



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM 13257153.16
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 02/08/2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] 4CS-L15-935-XXX-DIM-UNV-RW-CS
 [LUMINAIRE] Square Aluminum housing, optics, and trim enclosure
 [LAMP] One white LED
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Downlight
 [_SEARCH_MOUNTING] Surface, Suspended, Wall

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1297 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 75 |
| Total Luminaire Watts | 17.2988 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 0.90 |
| Spacing Criterion (90-270) | 0.90 |
| Spacing Criterion (Diagonal) | 0.86 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 0.21 ft |
| Luminous Width (90-270) | 0.21 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 28870 | 39293 | 28248 |
| 55 | 20059 | 21661 | 19641 |
| 65 | 15550 | 14368 | 15597 |
| 75 | 8953 | 8258 | 9029 |
| 85 | 4124 | 4124 | 4124 |

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PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.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 | 1495.500 | 1495.500 | 1495.500 | 1495.500 | 1495.500 |
| 0.5 | 1497.107 | 1503.536 | 1496.303 | 1489.874 | 1488.267 |
| 1.0 | 1496.303 | 1502.732 | 1496.303 | 1489.874 | 1488.267 |
| 1.5 | 1495.500 | 1501.928 | 1495.500 | 1489.071 | 1487.464 |
| 2.0 | 1494.696 | 1501.125 | 1494.696 | 1488.267 | 1485.856 |
| 2.5 | 1493.089 | 1499.518 | 1492.285 | 1486.660 | 1485.053 |
| 3.0 | 1491.482 | 1496.303 | 1490.678 | 1485.053 | 1482.642 |
| 3.5 | 1488.267 | 1494.696 | 1488.267 | 1482.642 | 1480.231 |
| 4.0 | 1485.856 | 1491.482 | 1485.053 | 1479.428 | 1477.820 |
| 4.5 | 1482.642 | 1488.267 | 1481.838 | 1476.213 | 1474.606 |
| 5.0 | 1478.624 | 1485.053 | 1478.624 | 1472.195 | 1470.588 |
| 5.5 | 1474.606 | 1481.035 | 1474.606 | 1468.981 | 1466.570 |
| 6.0 | 1470.588 | 1477.017 | 1470.588 | 1464.963 | 1462.552 |
| 6.5 | 1466.570 | 1472.999 | 1466.570 | 1460.141 | 1457.730 |
| 7.0 | 1461.748 | 1468.177 | 1461.748 | 1456.123 | 1452.909 |
| 7.5 | 1457.730 | 1463.356 | 1456.927 | 1451.302 | 1448.087 |
| 8.0 | 1452.105 | 1459.338 | 1452.105 | 1446.480 | 1443.266 |
| 8.5 | 1447.284 | 1453.712 | 1446.480 | 1440.855 | 1437.640 |
| 9.0 | 1440.855 | 1448.087 | 1441.658 | 1435.230 | 1432.819 |
| 9.5 | 1436.033 | 1442.462 | 1436.033 | 1429.604 | 1426.390 |
| 10.0 | 1429.604 | 1436.033 | 1429.604 | 1423.176 | 1420.765 |
| 10.5 | 1422.372 | 1429.604 | 1423.176 | 1416.747 | 1413.532 |
| 11.0 | 1415.140 | 1422.372 | 1415.943 | 1409.514 | 1407.104 |
| 11.5 | 1407.907 | 1414.336 | 1408.711 | 1402.282 | 1399.068 |
| 12.0 | 1399.068 | 1407.104 | 1400.675 | 1394.246 | 1391.032 |
| 12.5 | 1391.032 | 1398.264 | 1391.835 | 1386.210 | 1382.996 |
| 13.0 | 1381.388 | 1389.424 | 1382.996 | 1377.370 | 1373.352 |
| 13.5 | 1372.549 | 1379.781 | 1374.156 | 1367.727 | 1363.709 |
| 14.0 | 1362.102 | 1369.334 | 1364.513 | 1358.084 | 1354.066 |
| 14.5 | 1350.852 | 1358.888 | 1353.262 | 1347.637 | 1342.816 |
| 15.0 | 1338.798 | 1346.834 | 1342.012 | 1336.387 | 1331.565 |
| 15.5 | 1325.940 | 1334.780 | 1329.958 | 1324.333 | 1319.511 |
| 16.0 | 1313.082 | 1321.118 | 1317.100 | 1311.475 | 1306.654 |
| 16.5 | 1299.421 | 1308.261 | 1303.439 | 1298.618 | 1292.992 |
