



IES INDOOR REPORT
PHOTOMETRIC FILENAME : BAR-24-L60-827-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GENERATED FROM 15729805.03
 [TESTLAB] UL Verification Services Inc.
 [ISSUEDATE] 2025-04-25
 [TESTDATE] 3/18/2025
 [MANUFAC] WILLIAMS INDOOR
 [MORE] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMCAT] BAR-24-L60-827-DIM-UNV_
 [LUMINAIRE] Recessed 2 x 4 Indirect LED luminaire
 [MORE] with centered LED rail & white painted housing
 [LAMP] 112 White LEDs
 [BALLAST] 0-10v LED DRIVER
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] INDOOR
 [_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 5689 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 125 |
| Total Luminaire Watts | 45.6 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.30 |
| Spacing Criterion (90-270) | 1.38 |
| Spacing Criterion (Diagonal) | 1.48 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.92 ft |
| Luminous Width (90-270) | 1.92 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 2595 | 2776 | 2889 |
| 55 | 2552 | 2826 | 2922 |
| 65 | 2488 | 2823 | 2598 |
| 75 | 2235 | 1923 | 1080 |
| 85 | 1508 | 788 | 655 |

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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 | 1818.287 | 1818.287 | 1818.287 | 1818.287 | 1818.287 |
| 0.5 | 1816.814 | 1818.287 | 1816.814 | 1819.760 | 1821.232 |
| 1.0 | 1816.077 | 1817.550 | 1816.077 | 1819.023 | 1821.232 |
| 1.5 | 1816.077 | 1817.550 | 1815.341 | 1819.023 | 1820.496 |
| 2.0 | 1815.341 | 1816.814 | 1815.341 | 1818.287 | 1819.760 |
| 2.5 | 1815.341 | 1816.077 | 1814.604 | 1817.550 | 1819.023 |
| 3.0 | 1814.604 | 1815.341 | 1813.132 | 1816.077 | 1818.287 |
| 3.5 | 1813.868 | 1814.604 | 1812.395 | 1815.341 | 1816.814 |
| 4.0 | 1813.868 | 1813.868 | 1810.922 | 1814.604 | 1816.077 |
| 4.5 | 1812.395 | 1812.395 | 1810.186 | 1813.868 | 1815.341 |
| 5.0 | 1811.659 | 1811.659 | 1808.713 | 1812.395 | 1813.868 |
| 5.5 | 1810.922 | 1810.186 | 1807.976 | 1811.659 | 1813.132 |
| 6.0 | 1809.449 | 1808.713 | 1806.504 | 1810.922 | 1812.395 |
| 6.5 | 1807.976 | 1806.504 | 1805.031 | 1809.449 | 1811.659 |
| 7.0 | 1806.504 | 1805.031 | 1804.294 | 1808.713 | 1810.922 |
| 7.5 | 1805.031 | 1803.558 | 1802.085 | 1807.240 | 1809.449 |
| 8.0 | 1802.821 | 1801.348 | 1800.612 | 1806.504 | 1808.713 |
