

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4UDC-4-00-L8-940U-L15-940D-F-F-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL #15177918.03 & UL #15177918.01

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 2026-03-03

[TEST DATE] 2/19/2024

[MANUFAC] H E Williams Inc

[LUMCAT] MX4UDC-4-00-L8-940U-L15-940D-F-F-DIM-UNV

[LUMINAIRE] White linear extruded luminaire with up and downlight

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

[BALLAST] OTI50/120-277/1A4 DIM-1 L G2 #57452

[OTHER] 24.8 C, 119.951 V, 0.4435 A, 52.6728 W, 0.990119 PF, 60.0072 H

[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                | 8106            |
| Total Luminaire Efficiency      | N.A.            |
| Luminaire Efficacy Rating (LER) | 104             |
| Total Luminaire Watts           | 77.6            |
| 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                  | 10995            | 10720             | 10598             |
| 55                  | 10108            | 9863              | 9759              |
| 65                  | 9323             | 9098              | 8999              |
| 75                  | 7906             | 7901              | 7897              |
| 85                  | 6175             | 6422              | 6608              |

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## CANDELA TABULATION

|      | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|------|------------|-------------|-------------|-------------|-------------|
| 0.0  | 1595.458   | 1595.458    | 1595.458    | 1595.458    | 1595.458    |
| 0.5  | 1619.551   | 1596.797    | 1588.766    | 1592.112    | 1586.758    |
| 1.0  | 1619.551   | 1596.127    | 1588.766    | 1592.112    | 1586.758    |
| 1.5  | 1618.881   | 1595.458    | 1588.096    | 1592.112    | 1586.089    |
| 2.0  | 1618.212   | 1594.789    | 1587.427    | 1591.443    | 1586.089    |
| 2.5  | 1617.543   | 1594.120    | 1586.089    | 1590.773    | 1585.420    |
| 3.0  | 1616.204   | 1592.781    | 1585.420    | 1590.104    | 1584.081    |
| 3.5  | 1614.866   | 1591.443    | 1584.081    | 1588.766    | 1582.743    |
| 4.0  | 1613.527   | 1590.104    | 1582.743    | 1587.427    | 1581.404    |
| 4.5  | 1612.189   | 1588.096    | 1581.404    | 1586.089    | 1579.396    |
| 5.0  | 1610.850   | 1586.758    | 1579.396    | 1584.081    | 1577.389    |
| 5.5  | 1608.843   | 1584.750    | 1577.389    | 1582.073    | 1575.381    |
| 6.0  | 1606.835   | 1582.073    | 1575.381    | 1580.066    | 1572.704    |
| 6.5  | 1604.158   | 1580.066    | 1572.704    | 1577.389    | 1570.696    |
| 7.0  | 1602.150   | 1577.389    | 1570.696    | 1574.712    | 1568.019    |
| 7.5  | 1600.143   | 1574.712    | 1568.019    | 1572.035    | 1566.012    |
| 8.0  | 1596.797   | 1572.035    | 1564.673    | 1569.358    | 1563.335    |
| 8.5  | 1594.120   | 1568.689    | 1561.327    | 1566.012    | 1559.989    |
| 9.0  | 1590.773   | 1566.012    | 1558.650    | 1562.665    | 1556.642    |
| 9.5  | 1587.427   | 1562.665    | 1554.635    | 1558.650    | 1553.296    |
| 10.0 | 1584.081   | 1559.319    | 1551.288    | 1555.304    | 1549.281    |
| 10.5 | 1580.066   | 1555.304    | 1547.273    | 1551.288    | 1545.935    |
| 11.0 | 1576.719   | 1551.288    | 1543.258    | 1547.273    | 1541.250    |
| 11.5 | 1572.035   | 1547.273    | 1539.242    | 1543.258    | 1537.235    |
| 12.0 | 1568.019   | 1543.258    | 1535.227    | 1538.573    | 1532.550    |
| 12.5 | 1564.004   | 1538.573    | 1530.542    | 1533.888    | 1527.865    |
| 13.0 | 1559.319   | 1534.558    | 1525.858    | 1529.204    | 1523.181    |
| 13.5 | 1554.635   | 1529.204    | 1521.173    | 1523.850    | 1518.496    |
| 14.0 | 1549.950   | 1524.519    | 1515.819    | 1519.165    | 1513.811    |
| 14.5 | 1545.265   | 1519.834    | 1510.465    | 1513.811    | 1508.457    |
| 15.0 | 1540.581   | 1514.481    | 1505.111    | 1508.457    | 1503.104    |
| 15.5 | 1534.558   | 1509.796    | 1499.757    | 1502.434    | 1497.080    |
| 16.0 | 1527.865   | 1504.442    | 1493.734    | 1497.080    | 1491.727    |
| 16.5 | 1521.173   | 1498.419    | 1487.711    | 1491.057    | 1485.703    |
| 17.0 | 1515.150   | 1492.396    | 1481.688    | 1485.034    | 1479.680    |
| 17.5 | 1508.457   | 1485.703    | 1474.996    | 1478.342    | 1472.988    |
| 18.0 | 1501.765   | 1479.011    | 1468.303    | 1471.649    | 1466.296    |
| 18.5 | 1495.073   | 1472.319    | 1461.611    | 1464.288    | 1459.603    |
| 19.0 | 1488.380   | 1465.626    | 1455.588    | 1457.595    | 1451.572    |
| 19.5 | 1481.019   | 1458.934    | 1448.895    | 1449.565    | 1443.542    |
| 20.0 | 1474.326   | 1451.572    | 1442.872    | 1442.203    | 1435.511    |
| 20.5 | 1466.965   | 1444.880    | 1436.180    | 1434.172    | 1427.480    |
| 21.0 | 1459.603   | 1437.518    | 1428.818    | 1426.141    | 1418.780    |
| 21.5 | 1451.572   | 1430.157    | 1420.788    | 1418.111    | 1410.080    |
| 22.0 | 1444.211   | 1422.126    | 1412.087    | 1409.411    | 1402.049    |
| 22.5 | 1436.180   | 1414.095    | 1404.057    | 1400.710    | 1393.349    |
| 23.0 | 1428.149   | 1406.064    | 1396.026    | 1391.341    | 1384.649    |
| 23.5 | 1420.118   | 1398.033    | 1387.326    | 1382.641    | 1376.618    |
| 24.0 | 1411.418   | 1390.003    | 1379.295    | 1373.941    | 1367.918    |
| 24.5 | 1402.718   | 1381.303    | 1370.595    | 1365.241    | 1359.218    |
| 25.0 | 1394.687   | 1372.603    | 1361.895    | 1356.541    | 1350.518    |
| 25.5 | 1385.987   | 1363.902    | 1352.525    | 1347.841    | 1341.148    |
| 26.0 | 1376.618   | 1354.533    | 1343.825    | 1339.141    | 1332.448    |
| 26.5 | 1367.918   | 1345.833    | 1334.456    | 1330.441    | 1323.748    |

