

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #15177918.03 & #15177918.01

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 2026-03-03

[TEST DATE] 2/19/2024

[MANUFAC] H E Williams Inc

[LUMCAT] MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_

[LUMINAIRE] White linear extruded luminaire with up and downlight

[LAMP] 144 LEDs (2 LED boards with 72 LEDs per board)

[OTHER] This test was performed using the calibrated photodetector

[MORE] method of absolute photometry.

### CHARACTERISTICS

|                                 |                 |
|---------------------------------|-----------------|
| Lumens Per Lamp                 | N.A. (absolute) |
| Total Lamp Lumens               | N.A. (absolute) |
| Luminaire Lumens                | 9797            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 107             |
| Total Luminaire Watts           | 91.8            |
| Ballast Factor                  | 1.00            |
| CIE Type                        | General Diffuse |
| Spacing Criterion (0-180)       | N.A.            |
| Spacing Criterion (90-270)      | N.A.            |
| Spacing Criterion (Diagonal)    | N.A.            |
| Basic Luminous Shape            | Rectangular     |
| Luminous Length (0-180)         | 4.00 ft         |
| Luminous Width (90-270)         | 0.33 ft         |
| Luminous Height                 | 0.00 ft         |

### LUMINANCE DATA (cd/sq.m)

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 13329            | 12996             | 12848             |
| 55                  | 12253            | 11956             | 11830             |
| 65                  | 11301            | 11029             | 10909             |
| 75                  | 9584             | 9579              | 9574              |
| 85                  | 7485             | 7786              | 8011              |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES****CANDELA TABULATION**

|      | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|------|------------|-------------|-------------|-------------|-------------|
| 0.0  | 1934.101   | 1934.101    | 1934.101    | 1934.101    | 1934.101    |
| 0.5  | 1963.307   | 1935.723    | 1925.988    | 1930.044    | 1923.554    |
| 1.0  | 1963.307   | 1934.912    | 1925.988    | 1930.044    | 1923.554    |
| 1.5  | 1962.496   | 1934.101    | 1925.177    | 1930.044    | 1922.743    |
| 2.0  | 1961.684   | 1933.289    | 1924.365    | 1929.233    | 1922.743    |
| 2.5  | 1960.873   | 1932.478    | 1922.743    | 1928.422    | 1921.931    |
| 3.0  | 1959.251   | 1930.856    | 1921.931    | 1927.610    | 1920.309    |
| 3.5  | 1957.628   | 1929.233    | 1920.309    | 1925.988    | 1918.686    |
| 4.0  | 1956.005   | 1927.610    | 1918.686    | 1924.365    | 1917.064    |
| 4.5  | 1954.383   | 1925.177    | 1917.064    | 1922.743    | 1914.630    |
| 5.0  | 1952.760   | 1923.554    | 1914.630    | 1920.309    | 1912.196    |
| 5.5  | 1950.326   | 1921.120    | 1912.196    | 1917.875    | 1909.762    |
| 6.0  | 1947.893   | 1917.875    | 1909.762    | 1915.441    | 1906.517    |
| 6.5  | 1944.647   | 1915.441    | 1906.517    | 1912.196    | 1904.083    |
| 7.0  | 1942.214   | 1912.196    | 1904.083    | 1908.951    | 1900.838    |
| 7.5  | 1939.780   | 1908.951    | 1900.838    | 1905.706    | 1898.404    |
| 8.0  | 1935.723   | 1905.706    | 1896.782    | 1902.461    | 1895.159    |
| 8.5  | 1932.478   | 1901.649    | 1892.725    | 1898.404    | 1891.103    |
| 9.0  | 1928.422   | 1898.404    | 1889.480    | 1894.348    | 1887.046    |
| 9.5  | 1924.365   | 1894.348    | 1884.612    | 1889.480    | 1882.990    |
| 10.0 | 1920.309   | 1890.291    | 1880.556    | 1885.424    | 1878.122    |
| 10.5 | 1915.441   | 1885.424    | 1875.688    | 1880.556    | 1874.066    |
| 11.0 | 1911.385   | 1880.556    | 1870.821    | 1875.688    | 1868.387    |
| 11.5 | 1905.706   | 1875.688    | 1865.953    | 1870.821    | 1863.519    |
| 12.0 | 1900.838   | 1870.821    | 1861.085    | 1865.142    | 1857.840    |
| 12.5 | 1895.970   | 1865.142    | 1855.406    | 1859.463    | 1852.161    |
| 13.0 | 1890.291   | 1860.274    | 1849.727    | 1853.784    | 1846.482    |
| 13.5 | 1884.612   | 1853.784    | 1844.048    | 1847.293    | 1840.803    |
| 14.0 | 1878.933   | 1848.105    | 1837.558    | 1841.614    | 1835.124    |
| 14.5 | 1873.254   | 1842.426    | 1831.068    | 1835.124    | 1828.634    |
| 15.0 | 1867.575   | 1835.935    | 1824.577    | 1828.634    | 1822.144    |
| 15.5 | 1860.274   | 1830.256    | 1818.087    | 1821.332    | 1814.842    |
| 16.0 | 1852.161   | 1823.766    | 1810.786    | 1814.842    | 1808.352    |
| 16.5 | 1844.048   | 1816.465    | 1803.484    | 1807.540    | 1801.050    |
| 17.0 | 1836.747   | 1809.163    | 1796.182    | 1800.239    | 1793.749    |
| 17.5 | 1828.634   | 1801.050    | 1788.070    | 1792.126    | 1785.636    |
| 18.0 | 1820.521   | 1792.937    | 1779.957    | 1784.013    | 1777.523    |
| 18.5 | 1812.408   | 1784.824    | 1771.844    | 1775.089    | 1769.410    |
| 19.0 | 1804.295   | 1776.712    | 1764.542    | 1766.976    | 1759.675    |
| 19.5 | 1795.371   | 1768.599    | 1756.430    | 1757.241    | 1749.939    |
| 20.0 | 1787.258   | 1759.675    | 1749.128    | 1748.317    | 1740.204    |
| 20.5 | 1778.334   | 1751.562    | 1741.015    | 1738.581    | 1730.468    |
| 21.0 | 1769.410   | 1742.638    | 1732.091    | 1728.846    | 1719.922    |
| 21.5 | 1759.675   | 1733.714    | 1722.356    | 1719.110    | 1709.375    |
| 22.0 | 1750.751   | 1723.978    | 1711.809    | 1708.564    | 1699.640    |
| 22.5 | 1741.015   | 1714.243    | 1702.074    | 1698.017    | 1689.093    |
| 23.0 | 1731.280   | 1704.507    | 1692.338    | 1686.659    | 1678.546    |
| 23.5 | 1721.544   | 1694.772    | 1681.791    | 1676.112    | 1668.811    |
| 24.0 | 1710.998   | 1685.037    | 1672.056    | 1665.566    | 1658.264    |
| 24.5 | 1700.451   | 1674.490    | 1661.509    | 1655.019    | 1647.718    |
| 25.0 | 1690.716   | 1663.943    | 1650.963    | 1644.472    | 1637.171    |
| 25.5 | 1680.169   | 1653.397    | 1639.605    | 1633.926    | 1625.813    |
| 26.0 | 1668.811   | 1642.039    | 1629.058    | 1623.379    | 1615.266    |
| 26.5 | 1658.264   | 1631.492    | 1617.700    | 1612.832    | 1604.719    |