| 8.5 | 1801.348 | 1799.139 | 1799.139 | 1805.031 | 1807.976 |
| 9.0 | 1799.139 | 1797.666 | 1797.666 | 1804.294 | 1807.240 |
| 9.5 | 1796.930 | 1795.457 | 1796.193 | 1802.821 | 1805.767 |
| 10.0 | 1793.984 | 1793.248 | 1793.984 | 1801.348 | 1805.031 |
| 10.5 | 1792.511 | 1790.302 | 1792.511 | 1800.612 | 1804.294 |
| 11.0 | 1789.565 | 1788.092 | 1790.302 | 1799.139 | 1802.821 |
| 11.5 | 1786.619 | 1785.147 | 1788.092 | 1797.666 | 1801.348 |
| 12.0 | 1783.674 | 1782.201 | 1785.883 | 1796.193 | 1800.612 |
| 12.5 | 1780.728 | 1779.255 | 1783.674 | 1794.720 | 1798.403 |
| 13.0 | 1777.046 | 1776.309 | 1781.464 | 1793.248 | 1797.666 |
| 13.5 | 1774.100 | 1773.363 | 1779.255 | 1791.038 | 1796.193 |
| 14.0 | 1770.418 | 1769.681 | 1776.309 | 1788.829 | 1794.720 |
| 14.5 | 1765.999 | 1766.735 | 1773.363 | 1786.619 | 1793.248 |
| 15.0 | 1763.053 | 1763.053 | 1770.418 | 1785.147 | 1791.038 |
| 15.5 | 1758.635 | 1758.635 | 1767.472 | 1782.201 | 1789.565 |
| 16.0 | 1754.952 | 1754.952 | 1764.526 | 1779.991 | 1786.619 |
| 16.5 | 1751.270 | 1751.270 | 1761.580 | 1777.046 | 1784.410 |
| 17.0 | 1746.851 | 1746.851 | 1757.898 | 1774.100 | 1782.201 |
| 17.5 | 1742.433 | 1743.169 | 1754.216 | 1771.154 | 1779.255 |
| 18.0 | 1738.014 | 1738.750 | 1751.270 | 1768.208 | 1776.309 |
| 18.5 | 1733.595 | 1735.068 | 1747.588 | 1764.526 | 1772.627 |
| 19.0 | 1728.440 | 1730.650 | 1743.906 | 1761.580 | 1768.945 |
| 19.5 | 1724.022 | 1725.494 | 1740.223 | 1757.898 | 1765.263 |
| 20.0 | 1718.866 | 1721.076 | 1736.541 | 1754.216 | 1761.580 |
| 20.5 | 1713.711 | 1716.657 | 1732.122 | 1750.534 | 1757.898 |
| 21.0 | 1708.556 | 1711.502 | 1727.704 | 1746.851 | 1753.479 |
| 21.5 | 1702.665 | 1706.347 | 1723.285 | 1742.433 | 1749.797 |
| 22.0 | 1697.509 | 1701.192 | 1718.866 | 1738.750 | 1746.115 |
| 22.5 | 1691.618 | 1696.037 | 1714.448 | 1734.332 | 1742.433 |
| 23.0 | 1686.463 | 1690.881 | 1710.029 | 1730.650 | 1738.750 |
| 23.5 | 1679.835 | 1684.990 | 1704.874 | 1726.231 | 1734.332 |
| 24.0 | 1673.207 | 1679.098 | 1699.719 | 1721.812 | 1730.650 |
| 24.5 | 1667.315 | 1673.207 | 1694.564 | 1718.130 | 1726.967 |
| 25.0 | 1660.687 | 1667.315 | 1690.145 | 1713.711 | 1722.549 |
| 25.5 | 1654.059 | 1660.687 | 1684.253 | 1709.293 | 1718.866 |
| 26.0 | 1647.431 | 1654.059 | 1679.098 | 1704.874 | 1715.184 |