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|      |          |          |          |          |          |
|------|----------|----------|----------|----------|----------|
| 27.0 | 1358.549 | 1336.464 | 1325.087 | 1321.741 | 1314.379 |
| 27.5 | 1349.179 | 1327.095 | 1316.387 | 1313.041 | 1305.679 |
| 28.0 | 1339.810 | 1317.056 | 1306.348 | 1303.671 | 1296.310 |
| 28.5 | 1329.771 | 1307.017 | 1296.979 | 1294.971 | 1286.940 |
| 29.0 | 1319.733 | 1297.648 | 1287.610 | 1285.602 | 1277.571 |
| 29.5 | 1310.364 | 1287.610 | 1278.240 | 1275.563 | 1268.871 |
| 30.0 | 1300.325 | 1277.571 | 1268.871 | 1266.194 | 1259.502 |
| 30.5 | 1290.287 | 1267.533 | 1258.832 | 1256.825 | 1250.132 |
| 31.0 | 1279.579 | 1258.163 | 1248.794 | 1246.786 | 1240.763 |
| 31.5 | 1269.540 | 1248.125 | 1238.755 | 1236.748 | 1230.725 |
| 32.0 | 1258.832 | 1237.417 | 1228.717 | 1226.040 | 1220.686 |
| 32.5 | 1248.125 | 1227.378 | 1218.678 | 1216.001 | 1209.978 |
| 33.0 | 1237.417 | 1217.340 | 1208.640 | 1205.963 | 1199.270 |
| 33.5 | 1227.378 | 1206.632 | 1197.932 | 1195.255 | 1189.232 |
| 34.0 | 1216.001 | 1195.924 | 1187.893 | 1184.547 | 1178.524 |
| 34.5 | 1205.294 | 1185.217 | 1176.516 | 1173.840 | 1167.147 |
| 35.0 | 1194.586 | 1175.178 | 1165.809 | 1163.132 | 1155.770 |
| 35.5 | 1183.209 | 1163.801 | 1155.101 | 1152.424 | 1144.393 |
| 36.0 | 1171.832 | 1153.093 | 1144.393 | 1141.047 | 1133.685 |
| 36.5 | 1161.124 | 1142.385 | 1133.685 | 1130.339 | 1122.978 |
| 37.0 | 1149.747 | 1131.008 | 1122.308 | 1118.962 | 1111.601 |
| 37.5 | 1138.370 | 1119.631 | 1111.601 | 1107.585 | 1100.893 |
| 38.0 | 1126.324 | 1108.254 | 1100.224 | 1096.208 | 1089.516 |
| 38.5 | 1114.947 | 1096.877 | 1088.847 | 1085.500 | 1078.139 |
| 39.0 | 1104.239 | 1085.500 | 1077.470 | 1074.123 | 1067.431 |
| 39.5 | 1092.193 | 1074.123 | 1066.762 | 1062.746 | 1055.385 |
| 40.0 | 1080.816 | 1062.077 | 1055.385 | 1051.369 | 1044.677 |
| 40.5 | 1068.770 | 1050.700 | 1044.008 | 1039.992 | 1033.300 |
| 41.0 | 1057.392 | 1038.654 | 1032.631 | 1027.946 | 1021.254 |
| 41.5 | 1045.346 | 1027.277 | 1020.585 | 1016.569 | 1009.208 |
| 42.0 | 1033.969 | 1015.231 | 1009.208 | 1005.192 | 997.831  |
| 42.5 | 1022.592 | 1003.854 | 997.831  | 993.146  | 986.454  |
| 43.0 | 1010.546 | 992.477  | 986.454  | 981.769  | 974.407  |
| 43.5 | 999.169  | 980.430  | 974.407  | 970.392  | 963.030  |
| 44.0 | 987.123  | 968.384  | 962.361  | 958.346  | 951.653  |
| 44.5 | 975.077  | 956.338  | 950.315  | 946.299  | 939.607  |
| 45.0 | 963.030  | 944.961  | 938.938  | 934.253  | 928.230  |
| 45.5 | 951.653  | 932.915  | 926.892  | 922.876  | 916.853  |
| 46.0 | 939.607  | 920.868  | 914.845  | 910.830  | 905.476  |
| 46.5 | 927.561  | 908.822  | 903.468  | 899.453  | 894.099  |
| 47.0 | 915.515  | 896.776  | 891.422  | 887.407  | 882.053  |
| 47.5 | 902.799  | 884.730  | 879.376  | 875.360  | 870.676  |
| 48.0 | 890.753  | 872.683  | 867.330  | 863.983  | 858.629  |
| 48.5 | 878.707  | 860.637  | 855.953  | 851.937  | 846.583  |
| 49.0 | 865.991  | 848.591  | 843.906  | 839.891  | 835.206  |
| 49.5 | 853.945  | 836.545  | 831.860  | 828.514  | 823.829  |
| 50.0 | 841.229  | 824.498  | 819.814  | 816.468  | 811.783  |
| 50.5 | 828.514  | 812.452  | 807.768  | 804.421  | 800.406  |
| 51.0 | 815.798  | 800.406  | 795.721  | 792.375  | 788.360  |
| 51.5 | 803.752  | 788.360  | 783.675  | 780.998  | 776.313  |
| 52.0 | 791.706  | 776.313  | 771.629  | 768.952  | 764.936  |
| 52.5 | 778.990  | 764.267  | 759.583  | 757.575  | 752.890  |
| 53.0 | 766.944  | 752.221  | 747.536  | 745.529  | 740.844  |
| 53.5 | 754.229  | 740.175  | 735.490  | 733.482  | 728.798  |
| 54.0 | 742.182  | 728.129  | 724.113  | 722.105  | 716.751  |
| 54.5 | 730.136  | 716.751  | 712.067  | 710.059  | 704.705  |

