

IES INDOOR REPORT

PHOTOMETRIC FILENAME : BAR-24-L67-830-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GENERATED FROM 15729805.03
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 2025-04-25
[TEST DATE] 8/12/2025
[MANUFAC] WILLIAMS INDOOR
[MORE] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] BAR-24-L67-830-DIM-UNV_
[LUMINAIRE] Recessed 2 x 4 Indirect LED luminaire
[MORE] with centered LED rail & white painted housing
[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 | 6709 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 124 |
| Total Luminaire Watts | 53.89 |
| 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 | 3061 | 3273 | 3407 |
| 55 | 3010 | 3333 | 3446 |
| 65 | 2935 | 3329 | 3064 |
| 75 | 2635 | 2268 | 1273 |
| 85 | 1778 | 929 | 772 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BAR-24-L67-830-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 | 2144.275 | 2144.275 | 2144.275 | 2144.275 | 2144.275 |
| 0.5 | 2142.538 | 2144.275 | 2142.538 | 2146.012 | 2147.749 |
| 1.0 | 2141.669 | 2143.406 | 2141.669 | 2145.143 | 2147.749 |
| 1.5 | 2141.669 | 2143.406 | 2140.801 | 2145.143 | 2146.880 |
| 2.0 | 2140.801 | 2142.538 | 2140.801 | 2144.275 | 2146.012 |
| 2.5 | 2140.801 | 2141.669 | 2139.932 | 2143.406 | 2145.143 |
| 3.0 | 2139.932 | 2140.801 | 2138.195 | 2141.669 | 2144.275 |
| 3.5 | 2139.064 | 2139.932 | 2137.327 | 2140.801 | 2142.538 |
| 4.0 | 2139.064 | 2139.064 | 2135.590 | 2139.932 | 2141.669 |
| 4.5 | 2137.327 | 2137.327 | 2134.721 | 2139.064 | 2140.801 |
| 5.0 | 2136.458 | 2136.458 | 2132.984 | 2137.327 | 2139.064 |
| 5.5 | 2135.590 | 2134.721 | 2132.116 | 2136.458 | 2138.195 |
| 6.0 | 2133.853 | 2132.984 | 2130.379 | 2135.590 | 2137.327 |
| 6.5 | 2132.116 | 2130.379 | 2128.642 | 2133.853 | 2136.458 |
| 7.0 | 2130.379 | 2128.642 | 2127.774 | 2132.984 | 2135.590 |
| 7.5 | 2128.642 | 2126.905 | 2125.168 | 2131.247 | 2133.853 |
| 8.0 | 2126.037 | 2124.300 | 2123.431 | 2130.379 | 2132.984 |
| 8.5 | 2124.300 | 2121.694 | 2121.694 | 2128.642 | 2132.116 |
| 9.0 | 2121.694 | 2119.957 | 2119.957 | 2127.774 | 2131.247 |
| 9.5 | 2119.089 | 2117.352 | 2118.220 | 2126.037 | 2129.511 |
| 10.0 | 2115.615 | 2114.746 | 2115.615 | 2124.300 | 2128.642 |
| 10.5 | 2113.878 | 2111.272 | 2113.878 | 2123.431 | 2127.774 |
| 11.0 | 2110.404 | 2108.667 | 2111.272 | 2121.694 | 2126.037 |