| 26.5 | 1640.067 | 1647.431 | 1673.943 | 1700.455 | 1710.765 |

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PHOTOMETRIC FILENAME : BAR-24-L60-827-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 27.0 | 1632.702 | 1640.803 | 1668.052 | 1696.037 | 1706.347 |
| 27.5 | 1625.338 | 1633.439 | 1662.896 | 1690.881 | 1701.928 |
| 28.0 | 1617.237 | 1626.811 | 1657.005 | 1685.726 | 1697.509 |
| 28.5 | 1609.872 | 1619.446 | 1651.113 | 1680.571 | 1692.354 |
| 29.0 | 1601.771 | 1612.082 | 1644.485 | 1674.680 | 1687.199 |
| 29.5 | 1593.670 | 1604.717 | 1638.594 | 1668.788 | 1681.308 |
| 30.0 | 1585.570 | 1597.353 | 1631.966 | 1662.896 | 1675.416 |
| 30.5 | 1576.732 | 1589.252 | 1625.338 | 1657.005 | 1669.524 |
| 31.0 | 1568.631 | 1581.887 | 1617.973 | 1650.377 | 1662.896 |
| 31.5 | 1560.530 | 1573.786 | 1611.345 | 1643.749 | 1656.268 |
| 32.0 | 1551.693 | 1566.422 | 1603.981 | 1637.121 | 1649.640 |
| 32.5 | 1542.856 | 1558.321 | 1596.616 | 1629.756 | 1643.012 |
| 33.0 | 1534.755 | 1549.484 | 1589.252 | 1623.128 | 1635.648 |
| 33.5 | 1525.181 | 1541.383 | 1581.887 | 1615.764 | 1629.020 |
| 34.0 | 1516.344 | 1532.545 | 1573.786 | 1608.399 | 1621.655 |
| 34.5 | 1506.770 | 1524.445 | 1565.686 | 1601.035 | 1614.291 |
| 35.0 | 1497.196 | 1515.607 | 1558.321 | 1593.670 | 1606.927 |
| 35.5 | 1488.359 | 1506.770 | 1550.220 | 1586.306 | 1599.562 |
| 36.0 | 1478.048 | 1497.932 | 1542.119 | 1578.205 | 1592.198 |
| 36.5 | 1467.738 | 1489.095 | 1533.282 | 1570.841 | 1584.097 |
| 37.0 | 1457.428 | 1479.521 | 1525.181 | 1562.740 | 1575.996 |
| 37.5 | 1447.854 | 1470.684 | 1516.344 | 1554.639 | 1567.895 |
| 38.0 | 1437.544 | 1460.374 | 1508.243 | 1545.801 | 1559.794 |
| 38.5 | 1427.234 | 1450.800 | 1499.405 | 1537.701 | 1551.693 |
| 39.0 | 1416.923 | 1441.226 | 1489.832 | 1528.863 | 1542.856 |
| 39.5 | 1406.613 | 1431.652 | 1480.994 | 1520.026 | 1534.018 |
| 40.0 | 1395.566 | 1422.078 | 1472.157 | 1511.188 | 1525.181 |
| 40.5 | 1385.256 | 1411.032 | 1462.583 | 1501.615 | 1516.344 |
| 41.0 | 1374.209 | 1400.721 | 1453.009 | 1492.041 | 1506.770 |
| 41.5 | 1363.163 | 1390.411 | 1442.699 | 1483.203 | 1497.196 |
| 42.0 | 1352.116 | 1380.101 | 1433.125 | 1472.893 | 1487.622 |
| 42.5 | 1341.069 | 1369.054 | 1422.815 | 1463.319 | 1477.312 |
| 43.0 | 1329.286 | 1358.008 | 1412.505 | 1453.746 | 1467.738 |