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|      |         |         |         |         |         |
|------|---------|---------|---------|---------|---------|
| 55.0 | 718.090 | 705.374 | 700.690 | 698.682 | 693.328 |
| 55.5 | 706.713 | 693.328 | 688.644 | 686.636 | 681.951 |
| 56.0 | 693.997 | 681.282 | 676.597 | 675.259 | 669.905 |
| 56.5 | 681.951 | 669.905 | 664.886 | 663.413 | 658.126 |
| 57.0 | 670.574 | 657.859 | 653.040 | 651.434 | 646.415 |
| 57.5 | 658.796 | 646.214 | 641.262 | 639.789 | 634.569 |
| 58.0 | 647.017 | 634.703 | 629.416 | 628.078 | 622.858 |
| 58.5 | 635.172 | 623.125 | 617.771 | 616.567 | 611.615 |
| 59.0 | 623.527 | 611.481 | 606.060 | 604.922 | 600.171 |
| 59.5 | 612.217 | 599.702 | 594.147 | 593.344 | 588.861 |
| 60.0 | 600.639 | 587.991 | 582.369 | 581.700 | 577.350 |
| 60.5 | 589.195 | 576.547 | 570.992 | 569.988 | 565.705 |
| 61.0 | 577.952 | 565.103 | 559.682 | 558.544 | 554.328 |
| 61.5 | 565.906 | 553.793 | 548.439 | 547.167 | 543.085 |
| 62.0 | 554.060 | 542.148 | 536.794 | 535.857 | 531.574 |
| 62.5 | 541.947 | 531.373 | 525.819 | 525.082 | 520.665 |
| 63.0 | 530.302 | 521.870 | 517.386 | 517.052 | 513.438 |
| 63.5 | 518.524 | 511.497 | 507.950 | 507.214 | 503.466 |
| 64.0 | 511.430 | 501.391 | 498.179 | 496.707 | 492.424 |
| 64.5 | 500.388 | 490.617 | 487.137 | 485.798 | 481.783 |
| 65.0 | 488.007 | 479.106 | 476.228 | 474.957 | 471.075 |
| 65.5 | 475.358 | 467.461 | 464.851 | 464.249 | 460.300 |
| 66.0 | 463.178 | 456.084 | 453.742 | 453.474 | 449.258 |
| 66.5 | 451.132 | 444.439 | 442.432 | 442.432 | 438.684 |
| 67.0 | 439.219 | 432.862 | 431.255 | 431.456 | 428.043 |
| 67.5 | 427.508 | 421.485 | 420.012 | 420.414 | 417.068 |
| 68.0 | 415.662 | 410.108 | 408.769 | 409.305 | 405.825 |
| 68.5 | 403.750 | 398.530 | 397.459 | 398.195 | 394.782 |
| 69.0 | 391.436 | 386.885 | 386.082 | 386.484 | 383.338 |
| 69.5 | 379.457 | 375.441 | 374.504 | 374.973 | 372.095 |
| 70.0 | 367.611 | 363.863 | 363.194 | 363.395 | 360.852 |
| 70.5 | 355.967 | 352.219 | 351.750 | 351.951 | 349.542 |
| 71.0 | 344.054 | 340.641 | 340.507 | 340.775 | 338.165 |
| 71.5 | 332.142 | 329.063 | 329.331 | 329.532 | 327.256 |
| 72.0 | 320.564 | 317.419 | 317.954 | 318.222 | 316.281 |
| 72.5 | 308.986 | 305.975 | 306.845 | 307.112 | 305.506 |
| 73.0 | 297.542 | 294.798 | 296.003 | 296.338 | 294.932 |
| 73.5 | 286.433 | 283.756 | 285.161 | 285.764 | 284.224 |
| 74.0 | 275.457 | 272.714 | 274.454 | 274.922 | 273.918 |
| 74.5 | 264.482 | 261.872 | 263.813 | 264.281 | 263.545 |
| 75.0 | 253.440 | 251.097 | 253.306 | 253.774 | 253.172 |
| 75.5 | 242.531 | 240.323 | 242.866 | 243.468 | 242.799 |
| 76.0 | 231.489 | 229.949 | 232.559 | 233.229 | 232.693 |
| 76.5 | 221.049 | 219.710 | 222.320 | 223.056 | 222.588 |
| 77.0 | 210.876 | 209.404 | 212.282 | 212.951 | 212.215 |
| 77.5 | 200.369 | 199.365 | 202.243 | 202.778 | 202.042 |
| 78.0 | 190.130 | 189.327 | 192.205 | 193.008 | 192.271 |
| 78.5 | 179.958 | 179.556 | 182.300 | 183.237 | 182.634 |
| 79.0 | 170.187 | 169.785 | 172.596 | 173.734 | 173.265 |
| 79.5 | 160.416 | 160.215 | 163.026 | 164.230 | 163.829 |
| 80.0 | 150.779 | 150.846 | 153.456 | 155.129 | 154.593 |
| 80.5 | 141.075 | 141.677 | 144.354 | 145.960 | 145.559 |
| 81.0 | 131.773 | 132.709 | 135.320 | 136.993 | 136.725 |
| 81.5 | 122.805 | 123.809 | 126.486 | 128.159 | 127.958 |
| 82.0 | 114.439 | 115.109 | 117.852 | 119.592 | 119.392 |
| 82.5 | 106.074 | 106.676 | 109.353 | 111.093 | 110.959 |