| 17.0 | 1284.956 | 1293.796 | 1289.778 | 1284.956 | 1279.331 |
| 17.5 | 1269.688 | 1278.528 | 1276.117 | 1270.492 | 1264.063 |
| 18.0 | 1253.616 | 1262.456 | 1260.045 | 1255.223 | 1247.991 |
| 18.5 | 1236.740 | 1245.580 | 1244.776 | 1238.348 | 1230.312 |
| 19.0 | 1217.454 | 1227.901 | 1227.901 | 1221.472 | 1212.632 |
| 19.5 | 1198.168 | 1208.614 | 1211.025 | 1203.793 | 1193.346 |
| 20.0 | 1177.274 | 1189.328 | 1192.542 | 1184.506 | 1173.256 |
| 20.5 | 1154.773 | 1168.434 | 1173.256 | 1163.613 | 1151.559 |
| 21.0 | 1133.880 | 1145.934 | 1152.362 | 1142.719 | 1129.058 |
| 21.5 | 1110.575 | 1123.433 | 1131.469 | 1120.218 | 1104.950 |
| 22.0 | 1084.056 | 1099.325 | 1109.772 | 1096.914 | 1080.038 |
| 22.5 | 1056.734 | 1074.413 | 1087.271 | 1072.002 | 1053.520 |
| 23.0 | 1027.804 | 1048.698 | 1063.966 | 1047.091 | 1025.394 |
| 23.5 | 998.875 | 1020.572 | 1039.055 | 1019.768 | 996.464 |
| 24.0 | 967.534 | 993.250 | 1014.143 | 991.642 | 966.731 |
| 24.5 | 936.194 | 964.320 | 988.428 | 963.516 | 935.390 |
| 25.0 | 904.854 | 934.587 | 961.106 | 933.783 | 903.246 |
| 25.5 | 871.906 | 904.050 | 933.783 | 903.246 | 870.299 |
| 26.0 | 838.155 | 872.710 | 904.854 | 871.906 | 835.744 |
| 26.5 | 803.600 | 841.369 | 875.924 | 839.762 | 801.671 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|------|---------|---------|---------|---------|---------|
| 27.0 | 769.286 | 808.422 | 846.191 | 806.814 | 766.072 |
| 27.5 | 735.214 | 775.474 | 814.850 | 773.545 | 731.678 |
| 28.0 | 700.498 | 742.446 | 783.912 | 739.633 | 695.757 |
| 28.5 | 666.024 | 709.016 | 752.170 | 705.722 | 661.202 |
| 29.0 | 632.514 | 676.149 | 720.588 | 671.649 | 626.728 |
| 29.5 | 601.334 | 643.041 | 688.926 | 638.862 | 592.012 |
| 30.0 | 568.868 | 611.861 | 657.184 | 605.111 | 557.939 |
| 30.5 | 536.242 | 579.396 | 626.245 | 571.842 | 525.554 |
| 31.0 | 504.661 | 548.296 | 595.869 | 540.341 | 492.446 |
| 31.5 | 474.124 | 516.956 | 564.770 | 508.518 | 459.579 |
| 32.0 | 443.426 | 486.741 | 535.358 | 477.901 | 426.310 |
| 32.5 | 412.970 | 457.891 | 505.866 | 448.570 | 395.693 |
| 33.0 | 383.317 | 429.926 | 477.338 | 420.363 | 366.843 |
| 33.5 | 353.905 | 403.407 | 449.453 | 392.719 | 339.601 |
| 34.0 | 326.101 | 377.692 | 423.176 | 365.638 | 311.797 |
| 34.5 | 300.225 | 352.861 | 397.862 | 340.164 | 285.439 |
| 35.0 | 276.197 | 328.351 | 373.754 | 316.699 | 262.697 |
| 35.5 | 254.339 | 304.564 | 351.173 | 294.600 | 242.205 |
| 36.0 | 233.848 | 282.385 | 329.637 | 272.581 | 221.472 |
| 36.5 | 215.365 | 261.652 | 309.306 | 251.446 | 202.507 |
| 37.0 | 198.730 | 242.285 | 290.341 | 232.723 | 187.239 |
| 37.5 | 183.542 | 224.445 | 272.581 | 216.088 | 173.979 |
| 38.0 | 170.042 | 208.132 | 256.027 | 199.936 | 160.720 |
| 38.5 | 157.666 | 193.266 | 240.517 | 184.507 | 148.505 |
| 39.0 | 147.059 | 179.846 | 226.133 | 171.167 | 138.942 |
| 39.5 | 137.335 | 167.310 | 212.793 | 159.916 | 130.906 |
| 40.0 | 128.897 | 156.059 | 200.498 | 149.309 | 122.629 |
| 40.5 | 121.424 | 145.773 | 188.846 | 138.942 | 115.397 |
| 41.0 | 114.834 | 136.692 | 177.756 | 130.183 | 109.772 |
| 41.5 | 109.129 | 128.415 | 167.551 | 123.031 | 104.709 |
| 42.0 | 103.905 | 121.022 | 157.988 | 116.281 | 99.727 |
| 42.5 | 99.486 | 114.433 | 149.148 | 109.932 | 95.548 |