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|      |          |          |          |          |          |
|------|----------|----------|----------|----------|----------|
| 27.0 | 1646.906 | 1620.134 | 1606.342 | 1602.286 | 1593.361 |
| 27.5 | 1635.548 | 1608.776 | 1595.795 | 1591.739 | 1582.815 |
| 28.0 | 1624.190 | 1596.607 | 1583.626 | 1580.381 | 1571.457 |
| 28.5 | 1612.021 | 1584.437 | 1572.268 | 1569.834 | 1560.099 |
| 29.0 | 1599.852 | 1573.079 | 1560.910 | 1558.476 | 1548.741 |
| 29.5 | 1588.494 | 1560.910 | 1549.552 | 1546.307 | 1538.194 |
| 30.0 | 1576.325 | 1548.741 | 1538.194 | 1534.949 | 1526.836 |
| 30.5 | 1564.155 | 1536.572 | 1526.025 | 1523.591 | 1515.478 |
| 31.0 | 1551.175 | 1525.214 | 1513.856 | 1511.422 | 1504.120 |
| 31.5 | 1539.005 | 1513.044 | 1501.686 | 1499.253 | 1491.951 |
| 32.0 | 1526.025 | 1500.064 | 1489.517 | 1486.272 | 1479.782 |
| 32.5 | 1513.044 | 1487.895 | 1477.348 | 1474.103 | 1466.801 |
| 33.0 | 1500.064 | 1475.725 | 1465.179 | 1461.934 | 1453.821 |
| 33.5 | 1487.895 | 1462.745 | 1452.198 | 1448.953 | 1441.651 |
| 34.0 | 1474.103 | 1449.764 | 1440.029 | 1435.972 | 1428.671 |
| 34.5 | 1461.122 | 1436.784 | 1426.237 | 1422.992 | 1414.879 |
| 35.0 | 1448.142 | 1424.614 | 1413.256 | 1410.011 | 1401.087 |
| 35.5 | 1434.350 | 1410.823 | 1400.276 | 1397.031 | 1387.295 |
| 36.0 | 1420.558 | 1397.842 | 1387.295 | 1383.239 | 1374.315 |
| 36.5 | 1407.577 | 1384.862 | 1374.315 | 1370.258 | 1361.334 |
| 37.0 | 1393.786 | 1371.070 | 1360.523 | 1356.467 | 1347.542 |
| 37.5 | 1379.994 | 1357.278 | 1347.542 | 1342.675 | 1334.562 |
| 38.0 | 1365.391 | 1343.486 | 1333.751 | 1328.883 | 1320.770 |
| 38.5 | 1351.599 | 1329.694 | 1319.959 | 1315.902 | 1306.978 |
| 39.0 | 1338.618 | 1315.902 | 1306.167 | 1302.111 | 1293.998 |
| 39.5 | 1324.015 | 1302.111 | 1293.186 | 1288.319 | 1279.395 |
| 40.0 | 1310.223 | 1287.507 | 1279.395 | 1274.527 | 1266.414 |
| 40.5 | 1295.620 | 1273.716 | 1265.603 | 1260.735 | 1252.622 |
| 41.0 | 1281.828 | 1259.113 | 1251.811 | 1246.132 | 1238.019 |
| 41.5 | 1267.225 | 1245.321 | 1237.208 | 1232.340 | 1223.416 |
| 42.0 | 1253.434 | 1230.718 | 1223.416 | 1218.548 | 1209.624 |
| 42.5 | 1239.642 | 1216.926 | 1209.624 | 1203.945 | 1195.832 |
| 43.0 | 1225.039 | 1203.134 | 1195.832 | 1190.153 | 1181.229 |
| 43.5 | 1211.247 | 1188.531 | 1181.229 | 1176.362 | 1167.437 |
| 44.0 | 1196.644 | 1173.928 | 1166.626 | 1161.758 | 1153.646 |
| 44.5 | 1182.041 | 1159.325 | 1152.023 | 1147.155 | 1139.043 |
| 45.0 | 1167.437 | 1145.533 | 1138.231 | 1132.552 | 1125.251 |
| 45.5 | 1153.646 | 1130.930 | 1123.628 | 1118.760 | 1111.459 |
| 46.0 | 1139.043 | 1116.327 | 1109.025 | 1104.157 | 1097.667 |
| 46.5 | 1124.439 | 1101.723 | 1095.233 | 1090.366 | 1083.875 |
| 47.0 | 1109.836 | 1087.120 | 1080.630 | 1075.762 | 1069.272 |
| 47.5 | 1094.422 | 1072.517 | 1066.027 | 1061.159 | 1055.480 |
| 48.0 | 1079.819 | 1057.914 | 1051.424 | 1047.367 | 1040.877 |
| 48.5 | 1065.216 | 1043.311 | 1037.632 | 1032.764 | 1026.274 |
| 49.0 | 1049.801 | 1028.708 | 1023.029 | 1018.161 | 1012.482 |
| 49.5 | 1035.198 | 1014.105 | 1008.426 | 1004.369 | 998.690  |
| 50.0 | 1019.784 | 999.502  | 993.823  | 989.766  | 984.087  |
| 50.5 | 1004.369 | 984.899  | 979.220  | 975.163  | 970.295  |
| 51.0 | 988.955  | 970.295  | 964.617  | 960.560  | 955.692  |
| 51.5 | 974.352  | 955.692  | 950.013  | 946.768  | 941.089  |
| 52.0 | 959.749  | 941.089  | 935.410  | 932.165  | 927.297  |
| 52.5 | 944.334  | 926.486  | 920.807  | 918.373  | 912.694  |
| 53.0 | 929.731  | 911.883  | 906.204  | 903.770  | 898.091  |
| 53.5 | 914.317  | 897.280  | 891.601  | 889.167  | 883.488  |
| 54.0 | 899.714  | 882.677  | 877.809  | 875.375  | 868.885  |
| 54.5 | 885.111  | 868.885  | 863.206  | 860.772  | 854.282  |

