

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-24-L50-850-DMA-DIM-UNV_.IES_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GENERATED FROM 15746385.01
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 2025-05-02
[TEST DATE] 3/20/2025
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] FRM-24-L50-850-DMA-DIM-UNV_
[LUMINAIRE] Recessed 2 x 4 narrow aperture LED luminaire
[MORE] with center frame driver housing
[LAMP] LED
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_MOUNTING] RECESSED
[FILEGENINFO] 1.10000

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 5324 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 101 |
| Total Luminaire Watts | 52.8 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.06 |
| Spacing Criterion (90-270) | 0.94 |
| Spacing Criterion (Diagonal) | 1.06 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.88 ft |
| Luminous Width (90-270) | 1.90 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 2843 | 2194 | 2333 |
| 55 | 2522 | 1900 | 2052 |
| 65 | 2178 | 1630 | 1764 |
| 75 | 1759 | 1352 | 1469 |
| 85 | 1296 | 971 | 1145 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-24-L50-850-DMA-DIM-UNV_.IES_.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 | 2852.866 | 2852.866 | 2852.866 | 2852.866 | 2852.866 |
| 0.5 | 2819.701 | 2850.159 | 2859.635 | 2857.604 | 2864.373 |
| 1.0 | 2818.348 | 2848.805 | 2858.281 | 2856.250 | 2862.342 |
| 1.5 | 2816.994 | 2846.775 | 2856.250 | 2852.866 | 2859.635 |
| 2.0 | 2814.287 | 2844.067 | 2852.866 | 2848.805 | 2854.897 |
| 2.5 | 2810.902 | 2840.006 | 2848.128 | 2843.391 | 2849.482 |
| 3.0 | 2807.518 | 2835.945 | 2842.714 | 2837.299 | 2843.391 |
| 3.5 | 2802.104 | 2830.531 | 2836.622 | 2829.854 | 2835.945 |
| 4.0 | 2796.689 | 2824.439 | 2829.177 | 2821.732 | 2827.147 |
| 4.5 | 2790.597 | 2817.671 | 2821.055 | 2812.256 | 2816.994 |
| 5.0 | 2783.829 | 2810.226 | 2812.256 | 2802.104 | 2806.841 |
| 5.5 | 2776.384 | 2801.427 | 2802.104 | 2790.597 | 2795.335 |
| 6.0 | 2768.262 | 2791.951 | 2790.597 | 2779.091 | 2781.798 |
| 6.5 | 2758.786 | 2783.152 | 2778.414 | 2765.554 | 2768.939 |
| 7.0 | 2749.310 | 2773.000 | 2766.231 | 2752.018 | 2754.048 |
| 7.5 | 2739.835 | 2761.493 | 2752.694 | 2737.804 | 2738.481 |
| 8.0 | 2729.005 | 2749.310 | 2739.158 | 2722.237 | 2722.914 |
| 8.5 | 2717.499 | 2737.127 | 2723.591 | 2705.316 | 2705.993 |
| 9.0 | 2705.993 | 2724.267 | 2708.700 | 2688.395 | 2688.395 |