| 43.5 | 1317.503 | 1346.961 | 1402.194 | 1443.435 | 1457.428 |
| 44.0 | 1305.720 | 1335.914 | 1391.884 | 1433.125 | 1447.118 |
| 44.5 | 1293.937 | 1324.867 | 1380.837 | 1422.078 | 1436.807 |
| 45.0 | 1281.417 | 1313.084 | 1370.527 | 1411.768 | 1426.497 |
| 45.5 | 1269.634 | 1302.038 | 1360.217 | 1400.721 | 1415.450 |
| 46.0 | 1257.114 | 1290.254 | 1349.170 | 1389.675 | 1403.667 |
| 46.5 | 1244.595 | 1278.471 | 1338.124 | 1378.628 | 1392.621 |
| 47.0 | 1231.339 | 1266.688 | 1326.340 | 1366.845 | 1380.837 |
| 47.5 | 1218.819 | 1254.905 | 1315.294 | 1355.798 | 1369.791 |
| 48.0 | 1206.300 | 1243.122 | 1303.511 | 1344.015 | 1357.271 |
| 48.5 | 1193.044 | 1232.075 | 1292.464 | 1332.968 | 1345.488 |
| 49.0 | 1180.524 | 1219.556 | 1280.681 | 1321.185 | 1332.968 |
| 49.5 | 1168.004 | 1207.772 | 1268.898 | 1308.666 | 1320.449 |
| 50.0 | 1155.485 | 1195.989 | 1257.114 | 1296.146 | 1308.666 |
| 50.5 | 1142.229 | 1184.206 | 1245.331 | 1283.626 | 1296.146 |
| 51.0 | 1129.709 | 1171.687 | 1232.812 | 1271.107 | 1282.890 |
| 51.5 | 1116.453 | 1159.167 | 1221.028 | 1258.587 | 1269.634 |
| 52.0 | 1103.197 | 1146.647 | 1208.509 | 1245.331 | 1256.378 |
| 52.5 | 1089.941 | 1134.128 | 1195.989 | 1232.075 | 1243.122 |
| 53.0 | 1076.685 | 1121.608 | 1183.470 | 1218.819 | 1229.129 |
| 53.5 | 1063.429 | 1109.089 | 1170.950 | 1205.563 | 1214.400 |
| 54.0 | 1050.173 | 1096.569 | 1157.694 | 1191.571 | 1199.672 |
| 54.5 | 1036.180 | 1084.049 | 1145.174 | 1177.578 | 1184.943 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 55.0 | 1022.188 | 1071.530 | 1131.918 | 1162.849 | 1170.214 |
| 55.5 | 1008.932 | 1058.274 | 1117.926 | 1148.120 | 1154.748 |
| 56.0 | 994.939 | 1045.018 | 1104.670 | 1132.655 | 1139.283 |
| 56.5 | 980.947 | 1031.762 | 1090.677 | 1117.926 | 1123.081 |
| 57.0 | 966.954 | 1018.506 | 1076.685 | 1101.724 | 1106.143 |
| 57.5 | 952.225 | 1005.250 | 1062.692 | 1086.259 | 1088.468 |
| 58.0 | 938.233 | 991.257 | 1048.700 | 1070.057 | 1071.530 |
| 58.5 | 924.241 | 978.001 | 1033.971 | 1053.855 | 1053.119 |
| 59.0 | 910.248 | 964.745 | 1019.242 | 1036.917 | 1035.444 |
| 59.5 | 896.256 | 951.489 | 1005.250 | 1019.242 | 1017.033 |
| 60.0 | 881.527 | 938.233 | 990.521 | 1002.304 | 997.149 |
| 60.5 | 867.534 | 924.977 | 975.792 | 984.629 | 978.001 |
| 61.0 | 852.805 | 910.984 | 961.799 | 966.954 | 957.381 |
