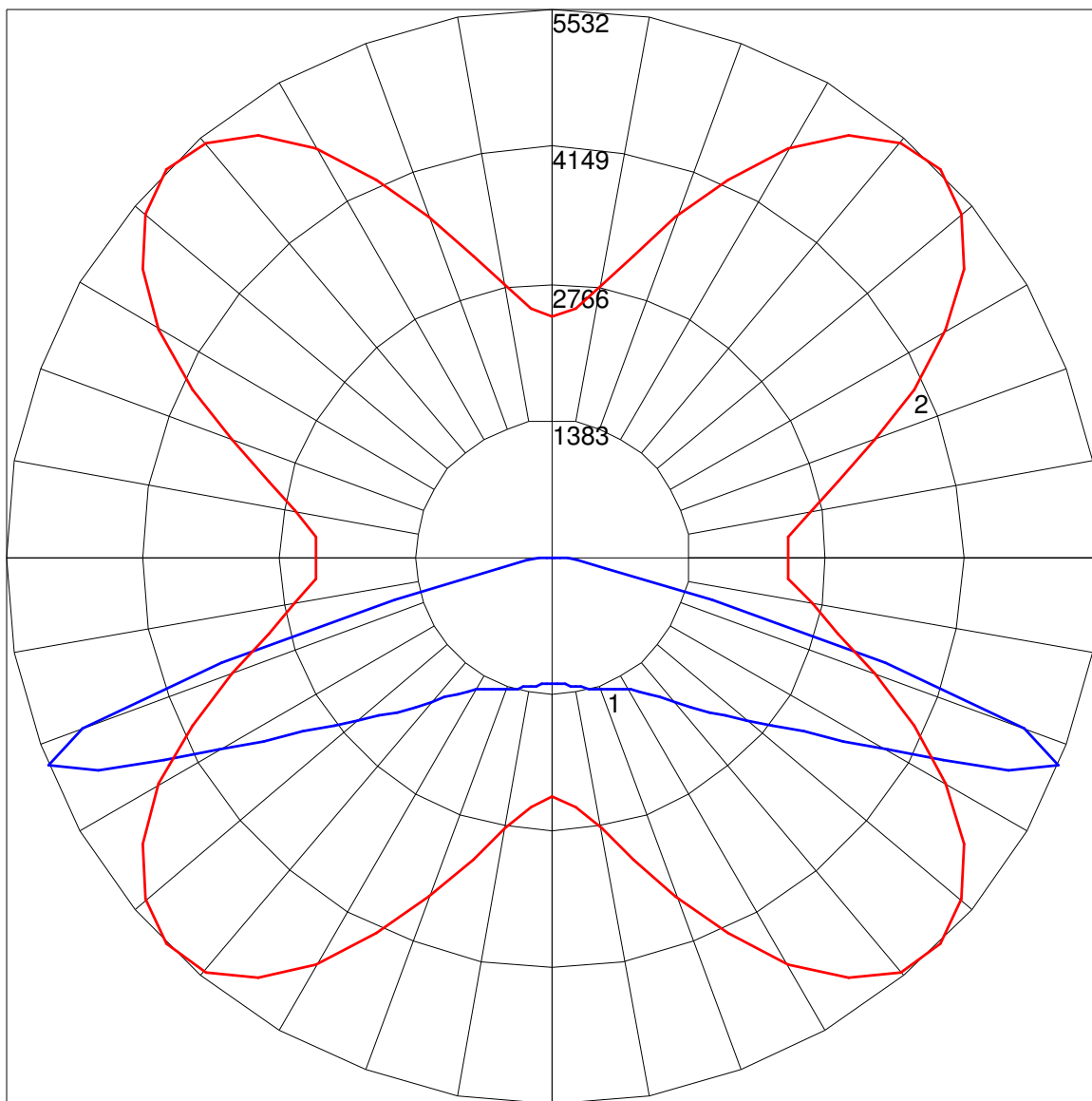
### COEFFICIENTS OF UTILIZATION



### FLUX DISTRIBUTION

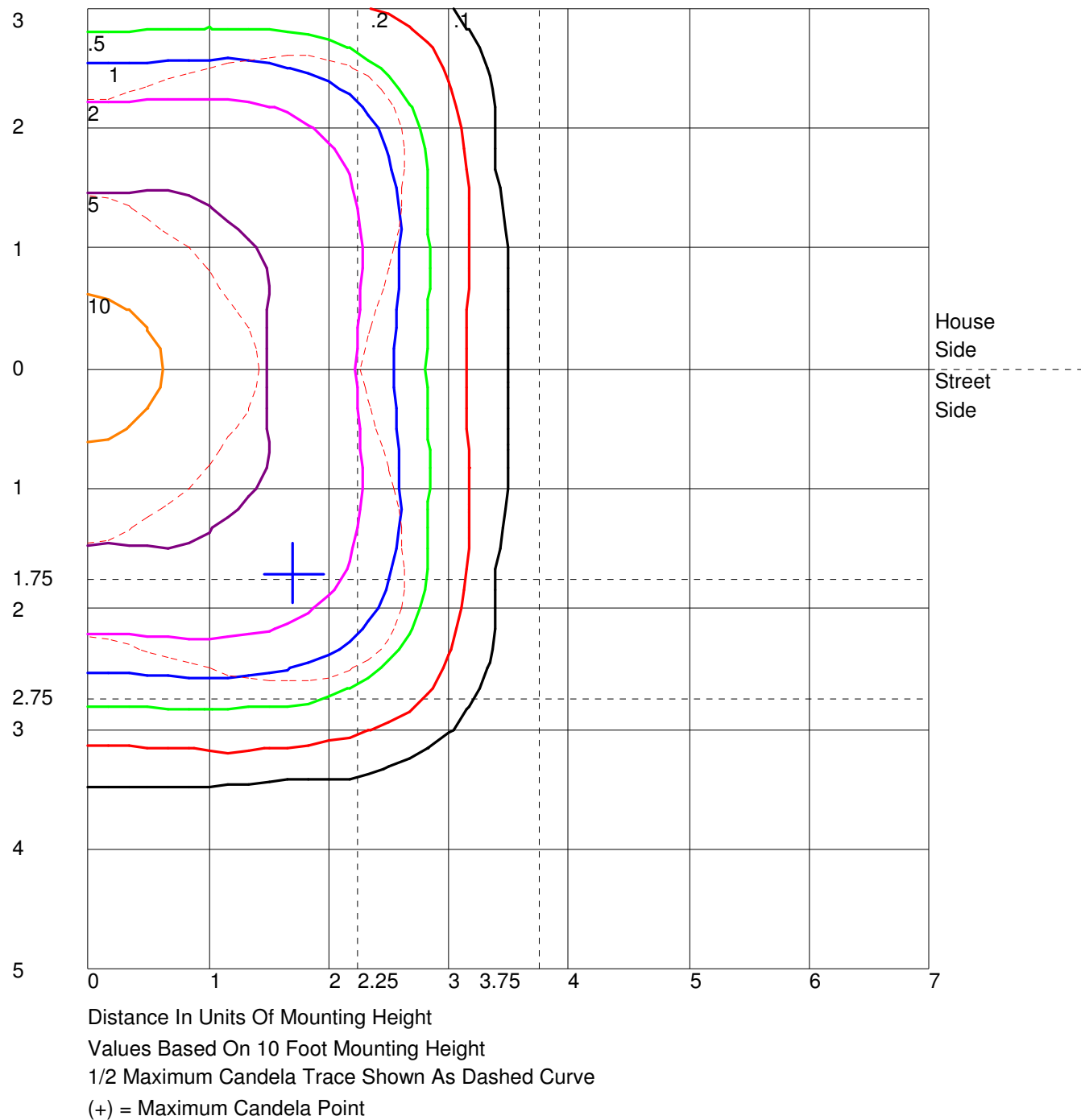
|                      | Lumens  | Percent<br>Of Luminaire |
|----------------------|---------|-------------------------|
| Downward Street Side | 5860.1  | 50.0                    |
| Downward House Side  | 5860.1  | 50.0                    |
| Downward Total       | 11720.2 | 100.0                   |
| Upward Street Side   | 0.0     | 0.0                     |
| Upward House Side    | 0.0     | 0.0                     |
| Upward Total         | 0.0     | 0.0                     |
| Total Flux           | 11720.2 | 100.0                   |