| 11.5 | 2106.930 | 2105.193 | 2108.667 | 2119.957 | 2124.300 |
| 12.0 | 2103.456 | 2101.719 | 2106.062 | 2118.220 | 2123.431 |
| 12.5 | 2099.982 | 2098.245 | 2103.456 | 2116.483 | 2120.826 |
| 13.0 | 2095.640 | 2094.771 | 2100.851 | 2114.746 | 2119.957 |
| 13.5 | 2092.166 | 2091.297 | 2098.245 | 2112.141 | 2118.220 |
| 14.0 | 2087.824 | 2086.955 | 2094.771 | 2109.536 | 2116.483 |
| 14.5 | 2082.613 | 2083.481 | 2091.297 | 2106.930 | 2114.746 |
| 15.0 | 2079.139 | 2079.139 | 2087.824 | 2105.193 | 2112.141 |
| 15.5 | 2073.928 | 2073.928 | 2084.350 | 2101.719 | 2110.404 |
| 16.0 | 2069.585 | 2069.585 | 2080.876 | 2099.114 | 2106.930 |
| 16.5 | 2065.243 | 2065.243 | 2077.402 | 2095.640 | 2104.325 |
| 17.0 | 2060.032 | 2060.032 | 2073.059 | 2092.166 | 2101.719 |
| 17.5 | 2054.821 | 2055.690 | 2068.717 | 2088.692 | 2098.245 |
| 18.0 | 2049.610 | 2050.479 | 2065.243 | 2085.218 | 2094.771 |
| 18.5 | 2044.400 | 2046.137 | 2060.901 | 2080.876 | 2090.429 |
| 19.0 | 2038.320 | 2040.926 | 2056.558 | 2077.402 | 2086.087 |
| 19.5 | 2033.109 | 2034.846 | 2052.216 | 2073.059 | 2081.744 |
| 20.0 | 2027.030 | 2029.635 | 2047.874 | 2068.717 | 2077.402 |
| 20.5 | 2020.951 | 2024.425 | 2042.663 | 2064.375 | 2073.059 |
| 21.0 | 2014.871 | 2018.345 | 2037.452 | 2060.032 | 2067.849 |
| 21.5 | 2007.923 | 2012.266 | 2032.241 | 2054.821 | 2063.506 |
| 22.0 | 2001.844 | 2006.187 | 2027.030 | 2050.479 | 2059.164 |
| 22.5 | 1994.896 | 2000.107 | 2021.819 | 2045.268 | 2054.821 |
| 23.0 | 1988.817 | 1994.028 | 2016.608 | 2040.926 | 2050.479 |
| 23.5 | 1981.001 | 1987.080 | 2010.529 | 2035.715 | 2045.268 |
| 24.0 | 1973.184 | 1980.132 | 2004.450 | 2030.504 | 2040.926 |
| 24.5 | 1966.236 | 1973.184 | 1998.370 | 2026.162 | 2036.583 |
| 25.0 | 1958.420 | 1966.236 | 1993.159 | 2020.951 | 2031.372 |
| 25.5 | 1950.604 | 1958.420 | 1986.212 | 2015.740 | 2027.030 |
| 26.0 | 1942.788 | 1950.604 | 1980.132 | 2010.529 | 2022.688 |
| 26.5 | 1934.103 | 1942.788 | 1974.053 | 2005.318 | 2017.477 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BAR-24-L67-830-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 27.0 | 1925.418 | 1934.971 | 1967.105 | 2000.107 | 2012.266 |
| 27.5 | 1916.733 | 1926.286 | 1961.026 | 1994.028 | 2007.055 |
| 28.0 | 1907.180 | 1918.470 | 1954.078 | 1987.948 | 2001.844 |
| 28.5 | 1898.495 | 1909.785 | 1947.130 | 1981.869 | 1995.765 |
| 29.0 | 1888.942 | 1901.101 | 1939.314 | 1974.921 | 1989.685 |