| 61.5 | 838.813 | 897.728 | 947.070 | 948.543 | 936.760 |
| 62.0 | 824.084 | 883.736 | 931.605 | 930.132 | 914.667 |
| 62.5 | 809.355 | 870.480 | 915.403 | 910.248 | 892.573 |
| 63.0 | 794.626 | 856.487 | 899.938 | 890.364 | 869.743 |
| 63.5 | 779.897 | 841.758 | 883.736 | 869.743 | 845.441 |
| 64.0 | 765.168 | 827.766 | 867.534 | 847.650 | 820.402 |
| 64.5 | 749.703 | 813.774 | 849.859 | 825.557 | 794.626 |
| 65.0 | 734.311 | 799.045 | 832.921 | 801.254 | 766.641 |
| 65.5 | 718.772 | 784.316 | 815.246 | 775.478 | 737.183 |
| 66.0 | 702.717 | 768.850 | 796.099 | 748.966 | 706.179 |
| 66.5 | 686.516 | 753.385 | 776.951 | 722.086 | 674.806 |
| 67.0 | 670.461 | 737.183 | 757.804 | 692.849 | 641.961 |
| 67.5 | 653.965 | 721.644 | 737.183 | 663.465 | 608.894 |
| 68.0 | 637.247 | 705.663 | 715.532 | 632.829 | 577.595 |
| 68.5 | 620.530 | 689.314 | 693.585 | 602.119 | 546.149 |
| 69.0 | 603.444 | 672.744 | 670.903 | 571.556 | 512.420 |
| 69.5 | 587.537 | 656.248 | 647.705 | 541.067 | 478.248 |
| 70.0 | 572.808 | 639.604 | 623.918 | 508.369 | 445.329 |
| 70.5 | 558.595 | 622.518 | 600.793 | 475.671 | 413.220 |
| 71.0 | 541.436 | 605.801 | 576.269 | 443.341 | 382.584 |
| 71.5 | 523.908 | 591.219 | 551.230 | 411.453 | 353.642 |
| 72.0 | 506.602 | 573.986 | 525.528 | 380.817 | 325.509 |
| 72.5 | 489.295 | 558.742 | 496.439 | 351.138 | 298.555 |
| 73.0 | 471.841 | 541.877 | 467.570 | 323.521 | 274.253 |
| 73.5 | 455.050 | 524.129 | 437.302 | 297.966 | 252.012 |
| 74.0 | 438.112 | 506.233 | 407.550 | 273.590 | 231.612 |
| 74.5 | 421.247 | 487.749 | 377.429 | 250.981 | 212.759 |
| 75.0 | 403.867 | 469.116 | 347.529 | 230.066 | 195.158 |
| 75.5 | 387.150 | 449.969 | 318.734 | 210.697 | 179.472 |
| 76.0 | 371.022 | 430.379 | 290.823 | 193.096 | 164.743 |
| 76.5 | 354.084 | 411.011 | 264.605 | 177.115 | 151.561 |
| 77.0 | 337.734 | 390.906 | 240.450 | 162.460 | 139.557 |
| 77.5 | 320.796 | 370.727 | 218.209 | 149.351 | 128.584 |
| 78.0 | 304.594 | 349.959 | 197.662 | 137.642 | 119.083 |
| 78.5 | 288.319 | 328.013 | 179.104 | 126.669 | 110.246 |
| 79.0 | 272.043 | 306.067 | 162.755 | 116.653 | 101.851 |
| 79.5 | 255.989 | 283.753 | 147.731 | 107.595 | 94.486 |
| 80.0 | 240.229 | 260.997 | 134.181 | 99.273 | 87.932 |
| 80.5 | 224.395 | 237.725 | 121.956 | 91.835 | 81.967 |
