

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-24-L78-935-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-L78-935-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 | 6529 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 76 |
| Total Luminaire Watts | 85.6 |
| 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 | 3486 | 2691 | 2861 |
| 55 | 3093 | 2330 | 2517 |
| 65 | 2672 | 1999 | 2164 |
| 75 | 2158 | 1658 | 1802 |
| 85 | 1589 | 1191 | 1404 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : FRM-24-L78-935-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 | 3498.895 | 3498.895 | 3498.895 | 3498.895 | 3498.895 |
| 0.5 | 3458.219 | 3495.574 | 3507.196 | 3504.705 | 3513.006 |
| 1.0 | 3456.559 | 3493.914 | 3505.535 | 3503.045 | 3510.516 |
| 1.5 | 3454.899 | 3491.424 | 3503.045 | 3498.895 | 3507.196 |
| 2.0 | 3451.579 | 3488.103 | 3498.895 | 3493.914 | 3501.385 |
| 2.5 | 3447.428 | 3483.123 | 3493.084 | 3487.273 | 3494.744 |
| 3.0 | 3443.278 | 3478.142 | 3486.443 | 3479.802 | 3487.273 |
| 3.5 | 3436.637 | 3471.501 | 3478.972 | 3470.671 | 3478.142 |
| 4.0 | 3429.996 | 3464.030 | 3469.841 | 3460.710 | 3467.351 |
| 4.5 | 3422.525 | 3455.729 | 3459.880 | 3449.088 | 3454.899 |
| 5.0 | 3414.224 | 3446.598 | 3449.088 | 3436.637 | 3442.447 |
| 5.5 | 3405.093 | 3435.807 | 3436.637 | 3422.525 | 3428.336 |
| 6.0 | 3395.131 | 3424.185 | 3422.525 | 3408.413 | 3411.734 |
| 6.5 | 3383.510 | 3413.394 | 3407.583 | 3391.811 | 3395.962 |
| 7.0 | 3371.888 | 3400.942 | 3392.641 | 3375.209 | 3377.699 |
| 7.5 | 3360.267 | 3386.830 | 3376.039 | 3357.777 | 3358.607 |
| 8.0 | 3346.985 | 3371.888 | 3359.437 | 3338.684 | 3339.514 |
| 8.5 | 3332.874 | 3356.947 | 3340.344 | 3317.932 | 3318.762 |
| 9.0 | 3318.762 | 3341.175 | 3322.082 | 3297.179 | 3297.179 |
| 9.5 | 3304.650 | 3324.572 | 3302.990 | 3276.426 | 3275.596 |
| 10.0 | 3288.878 | 3307.140 | 3282.237 | 3254.013 | 3252.353 |
| 10.5 | 3273.106 | 3289.708 | 3261.484 | 3230.771 | 3227.450 |
| 11.0 | 3256.504 | 3270.616 | 3239.072 | 3206.697 | 3203.377 |
| 11.5 | 3239.902 | 3251.523 | 3216.659 | 3181.794 | 3178.474 |
| 12.0 | 3222.469 | 3231.601 | 3193.416 | 3156.061 | 3152.741 |
| 12.5 | 3204.207 | 3210.848 | 3169.343 | 3129.498 | 3127.007 |
| 13.0 | 3185.945 | 3190.095 | 3145.270 | 3102.934 | 3100.444 |
| 13.5 | 3166.852 | 3168.513 | 3120.367 | 3076.371 | 3074.711 |
| 14.0 | 3147.760 | 3146.100 | 3094.633 | 3048.147 | 3046.487 |
| 14.5 | 3127.837 | 3124.517 | 3068.070 | 3019.924 | 3017.433 |
| 15.0 | 3107.915 | 3102.104 | 3041.506 | 2990.040 | 2989.210 |