| 9.5 | 2694.487 | 2710.731 | 2693.133 | 2671.474 | 2670.797 |
| 10.0 | 2681.627 | 2696.517 | 2676.212 | 2653.200 | 2651.846 |
| 10.5 | 2668.767 | 2682.303 | 2659.291 | 2634.248 | 2631.541 |
| 11.0 | 2655.230 | 2666.736 | 2641.016 | 2614.620 | 2611.912 |
| 11.5 | 2641.693 | 2651.169 | 2622.742 | 2594.315 | 2591.607 |
| 12.0 | 2627.480 | 2634.925 | 2603.790 | 2573.333 | 2570.625 |
| 12.5 | 2612.589 | 2618.004 | 2584.162 | 2551.674 | 2549.644 |
| 13.0 | 2597.699 | 2601.083 | 2564.534 | 2530.015 | 2527.985 |
| 13.5 | 2582.132 | 2583.485 | 2544.229 | 2508.356 | 2507.003 |
| 14.0 | 2566.564 | 2565.211 | 2523.247 | 2485.344 | 2483.990 |
| 14.5 | 2550.320 | 2547.613 | 2501.588 | 2462.332 | 2460.301 |
| 15.0 | 2534.076 | 2529.338 | 2479.929 | 2437.965 | 2437.289 |
| 15.5 | 2517.832 | 2509.710 | 2457.594 | 2414.276 | 2413.599 |
| 16.0 | 2500.911 | 2490.759 | 2435.258 | 2390.587 | 2389.233 |
| 16.5 | 2483.990 | 2471.130 | 2411.569 | 2365.544 | 2364.867 |
| 17.0 | 2467.069 | 2450.825 | 2387.880 | 2341.178 | 2339.824 |
| 17.5 | 2449.472 | 2429.843 | 2364.190 | 2316.135 | 2314.781 |
| 18.0 | 2431.197 | 2408.861 | 2339.824 | 2290.415 | 2289.061 |
| 18.5 | 2412.246 | 2387.880 | 2314.781 | 2264.695 | 2263.342 |
| 19.0 | 2393.971 | 2366.898 | 2290.415 | 2238.976 | 2237.622 |
| 19.5 | 2375.020 | 2345.239 | 2265.372 | 2213.256 | 2212.579 |
| 20.0 | 2356.068 | 2323.580 | 2239.652 | 2186.182 | 2186.182 |
| 20.5 | 2337.117 | 2301.244 | 2213.933 | 2160.462 | 2160.462 |
| 21.0 | 2317.489 | 2278.909 | 2187.536 | 2133.389 | 2134.743 |
| 21.5 | 2297.183 | 2256.573 | 2161.139 | 2106.992 | 2108.346 |
| 22.0 | 2276.878 | 2234.238 | 2134.743 | 2080.596 | 2082.626 |
| 22.5 | 2257.250 | 2211.902 | 2108.346 | 2053.522 | 2056.230 |
| 23.0 | 2237.622 | 2188.890 | 2081.949 | 2027.126 | 2030.510 |
| 23.5 | 2217.994 | 2165.200 | 2054.876 | 2000.052 | 2004.790 |
| 24.0 | 2198.365 | 2142.865 | 2028.479 | 1972.979 | 1979.070 |
| 24.5 | 2178.060 | 2119.175 | 2002.083 | 1947.259 | 1954.027 |
| 25.0 | 2157.755 | 2096.163 | 1975.686 | 1920.862 | 1928.984 |
| 25.5 | 2138.127 | 2073.151 | 1948.613 | 1895.143 | 1903.941 |
| 26.0 | 2117.822 | 2050.138 | 1922.893 | 1868.746 | 1879.575 |
| 26.5 | 2098.193 | 2026.449 | 1895.819 | 1842.349 | 1855.209 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : FRM-24-L50-850-DMA-DIM-UNV_.IES_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 27.0 | 2077.888 | 2003.436 | 1869.423 | 1816.629 | 1831.520 |