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|       |         |         |         |         |         |
|-------|---------|---------|---------|---------|---------|
| 83.0  | 97.708  | 98.645  | 100.988 | 102.795 | 102.928 |
| 83.5  | 89.477  | 90.614  | 92.890  | 94.630  | 95.031  |
| 84.0  | 81.781  | 82.718  | 84.859  | 86.532  | 87.135  |
| 84.5  | 73.951  | 74.954  | 76.962  | 78.635  | 79.237  |
| 85.0  | 66.656  | 67.459  | 69.333  | 70.805  | 71.341  |
| 85.5  | 59.562  | 59.964  | 61.570  | 63.109  | 63.644  |
| 86.0  | 52.602  | 52.736  | 54.141  | 55.547  | 56.216  |
| 86.5  | 45.709  | 45.709  | 46.980  | 48.252  | 48.854  |
| 87.0  | 38.749  | 38.749  | 39.686  | 41.292  | 41.760  |
| 87.5  | 31.856  | 31.923  | 32.793  | 34.399  | 35.001  |
| 88.0  | 25.297  | 25.230  | 26.100  | 27.840  | 28.509  |
| 88.5  | 19.006  | 18.605  | 19.743  | 21.282  | 22.219  |
| 89.0  | 12.314  | 12.113  | 13.652  | 15.125  | 16.129  |
| 89.5  | 5.689   | 6.759   | 8.165   | 9.302   | 9.637   |
| 90.0  | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   |
| 90.5  | 4.131   | 2.177   | 2.010   | 1.954   | 2.121   |
| 91.0  | 9.099   | 4.801   | 3.907   | 3.852   | 3.796   |
| 91.5  | 14.625  | 9.769   | 5.805   | 5.749   | 5.694   |
| 92.0  | 20.207  | 16.244  | 8.373   | 7.480   | 7.480   |
| 92.5  | 26.012  | 22.942  | 12.950  | 9.378   | 9.210   |
| 93.0  | 32.041  | 29.361  | 18.309  | 12.448  | 11.220  |
| 93.5  | 38.125  | 35.502  | 24.059  | 16.802  | 14.625  |
| 94.0  | 44.098  | 41.530  | 30.422  | 21.993  | 19.258  |
| 94.5  | 50.238  | 47.559  | 37.065  | 27.352  | 24.282  |
| 95.0  | 56.267  | 53.755  | 43.596  | 32.822  | 29.250  |
| 95.5  | 62.295  | 59.560  | 49.959  | 38.460  | 34.497  |
| 96.0  | 68.045  | 65.477  | 56.211  | 44.321  | 39.856  |
| 96.5  | 73.850  | 71.394  | 62.463  | 50.294  | 45.382  |
| 97.0  | 79.488  | 77.200  | 68.659  | 56.267  | 51.243  |
| 97.5  | 85.293  | 83.061  | 74.911  | 62.351  | 57.104  |
| 98.0  | 91.043  | 88.810  | 80.995  | 68.380  | 63.021  |
| 98.5  | 96.792  | 94.615  | 86.856  | 74.520  | 68.938  |
| 99.0  | 102.654 | 100.588 | 92.829  | 80.381  | 74.911  |
| 99.5  | 108.571 | 106.505 | 98.858  | 86.242  | 80.772  |
| 100.0 | 114.376 | 112.478 | 104.886 | 92.271  | 86.521  |
| 100.5 | 120.404 | 118.451 | 110.915 | 98.523  | 92.327  |
| 101.0 | 126.600 | 124.423 | 117.055 | 104.831 | 98.635  |
| 101.5 | 132.908 | 130.508 | 123.307 | 111.138 | 105.165 |
| 102.0 | 139.048 | 136.816 | 129.559 | 117.446 | 111.641 |
| 102.5 | 145.468 | 143.067 | 136.034 | 123.754 | 118.060 |
| 103.0 | 152.055 | 149.543 | 142.453 | 130.006 | 124.591 |
| 103.5 | 158.641 | 156.129 | 149.264 | 136.704 | 131.066 |
| 104.0 | 165.396 | 162.772 | 156.185 | 143.626 | 137.820 |
| 104.5 | 172.373 | 169.694 | 163.107 | 150.715 | 144.575 |
| 105.0 | 179.518 | 176.783 | 169.973 | 157.692 | 151.441 |
| 105.5 | 186.831 | 183.984 | 177.062 | 164.726 | 158.251 |
| 106.0 | 194.255 | 191.240 | 184.263 | 171.871 | 165.061 |
| 106.5 | 201.735 | 198.720 | 191.799 | 179.072 | 171.927 |
| 107.0 | 209.717 | 206.535 | 199.837 | 186.719 | 179.407 |
| 107.5 | 217.978 | 214.573 | 207.987 | 194.813 | 187.500 |
| 108.0 | 226.184 | 222.835 | 216.304 | 203.577 | 195.818 |
| 108.5 | 234.836 | 231.264 | 224.621 | 212.340 | 204.414 |
| 109.0 | 243.712 | 239.860 | 233.161 | 221.216 | 213.122 |
| 109.5 | 252.810 | 248.791 | 242.149 | 230.036 | 221.942 |
| 110.0 | 262.523 | 257.946 | 251.359 | 239.078 | 231.152 |
| 110.5 | 272.459 | 267.324 | 260.793 | 248.791 | 240.697 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4UDC-4-00-L8-940U-L15-940D-F-F-DIM-UNV\_.IES****CANDELA TABULATION - (Cont.)**