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|      |         |         |         |         |         |
|------|---------|---------|---------|---------|---------|
| 55.0 | 870.508 | 855.093 | 849.414 | 846.980 | 840.490 |
| 55.5 | 856.716 | 840.490 | 834.811 | 832.377 | 826.698 |
| 56.0 | 841.301 | 825.887 | 820.208 | 818.585 | 812.095 |
| 56.5 | 826.698 | 812.095 | 806.011 | 804.226 | 797.817 |
| 57.0 | 812.906 | 797.492 | 791.651 | 789.704 | 783.619 |
| 57.5 | 798.628 | 783.376 | 777.372 | 775.587 | 769.259 |
| 58.0 | 784.349 | 769.422 | 763.013 | 761.390 | 755.062 |
| 58.5 | 769.989 | 755.386 | 748.896 | 747.436 | 741.432 |
| 59.0 | 755.873 | 741.270 | 734.699 | 733.320 | 727.559 |
| 59.5 | 742.162 | 726.991 | 720.258 | 719.284 | 713.849 |
| 60.0 | 728.127 | 712.794 | 705.979 | 705.168 | 699.895 |
| 60.5 | 714.254 | 698.921 | 692.187 | 690.970 | 685.778 |
| 61.0 | 700.625 | 685.048 | 678.477 | 677.098 | 671.986 |
| 61.5 | 686.022 | 671.337 | 664.847 | 663.306 | 658.357 |
| 62.0 | 671.662 | 657.221 | 650.731 | 649.595 | 644.403 |
| 62.5 | 656.978 | 644.159 | 637.426 | 636.533 | 631.179 |
| 63.0 | 642.861 | 632.639 | 627.204 | 626.798 | 622.417 |
| 63.5 | 628.583 | 620.064 | 615.764 | 614.872 | 610.329 |
| 64.0 | 619.983 | 607.814 | 603.920 | 602.135 | 596.943 |
| 64.5 | 606.597 | 594.752 | 590.534 | 588.911 | 584.043 |
| 65.0 | 591.588 | 580.798 | 577.310 | 575.768 | 571.063 |
| 65.5 | 576.255 | 566.682 | 563.518 | 562.788 | 558.001 |
| 66.0 | 561.490 | 552.890 | 550.050 | 549.726 | 544.615 |
| 66.5 | 546.886 | 538.774 | 536.340 | 536.340 | 531.797 |
| 67.0 | 532.446 | 524.738 | 522.791 | 523.035 | 518.897 |
| 67.5 | 518.248 | 510.947 | 509.162 | 509.649 | 505.592 |
| 68.0 | 503.888 | 497.155 | 495.532 | 496.181 | 491.963 |
| 68.5 | 489.448 | 483.120 | 481.822 | 482.714 | 478.576 |
| 69.0 | 474.520 | 469.003 | 468.030 | 468.516 | 464.703 |
| 69.5 | 459.998 | 455.130 | 453.994 | 454.562 | 451.074 |
| 70.0 | 445.638 | 441.095 | 440.284 | 440.527 | 437.444 |
| 70.5 | 431.522 | 426.979 | 426.411 | 426.654 | 423.734 |
| 71.0 | 417.081 | 412.943 | 412.781 | 413.106 | 409.942 |
| 71.5 | 402.640 | 398.908 | 399.233 | 399.476 | 396.718 |
| 72.0 | 388.605 | 384.792 | 385.441 | 385.766 | 383.413 |
| 72.5 | 374.570 | 370.919 | 371.974 | 372.298 | 370.351 |
| 73.0 | 360.697 | 357.371 | 358.831 | 359.236 | 357.533 |
| 73.5 | 347.229 | 343.984 | 345.688 | 346.418 | 344.552 |
| 74.0 | 333.924 | 330.598 | 332.707 | 333.275 | 332.058 |
| 74.5 | 320.619 | 317.455 | 319.808 | 320.376 | 319.484 |
| 75.0 | 307.233 | 304.394 | 307.071 | 307.639 | 306.909 |
| 75.5 | 294.009 | 291.332 | 294.415 | 295.145 | 294.334 |
| 76.0 | 280.623 | 278.757 | 281.921 | 282.732 | 282.083 |
| 76.5 | 267.967 | 266.345 | 269.509 | 270.401 | 269.833 |
| 77.0 | 255.636 | 253.851 | 257.339 | 258.151 | 257.258 |
| 77.5 | 242.898 | 241.681 | 245.170 | 245.819 | 244.927 |
| 78.0 | 230.486 | 229.512 | 233.001 | 233.974 | 233.082 |
| 78.5 | 218.154 | 217.667 | 220.994 | 222.129 | 221.399 |
| 79.0 | 206.309 | 205.823 | 209.230 | 210.609 | 210.041 |
| 79.5 | 194.465 | 194.221 | 197.629 | 199.089 | 198.602 |
| 80.0 | 182.782 | 182.863 | 186.027 | 188.056 | 187.407 |
| 80.5 | 171.019 | 171.749 | 174.994 | 176.941 | 176.454 |
| 81.0 | 159.742 | 160.878 | 164.042 | 166.070 | 165.745 |
| 81.5 | 148.871 | 150.088 | 153.333 | 155.361 | 155.118 |
| 82.0 | 138.730 | 139.541 | 142.867 | 144.976 | 144.733 |
| 82.5 | 128.589 | 129.319 | 132.564 | 134.673 | 134.511 |