POLAR GRAPH

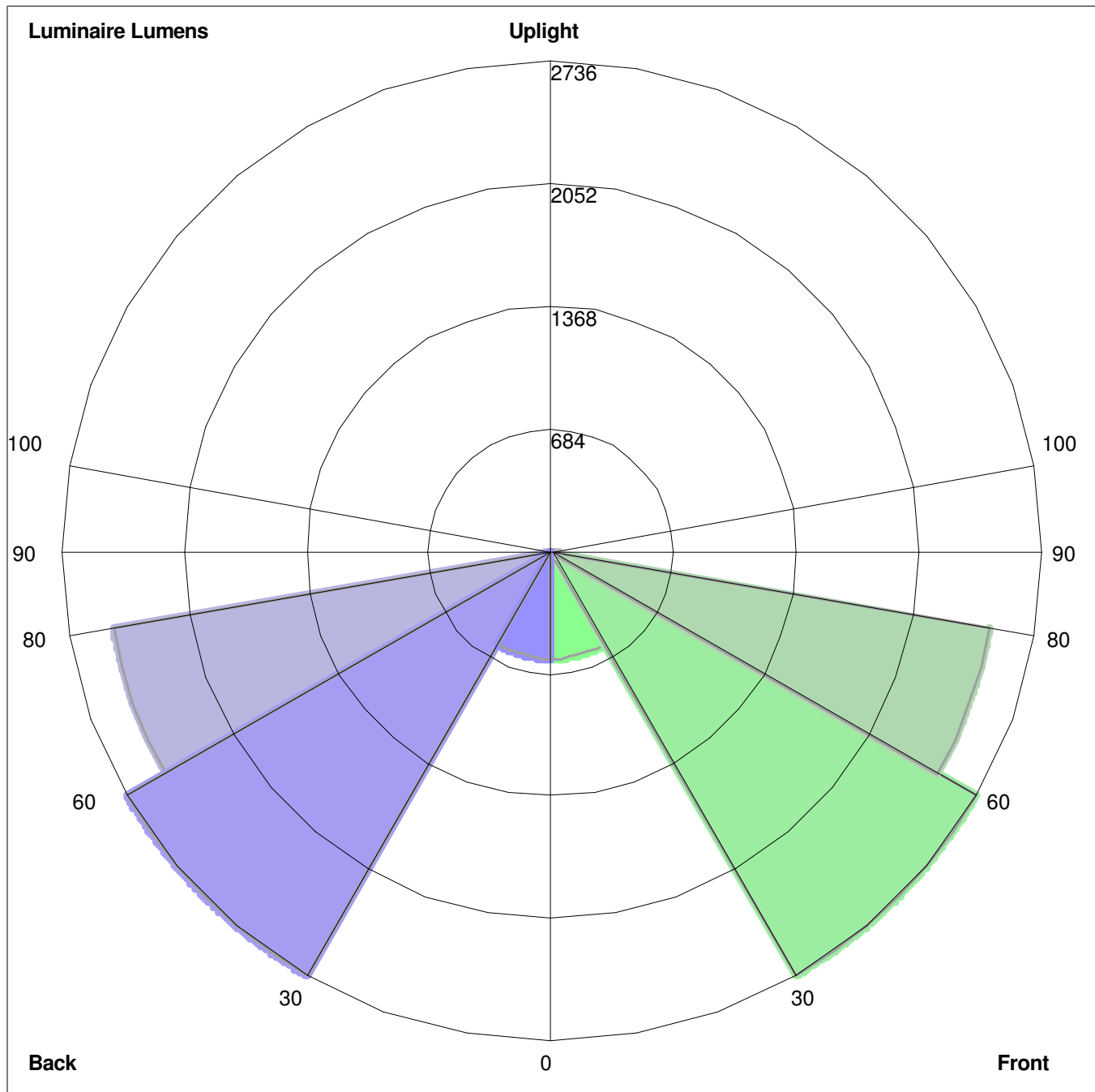


Maximum Candela = 5532.379 Located At Horizontal Angle = 45, Vertical Angle = 67.5  
# 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (67.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:  
Front: Low=601.6, Medium=2736.2, High=2482.6, Very High=39.7  
Back: Low=601.6, Medium=2736.2, High=2482.6, Very High=39.7  
Uplight: Low=0.0, High=0.0

BUG Rating : B3-U0-G2