| 27.5 | 2058.260 | 1980.424 | 1843.026 | 1791.587 | 1807.154 |
| 28.0 | 2038.632 | 1957.411 | 1817.306 | 1766.544 | 1783.464 |
| 28.5 | 2018.327 | 1934.399 | 1791.587 | 1741.501 | 1761.129 |
| 29.0 | 1998.022 | 1911.387 | 1765.867 | 1717.134 | 1737.440 |
| 29.5 | 1978.393 | 1889.051 | 1740.824 | 1692.768 | 1714.427 |
| 30.0 | 1958.765 | 1866.039 | 1715.104 | 1668.402 | 1692.768 |
| 30.5 | 1939.814 | 1843.026 | 1690.061 | 1644.713 | 1670.433 |
| 31.0 | 1920.862 | 1820.690 | 1664.341 | 1621.024 | 1648.774 |
| 31.5 | 1900.557 | 1798.355 | 1639.975 | 1598.011 | 1627.115 |
| 32.0 | 1880.929 | 1775.342 | 1614.932 | 1574.999 | 1605.456 |
| 32.5 | 1861.301 | 1753.007 | 1589.889 | 1551.986 | 1584.475 |
| 33.0 | 1840.996 | 1731.348 | 1565.523 | 1528.974 | 1563.493 |
| 33.5 | 1822.044 | 1709.012 | 1541.157 | 1506.638 | 1543.187 |
| 34.0 | 1801.739 | 1686.677 | 1516.791 | 1484.980 | 1522.882 |
| 34.5 | 1782.111 | 1665.018 | 1493.778 | 1462.644 | 1502.577 |
| 35.0 | 1762.483 | 1642.682 | 1470.089 | 1441.662 | 1482.949 |
| 35.5 | 1743.531 | 1620.347 | 1446.400 | 1420.003 | 1463.321 |
| 36.0 | 1723.903 | 1598.688 | 1422.711 | 1399.021 | 1443.692 |
| 36.5 | 1704.275 | 1577.029 | 1400.375 | 1378.039 | 1424.741 |
| 37.0 | 1684.646 | 1555.371 | 1378.039 | 1357.057 | 1405.790 |
| 37.5 | 1665.018 | 1534.389 | 1355.704 | 1336.752 | 1386.838 |
| 38.0 | 1646.067 | 1513.407 | 1334.045 | 1317.124 | 1367.887 |
| 38.5 | 1626.438 | 1491.748 | 1312.386 | 1297.496 | 1349.612 |
| 39.0 | 1606.133 | 1470.089 | 1290.727 | 1278.544 | 1331.338 |
| 39.5 | 1587.182 | 1449.784 | 1269.745 | 1258.916 | 1313.740 |
| 40.0 | 1567.554 | 1428.802 | 1249.440 | 1240.642 | 1296.142 |
| 40.5 | 1548.602 | 1408.497 | 1229.135 | 1221.690 | 1278.544 |
| 41.0 | 1528.297 | 1387.515 | 1209.507 | 1203.415 | 1260.947 |
| 41.5 | 1509.346 | 1367.887 | 1189.879 | 1185.818 | 1244.026 |
| 42.0 | 1489.717 | 1347.582 | 1170.250 | 1168.220 | 1226.428 |
| 42.5 | 1470.766 | 1327.953 | 1151.299 | 1150.622 | 1209.507 |
| 43.0 | 1451.138 | 1307.648 | 1132.348 | 1132.348 | 1193.263 |
| 43.5 | 1431.509 | 1288.020 | 1114.073 | 1115.427 | 1176.342 |
| 44.0 | 1411.881 | 1268.392 | 1095.798 | 1098.506 | 1160.098 |
| 44.5 | 1392.930 | 1248.764 | 1078.201 | 1081.585 | 1143.854 |
| 45.0 | 1373.301 | 1229.812 | 1059.926 | 1064.664 | 1126.933 |
| 45.5 | 1353.673 | 1210.184 | 1042.328 | 1048.420 | 1110.689 |