| 29.5 | 1879.389 | 1892.416 | 1932.366 | 1967.973 | 1982.738 |
| 30.0 | 1869.835 | 1883.731 | 1924.549 | 1961.026 | 1975.790 |
| 30.5 | 1859.414 | 1874.178 | 1916.733 | 1954.078 | 1968.842 |
| 31.0 | 1849.860 | 1865.493 | 1908.048 | 1946.261 | 1961.026 |
| 31.5 | 1840.307 | 1855.940 | 1900.232 | 1938.445 | 1953.209 |
| 32.0 | 1829.885 | 1847.255 | 1891.547 | 1930.629 | 1945.393 |
| 32.5 | 1819.464 | 1837.702 | 1882.863 | 1921.944 | 1937.577 |
| 33.0 | 1809.910 | 1827.280 | 1874.178 | 1914.128 | 1928.892 |
| 33.5 | 1798.620 | 1817.727 | 1865.493 | 1905.443 | 1921.076 |
| 34.0 | 1788.198 | 1807.305 | 1855.940 | 1896.758 | 1912.391 |
| 34.5 | 1776.908 | 1797.752 | 1846.386 | 1888.073 | 1903.706 |
| 35.0 | 1765.618 | 1787.330 | 1837.702 | 1879.389 | 1895.021 |
| 35.5 | 1755.196 | 1776.908 | 1828.148 | 1870.704 | 1886.336 |
| 36.0 | 1743.037 | 1766.486 | 1818.595 | 1861.151 | 1877.652 |
| 36.5 | 1730.879 | 1756.065 | 1808.173 | 1852.466 | 1868.098 |
| 37.0 | 1718.720 | 1744.774 | 1798.620 | 1842.912 | 1858.545 |
| 37.5 | 1707.430 | 1734.353 | 1788.198 | 1833.359 | 1848.992 |
| 38.0 | 1695.271 | 1722.194 | 1778.645 | 1822.937 | 1839.439 |
| 38.5 | 1683.112 | 1710.904 | 1768.223 | 1813.384 | 1829.885 |
| 39.0 | 1670.954 | 1699.613 | 1756.933 | 1802.962 | 1819.464 |
| 39.5 | 1658.795 | 1688.323 | 1746.511 | 1792.541 | 1809.042 |
| 40.0 | 1645.768 | 1677.033 | 1736.090 | 1782.119 | 1798.620 |
| 40.5 | 1633.609 | 1664.006 | 1724.799 | 1770.829 | 1788.198 |
| 41.0 | 1620.582 | 1651.847 | 1713.509 | 1759.538 | 1776.908 |
| 41.5 | 1607.555 | 1639.688 | 1701.350 | 1749.117 | 1765.618 |
| 42.0 | 1594.527 | 1627.530 | 1690.060 | 1736.958 | 1754.328 |
| 42.5 | 1581.500 | 1614.502 | 1677.901 | 1725.668 | 1742.169 |
| 43.0 | 1567.605 | 1601.475 | 1665.743 | 1714.378 | 1730.879 |
| 43.5 | 1553.709 | 1588.448 | 1653.584 | 1702.219 | 1718.720 |
| 44.0 | 1539.813 | 1575.421 | 1641.425 | 1690.060 | 1706.561 |
| 44.5 | 1525.918 | 1562.394 | 1628.398 | 1677.033 | 1694.403 |
| 45.0 | 1511.153 | 1548.498 | 1616.239 | 1664.874 | 1682.244 |
| 45.5 | 1497.258 | 1535.471 | 1604.081 | 1651.847 | 1669.217 |
| 46.0 | 1482.494 | 1521.575 | 1591.054 | 1638.820 | 1655.321 |
| 46.5 | 1467.730 | 1507.680 | 1578.026 | 1625.793 | 1642.294 |
| 47.0 | 1452.097 | 1493.784 | 1564.131 | 1611.897 | 1628.398 |
| 47.5 | 1437.333 | 1479.888 | 1551.104 | 1598.870 | 1615.371 |