| 81.0 | 208.267 | 214.895 | 110.688 | 84.912 | 76.517 |
| 81.5 | 192.434 | 192.065 | 100.378 | 78.652 | 71.214 |
| 82.0 | 177.042 | 170.193 | 91.098 | 72.761 | 65.838 |
| 82.5 | 161.797 | 150.161 | 82.703 | 67.017 | 60.757 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|---------|---------|--------|--------|--------|
| 83.0 | 146.258 | 131.603 | 74.970 | 61.125 | 55.823 |
| 83.5 | 131.308 | 115.475 | 67.974 | 55.749 | 51.330 |
| 84.0 | 116.874 | 101.114 | 61.125 | 50.668 | 47.133 |
| 84.5 | 103.839 | 88.374 | 54.423 | 45.807 | 43.229 |
| 85.0 | 91.761 | 76.959 | 47.943 | 41.462 | 39.842 |
| 85.5 | 80.715 | 66.501 | 41.904 | 37.632 | 37.191 |
| 86.0 | 69.373 | 56.854 | 36.307 | 34.466 | 34.760 |
| 86.5 | 58.253 | 47.869 | 31.225 | 31.225 | 31.594 |
| 87.0 | 47.206 | 39.105 | 26.880 | 27.322 | 26.954 |
| 87.5 | 36.896 | 30.857 | 22.683 | 22.167 | 21.799 |
| 88.0 | 27.396 | 23.272 | 17.748 | 17.822 | 18.411 |
| 88.5 | 18.927 | 16.275 | 12.741 | 14.140 | 14.361 |
| 89.0 | 11.783 | 10.163 | 8.543 | 8.690 | 8.616 |
| 89.5 | 5.597 | 5.229 | 4.050 | 4.050 | 3.756 |
| 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
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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 : BAR-24-L60-827-DIM-UNV_.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 : BAR-24-L60-827-DIM-UNV_.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 : BAR-24-L60-827-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 673.76 | N.A. | 11.80 |
| 0-30 | 1453.79 | N.A. | 25.60 |
| 0-40 | 2427.11 | N.A. | 42.70 |
| 0-60 | 4473.34 | N.A. | 78.60 |
| 0-80 | 5616.89 | N.A. | 98.70 |
| 0-90 | 5689.18 | N.A. | 100.00 |
| 10-90 | 5516.72 | N.A. | 97.00 |
| 20-40 | 1753.35 | N.A. | 30.80 |
| 20-50 | 2804.18 | N.A. | 49.30 |
| 40-70 | 2823.66 | N.A. | 49.60 |
| 60-80 | 1143.56 | N.A. | 20.10 |
| 70-80 | 366.11 | N.A. | 6.40 |
| 80-90 | 72.29 | N.A. | 1.30 |
| 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 | 5689.18 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 172.46 |
| 10-20 | 501.30 |
| 20-30 | 780.03 |
| 30-40 | 973.32 |
| 40-50 | 1050.83 |
| 50-60 | 995.39 |
| 60-70 | 777.44 |
| 70-80 | 366.11 |
| 80-90 | 72.29 |