| 46.0 | 1334.722 | 1190.556 | 1025.407 | 1031.499 | 1094.445 |
| 46.5 | 1315.770 | 1171.604 | 1008.487 | 1015.255 | 1078.201 |
| 47.0 | 1296.819 | 1152.653 | 991.566 | 999.011 | 1061.280 |
| 47.5 | 1277.191 | 1133.701 | 974.645 | 983.444 | 1045.036 |
| 48.0 | 1257.562 | 1114.750 | 958.401 | 967.200 | 1028.792 |
| 48.5 | 1237.934 | 1095.798 | 941.480 | 950.955 | 1012.548 |
| 49.0 | 1219.660 | 1077.524 | 925.912 | 934.711 | 996.303 |
| 49.5 | 1199.354 | 1058.572 | 909.668 | 919.144 | 980.736 |
| 50.0 | 1180.403 | 1040.298 | 893.424 | 902.900 | 964.492 |
| 50.5 | 1161.452 | 1022.023 | 877.857 | 887.333 | 948.925 |
| 51.0 | 1141.823 | 1003.749 | 862.290 | 871.766 | 932.681 |
| 51.5 | 1122.872 | 984.797 | 847.399 | 855.521 | 915.760 |
| 52.0 | 1102.567 | 966.523 | 831.832 | 839.954 | 900.193 |
| 52.5 | 1083.615 | 948.248 | 816.942 | 824.387 | 883.949 |
| 53.0 | 1064.664 | 930.650 | 802.728 | 809.497 | 867.705 |
| 53.5 | 1045.713 | 912.376 | 787.838 | 793.929 | 851.460 |
| 54.0 | 1026.084 | 894.778 | 772.947 | 778.362 | 835.216 |
| 54.5 | 1007.133 | 877.857 | 758.734 | 763.472 | 818.972 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : FRM-24-L50-850-DMA-DIM-UNV_.IES_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|------|---------|---------|---------|---------|---------|
| 55.0 | 988.181 | 860.259 | 744.520 | 748.581 | 804.082 |
| 55.5 | 969.230 | 842.662 | 730.307 | 733.691 | 788.515 |
| 56.0 | 950.279 | 825.741 | 716.093 | 718.800 | 772.271 |
| 56.5 | 932.004 | 808.820 | 701.880 | 704.587 | 756.703 |
| 57.0 | 913.729 | 791.899 | 688.343 | 689.697 | 741.136 |
| 57.5 | 894.778 | 774.978 | 674.738 | 675.077 | 725.569 |
| 58.0 | 876.503 | 758.734 | 660.931 | 660.728 | 710.678 |
| 58.5 | 858.229 | 741.813 | 647.462 | 646.176 | 695.788 |
| 59.0 | 839.954 | 725.569 | 633.722 | 631.895 | 680.221 |
| 59.5 | 822.356 | 709.325 | 620.253 | 617.816 | 664.924 |
| 60.0 | 804.082 | 693.081 | 606.649 | 603.738 | 650.237 |
| 60.5 | 786.484 | 676.837 | 593.044 | 589.795 | 635.888 |
| 61.0 | 768.886 | 660.863 | 579.711 | 575.717 | 621.201 |
| 61.5 | 750.612 | 645.093 | 565.835 | 561.910 | 606.852 |
| 62.0 | 733.691 | 629.390 | 552.434 | 548.102 | 592.841 |
| 62.5 | 716.093 | 614.026 | 538.762 | 534.498 | 578.492 |
| 63.0 | 698.495 | 598.594 | 525.225 | 521.097 | 564.008 |
| 63.5 | 682.251 | 583.636 | 511.756 | 507.831 | 550.471 |
| 64.0 | 664.654 | 568.407 | 497.881 | 494.565 | 536.528 |