| 43.0 | 95.146 | 108.727 | 140.550 | 104.468 | 92.012 |
| 43.5 | 91.610 | 103.423 | 132.433 | 99.887 | 88.717 |
| 44.0 | 87.994 | 98.923 | 124.799 | 95.628 | 85.503 |
| 44.5 | 85.021 | 94.664 | 117.968 | 91.610 | 82.771 |
| 45.0 | 82.128 | 90.968 | 111.781 | 88.235 | 80.360 |
| 45.5 | 79.476 | 87.432 | 106.075 | 85.182 | 77.869 |
| 46.0 | 77.065 | 84.298 | 100.611 | 82.369 | 75.538 |
| 46.5 | 74.654 | 81.405 | 95.709 | 79.637 | 73.449 |
| 47.0 | 72.485 | 78.672 | 91.289 | 77.146 | 71.360 |
| 47.5 | 70.315 | 76.181 | 87.271 | 74.896 | 69.190 |
| 48.0 | 68.306 | 73.770 | 83.494 | 72.645 | 67.261 |
| 48.5 | 66.297 | 71.520 | 79.958 | 70.556 | 65.413 |
| 49.0 | 64.449 | 69.431 | 76.744 | 68.547 | 63.484 |
| 49.5 | 62.600 | 67.342 | 73.770 | 66.538 | 61.716 |
| 50.0 | 60.913 | 65.413 | 70.958 | 64.609 | 59.949 |
| 50.5 | 59.145 | 63.565 | 68.306 | 62.761 | 58.261 |
| 51.0 | 57.538 | 61.716 | 65.895 | 60.993 | 56.573 |
| 51.5 | 55.931 | 60.029 | 63.645 | 59.306 | 55.047 |
| 52.0 | 54.404 | 58.341 | 61.395 | 57.698 | 53.520 |
| 52.5 | 52.957 | 56.734 | 59.306 | 56.011 | 52.073 |
| 53.0 | 51.511 | 55.127 | 57.297 | 54.404 | 50.546 |
| 53.5 | 50.145 | 53.600 | 55.368 | 52.877 | 49.180 |
| 54.0 | 48.779 | 52.073 | 53.520 | 51.350 | 47.814 |
| 54.5 | 47.493 | 50.627 | 51.752 | 49.904 | 46.528 |

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PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|------|--------|--------|--------|--------|--------|
| 55.0 | 46.287 | 49.180 | 49.984 | 48.537 | 45.323 |
| 55.5 | 45.082 | 47.814 | 48.296 | 47.171 | 44.198 |
| 56.0 | 43.957 | 46.448 | 46.689 | 45.805 | 42.993 |
| 56.5 | 42.832 | 45.162 | 45.162 | 44.519 | 41.948 |
| 57.0 | 41.787 | 43.877 | 43.635 | 43.314 | 40.903 |
| 57.5 | 40.662 | 42.591 | 42.189 | 42.028 | 39.939 |
| 58.0 | 39.698 | 41.385 | 40.743 | 40.903 | 38.975 |
| 58.5 | 38.653 | 40.180 | 39.376 | 39.698 | 38.010 |
| 59.0 | 37.689 | 38.975 | 38.010 | 38.573 | 37.126 |
| 59.5 | 36.725 | 37.850 | 36.725 | 37.448 | 36.242 |
| 60.0 | 35.760 | 36.725 | 35.439 | 36.403 | 35.358 |
| 60.5 | 34.716 | 35.599 | 34.233 | 35.278 | 34.474 |
| 61.0 | 33.832 | 34.474 | 33.028 | 34.233 | 33.590 |
| 61.5 | 32.787 | 33.430 | 31.903 | 33.269 | 32.707 |
| 62.0 | 31.903 | 32.385 | 30.698 | 32.224 | 31.823 |
| 62.5 | 30.939 | 31.340 | 29.653 | 31.260 | 30.939 |
| 63.0 | 30.055 | 30.296 | 28.528 | 30.296 | 30.055 |
| 63.5 | 29.090 | 29.331 | 27.483 | 29.251 | 29.171 |
| 64.0 | 28.206 | 28.287 | 26.438 | 28.367 | 28.287 |
| 64.5 | 27.322 | 27.322 | 25.474 | 27.403 | 27.322 |
| 65.0 | 26.438 | 26.358 | 24.429 | 26.438 | 26.519 |
| 65.5 | 25.554 | 25.394 | 23.545 | 25.474 | 25.554 |
| 66.0 | 24.671 | 24.429 | 22.581 | 24.590 | 24.751 |
| 66.5 | 23.787 | 23.545 | 21.697 | 23.626 | 23.787 |
| 67.0 | 22.903 | 22.581 | 20.733 | 22.742 | 22.983 |
| 67.5 | 22.019 | 21.697 | 19.849 | 21.858 | 22.099 |
| 68.0 | 21.215 | 20.813 | 19.045 | 20.974 | 21.295 |
| 68.5 | 20.331 | 19.929 | 18.161 | 20.170 | 20.411 |
| 69.0 | 19.447 | 19.045 | 17.358 | 19.286 | 19.527 |
| 69.5 | 18.644 | 18.242 | 16.554 | 18.402 | 18.724 |
| 70.0 | 17.760 | 17.358 | 15.751 | 17.599 | 17.920 |
| 70.5 | 16.876 | 16.474 | 15.027 | 16.715 | 17.036 |
| 71.0 | 16.072 | 15.670 | 14.224 | 15.911 | 16.233 |
| 71.5 | 15.188 | 14.867 | 13.500 | 15.108 | 15.349 |