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|       |         |         |         |         |         |
|-------|---------|---------|---------|---------|---------|
| 83.0  | 118.447 | 119.583 | 122.423 | 124.613 | 124.775 |
| 83.5  | 108.469 | 109.848 | 112.606 | 114.716 | 115.202 |
| 84.0  | 99.139  | 100.275 | 102.871 | 104.899 | 105.629 |
| 84.5  | 89.647  | 90.864  | 93.298  | 95.326  | 96.056  |
| 85.0  | 80.804  | 81.777  | 84.049  | 85.834  | 86.483  |
| 85.5  | 72.204  | 72.691  | 74.638  | 76.504  | 77.153  |
| 86.0  | 63.767  | 63.929  | 65.633  | 67.337  | 68.148  |
| 86.5  | 55.411  | 55.411  | 56.952  | 58.494  | 59.224  |
| 87.0  | 46.973  | 46.973  | 48.109  | 50.056  | 50.624  |
| 87.5  | 38.617  | 38.698  | 39.753  | 41.700  | 42.430  |
| 88.0  | 30.666  | 30.585  | 31.640  | 33.749  | 34.561  |
| 88.5  | 23.040  | 22.554  | 23.933  | 25.799  | 26.935  |
| 89.0  | 14.928  | 14.684  | 16.550  | 18.335  | 19.552  |
| 89.5  | 6.896   | 8.194   | 9.898   | 11.277  | 11.682  |
| 90.0  | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   |
| 90.5  | 4.977   | 2.623   | 2.421   | 2.354   | 2.556   |
| 91.0  | 10.962  | 5.784   | 4.708   | 4.640   | 4.573   |
| 91.5  | 17.620  | 11.769  | 6.994   | 6.927   | 6.860   |
| 92.0  | 24.345  | 19.571  | 10.088  | 9.012   | 9.012   |
| 92.5  | 31.340  | 27.641  | 15.603  | 11.298  | 11.097  |
| 93.0  | 38.603  | 35.375  | 22.059  | 14.997  | 13.518  |
| 93.5  | 45.934  | 42.773  | 28.986  | 20.243  | 17.620  |
| 94.0  | 53.130  | 50.036  | 36.653  | 26.498  | 23.202  |
| 94.5  | 60.527  | 57.299  | 44.656  | 32.954  | 29.255  |
| 95.0  | 67.791  | 64.764  | 52.524  | 39.545  | 35.240  |
| 95.5  | 75.054  | 71.759  | 60.191  | 46.337  | 41.562  |
| 96.0  | 81.981  | 78.887  | 67.723  | 53.399  | 48.018  |
| 96.5  | 88.975  | 86.016  | 75.256  | 60.595  | 54.676  |
| 97.0  | 95.768  | 93.010  | 82.721  | 67.791  | 61.738  |
| 97.5  | 102.762 | 100.072 | 90.253  | 75.121  | 68.799  |
| 98.0  | 109.689 | 106.999 | 97.584  | 82.384  | 75.928  |
| 98.5  | 116.616 | 113.993 | 104.645 | 89.782  | 83.057  |
| 99.0  | 123.678 | 121.189 | 111.841 | 96.844  | 90.253  |
| 99.5  | 130.806 | 128.318 | 119.104 | 103.905 | 97.315  |
| 100.0 | 137.801 | 135.514 | 126.368 | 111.169 | 104.242 |
| 100.5 | 145.064 | 142.710 | 133.631 | 118.701 | 111.236 |
| 101.0 | 152.529 | 149.906 | 141.029 | 126.300 | 118.835 |
| 101.5 | 160.128 | 157.237 | 148.561 | 133.900 | 126.704 |
| 102.0 | 167.526 | 164.836 | 156.093 | 141.499 | 134.505 |
| 102.5 | 175.260 | 172.368 | 163.895 | 149.099 | 142.239 |
| 103.0 | 183.196 | 180.170 | 171.629 | 156.631 | 150.108 |
| 103.5 | 191.132 | 188.106 | 179.833 | 164.702 | 157.909 |
| 104.0 | 199.269 | 196.109 | 188.173 | 173.041 | 166.047 |
| 104.5 | 207.676 | 204.448 | 196.512 | 181.582 | 174.184 |
| 105.0 | 216.284 | 212.989 | 204.784 | 189.989 | 182.456 |
| 105.5 | 225.094 | 221.665 | 213.325 | 198.462 | 190.661 |
| 106.0 | 234.039 | 230.407 | 222.001 | 207.071 | 198.866 |
| 106.5 | 243.051 | 239.419 | 231.080 | 215.746 | 207.138 |
| 107.0 | 252.668 | 248.835 | 240.764 | 224.960 | 216.150 |
| 107.5 | 262.621 | 258.519 | 250.583 | 234.712 | 225.901 |
| 108.0 | 272.508 | 268.472 | 260.604 | 245.270 | 235.922 |
| 108.5 | 282.932 | 278.627 | 270.624 | 255.829 | 246.279 |
| 109.0 | 293.625 | 288.984 | 280.914 | 266.522 | 256.770 |
| 109.5 | 304.587 | 299.745 | 291.742 | 277.148 | 267.396 |
| 110.0 | 316.289 | 310.774 | 302.838 | 288.043 | 278.493 |
| 110.5 | 328.260 | 322.073 | 314.204 | 299.745 | 289.993 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES****CANDELA TABULATION - (Cont.)**