| 64.5 | 647.056 | 553.382 | 484.277 | 481.502 | 522.856 |
| 65.0 | 628.984 | 538.762 | 470.604 | 468.845 | 509.455 |
| 65.5 | 611.793 | 523.804 | 457.203 | 456.391 | 496.054 |
| 66.0 | 594.736 | 508.846 | 444.005 | 443.802 | 481.502 |
| 66.5 | 578.154 | 494.294 | 430.942 | 431.754 | 468.100 |
| 67.0 | 561.571 | 479.539 | 418.082 | 419.842 | 454.902 |
| 67.5 | 544.650 | 465.122 | 405.357 | 407.862 | 441.907 |
| 68.0 | 527.053 | 450.909 | 393.107 | 396.085 | 428.776 |
| 68.5 | 509.861 | 437.169 | 381.262 | 384.308 | 416.255 |
| 69.0 | 493.549 | 423.158 | 369.553 | 372.599 | 403.327 |
| 69.5 | 477.644 | 409.554 | 358.047 | 361.092 | 390.535 |
| 70.0 | 461.535 | 396.288 | 346.676 | 349.789 | 377.878 |
| 70.5 | 445.968 | 382.886 | 335.440 | 338.689 | 365.695 |
| 71.0 | 429.994 | 369.688 | 324.408 | 327.589 | 353.376 |
| 71.5 | 414.765 | 356.693 | 313.511 | 316.624 | 341.396 |
| 72.0 | 399.266 | 343.901 | 302.614 | 305.727 | 329.484 |
| 72.5 | 384.172 | 330.973 | 291.717 | 294.965 | 317.639 |
| 73.0 | 369.079 | 318.249 | 281.090 | 284.136 | 305.998 |
| 73.5 | 354.392 | 305.592 | 270.396 | 273.442 | 294.289 |
| 74.0 | 339.907 | 293.003 | 259.770 | 262.680 | 282.647 |
| 74.5 | 325.355 | 280.549 | 249.279 | 252.122 | 271.208 |
| 75.0 | 311.074 | 268.163 | 239.059 | 241.563 | 259.838 |
| 75.5 | 296.793 | 255.912 | 228.838 | 231.275 | 248.331 |
| 76.0 | 282.782 | 243.729 | 218.415 | 220.852 | 237.231 |
| 76.5 | 268.975 | 231.546 | 208.330 | 210.564 | 225.928 |
| 77.0 | 255.506 | 219.227 | 198.381 | 200.344 | 214.828 |
| 77.5 | 242.037 | 207.383 | 188.296 | 190.462 | 203.796 |
| 78.0 | 228.703 | 196.080 | 178.279 | 180.512 | 192.898 |
| 78.5 | 215.505 | 184.709 | 168.532 | 170.766 | 182.069 |
| 79.0 | 202.713 | 173.676 | 158.786 | 161.087 | 171.510 |
| 79.5 | 190.462 | 162.847 | 149.175 | 151.408 | 161.019 |
| 80.0 | 178.279 | 152.491 | 139.564 | 141.730 | 150.596 |
| 80.5 | 166.366 | 142.203 | 130.020 | 132.186 | 140.985 |
| 81.0 | 154.725 | 132.119 | 120.612 | 123.117 | 131.712 |
| 81.5 | 143.422 | 122.507 | 111.272 | 114.656 | 123.184 |
| 82.0 | 132.592 | 113.099 | 102.270 | 106.534 | 114.791 |
| 82.5 | 122.237 | 104.097 | 93.336 | 98.954 | 106.466 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-24-L50-850-DMA-DIM-UNV_.IES_.IES

CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|---------|--------|--------|--------|--------|
| 83.0 | 112.423 | 95.299 | 84.943 | 91.711 | 98.344 |