| 48.0 | 1422.569 | 1465.993 | 1537.208 | 1584.974 | 1600.607 |
| 48.5 | 1406.936 | 1452.965 | 1524.181 | 1571.947 | 1586.711 |
| 49.0 | 1392.172 | 1438.201 | 1510.285 | 1558.051 | 1571.947 |
| 49.5 | 1377.408 | 1424.306 | 1496.389 | 1543.287 | 1557.183 |
| 50.0 | 1362.644 | 1410.410 | 1482.494 | 1528.523 | 1543.287 |
| 50.5 | 1347.011 | 1396.514 | 1468.598 | 1513.759 | 1528.523 |
| 51.0 | 1332.247 | 1381.750 | 1453.834 | 1498.995 | 1512.890 |
| 51.5 | 1316.614 | 1366.986 | 1439.938 | 1484.231 | 1497.258 |
| 52.0 | 1300.982 | 1352.222 | 1425.174 | 1468.598 | 1481.625 |
| 52.5 | 1285.349 | 1337.458 | 1410.410 | 1452.965 | 1465.993 |
| 53.0 | 1269.716 | 1322.694 | 1395.646 | 1437.333 | 1449.491 |
| 53.5 | 1254.084 | 1307.929 | 1380.882 | 1421.700 | 1432.122 |
| 54.0 | 1238.451 | 1293.165 | 1365.249 | 1405.199 | 1414.752 |
| 54.5 | 1221.950 | 1278.401 | 1350.485 | 1388.698 | 1397.383 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BAR-24-L67-830-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 55.0 | 1205.449 | 1263.637 | 1334.852 | 1371.328 | 1380.013 |
| 55.5 | 1189.816 | 1248.004 | 1318.351 | 1353.959 | 1361.775 |
| 56.0 | 1173.315 | 1232.372 | 1302.719 | 1335.721 | 1343.537 |
| 56.5 | 1156.814 | 1216.739 | 1286.217 | 1318.351 | 1324.430 |
| 57.0 | 1140.313 | 1201.106 | 1269.716 | 1299.245 | 1304.455 |
| 57.5 | 1122.943 | 1185.474 | 1253.215 | 1281.007 | 1283.612 |
| 58.0 | 1106.442 | 1168.973 | 1236.714 | 1261.900 | 1263.637 |
| 58.5 | 1089.941 | 1153.340 | 1219.345 | 1242.793 | 1241.925 |
| 59.0 | 1073.440 | 1137.708 | 1201.975 | 1222.818 | 1221.081 |
| 59.5 | 1056.939 | 1122.075 | 1185.474 | 1201.975 | 1199.370 |
| 60.0 | 1039.569 | 1106.442 | 1168.104 | 1182.000 | 1175.921 |
| 60.5 | 1023.068 | 1090.810 | 1150.735 | 1161.156 | 1153.340 |
| 61.0 | 1005.699 | 1074.309 | 1134.234 | 1140.313 | 1129.023 |
| 61.5 | 989.198 | 1058.676 | 1116.864 | 1118.601 | 1104.705 |
| 62.0 | 971.828 | 1042.175 | 1098.626 | 1096.889 | 1078.651 |
| 62.5 | 954.458 | 1026.542 | 1079.519 | 1073.440 | 1052.597 |
| 63.0 | 937.089 | 1010.041 | 1061.281 | 1049.991 | 1025.674 |
| 63.5 | 919.719 | 992.672 | 1042.175 | 1025.674 | 997.014 |
| 64.0 | 902.350 | 976.170 | 1023.068 | 999.619 | 967.486 |
| 64.5 | 884.112 | 959.669 | 1002.225 | 973.565 | 937.089 |
| 65.0 | 865.960 | 942.300 | 982.250 | 944.905 | 904.087 |
| 65.5 | 847.636 | 924.930 | 961.406 | 914.508 | 869.347 |