|       |          |          |          |          |          |
|-------|----------|----------|----------|----------|----------|
| 111.0 | 340.365  | 333.909  | 325.973  | 311.918  | 301.561  |
| 111.5 | 352.740  | 346.082  | 337.944  | 324.292  | 313.464  |
| 112.0 | 365.585  | 358.591  | 349.848  | 336.666  | 324.830  |
| 112.5 | 378.498  | 371.436  | 361.886  | 348.974  | 336.868  |
| 113.0 | 392.015  | 384.685  | 374.597  | 361.684  | 349.444  |
| 113.5 | 405.937  | 398.539  | 388.047  | 375.404  | 362.962  |
| 114.0 | 420.060  | 412.662  | 402.305  | 389.998  | 377.960  |
| 114.5 | 434.654  | 427.256  | 416.832  | 405.197  | 393.898  |
| 115.0 | 449.449  | 442.253  | 431.896  | 420.530  | 410.039  |
| 115.5 | 464.917  | 457.385  | 447.364  | 435.797  | 425.978  |
| 116.0 | 480.520  | 473.122  | 463.370  | 451.870  | 442.186  |
| 116.5 | 496.997  | 489.263  | 479.915  | 468.347  | 459.470  |
| 117.0 | 514.146  | 505.740  | 496.593  | 486.102  | 477.292  |
| 117.5 | 526.790  | 518.585  | 511.859  | 502.444  | 495.383  |
| 118.0 | 542.930  | 533.582  | 527.529  | 519.325  | 511.456  |
| 118.5 | 561.694  | 551.471  | 543.535  | 534.994  | 525.915  |
| 119.0 | 580.054  | 569.091  | 561.694  | 552.749  | 541.989  |
| 119.5 | 598.615  | 587.855  | 580.928  | 570.773  | 560.012  |
| 120.0 | 617.782  | 607.291  | 600.229  | 590.478  | 579.045  |
| 120.5 | 636.815  | 626.996  | 620.136  | 611.393  | 599.355  |
| 121.0 | 656.789  | 647.104  | 640.177  | 632.242  | 620.943  |
| 121.5 | 676.561  | 667.011  | 660.151  | 653.359  | 642.061  |
| 122.0 | 697.409  | 687.322  | 681.269  | 674.544  | 663.245  |
| 122.5 | 717.585  | 707.497  | 702.117  | 695.392  | 683.286  |
| 123.0 | 738.433  | 729.018  | 723.638  | 718.258  | 705.480  |
| 123.5 | 759.954  | 750.539  | 746.504  | 741.124  | 728.346  |
| 124.0 | 781.475  | 772.732  | 768.697  | 763.989  | 751.884  |
| 124.5 | 802.996  | 794.253  | 790.890  | 786.183  | 774.750  |
| 125.0 | 824.517  | 815.774  | 812.411  | 808.376  | 796.943  |
| 125.5 | 846.710  | 837.967  | 834.605  | 830.570  | 818.464  |
| 126.0 | 868.231  | 859.488  | 857.471  | 852.763  | 839.985  |
| 126.5 | 889.752  | 881.009  | 880.336  | 876.301  | 862.851  |
| 127.0 | 911.945  | 903.202  | 903.202  | 899.840  | 887.062  |
| 127.5 | 934.139  | 924.723  | 924.723  | 922.706  | 911.273  |
| 128.0 | 955.659  | 946.244  | 946.917  | 945.571  | 934.139  |
| 128.5 | 977.180  | 967.092  | 968.437  | 968.437  | 956.332  |
| 129.0 | 998.701  | 987.941  | 989.958  | 990.631  | 979.198  |
| 129.5 | 1020.222 | 1009.461 | 1012.152 | 1013.497 | 1002.736 |
| 130.0 | 1041.743 | 1030.982 | 1034.345 | 1036.362 | 1027.620 |
| 130.5 | 1063.263 | 1051.831 | 1057.211 | 1058.556 | 1051.158 |
| 131.0 | 1084.784 | 1072.679 | 1078.732 | 1080.077 | 1072.679 |
| 131.5 | 1104.960 | 1092.855 | 1100.252 | 1100.252 | 1093.527 |
| 132.0 | 1125.808 | 1113.030 | 1121.101 | 1121.773 | 1113.703 |
| 132.5 | 1145.984 | 1133.879 | 1141.949 | 1142.622 | 1133.879 |
| 133.0 | 1166.160 | 1154.727 | 1162.125 | 1163.470 | 1153.382 |
| 133.5 | 1186.336 | 1174.903 | 1182.973 | 1184.318 | 1174.230 |
| 134.0 | 1206.512 | 1194.406 | 1202.476 | 1204.494 | 1194.406 |
| 134.5 | 1224.670 | 1213.909 | 1221.307 | 1222.652 | 1213.909 |
| 135.0 | 1242.828 | 1232.740 | 1239.465 | 1240.810 | 1231.395 |
| 135.5 | 1260.314 | 1252.243 | 1257.623 | 1258.296 | 1248.881 |
| 136.0 | 1277.799 | 1270.401 | 1274.437 | 1276.454 | 1267.039 |
| 136.5 | 1295.957 | 1287.887 | 1291.250 | 1294.612 | 1285.870 |
| 137.0 | 1312.771 | 1305.373 | 1308.735 | 1311.426 | 1303.355 |
| 137.5 | 1329.584 | 1321.513 | 1324.876 | 1326.894 | 1318.823 |
| 138.0 | 1345.724 | 1337.654 | 1340.344 | 1341.689 | 1333.619 |
| 138.5 | 1361.865 | 1353.122 | 1355.812 | 1356.485 | 1347.742 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES****CANDELA TABULATION - (Cont.)**