| 83.5 | 102.947 | 86.906 | 77.227 | 84.402 | 90.493 |
| 84.0 | 94.148 | 78.919 | 70.188 | 77.159 | 82.777 |
| 84.5 | 85.417 | 71.136 | 63.826 | 70.053 | 75.332 |
| 85.0 | 77.159 | 63.690 | 57.802 | 63.081 | 68.157 |
| 85.5 | 69.240 | 56.584 | 52.184 | 56.380 | 61.186 |
| 86.0 | 61.389 | 49.680 | 46.837 | 50.086 | 54.959 |
| 86.5 | 53.741 | 43.250 | 41.761 | 44.468 | 49.341 |
| 87.0 | 46.093 | 37.497 | 37.023 | 39.663 | 44.130 |
| 87.5 | 38.444 | 32.285 | 32.827 | 35.602 | 39.595 |
| 88.0 | 30.931 | 27.344 | 28.901 | 31.879 | 35.534 |
| 88.5 | 24.231 | 22.606 | 24.840 | 28.156 | 31.608 |
| 89.0 | 18.072 | 17.462 | 19.899 | 22.809 | 25.246 |
| 89.5 | 11.168 | 11.100 | 13.334 | 17.124 | 19.899 |
| 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 : FRM-24-L50-850-DMA-DIM-UNV_.IES_.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 : FRM-24-L50-850-DMA-DIM-UNV_.IES_.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 : FRM-24-L50-850-DMA-DIM-UNV_.IES_.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 : FRM-24-L50-850-DMA-DIM-UNV_.IES_.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 959.15 | N.A. | 18.00 |
| 0-30 | 1882.49 | N.A. | 35.40 |
| 0-40 | 2848.79 | N.A. | 53.50 |
| 0-60 | 4465.34 | N.A. | 83.90 |
| 0-80 | 5247.83 | N.A. | 98.60 |
| 0-90 | 5323.64 | N.A. | 100.00 |
| 10-90 | 5060.15 | N.A. | 95.10 |
| 20-40 | 1889.65 | N.A. | 35.50 |
| 20-50 | 2778.75 | N.A. | 52.20 |
| 40-70 | 2124.69 | N.A. | 39.90 |
| 60-80 | 782.49 | N.A. | 14.70 |
| 70-80 | 274.35 | N.A. | 5.20 |
| 80-90 | 75.81 | N.A. | 1.40 |
| 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 | 5323.64 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 263.49 |
| 10-20 | 695.66 |
| 20-30 | 923.34 |
| 30-40 | 966.30 |
| 40-50 | 889.10 |
| 50-60 | 727.45 |
| 60-70 | 508.14 |
| 70-80 | 274.35 |
| 80-90 | 75.81 |
| 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 : FRM-24-L50-850-DMA-DIM-UNV_.IES_.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 | 110 | 105 | 102 | 98 | 107 | 103 | 100 | 96 | 99 | 96 | 93 | 95 | 93 | 91 | 92 | 90 | 88 | 86 |
| 2 | 101 | 93 | 87 | 82 | 98 | 91 | 86 | 81 | 88 | 83 | 79 | 85 | 81 | 77 | 82 | 78 | 75 | 73 |
| 3 | 93 | 83 | 75 | 69 | 90 | 81 | 74 | 69 | 78 | 72 | 68 | 76 | 71 | 66 | 73 | 69 | 65 | 63 |
| 4 | 85 | 74 | 66 | 60 | 83 | 73 | 65 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 51 | 49 |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 43 |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 47 | 42 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 |