| 66.0 | 828.703 | 906.692 | 938.826 | 883.243 | 832.785 |
| 66.5 | 809.596 | 888.454 | 916.245 | 851.544 | 795.787 |
| 67.0 | 790.663 | 869.347 | 893.665 | 817.065 | 757.053 |
| 67.5 | 771.209 | 851.023 | 869.347 | 782.413 | 718.058 |
| 68.0 | 751.495 | 832.177 | 843.814 | 746.284 | 681.148 |
| 68.5 | 731.780 | 812.896 | 817.934 | 710.068 | 644.064 |
| 69.0 | 711.632 | 793.356 | 791.184 | 674.027 | 604.288 |
| 69.5 | 692.873 | 773.902 | 763.827 | 638.072 | 563.990 |
| 70.0 | 675.503 | 754.274 | 735.775 | 599.511 | 525.169 |
| 70.5 | 658.741 | 734.125 | 708.505 | 560.951 | 487.304 |
| 71.0 | 638.506 | 714.411 | 679.585 | 522.824 | 451.175 |
| 71.5 | 617.836 | 697.215 | 650.057 | 485.219 | 417.044 |
| 72.0 | 597.427 | 676.893 | 619.747 | 449.090 | 383.868 |
| 72.5 | 577.017 | 658.915 | 585.442 | 414.091 | 352.081 |
| 73.0 | 556.435 | 639.027 | 551.397 | 381.523 | 323.422 |
| 73.5 | 536.633 | 618.097 | 515.703 | 351.387 | 297.194 |
| 74.0 | 516.658 | 596.992 | 480.616 | 322.640 | 273.137 |
| 74.5 | 496.770 | 575.194 | 445.095 | 295.978 | 250.904 |
| 75.0 | 476.274 | 553.221 | 409.835 | 271.313 | 230.147 |
| 75.5 | 456.559 | 530.641 | 375.878 | 248.472 | 211.648 |
| 76.0 | 437.540 | 507.539 | 342.962 | 227.715 | 194.279 |
| 76.5 | 417.565 | 484.698 | 312.045 | 208.869 | 178.733 |
| 77.0 | 398.284 | 460.989 | 283.558 | 191.586 | 164.577 |
| 77.5 | 378.309 | 437.192 | 257.330 | 176.128 | 151.636 |
| 78.0 | 359.203 | 412.701 | 233.100 | 162.319 | 140.433 |
| 78.5 | 340.010 | 386.821 | 211.214 | 149.378 | 130.011 |
| 79.0 | 320.816 | 360.940 | 191.934 | 137.567 | 120.111 |
| 79.5 | 301.883 | 334.625 | 174.217 | 126.885 | 111.426 |
| 80.0 | 283.298 | 307.789 | 158.237 | 117.071 | 103.696 |
| 80.5 | 264.626 | 280.345 | 143.820 | 108.299 | 96.662 |
| 81.0 | 245.606 | 253.422 | 130.532 | 100.136 | 90.235 |
| 81.5 | 226.934 | 226.499 | 118.374 | 92.754 | 83.982 |
| 82.0 | 208.782 | 200.706 | 107.431 | 85.806 | 77.642 |
| 82.5 | 190.805 | 177.083 | 97.530 | 79.032 | 71.650 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BAR-24-L67-830-DIM-UNV_.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|---------|---------|--------|--------|--------|
| 83.0 | 172.480 | 155.197 | 88.411 | 72.084 | 65.831 |
| 83.5 | 154.850 | 136.178 | 80.161 | 65.744 | 60.533 |
| 84.0 | 137.828 | 119.242 | 72.084 | 59.751 | 55.583 |