|       |          |          |          |          |          |
|-------|----------|----------|----------|----------|----------|
| 139.0 | 1377.333 | 1368.590 | 1371.280 | 1371.280 | 1361.865 |
| 139.5 | 1392.801 | 1384.058 | 1386.076 | 1385.403 | 1375.316 |
| 140.0 | 1407.597 | 1398.181 | 1400.872 | 1400.199 | 1390.111 |
| 140.5 | 1421.720 | 1411.632 | 1414.322 | 1413.650 | 1402.889 |
| 141.0 | 1435.843 | 1425.755 | 1427.773 | 1426.428 | 1415.667 |
| 141.5 | 1448.621 | 1438.533 | 1441.223 | 1439.205 | 1427.100 |
| 142.0 | 1462.071 | 1451.983 | 1454.001 | 1451.311 | 1439.205 |
| 142.5 | 1474.849 | 1464.761 | 1466.779 | 1464.089 | 1450.638 |
| 143.0 | 1487.627 | 1476.867 | 1478.885 | 1476.194 | 1462.744 |
| 143.5 | 1499.733 | 1489.645 | 1490.990 | 1488.300 | 1474.177 |
| 144.0 | 1511.166 | 1501.750 | 1502.423 | 1499.060 | 1484.937 |
| 144.5 | 1522.599 | 1513.183 | 1513.856 | 1509.821 | 1495.698 |
| 145.0 | 1533.359 | 1524.616 | 1524.616 | 1519.909 | 1505.786 |
| 145.5 | 1544.792 | 1536.049 | 1535.377 | 1531.342 | 1516.546 |
| 146.0 | 1555.552 | 1546.810 | 1546.137 | 1541.429 | 1527.306 |
| 146.5 | 1566.313 | 1557.570 | 1556.225 | 1552.190 | 1538.067 |
| 147.0 | 1576.401 | 1568.330 | 1565.640 | 1562.950 | 1548.827 |
| 147.5 | 1586.489 | 1578.418 | 1575.728 | 1573.038 | 1558.915 |
| 148.0 | 1596.577 | 1588.506 | 1584.471 | 1582.454 | 1569.676 |
| 148.5 | 1606.664 | 1598.594 | 1593.214 | 1591.869 | 1580.436 |
| 149.0 | 1616.080 | 1608.682 | 1601.957 | 1601.284 | 1591.196 |
| 149.5 | 1625.495 | 1618.097 | 1610.027 | 1610.700 | 1601.284 |
| 150.0 | 1634.911 | 1627.513 | 1618.770 | 1619.442 | 1610.700 |
| 150.5 | 1644.326 | 1636.928 | 1626.840 | 1627.513 | 1620.115 |
| 151.0 | 1653.069 | 1645.671 | 1634.911 | 1635.583 | 1628.858 |
| 151.5 | 1662.484 | 1654.414 | 1643.653 | 1643.653 | 1636.928 |
| 152.0 | 1671.227 | 1663.157 | 1651.724 | 1651.051 | 1644.998 |
| 152.5 | 1679.970 | 1671.227 | 1659.794 | 1659.121 | 1652.396 |
| 153.0 | 1688.713 | 1679.297 | 1667.864 | 1667.192 | 1659.121 |
| 153.5 | 1696.783 | 1687.368 | 1675.935 | 1675.262 | 1665.174 |
| 154.0 | 1704.853 | 1695.438 | 1684.677 | 1683.332 | 1671.899 |
| 154.5 | 1713.596 | 1702.836 | 1692.748 | 1690.730 | 1678.625 |
| 155.0 | 1721.666 | 1710.233 | 1700.818 | 1698.801 | 1686.023 |
| 155.5 | 1729.064 | 1716.959 | 1708.888 | 1706.871 | 1693.420 |
| 156.0 | 1736.462 | 1724.356 | 1717.631 | 1714.269 | 1700.818 |
| 156.5 | 1743.860 | 1731.754 | 1725.702 | 1722.339 | 1708.216 |
| 157.0 | 1751.258 | 1739.152 | 1733.772 | 1730.409 | 1715.614 |
| 157.5 | 1757.983 | 1745.877 | 1741.170 | 1737.807 | 1723.011 |
| 158.0 | 1764.708 | 1752.603 | 1748.567 | 1745.205 | 1730.409 |
| 158.5 | 1772.106 | 1760.000 | 1755.965 | 1752.603 | 1738.480 |
| 159.0 | 1778.159 | 1766.726 | 1762.690 | 1760.000 | 1745.877 |
| 159.5 | 1784.884 | 1773.451 | 1769.416 | 1767.398 | 1753.275 |
| 160.0 | 1790.937 | 1779.504 | 1776.141 | 1774.123 | 1760.673 |
| 160.5 | 1796.989 | 1785.556 | 1782.194 | 1780.849 | 1768.071 |
| 161.0 | 1803.042 | 1791.609 | 1788.246 | 1787.574 | 1775.468 |
| 161.5 | 1809.095 | 1798.334 | 1793.627 | 1794.299 | 1782.866 |
| 162.0 | 1815.820 | 1804.387 | 1799.007 | 1801.024 | 1789.592 |
| 162.5 | 1821.873 | 1810.440 | 1804.387 | 1807.077 | 1795.644 |
| 163.0 | 1827.925 | 1816.493 | 1809.767 | 1813.130 | 1801.697 |
| 163.5 | 1833.978 | 1821.873 | 1815.147 | 1819.183 | 1807.077 |
| 164.0 | 1840.031 | 1827.253 | 1819.855 | 1824.563 | 1812.457 |
| 164.5 | 1844.739 | 1832.633 | 1824.563 | 1829.943 | 1817.838 |
| 165.0 | 1850.119 | 1838.013 | 1829.271 | 1835.323 | 1822.545 |
| 165.5 | 1855.499 | 1842.721 | 1833.978 | 1840.031 | 1827.253 |
| 166.0 | 1860.879 | 1847.429 | 1838.686 | 1844.739 | 1831.288 |
| 166.5 | 1866.259 | 1852.136 | 1843.394 | 1848.774 | 1835.996 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES****CANDELA TABULATION - (Cont.)**

|       |          |          |          |          |          |
|-------|----------|----------|----------|----------|----------|
| 167.0 | 1870.967 | 1856.172 | 1847.429 | 1852.809 | 1840.031 |
| 167.5 | 1875.675 | 1860.207 | 1852.136 | 1856.844 | 1844.739 |
| 168.0 | 1880.383 | 1864.242 | 1856.172 | 1860.879 | 1848.774 |
| 168.5 | 1885.090 | 1868.277 | 1860.207 | 1864.914 | 1853.481 |
| 169.0 | 1889.125 | 1871.640 | 1864.242 | 1868.277 | 1857.517 |
| 169.5 | 1892.488 | 1875.002 | 1867.605 | 1871.640 | 1861.552 |
| 170.0 | 1895.851 | 1878.365 | 1870.967 | 1875.002 | 1866.259 |
| 170.5 | 1899.213 | 1881.728 | 1873.657 | 1878.365 | 1869.622 |
| 171.0 | 1902.576 | 1884.418 | 1876.347 | 1881.728 | 1872.985 |
| 171.5 | 1905.266 | 1887.108 | 1879.037 | 1885.090 | 1876.347 |
| 172.0 | 1907.956 | 1889.798 | 1881.055 | 1887.780 | 1879.037 |
| 172.5 | 1910.646 | 1892.488 | 1883.073 | 1889.798 | 1881.055 |
| 173.0 | 1913.336 | 1895.178 | 1885.090 | 1892.488 | 1882.400 |
| 173.5 | 1915.354 | 1897.196 | 1887.108 | 1893.833 | 1883.745 |
| 174.0 | 1917.371 | 1899.213 | 1889.125 | 1895.178 | 1884.418 |
| 174.5 | 1918.716 | 1900.558 | 1890.470 | 1896.523 | 1885.090 |
| 175.0 | 1920.062 | 1902.576 | 1891.815 | 1897.196 | 1885.090 |
| 175.5 | 1921.407 | 1903.921 | 1893.833 | 1897.868 | 1885.763 |
| 176.0 | 1922.752 | 1905.266 | 1895.178 | 1897.868 | 1885.763 |
| 176.5 | 1923.424 | 1906.611 | 1895.851 | 1898.541 | 1885.763 |
| 177.0 | 1924.097 | 1907.956 | 1897.196 | 1898.541 | 1885.090 |
| 177.5 | 1925.442 | 1909.301 | 1898.541 | 1898.541 | 1885.090 |
| 178.0 | 1926.114 | 1909.301 | 1899.213 | 1898.541 | 1885.763 |
| 178.5 | 1926.114 | 1909.974 | 1899.886 | 1898.541 | 1885.763 |
| 179.0 | 1926.787 | 1910.646 | 1899.886 | 1898.541 | 1885.763 |
| 179.5 | 1927.459 | 1910.646 | 1900.558 | 1898.541 | 1885.763 |
| 180.0 | 1903.921 | 1903.921 | 1903.921 | 1903.921 | 1903.921 |