| 72.0 | 14.384 | 14.063 | 12.777 | 14.224 | 14.545 |
| 72.5 | 13.500 | 13.259 | 11.974 | 13.420 | 13.742 |
| 73.0 | 12.697 | 12.456 | 11.331 | 12.697 | 12.858 |
| 73.5 | 11.893 | 11.652 | 10.608 | 11.893 | 12.054 |
| 74.0 | 11.009 | 10.929 | 9.965 | 11.090 | 11.170 |
| 74.5 | 10.206 | 10.125 | 9.241 | 10.286 | 10.286 |
| 75.0 | 9.322 | 9.402 | 8.599 | 9.563 | 9.402 |
| 75.5 | 8.357 | 8.679 | 8.036 | 8.759 | 8.438 |
| 76.0 | 7.393 | 7.875 | 7.393 | 7.956 | 7.313 |
| 76.5 | 6.348 | 7.152 | 6.831 | 7.152 | 6.509 |
| 77.0 | 5.545 | 6.268 | 6.268 | 6.268 | 5.866 |
| 77.5 | 4.741 | 5.545 | 5.706 | 5.625 | 5.143 |
| 78.0 | 4.339 | 4.902 | 5.223 | 5.063 | 4.420 |
| 78.5 | 4.098 | 4.339 | 4.741 | 4.500 | 4.018 |
| 79.0 | 3.857 | 3.938 | 4.259 | 3.938 | 3.777 |
| 79.5 | 3.616 | 3.697 | 3.938 | 3.616 | 3.536 |
| 80.0 | 3.455 | 3.455 | 3.536 | 3.375 | 3.375 |
| 80.5 | 3.214 | 3.214 | 3.295 | 3.214 | 3.134 |
| 81.0 | 2.973 | 3.054 | 2.973 | 2.973 | 2.893 |
| 81.5 | 2.813 | 2.813 | 2.732 | 2.732 | 2.732 |
| 82.0 | 2.572 | 2.652 | 2.572 | 2.572 | 2.491 |
| 82.5 | 2.411 | 2.411 | 2.330 | 2.330 | 2.330 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 83.0 | 2.250 | 2.250 | 2.170 | 2.170 | 2.170 |
| 83.5 | 2.009 | 2.009 | 1.929 | 2.009 | 1.929 |
| 84.0 | 1.848 | 1.848 | 1.768 | 1.768 | 1.768 |
| 84.5 | 1.688 | 1.688 | 1.607 | 1.607 | 1.607 |
| 85.0 | 1.446 | 1.446 | 1.446 | 1.446 | 1.446 |
| 85.5 | 1.286 | 1.286 | 1.286 | 1.286 | 1.286 |
| 86.0 | 1.125 | 1.125 | 1.125 | 1.125 | 1.125 |
| 86.5 | 0.964 | 0.964 | 0.884 | 0.964 | 0.964 |
| 87.0 | 0.804 | 0.804 | 0.804 | 0.804 | 0.804 |
| 87.5 | 0.643 | 0.643 | 0.643 | 0.643 | 0.643 |
| 88.0 | 0.482 | 0.482 | 0.482 | 0.482 | 0.482 |
| 88.5 | 0.402 | 0.321 | 0.321 | 0.321 | 0.402 |
| 89.0 | 0.241 | 0.241 | 0.241 | 0.241 | 0.241 |
| 89.5 | 0.161 | 0.161 | 0.161 | 0.161 | 0.161 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 90.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 91.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 91.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 92.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 92.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 93.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 93.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 94.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 94.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 95.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 95.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 96.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 96.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 97.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 97.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 98.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 98.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 99.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 99.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 101.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 101.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 102.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 102.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 103.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 103.