| 8 | 64 | 51 | 43 | 38 | 63 | 51 | 43 | 38 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 35 |
| 9 | 60 | 47 | 40 | 34 | 59 | 47 | 39 | 34 | 46 | 39 | 34 | 45 | 38 | 34 | 44 | 38 | 34 | 32 |
| 10 | 57 | 44 | 37 | 32 | 55 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 |

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-24-L50-850-DMA-DIM-UNV_.IES_.IES

UGR TABLE - CORRECTED

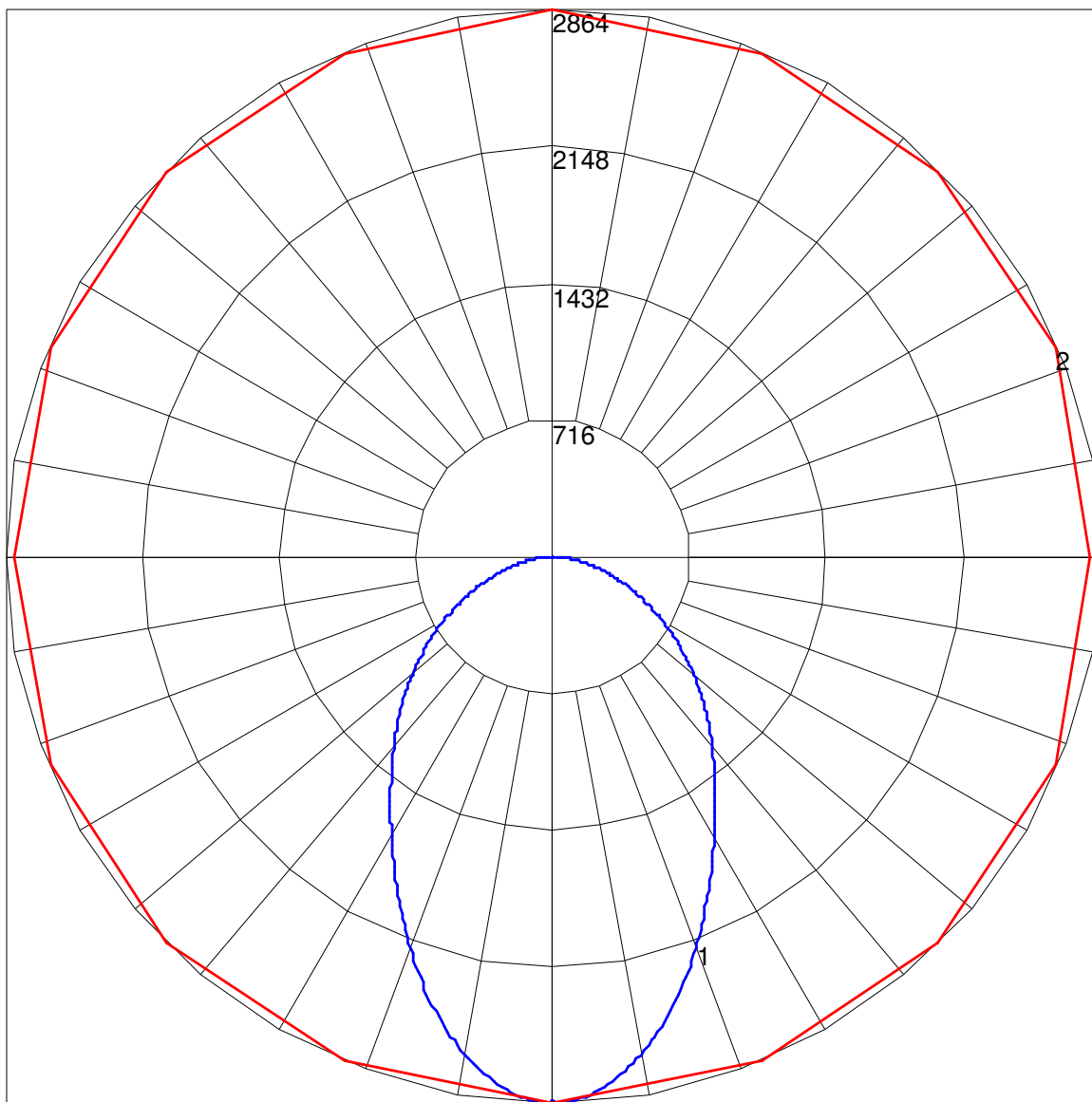
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | | | | | UGR Viewed Endwise | | | | |
|-----------|------|----------------------|------|------|------|------|--------------------|------|------|------|------|
| X=2H | Y=2H | 14.6 | 16.2 | 15.0 | 16.5 | 16.8 | 13.6 | 15.1 | 13.9 | 15.4 | 15.7 |
| | 3H | 16.3 | 17.7 | 16.7 | 18.0 | 18.4 | 15.2 | 16.6 | 15.6 | 16.9 | 17.3 |
| | 4H | 16.9 | 18.2 | 17.3 | 18.6 | 18.9 | 15.8 | 17.1 | 16.2 | 17.5 | 17.8 |
| | 6H | 17.3 | 18.5 | 17.7 | 18.9 | 19.3 | 16.2 | 17.4 | 16.7 | 17.8 | 18.2 |
| | 8H | 17.5 | 18.6 | 17.9 | 19.0 | 19.4 | 16.4 | 17.5 | 16.8 | 17.9 | 18.3 |
| | 12H | 17.6 | 18.6 | 18.0 | 19.0 | 19.5 | 16.5 | 17.6 | 16.9 | 18.0 | 18.4 |
| 4H | 2H | 15.0 | 16.3 | 15.4 | 16.6 | 17.0 | 14.1 | 15.4 | 14.5 | 15.7 | 16.1 |
| | 3H | 16.9 | 17.9 | 17.3 | 18.3 | 18.7 | 15.9 | 17.0 | 16.3 | 17.4 | 17.8 |
| | 4H | 17.6 | 18.6 | 18.0 | 19.0 | 19.4 | 16.6 | 17.6 | 17.1 | 18.0 | 18.5 |
| | 6H | 18.1 | 19.0 | 18.6 | 19.4 | 19.9 | 17.2 | 18.0 | 17.7 | 18.5 | 19.0 |
| | 8H | 18.3 | 19.1 | 18.8 | 19.5 | 20.0 | 17.4 | 18.2 | 17.8 | 18.6 | 19.1 |
| | 12H | 18.4 | 19.1 | 18.9 | 19.6 | 20.1 | 17.5 | 18.2 | 18.0 | 18.7 | 19.2 |
| 8H | 4H | 17.8 | 18.5 | 18.2 | 19.0 | 19.5 | 16.9 | 17.7 | 17.4 | 18.1 | 18.6 |
| | 6H | 18.4 | 19.0 | 18.9 | 19.5 | 20.0 | 17.6 | 18.2 | 18.1 | 18.7 | 19.2 |
| | 8H | 18.6 | 19.2 | 19.1 | 19.7 | 20.2 | 17.8 | 18.4 | 18.3 | 18.9 | 19.4 |
| | 12H | 18.8 | 19.3 | 19.3 | 19.8 | 20.4 | 18.0 | 18.5 | 18.5 | 19.0 | 19.6 |
| 12H | 4H | 17.8 | 18.5 | 18.2 | 18.9 | 19.4 | 16.9 | 17.6 | 17.4 | 18.1 | 18.6 |
| | 6H | 18.4 | 19.0 | 18.9 | 19.5 | 20.0 | 17.6 | 18.2 | 18.1 | 18.7 | 19.2 |
| | 8H | 18.7 | 19.2 | 19.2 | 19.7 | 20.3 | 17.9 | 18.4 | 18.4 | 18.9 | 19.5 |

Maximum UGR = 20.4

POLAR GRAPH



Maximum Candela = 2864.373 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.)