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 699.00  | N.A.  | 7.10   |
| 0-30    | 1461.36 | N.A.  | 14.90  |
| 0-40    | 2347.7  | N.A.  | 24.00  |
| 0-60    | 3989.26 | N.A.  | 40.70  |
| 0-80    | 4885.3  | N.A.  | 49.90  |
| 0-90    | 4979.98 | N.A.  | 50.80  |
| 10-90   | 4797.53 | N.A.  | 49.00  |
| 20-40   | 1648.7  | N.A.  | 16.80  |
| 20-50   | 2528.57 | N.A.  | 25.80  |
| 40-70   | 2212.07 | N.A.  | 22.60  |
| 60-80   | 896.04  | N.A.  | 9.10   |
| 70-80   | 325.54  | N.A.  | 3.30   |
| 80-90   | 94.68   | N.A.  | 1.00   |
| 90-110  | 275.53  | N.A.  | 2.80   |
| 90-120  | 707.31  | N.A.  | 7.20   |
| 90-130  | 1432.9  | N.A.  | 14.60  |
| 90-150  | 3332.81 | N.A.  | 34.00  |
| 90-180  | 4816.79 | N.A.  | 49.20  |
| 110-180 | 4541.26 | N.A.  | 46.40  |
| 0-180   | 9796.77 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 182.45 |
| 10-20   | 516.54 |
| 20-30   | 762.36 |
| 30-40   | 886.34 |
| 40-50   | 879.87 |
| 50-60   | 761.70 |
| 60-70   | 570.50 |
| 70-80   | 325.54 |
| 80-90   | 94.68  |
| 90-100  | 59.43  |
| 100-110 | 216.10 |
| 110-120 | 431.78 |
| 120-130 | 725.59 |
| 130-140 | 948.77 |
| 140-150 | 951.14 |
| 150-160 | 785.69 |
| 160-170 | 517.74 |
| 170-180 | 180.55 |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| RC | 80  |     |     |     | 70 |    |    |    | 50 |    |    | 30 |    |    | 10 |    |    | 0  |
|----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RW | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| 0  | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 84 | 84 | 84 | 70 | 70 | 70 | 57 | 57 | 57 | 51 |
| 1  | 98  | 94  | 90  | 86  | 90 | 87 | 83 | 80 | 73 | 71 | 69 | 61 | 60 | 58 | 50 | 49 | 48 | 43 |
| 2  | 89  | 82  | 76  | 70  | 82 | 76 | 70 | 66 | 64 | 60 | 57 | 54 | 51 | 48 | 44 | 42 | 40 | 36 |
| 3  | 81  | 72  | 64  | 59  | 75 | 67 | 60 | 55 | 57 | 52 | 48 | 48 | 44 | 41 | 39 | 37 | 34 | 30 |
| 4  | 74  | 64  | 56  | 50  | 68 | 59 | 52 | 47 | 50 | 45 | 41 | 42 | 38 | 35 | 35 | 32 | 30 | 26 |
| 5  | 68  | 57  | 49  | 43  | 63 | 53 | 45 | 40 | 45 | 40 | 35 | 38 | 34 | 30 | 32 | 28 | 26 | 23 |
| 6  | 63  | 51  | 43  | 37  | 58 | 47 | 40 | 35 | 41 | 35 | 31 | 34 | 30 | 27 | 29 | 25 | 23 | 20 |
| 7  | 58  | 46  | 38  | 32  | 54 | 43 | 36 | 31 | 37 | 31 | 27 | 31 | 27 | 24 | 26 | 23 | 20 | 18 |
| 8  | 54  | 42  | 34  | 29  | 50 | 39 | 32 | 27 | 34 | 28 | 24 | 29 | 24 | 21 | 24 | 21 | 18 | 16 |
| 9  | 50  | 38  | 31  | 26  | 46 | 36 | 29 | 24 | 31 | 25 | 22 | 26 | 22 | 19 | 22 | 19 | 16 | 14 |
| 10 | 47  | 35  | 28  | 23  | 43 | 33 | 26 | 22 | 28 | 23 | 19 | 24 | 20 | 17 | 21 | 17 | 15 | 13 |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES

## UGR TABLE - CORRECTED

### Reflectances

|                |    |    |    |    |    |    |    |    |    |    |
|----------------|----|----|----|----|----|----|----|----|----|----|
| Ceiling Cavity | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls          | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity   | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

### Room Size UGR Viewed Crosswise

| X=2H | Y=2H | 16.8 | 17.7 | 17.8 | 18.7 | 19.9 | UGR Viewed Endwise |      |      |      |
|------|------|------|------|------|------|------|--------------------|------|------|------|
|      | 3H   | 18.6 | 19.4 | 19.6 | 20.4 | 21.6 | 16.7               | 17.6 | 17.7 | 18.6 |
|      | 4H   | 19.2 | 20.0 | 20.2 | 20.9 | 22.2 | 18.5               | 19.3 | 19.5 | 20.3 |
|      | 6H   | 19.6 | 20.3 | 20.6 | 21.3 | 22.6 | 19.1               | 19.9 | 20.1 | 20.9 |
|      | 8H   | 19.8 | 20.4 | 20.8 | 21.4 | 22.7 | 19.6               | 20.3 | 20.6 | 21.3 |
|      | 12H  | 19.9 | 20.5 | 20.9 | 21.5 | 22.8 | 19.7               | 20.4 | 20.7 | 21.4 |