|       |          |          |          |          |          |
|-------|----------|----------|----------|----------|----------|
| 111.0 | 282.507  | 277.148  | 270.561  | 258.895  | 250.298  |
| 111.5 | 292.778  | 287.251  | 280.497  | 269.166  | 260.179  |
| 112.0 | 303.439  | 297.634  | 290.377  | 279.437  | 269.612  |
| 112.5 | 314.157  | 308.296  | 300.369  | 289.652  | 279.604  |
| 113.0 | 325.377  | 319.292  | 310.919  | 300.202  | 290.042  |
| 113.5 | 336.931  | 330.791  | 322.083  | 311.589  | 301.262  |
| 114.0 | 348.654  | 342.513  | 333.917  | 323.702  | 313.710  |
| 114.5 | 360.767  | 354.626  | 345.974  | 336.317  | 326.940  |
| 115.0 | 373.047  | 367.074  | 358.478  | 349.044  | 340.336  |
| 115.5 | 385.886  | 379.634  | 371.317  | 361.716  | 353.566  |
| 116.0 | 398.836  | 392.696  | 384.602  | 375.057  | 367.019  |
| 116.5 | 412.512  | 406.093  | 398.334  | 388.733  | 381.364  |
| 117.0 | 426.746  | 419.769  | 412.177  | 403.469  | 396.157  |
| 117.5 | 437.241  | 430.430  | 424.848  | 417.034  | 411.172  |
| 118.0 | 450.637  | 442.878  | 437.855  | 431.045  | 424.514  |
| 118.5 | 466.211  | 457.727  | 451.140  | 444.051  | 436.515  |
| 119.0 | 481.450  | 472.352  | 466.211  | 458.787  | 449.856  |
| 119.5 | 496.857  | 487.925  | 482.176  | 473.747  | 464.816  |
| 120.0 | 512.765  | 504.057  | 498.196  | 490.102  | 480.613  |
| 120.5 | 528.563  | 520.413  | 514.719  | 507.463  | 497.471  |
| 121.0 | 545.141  | 537.103  | 531.354  | 524.767  | 515.389  |
| 121.5 | 561.552  | 553.626  | 547.932  | 542.294  | 532.917  |
| 122.0 | 578.857  | 570.484  | 565.460  | 559.878  | 550.500  |
| 122.5 | 595.603  | 587.230  | 582.764  | 577.182  | 567.134  |
| 123.0 | 612.907  | 605.092  | 600.627  | 596.161  | 585.555  |
| 123.5 | 630.770  | 622.955  | 619.606  | 615.140  | 604.534  |
| 124.0 | 648.632  | 641.375  | 638.026  | 634.119  | 624.071  |
| 124.5 | 666.495  | 659.238  | 656.447  | 652.540  | 643.050  |
| 125.0 | 684.357  | 677.100  | 674.309  | 670.960  | 661.471  |
| 125.5 | 702.778  | 695.521  | 692.730  | 689.381  | 679.333  |
| 126.0 | 720.640  | 713.384  | 711.709  | 707.802  | 697.196  |
| 126.5 | 738.503  | 731.246  | 730.688  | 727.339  | 716.175  |
| 127.0 | 756.924  | 749.667  | 749.667  | 746.876  | 736.270  |
| 127.5 | 775.344  | 767.529  | 767.529  | 765.855  | 756.365  |
| 128.0 | 793.207  | 785.392  | 785.950  | 784.834  | 775.344  |
| 128.5 | 811.069  | 802.696  | 803.813  | 803.813  | 793.765  |
| 129.0 | 828.932  | 820.000  | 821.675  | 822.233  | 812.744  |
| 129.5 | 846.794  | 837.863  | 840.096  | 841.212  | 832.281  |
| 130.0 | 864.657  | 855.725  | 858.516  | 860.191  | 852.934  |
| 130.5 | 882.519  | 873.030  | 877.495  | 878.612  | 872.472  |
| 131.0 | 900.382  | 890.334  | 895.358  | 896.474  | 890.334  |
| 131.5 | 917.128  | 907.080  | 913.220  | 913.220  | 907.638  |
| 132.0 | 934.432  | 923.826  | 930.525  | 931.083  | 924.384  |
| 132.5 | 951.178  | 941.131  | 947.829  | 948.387  | 941.131  |
| 133.0 | 967.924  | 958.435  | 964.575  | 965.692  | 957.318  |
| 133.5 | 984.670  | 975.181  | 981.879  | 982.996  | 974.623  |
| 134.0 | 1001.417 | 991.369  | 998.067  | 999.742  | 991.369  |
| 134.5 | 1016.488 | 1007.557 | 1013.697 | 1014.813 | 1007.557 |
| 135.0 | 1031.559 | 1023.186 | 1028.768 | 1029.885 | 1022.070 |
| 135.5 | 1046.073 | 1039.374 | 1043.840 | 1044.398 | 1036.583 |
| 136.0 | 1060.586 | 1054.446 | 1057.795 | 1059.470 | 1051.655 |
| 136.5 | 1075.658 | 1068.959 | 1071.750 | 1074.541 | 1067.284 |
| 137.0 | 1089.613 | 1083.472 | 1086.263 | 1088.496 | 1081.798 |
| 137.5 | 1103.568 | 1096.869 | 1099.660 | 1101.335 | 1094.636 |
| 138.0 | 1116.965 | 1110.266 | 1112.499 | 1113.615 | 1106.917 |
| 138.5 | 1130.361 | 1123.105 | 1125.338 | 1125.896 | 1118.639 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4UDC-4-00-L8-940U-L15-940D-F-F-DIM-UNV\_.IES****CANDELA TABULATION - (Cont.)**