| 84.5 | 122.456 | 104.217 | 64.181 | 54.019 | 50.980 |
| 85.0 | 108.212 | 90.756 | 56.538 | 48.895 | 46.985 |
| 85.5 | 95.185 | 78.424 | 49.416 | 44.379 | 43.858 |
| 86.0 | 81.811 | 67.047 | 42.816 | 40.645 | 40.992 |
| 86.5 | 68.697 | 56.451 | 36.824 | 36.824 | 37.258 |
| 87.0 | 55.670 | 46.116 | 31.699 | 32.221 | 31.786 |
| 87.5 | 43.511 | 36.389 | 26.749 | 26.141 | 25.707 |
| 88.0 | 32.307 | 27.444 | 20.930 | 21.017 | 21.712 |
| 88.5 | 22.320 | 19.193 | 15.025 | 16.675 | 16.935 |
| 89.0 | 13.896 | 11.985 | 10.074 | 10.248 | 10.161 |
| 89.5 | 6.600 | 6.166 | 4.777 | 4.777 | 4.429 |
| 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 : BAR-24-L67-830-DIM-UNV_.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 : BAR-24-L67-830-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-L67-830-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-L67-830-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 794.55 | N.A. | 11.80 |
| 0-30 | 1714.43 | N.A. | 25.60 |
| 0-40 | 2862.26 | N.A. | 42.70 |
| 0-60 | 5275.33 | N.A. | 78.60 |
| 0-80 | 6623.9 | N.A. | 98.70 |
| 0-90 | 6709.16 | N.A. | 100.00 |
| 10-90 | 6505.78 | N.A. | 97.00 |
| 20-40 | 2067.7 | N.A. | 30.80 |
| 20-50 | 3306.93 | N.A. | 49.30 |
| 40-70 | 3329.9 | N.A. | 49.60 |
| 60-80 | 1348.58 | N.A. | 20.10 |
| 70-80 | 431.75 | N.A. | 6.40 |
| 80-90 | 85.25 | 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 | 6709.16 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 203.38 |
| 10-20 | 591.17 |
| 20-30 | 919.88 |
| 30-40 | 1147.82 |
| 40-50 | 1239.22 |
| 50-60 | 1173.85 |
| 60-70 | 916.83 |
| 70-80 | 431.75 |
| 80-90 | 85.25 |
| 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-L67-830-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 | 106 | 106 | 106 | 106 | 104 | 104 | 104 | 104 | 99 | 99 | 99 | 95 | 95 | 95 | 91 | 91 | 91 | 89 |
| 1 | 97 | 93 | 89 | 86 | 95 | 91 | 87 | 84 | 87 | 84 | 82 | 84 | 81 | 79 | 80 | 79 | 77 | 75 |
| 2 | 88 | 81 | 75 | 69 | 86 | 79 | 73 | 69 | 76 | 71 | 67 | 73 | 69 | 65 | 70 | 67 | 64 | 62 |
| 3 | 80 | 71 | 63 | 57 | 78 | 69 | 62 | 57 | 67 | 61 | 56 | 64 | 59 | 55 | 62 | 57 | 54 | 52 |
| 4 | 73 | 62 | 54 | 48 | 71 | 61 | 54 | 48 | 59 | 52 | 47 | 57 | 51 | 47 | 55 | 50 | 46 | 44 |
| 5 | 67 | 55 | 47 | 41 | 65 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 49 | 44 | 40 | 38 |
| 6 | 62 | 50 | 42 | 36 | 60 | 49 | 41 | 36 | 47 | 40 | 35 | 46 | 40 | 35 | 44 | 39 | 35 | 33 |