|    |     |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|
| 4H | 2H  | 17.4 | 18.1 | 18.3 | 19.1 | 20.4 | 19.8 | 20.5 | 20.8 | 21.5 |
|    | 3H  | 19.3 | 20.0 | 20.3 | 21.0 | 22.3 | 16.7 | 17.6 | 17.7 | 18.6 |
|    | 4H  | 20.1 | 20.6 | 21.1 | 21.6 | 23.0 | 18.5 | 19.3 | 19.5 | 20.3 |
|    | 6H  | 20.6 | 21.1 | 21.6 | 22.1 | 23.5 | 19.1 | 19.9 | 20.1 | 20.9 |
|    | 8H  | 20.8 | 21.3 | 21.8 | 22.3 | 23.6 | 19.6 | 20.3 | 20.6 | 21.3 |
|    | 12H | 20.9 | 21.3 | 21.9 | 22.4 | 23.7 | 19.7 | 20.4 | 20.7 | 21.4 |

|    |     |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|
| 8H | 4H  | 20.3 | 20.8 | 21.3 | 21.8 | 23.1 | 19.8 | 20.5 | 20.8 | 21.5 |
|    | 6H  | 21.0 | 21.4 | 22.0 | 22.4 | 23.8 | 16.7 | 17.6 | 17.7 | 18.6 |
|    | 8H  | 21.3 | 21.6 | 22.3 | 22.6 | 24.0 | 18.5 | 19.3 | 19.5 | 20.3 |
|    | 12H | 21.5 | 21.8 | 22.5 | 22.8 | 24.2 | 19.1 | 19.9 | 20.1 | 20.9 |

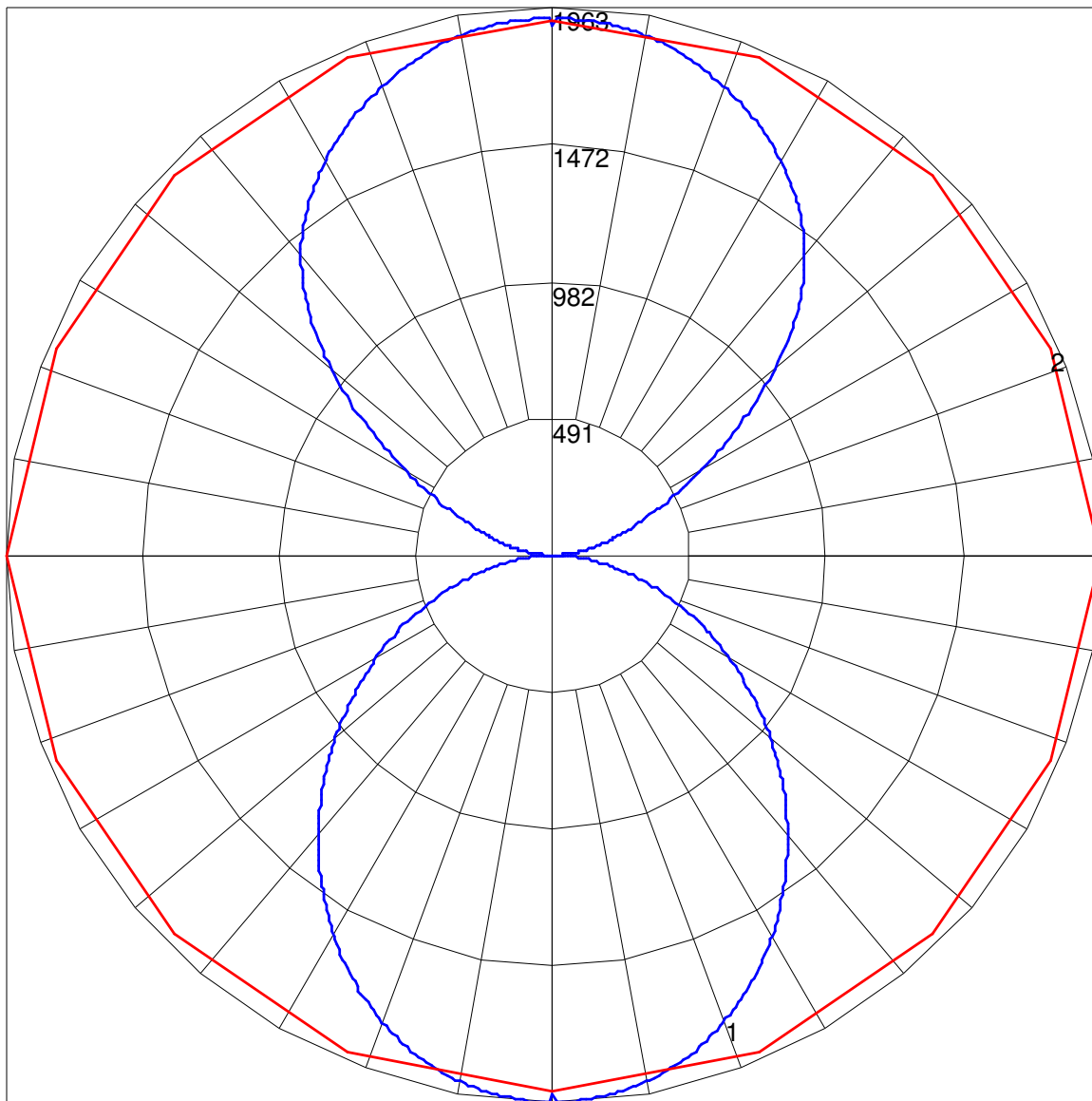
|     |    |      |      |      |      |      |      |      |      |      |
|-----|----|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 20.3 | 20.7 | 21.3 | 21.8 | 23.1 | 19.6 | 20.3 | 20.6 | 21.3 |
|     | 6H | 21.1 | 21.4 | 22.1 | 22.4 | 23.8 | 19.7 | 20.4 | 20.7 | 21.4 |
|     | 8H | 21.3 | 21.6 | 22.4 | 22.7 | 24.1 | 19.8 | 20.4 | 20.7 | 21.4 |

Maximum UGR = 24.2

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4WUDC-4-00-L12-950U-L15-950D-F-F-DIM-UNV\_.IES

## POLAR GRAPH



Maximum Candela = 1963.307 Located At Horizontal Angle = 0, Vertical Angle = .5

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)