|       |          |          |          |          |          |
|-------|----------|----------|----------|----------|----------|
| 139.0 | 1143.200 | 1135.943 | 1138.176 | 1138.176 | 1130.361 |
| 139.5 | 1156.039 | 1148.782 | 1150.457 | 1149.899 | 1141.526 |
| 140.0 | 1168.319 | 1160.504 | 1162.737 | 1162.179 | 1153.806 |
| 140.5 | 1180.042 | 1171.668 | 1173.901 | 1173.343 | 1164.412 |
| 141.0 | 1191.764 | 1183.391 | 1185.065 | 1183.949 | 1175.018 |
| 141.5 | 1202.370 | 1193.997 | 1196.229 | 1194.555 | 1184.507 |
| 142.0 | 1213.534 | 1205.161 | 1206.835 | 1204.602 | 1194.555 |
| 142.5 | 1224.140 | 1215.767 | 1217.441 | 1215.208 | 1204.044 |
| 143.0 | 1234.745 | 1225.814 | 1227.489 | 1225.256 | 1214.092 |
| 143.5 | 1244.793 | 1236.420 | 1237.536 | 1235.304 | 1223.581 |
| 144.0 | 1254.283 | 1246.468 | 1247.026 | 1244.235 | 1232.513 |
| 144.5 | 1263.772 | 1255.957 | 1256.515 | 1253.166 | 1241.444 |
| 145.0 | 1272.703 | 1265.447 | 1265.447 | 1261.539 | 1249.817 |
| 145.5 | 1282.193 | 1274.936 | 1274.378 | 1271.029 | 1258.748 |
| 146.0 | 1291.124 | 1283.867 | 1283.309 | 1279.402 | 1267.679 |
| 146.5 | 1300.055 | 1292.799 | 1291.682 | 1288.333 | 1276.611 |
| 147.0 | 1308.428 | 1301.730 | 1299.497 | 1297.264 | 1285.542 |
| 147.5 | 1316.801 | 1310.103 | 1307.870 | 1305.637 | 1293.915 |
| 148.0 | 1325.174 | 1318.476 | 1315.127 | 1313.452 | 1302.846 |
| 148.5 | 1333.547 | 1326.849 | 1322.383 | 1321.267 | 1311.777 |
| 149.0 | 1341.362 | 1335.222 | 1329.640 | 1329.082 | 1320.709 |
| 149.5 | 1349.177 | 1343.037 | 1336.338 | 1336.897 | 1329.082 |
| 150.0 | 1356.992 | 1350.852 | 1343.595 | 1344.153 | 1336.897 |
| 150.5 | 1364.807 | 1358.667 | 1350.294 | 1350.852 | 1344.711 |
| 151.0 | 1372.063 | 1365.923 | 1356.992 | 1357.550 | 1351.968 |
| 151.5 | 1379.878 | 1373.180 | 1364.249 | 1364.249 | 1358.667 |
| 152.0 | 1387.135 | 1380.436 | 1370.947 | 1370.389 | 1365.365 |
| 152.5 | 1394.392 | 1387.135 | 1377.645 | 1377.087 | 1371.505 |
| 153.0 | 1401.648 | 1393.833 | 1384.344 | 1383.786 | 1377.087 |
| 153.5 | 1408.347 | 1400.532 | 1391.042 | 1390.484 | 1382.111 |
| 154.0 | 1415.045 | 1407.230 | 1398.299 | 1397.183 | 1387.693 |
| 154.5 | 1422.302 | 1413.370 | 1404.997 | 1403.323 | 1393.275 |
| 155.0 | 1429.000 | 1419.511 | 1411.696 | 1410.021 | 1399.415 |
| 155.5 | 1435.140 | 1425.093 | 1418.394 | 1416.720 | 1405.556 |
| 156.0 | 1441.281 | 1431.233 | 1425.651 | 1422.860 | 1411.696 |
| 156.5 | 1447.421 | 1437.373 | 1432.349 | 1429.558 | 1417.836 |
| 157.0 | 1453.561 | 1443.513 | 1439.048 | 1436.257 | 1423.976 |
| 157.5 | 1459.143 | 1449.095 | 1445.188 | 1442.397 | 1430.117 |
| 158.0 | 1464.725 | 1454.678 | 1451.328 | 1448.537 | 1436.257 |
| 158.5 | 1470.865 | 1460.818 | 1457.469 | 1454.678 | 1442.955 |
| 159.0 | 1475.889 | 1466.400 | 1463.051 | 1460.818 | 1449.095 |
| 159.5 | 1481.471 | 1471.982 | 1468.633 | 1466.958 | 1455.236 |
| 160.0 | 1486.495 | 1477.006 | 1474.215 | 1472.540 | 1461.376 |
| 160.5 | 1491.519 | 1482.029 | 1479.238 | 1478.122 | 1467.516 |
| 161.0 | 1496.543 | 1487.053 | 1484.262 | 1483.704 | 1473.656 |
| 161.5 | 1501.567 | 1492.635 | 1488.728 | 1489.286 | 1479.797 |
| 162.0 | 1507.149 | 1497.659 | 1493.194 | 1494.868 | 1485.379 |
| 162.5 | 1512.172 | 1502.683 | 1497.659 | 1499.892 | 1490.403 |
| 163.0 | 1517.196 | 1507.707 | 1502.125 | 1504.916 | 1495.426 |
| 163.5 | 1522.220 | 1512.172 | 1506.590 | 1509.940 | 1499.892 |
| 164.0 | 1527.244 | 1516.638 | 1510.498 | 1514.405 | 1504.358 |
| 164.5 | 1531.151 | 1521.104 | 1514.405 | 1518.871 | 1508.823 |
| 165.0 | 1535.617 | 1525.569 | 1518.313 | 1523.336 | 1512.731 |
| 165.5 | 1540.083 | 1529.477 | 1522.220 | 1527.244 | 1516.638 |
| 166.0 | 1544.548 | 1533.384 | 1526.128 | 1531.151 | 1519.987 |
| 166.5 | 1549.014 | 1537.292 | 1530.035 | 1534.501 | 1523.895 |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4UDC-4-00-L8-940U-L15-940D-F-F-DIM-UNV\_.IES****CANDELA TABULATION - (Cont.)**