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 104.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 104.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 105.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 105.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 106.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 106.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 107.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 107.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 108.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 108.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 109.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 109.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 110.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 110.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 111.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 111.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 112.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 112.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 113.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 113.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 114.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 114.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 116.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 116.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 117.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 117.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 118.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 118.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 119.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 119.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 121.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 121.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 123.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 123.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 124.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 124.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 126.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 126.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 127.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 127.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 128.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 128.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 129.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 129.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 131.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 131.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 132.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 132.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 133.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 133.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 134.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 134.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 136.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 136.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 138.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 138.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 139.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 139.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 141.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 141.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 143.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 143.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 144.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 144.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 146.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 146.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 148.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 148.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 149.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 149.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 151.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 151.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 153.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 153.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 154.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 154.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 156.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 156.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 158.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 158.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 159.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 159.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 161.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 161.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 163.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 163.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 164.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 164.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 166.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 166.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 167.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 167.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 168.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 168.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 169.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 169.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 171.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 171.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 173.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 173.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 174.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 174.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 176.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 176.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 178.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 178.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 179.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 179.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 512.53 | N.A. | 39.50 |
| 0-30 | 930.16 | N.A. | 71.70 |
| 0-40 | 1139.93 | N.A. | 87.90 |
| 0-60 | 1259.47 | N.A. | 97.10 |
| 0-80 | 1295.24 | N.A. | 99.90 |
| 0-90 | 1296.91 | N.A. | 100.00 |
| 10-90 | 1157.43 | N.A. | 89.20 |