| 7 | 57 | 45 | 37 | 31 | 56 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 40 | 35 | 31 | 29 |
| 8 | 53 | 41 | 33 | 28 | 52 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 27 | 37 | 31 | 27 | 26 |
| 9 | 50 | 37 | 30 | 25 | 48 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 34 | 29 | 24 | 23 |
| 10 | 47 | 35 | 27 | 23 | 45 | 34 | 27 | 23 | 33 | 27 | 22 | 32 | 26 | 22 | 31 | 26 | 22 | 21 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : BAR-24-L67-830-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 | 16.7 | 18.4 | 17.1 | 18.7 | 19.0 | 17.3 | 19.0 | 17.7 | 19.3 | 19.6 |
| | 3H | 18.7 | 20.2 | 19.1 | 20.5 | 20.9 | 18.7 | 20.2 | 19.1 | 20.5 | 20.9 |
| | 4H | 19.4 | 20.8 | 19.8 | 21.2 | 21.6 | 18.8 | 20.3 | 19.2 | 20.6 | 21.0 |
| | 6H | 19.9 | 21.3 | 20.4 | 21.6 | 22.0 | 18.9 | 20.2 | 19.3 | 20.6 | 21.0 |
| | 8H | 20.1 | 21.3 | 20.5 | 21.7 | 22.1 | 18.9 | 20.2 | 19.3 | 20.6 | 21.0 |
| | 12H | 20.2 | 21.4 | 20.6 | 21.7 | 22.2 | 18.9 | 20.1 | 19.3 | 20.5 | 20.9 |

UGR Viewed Endwise

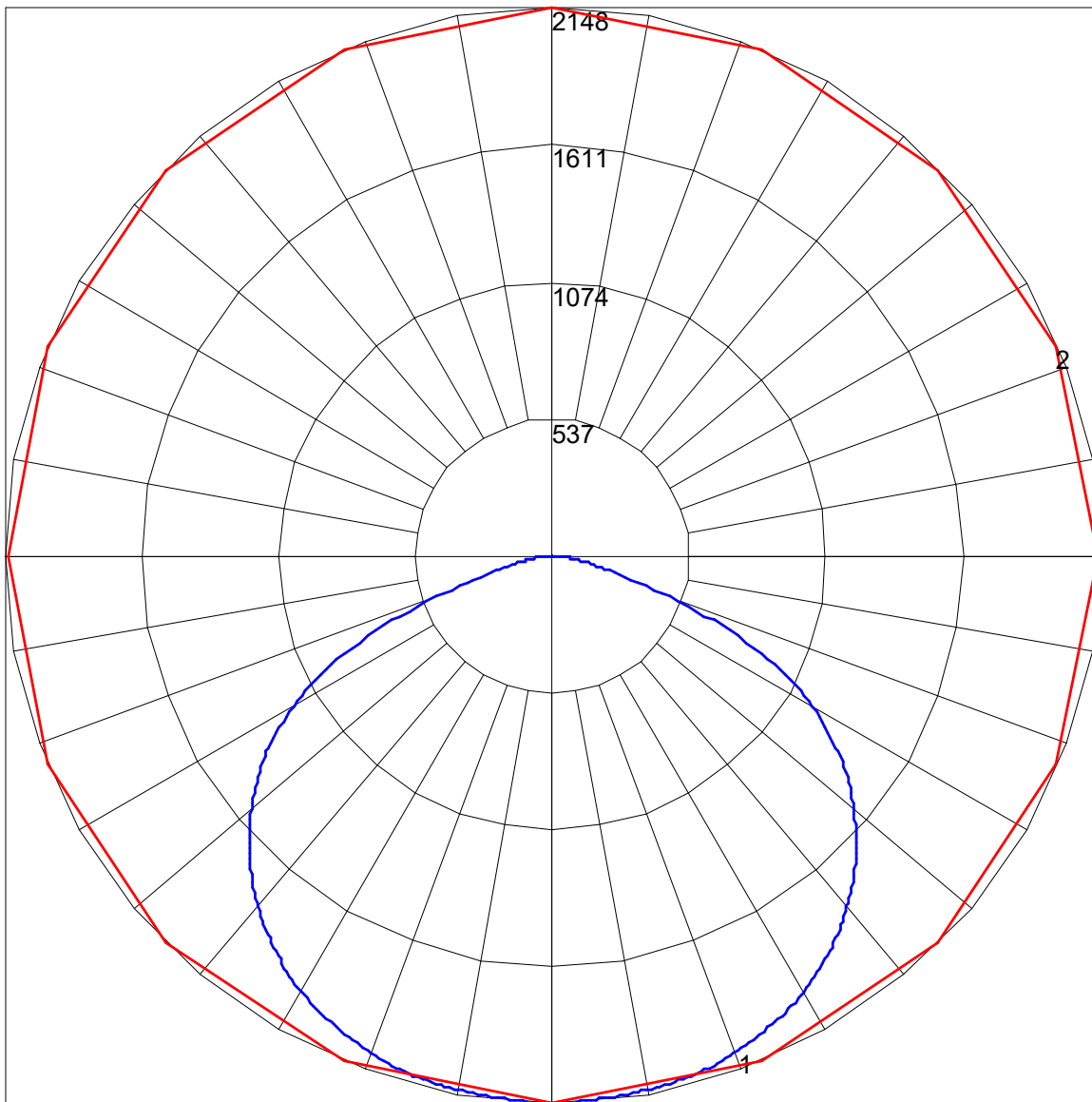
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 17.5 | 18.9 | 17.9 | 19.3 | 19.7 | 18.0 | 19.4 | 18.4 | 19.7 | 20.1 |
| | 3H | 19.7 | 20.9 | 20.1 | 21.3 | 21.7 | 19.5 | 20.7 | 19.9 | 21.1 | 21.5 |
| | 4H | 20.6 | 21.7 | 21.0 | 22.1 | 22.5 | 19.8 | 20.8 | 20.2 | 21.2 | 21.7 |
| | 6H | 21.3 | 22.2 | 21.7 | 22.6 | 23.1 | 19.9 | 20.8 | 20.3 | 21.2 | 21.7 |
| | 8H | 21.4 | 22.3 | 21.9 | 22.7 | 23.2 | 19.9 | 20.7 | 20.3 | 21.2 | 21.7 |
| | 12H | 21.5 | 22.3 | 22.0 | 22.8 | 23.3 | 19.9 | 20.7 | 20.4 | 21.1 | 21.6 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 20.8 | 21.7 | 21.3 | 22.1 | 22.6 | 20.0 | 20.9 | 20.5 | 21.3 | 21.8 |
| | 6H | 21.5 | 22.3 | 22.0 | 22.8 | 23.2 | 20.2 | 20.9 | 20.6 | 21.4 | 21.8 |
| | 8H | 21.8 | 22.4 | 22.3 | 22.9 | 23.4 | 20.2 | 20.8 | 20.7 | 21.3 | 21.8 |
| | 12H | 21.9 | 22.5 | 22.4 | 23.0 | 23.5 | 20.2 | 20.8 | 20.7 | 21.3 | 21.8 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 20.8 | 21.6 | 21.3 | 22.1 | 22.5 | 20.1 | 20.8 | 20.5 | 21.3 | 21.8 |
| | 6H | 21.6 | 22.2 | 22.1 | 22.7 | 23.2 | 20.2 | 20.9 | 20.7 | 21.3 | 21.9 |
| | 8H | 21.8 | 22.4 | 22.3 | 22.9 | 23.4 | 20.3 | 20.8 | 20.8 | 21.3 | 21.9 |

Maximum UGR = 23.5

POLAR GRAPH



Maximum Candela = 2147.749 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.)