|       |          |          |          |          |          |
|-------|----------|----------|----------|----------|----------|
| 167.0 | 1552.921 | 1540.641 | 1533.384 | 1537.850 | 1527.244 |
| 167.5 | 1556.829 | 1543.990 | 1537.292 | 1541.199 | 1531.151 |
| 168.0 | 1560.736 | 1547.339 | 1540.641 | 1544.548 | 1534.501 |
| 168.5 | 1564.644 | 1550.688 | 1543.990 | 1547.897 | 1538.408 |
| 169.0 | 1567.993 | 1553.479 | 1547.339 | 1550.688 | 1541.757 |
| 169.5 | 1570.784 | 1556.270 | 1550.130 | 1553.479 | 1545.106 |
| 170.0 | 1573.575 | 1559.061 | 1552.921 | 1556.270 | 1549.014 |
| 170.5 | 1576.366 | 1561.853 | 1555.154 | 1559.061 | 1551.805 |
| 171.0 | 1579.157 | 1564.085 | 1557.387 | 1561.853 | 1554.596 |
| 171.5 | 1581.390 | 1566.318 | 1559.620 | 1564.644 | 1557.387 |
| 172.0 | 1583.622 | 1568.551 | 1561.294 | 1566.876 | 1559.620 |
| 172.5 | 1585.855 | 1570.784 | 1562.969 | 1568.551 | 1561.294 |
| 173.0 | 1588.088 | 1573.017 | 1564.644 | 1570.784 | 1562.411 |
| 173.5 | 1589.763 | 1574.691 | 1566.318 | 1571.900 | 1563.527 |
| 174.0 | 1591.437 | 1576.366 | 1567.993 | 1573.017 | 1564.085 |
| 174.5 | 1592.554 | 1577.482 | 1569.109 | 1574.133 | 1564.644 |
| 175.0 | 1593.670 | 1579.157 | 1570.226 | 1574.691 | 1564.644 |
| 175.5 | 1594.787 | 1580.273 | 1571.900 | 1575.249 | 1565.202 |
| 176.0 | 1595.903 | 1581.390 | 1573.017 | 1575.249 | 1565.202 |
| 176.5 | 1596.461 | 1582.506 | 1573.575 | 1575.808 | 1565.202 |
| 177.0 | 1597.019 | 1583.622 | 1574.691 | 1575.808 | 1564.644 |
| 177.5 | 1598.136 | 1584.739 | 1575.808 | 1575.808 | 1564.644 |
| 178.0 | 1598.694 | 1584.739 | 1576.366 | 1575.808 | 1565.202 |
| 178.5 | 1598.694 | 1585.297 | 1576.924 | 1575.808 | 1565.202 |
| 179.0 | 1599.252 | 1585.855 | 1576.924 | 1575.808 | 1565.202 |
| 179.5 | 1599.810 | 1585.855 | 1577.482 | 1575.808 | 1565.202 |
| 180.0 | 1580.273 | 1580.273 | 1580.273 | 1580.273 | 1580.273 |



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX4UDC-4-00-L8-940U-L15-940D-F-F-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 576.61  | N.A.  | 7.10   |
| 0-30    | 1205.49 | N.A.  | 14.90  |
| 0-40    | 1936.64 | N.A.  | 23.90  |
| 0-60    | 3290.78 | N.A.  | 40.60  |
| 0-80    | 4029.93 | N.A.  | 49.70  |
| 0-90    | 4108.03 | N.A.  | 50.70  |
| 10-90   | 3957.52 | N.A.  | 48.80  |
| 20-40   | 1360.03 | N.A.  | 16.80  |
| 20-50   | 2085.84 | N.A.  | 25.70  |
| 40-70   | 1824.75 | N.A.  | 22.50  |
| 60-80   | 739.15  | N.A.  | 9.10   |
| 70-80   | 268.54  | N.A.  | 3.30   |
| 80-90   | 78.10   | N.A.  | 1.00   |
| 90-110  | 228.69  | N.A.  | 2.80   |
| 90-120  | 587.08  | N.A.  | 7.20   |
| 90-130  | 1189.32 | N.A.  | 14.70  |
| 90-150  | 2766.26 | N.A.  | 34.10  |
| 90-180  | 3997.98 | N.A.  | 49.30  |
| 110-180 | 3769.29 | N.A.  | 46.50  |
| 0-180   | 8106.01 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 150.51 |
| 10-20   | 426.10 |
| 20-30   | 628.88 |
| 30-40   | 731.15 |
| 40-50   | 725.81 |
| 50-60   | 628.33 |
| 60-70   | 470.61 |
| 70-80   | 268.54 |
| 80-90   | 78.10  |
| 90-100  | 49.33  |
| 100-110 | 179.37 |
| 110-120 | 358.38 |
| 120-130 | 602.24 |
| 130-140 | 787.49 |
| 140-150 | 789.46 |
| 150-160 | 652.13 |
| 160-170 | 429.73 |
| 170-180 | 149.86 |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX4UDC-4-00-L8-940U-L15-940D-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 | 39 | 35 | 38 | 34 | 30 | 31 | 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  | 25  | 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 : MX4UDC-4-00-L8-940U-L15-940D-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 | 16.2 | 17.1 | 17.2 | 18.1 | 19.3 | 16.1 | 17.0 | 17.1 | 18.0 | 19.2 |
|------|------|------|------|------|------|------|------|------|------|------|------|
|      | 3H   | 18.0 | 18.8 | 18.9 | 19.7 | 21.0 | 17.9 | 18.7 | 18.8 | 19.6 | 20.9 |
|      | 4H   | 18.6 | 19.3 | 19.6 | 20.3 | 21.6 | 18.5 | 19.3 | 19.5 | 20.2 | 21.5 |
|      | 6H   | 19.0 | 19.7 | 20.0 | 20.7 | 22.0 | 19.0 | 19.7 | 20.0 | 20.6 | 21.9 |
|      | 8H   | 19.2 | 19.8 | 20.1 | 20.8 | 22.1 | 19.1 | 19.8 | 20.1 | 20.8 | 22.1 |
|      | 12H  | 19.2 | 19.9 | 20.2 | 20.8 | 22.2 | 19.2 | 19.8 | 20.2 | 20.8 | 22.2 |