| 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 : BAR-24-L60-827-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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 98 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 90 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 64 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 39 | 51 | 44 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 50 | 41 | 35 | 62 | 50 | 41 | 35 | 48 | 40 | 35 | 46 | 40 | 34 | 45 | 39 | 34 | 32 |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 43 | 36 | 31 | 41 | 35 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 27 | 26 |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BAR-24-L60-827-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 | 15.7 | 17.4 | 16.1 | 17.7 | 18.0 | UGR Viewed Endwise | | | |
| | 3H | 17.7 | 19.2 | 18.1 | 19.5 | 19.9 | 16.3 | 18.0 | 16.7 | 18.3 |
| | 4H | 18.4 | 19.8 | 18.8 | 20.2 | 20.6 | 17.7 | 19.2 | 18.1 | 19.5 |
| | 6H | 18.9 | 20.3 | 19.4 | 20.6 | 21.0 | 17.8 | 19.3 | 18.2 | 19.6 |
| | 8H | 19.1 | 20.3 | 19.5 | 20.7 | 21.1 | 17.9 | 19.2 | 18.3 | 19.6 |
| | 12H | 19.2 | 20.4 | 19.6 | 20.7 | 21.2 | 17.9 | 19.2 | 18.3 | 19.6 |

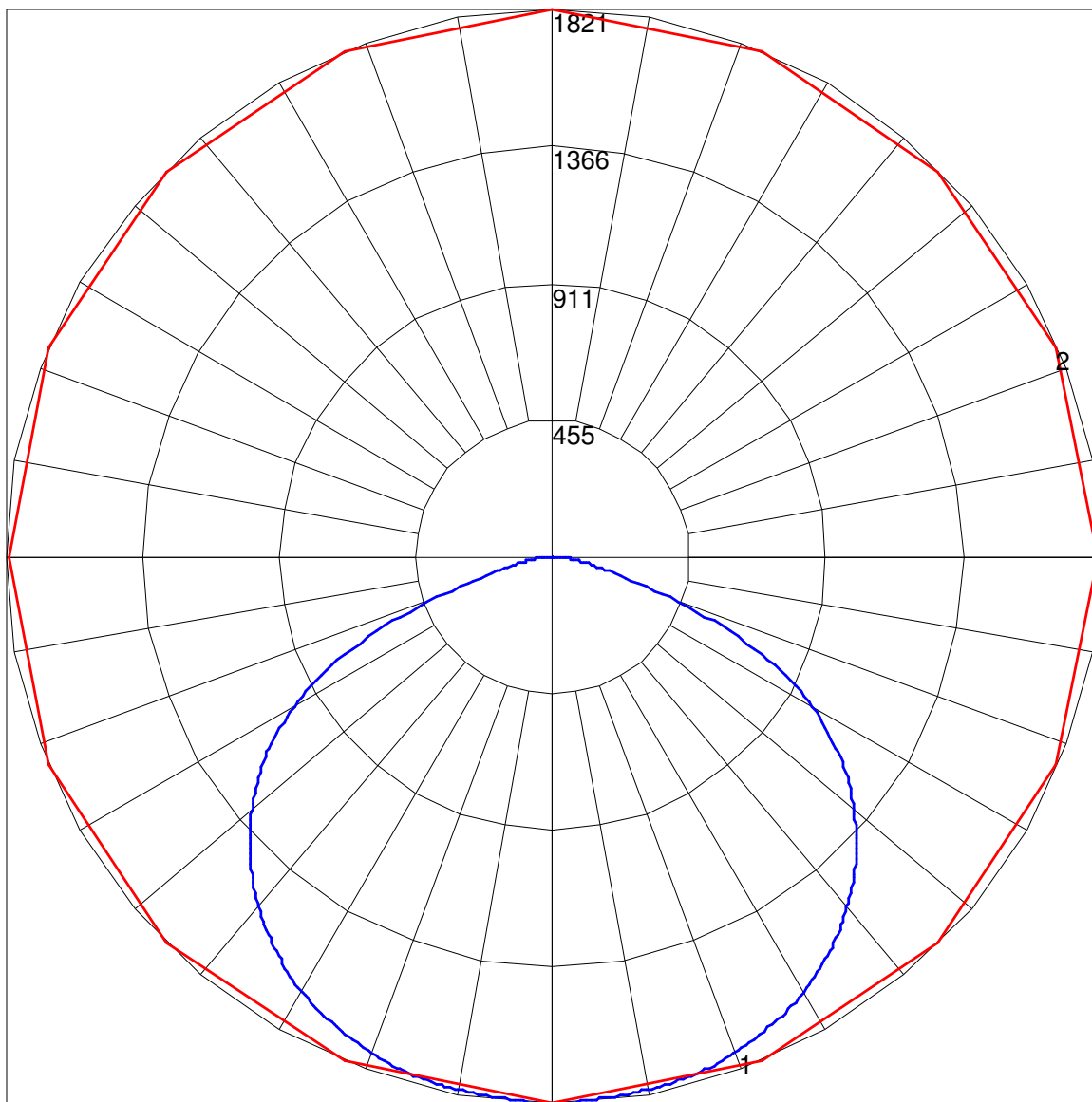
| | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 16.5 | 17.9 | 16.9 | 18.3 | 18.7 | 17.0 | 18.4 | 17.4 | 18.7 |
| | 3H | 18.7 | 19.9 | 19.1 | 20.3 | 20.7 | 18.5 | 19.7 | 18.9 | 20.1 |
| | 4H | 19.6 | 20.7 | 20.0 | 21.1 | 21.5 | 18.8 | 19.8 | 19.2 | 20.2 |
| | 6H | 20.3 | 21.2 | 20.7 | 21.6 | 22.1 | 18.9 | 19.8 | 19.3 | 20.2 |
| | 8H | 20.4 | 21.3 | 20.9 | 21.7 | 22.2 | 18.9 | 19.7 | 19.3 | 20.2 |
| | 12H | 20.5 | 21.3 | 21.0 | 21.8 | 22.3 | 18.9 | 19.7 | 19.4 | 20.1 |

| | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 19.8 | 20.7 | 20.3 | 21.1 | 21.6 | 19.0 | 19.9 | 19.5 | 20.3 |
| | 6H | 20.5 | 21.3 | 21.0 | 21.8 | 22.2 | 19.2 | 19.9 | 19.6 | 20.4 |
| | 8H | 20.8 | 21.4 | 21.3 | 21.9 | 22.4 | 19.2 | 19.8 | 19.7 | 20.3 |
| | 12H | 20.9 | 21.5 | 21.4 | 22.0 | 22.5 | 19.2 | 19.8 | 19.7 | 20.3 |

| | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 19.8 | 20.6 | 20.3 | 21.1 | 21.5 | 19.1 | 19.8 | 19.5 | 20.3 |
| | 6H | 20.6 | 21.2 | 21.1 | 21.7 | 22.2 | 19.2 | 19.9 | 19.7 | 20.3 |
| | 8H | 20.8 | 21.4 | 21.3 | 21.9 | 22.4 | 19.3 | 19.8 | 19.8 | 20.3 |

Maximum UGR = 22.5

POLAR GRAPH



Maximum Candela = 1821.232 Located At Horizontal Angle = 90, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)