| 20-40 | 627.40 | N.A. | 48.40 |
| 20-50 | 703.11 | N.A. | 54.20 |
| 40-70 | 145.36 | N.A. | 11.20 |
| 60-80 | 35.76 | N.A. | 2.80 |
| 70-80 | 9.94 | N.A. | 0.80 |
| 80-90 | 1.67 | N.A. | 0.10 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 1296.91 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 139.48 |
| 10-20 | 373.06 |
| 20-30 | 417.62 |
| 30-40 | 209.77 |
| 40-50 | 75.71 |
| 50-60 | 43.83 |
| 60-70 | 25.82 |
| 70-80 | 9.94 |
| 80-90 | 1.67 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 100 | 100 | 99 | 97 | 97 | 96 | 95 | 93 |
| 2 | 107 | 102 | 98 | 94 | 105 | 100 | 97 | 93 | 97 | 94 | 91 | 94 | 92 | 89 | 91 | 89 | 87 | 86 |
| 3 | 102 | 95 | 90 | 86 | 100 | 94 | 89 | 85 | 91 | 87 | 84 | 88 | 85 | 82 | 86 | 83 | 81 | 79 |
| 4 | 96 | 89 | 83 | 78 | 95 | 87 | 82 | 78 | 85 | 81 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 74 |
| 5 | 91 | 83 | 77 | 72 | 90 | 82 | 76 | 72 | 80 | 75 | 71 | 78 | 74 | 71 | 77 | 73 | 70 | 69 |
| 6 | 87 | 78 | 72 | 67 | 85 | 77 | 71 | 67 | 75 | 70 | 66 | 74 | 69 | 66 | 73 | 69 | 66 | 64 |
| 7 | 83 | 73 | 67 | 63 | 81 | 72 | 67 | 62 | 71 | 66 | 62 | 70 | 65 | 62 | 69 | 65 | 61 | 60 |
| 8 | 79 | 69 | 63 | 59 | 77 | 68 | 63 | 59 | 67 | 62 | 58 | 66 | 61 | 58 | 65 | 61 | 58 | 56 |
| 9 | 75 | 65 | 59 | 55 | 74 | 65 | 59 | 55 | 64 | 58 | 55 | 63 | 58 | 55 | 62 | 58 | 54 | 53 |
| 10 | 71 | 62 | 56 | 52 | 70 | 61 | 56 | 52 | 60 | 55 | 52 | 60 | 55 | 52 | 59 | 55 | 51 | 50 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 4CS-L15-935-XXX-DIM-UNV-RW-CS.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 | 17.6 | 18.6 | 17.9 | 18.9 | 19.2 | UGR Viewed Endwise | | | |
| | 3H | 18.6 | 19.6 | 19.0 | 19.9 | 20.3 | 17.5 | 18.5 | 17.8 | 18.8 |
| | 4H | 18.9 | 19.7 | 19.3 | 20.1 | 20.5 | 18.6 | 19.5 | 19.0 | 19.9 |
| | 6H | 18.9 | 19.7 | 19.3 | 20.0 | 20.4 | 18.9 | 19.7 | 19.3 | 20.1 |
| | 8H | 18.9 | 19.6 | 19.3 | 20.0 | 20.4 | 19.3 | 19.6 | 19.3 | 20.0 |
| | 12H | 18.8 | 19.5 | 19.3 | 19.9 | 20.3 | 20.0 | 19.6 | 19.3 | 20.0 |

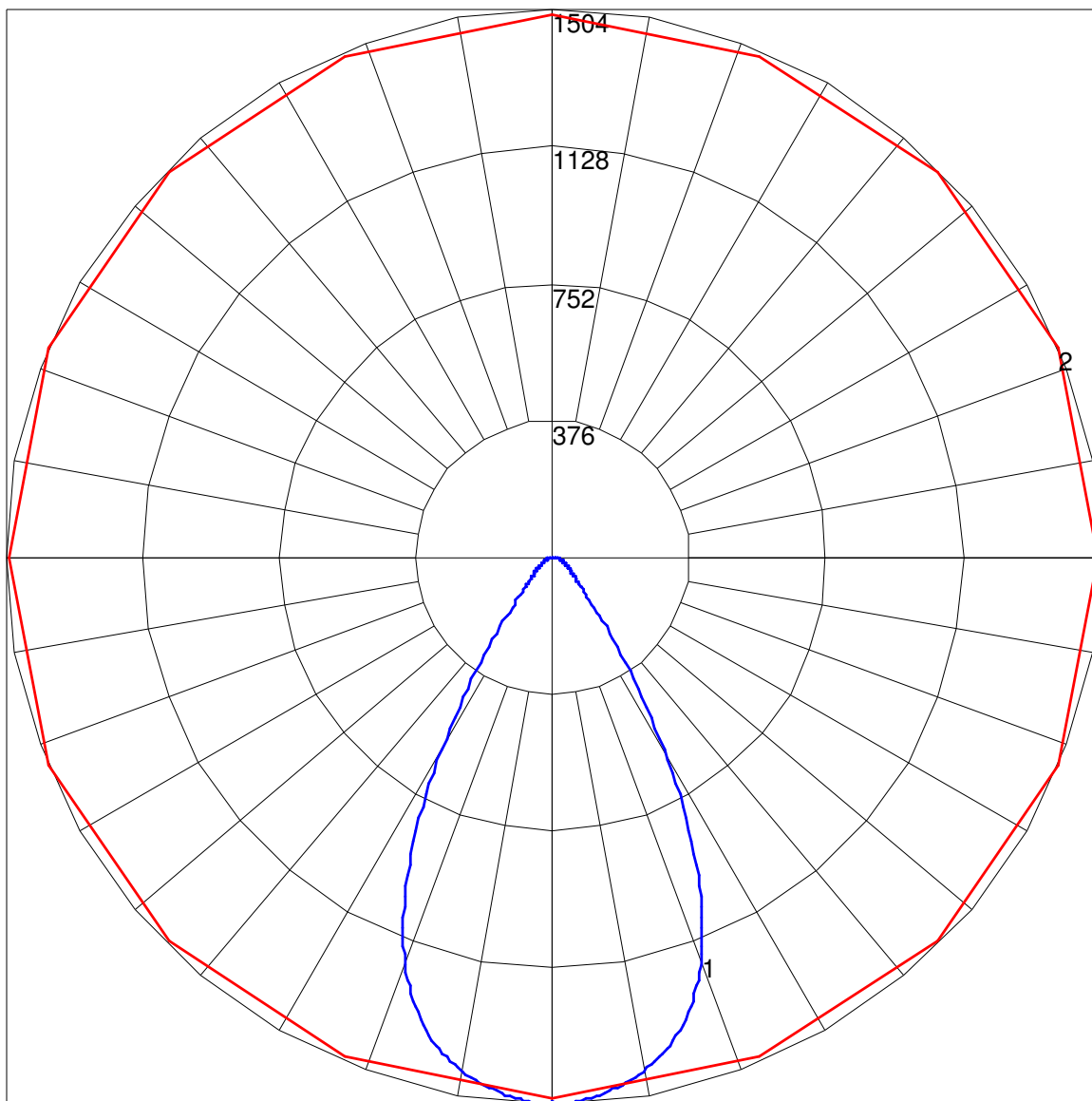
| | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 17.8 | 18.7 | 18.2 | 19.0 | 19.4 | 18.8 | 19.5 | 19.2 | 19.9 |
| | 3H | 17.7 | 18.6 | 18.1 | 18.9 | 19.3 | 19.3 | 19.8 | 19.8 | 20.3 |
| | 4H | 19.1 | 19.7 | 19.5 | 20.2 | 20.6 | 19.4 | 19.9 | 19.7 | 20.4 |
| | 6H | 19.3 | 20.0 | 19.8 | 20.4 | 20.8 | 20.1 | 19.9 | 19.8 | 20.3 |
| | 8H | 19.4 | 19.9 | 19.8 | 20.4 | 20.8 | 20.4 | 19.9 | 19.8 | 20.3 |
| | 12H | 19.4 | 19.9 | 19.8 | 20.3 | 20.8 | 20.3 | 19.8 | 19.8 | 20.3 |

| | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 19.3 | 19.8 | 19.8 | 20.3 | 20.8 | 19.3 | 19.8 | 19.8 | 20.3 |
| | 6H | 19.4 | 19.8 | 19.9 | 20.3 | 20.8 | 20.3 | 19.8 | 19.9 | 20.3 |
| | 8H | 19.4 | 19.8 | 19.9 | 20.3 | 20.8 | 20.3 | 19.8 | 19.9 | 20.3 |
| | 12H | 19.4 | 19.7 | 19.9 | 20.2 | 20.8 | 20.3 | 19.7 | 19.9 | 20.3 |

| | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 19.3 | 19.7 | 19.8 | 20.2 | 20.7 | 19.4 | 19.7 | 19.9 | 20.2 |
| | 6H | 19.3 | 19.7 | 19.8 | 20.2 | 20.7 | 20.2 | 19.7 | 19.9 | 20.2 |
| | 8H | 19.4 | 19.7 | 19.9 | 20.2 | 20.8 | 20.2 | 19.7 | 19.9 | 20.2 |

Maximum UGR = 20.8

POLAR GRAPH



Maximum Candela = 1503.536 Located At Horizontal Angle = 22.5, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)