### UGR Viewed Endwise

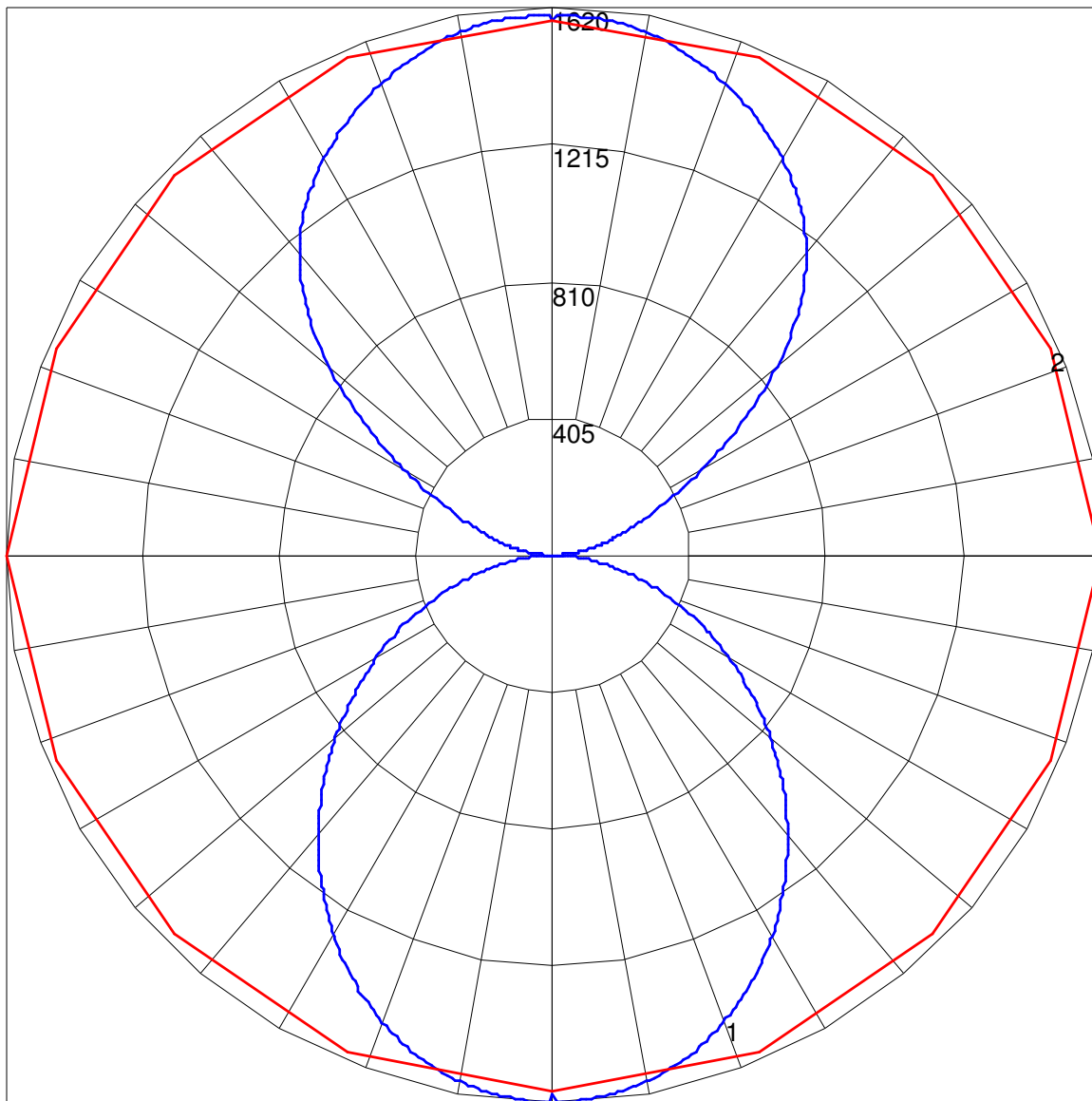
|    |     |      |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H  | 16.8 | 17.5 | 17.7 | 18.5 | 19.8 | 16.7 | 17.4 | 17.6 | 18.4 | 19.7 |
|    | 3H  | 18.7 | 19.3 | 19.7 | 20.3 | 21.6 | 18.6 | 19.3 | 19.6 | 20.3 | 21.6 |
|    | 4H  | 19.5 | 20.0 | 20.4 | 21.0 | 22.3 | 19.4 | 20.0 | 20.4 | 21.0 | 22.3 |
|    | 6H  | 20.0 | 20.5 | 21.0 | 21.5 | 22.8 | 20.0 | 20.5 | 21.0 | 21.5 | 22.8 |
|    | 8H  | 20.2 | 20.6 | 21.2 | 21.7 | 23.0 | 20.2 | 20.6 | 21.2 | 21.7 | 23.0 |
|    | 12H | 20.3 | 20.7 | 21.3 | 21.7 | 23.1 | 20.3 | 20.7 | 21.4 | 21.8 | 23.1 |

|    |     |      |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H  | 19.7 | 20.2 | 20.7 | 21.2 | 22.5 | 19.7 | 20.1 | 20.7 | 21.1 | 22.5 |
|    | 6H  | 20.4 | 20.8 | 21.4 | 21.8 | 23.2 | 20.4 | 20.8 | 21.4 | 21.8 | 23.1 |
|    | 8H  | 20.7 | 21.0 | 21.7 | 22.0 | 23.4 | 20.7 | 21.0 | 21.7 | 22.0 | 23.4 |
|    | 12H | 20.8 | 21.1 | 21.9 | 22.2 | 23.6 | 20.9 | 21.2 | 21.9 | 22.2 | 23.6 |

|     |    |      |      |      |      |      |      |      |      |      |      |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 19.7 | 20.1 | 20.7 | 21.1 | 22.5 | 19.6 | 20.1 | 20.7 | 21.1 | 22.4 |
|     | 6H | 20.4 | 20.8 | 21.5 | 21.8 | 23.2 | 20.4 | 20.8 | 21.5 | 21.8 | 23.2 |
|     | 8H | 20.7 | 21.0 | 21.8 | 22.1 | 23.5 | 20.7 | 21.0 | 21.8 | 22.1 | 23.5 |

Maximum UGR = 23.6

POLAR GRAPH



Maximum Candela = 1619.551 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.)