| 15.5 | 3087.992 | 3078.031 | 3014.113 | 2960.986 | 2960.156 |
| 16.0 | 3067.240 | 3054.788 | 2986.720 | 2931.933 | 2930.272 |
| 16.5 | 3046.487 | 3030.715 | 2957.666 | 2901.219 | 2900.389 |
| 17.0 | 3025.734 | 3005.812 | 2928.612 | 2871.335 | 2869.675 |
| 17.5 | 3004.152 | 2980.079 | 2899.558 | 2840.621 | 2838.961 |
| 18.0 | 2981.739 | 2954.345 | 2869.675 | 2809.077 | 2807.417 |
| 18.5 | 2958.496 | 2928.612 | 2838.961 | 2777.533 | 2775.873 |
| 19.0 | 2936.083 | 2902.879 | 2809.077 | 2745.989 | 2744.329 |
| 19.5 | 2912.840 | 2876.316 | 2778.363 | 2714.445 | 2713.615 |
| 20.0 | 2889.597 | 2849.752 | 2746.819 | 2681.241 | 2681.241 |
| 20.5 | 2866.354 | 2822.359 | 2715.275 | 2649.697 | 2649.697 |
| 21.0 | 2842.281 | 2794.965 | 2682.901 | 2616.492 | 2618.153 |
| 21.5 | 2817.378 | 2767.572 | 2650.527 | 2584.118 | 2585.779 |
| 22.0 | 2792.475 | 2740.178 | 2618.153 | 2551.744 | 2554.235 |
| 22.5 | 2768.402 | 2712.785 | 2585.779 | 2518.540 | 2521.860 |
| 23.0 | 2744.329 | 2684.561 | 2553.404 | 2486.166 | 2490.316 |
| 23.5 | 2720.256 | 2655.507 | 2520.200 | 2452.962 | 2458.772 |
| 24.0 | 2696.183 | 2628.114 | 2487.826 | 2419.757 | 2427.228 |
| 24.5 | 2671.279 | 2599.060 | 2455.452 | 2388.213 | 2396.515 |
| 25.0 | 2646.376 | 2570.837 | 2423.078 | 2355.839 | 2365.801 |
| 25.5 | 2622.303 | 2542.613 | 2389.874 | 2324.295 | 2335.087 |
| 26.0 | 2597.400 | 2514.390 | 2358.330 | 2291.921 | 2305.203 |
| 26.5 | 2573.327 | 2485.336 | 2325.125 | 2259.547 | 2275.319 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : FRM-24-L78-935-DMA-DIM-UNV_.IES_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 27.0 | 2548.424 | 2457.112 | 2292.751 | 2228.003 | 2246.265 |
| 27.5 | 2524.351 | 2428.889 | 2260.377 | 2197.289 | 2216.382 |
| 28.0 | 2500.278 | 2400.665 | 2228.833 | 2166.575 | 2187.328 |
| 28.5 | 2475.375 | 2372.441 | 2197.289 | 2135.861 | 2159.934 |
| 29.0 | 2450.471 | 2344.218 | 2165.745 | 2105.978 | 2130.881 |
| 29.5 | 2426.398 | 2316.824 | 2135.031 | 2076.094 | 2102.657 |
| 30.0 | 2402.325 | 2288.601 | 2103.487 | 2046.210 | 2076.094 |
| 30.5 | 2379.082 | 2260.377 | 2072.773 | 2017.156 | 2048.700 |
| 31.0 | 2355.839 | 2232.984 | 2041.229 | 1988.103 | 2022.137 |
| 31.5 | 2330.936 | 2205.590 | 2011.346 | 1959.879 | 1995.574 |
| 32.0 | 2306.863 | 2177.367 | 1980.632 | 1931.655 | 1969.010 |
| 32.5 | 2282.790 | 2149.973 | 1949.918 | 1903.432 | 1943.277 |
| 33.0 | 2257.887 | 2123.410 | 1920.034 | 1875.208 | 1917.544 |
| 33.5 | 2234.644 | 2096.016 | 1890.150 | 1847.815 | 1892.641 |
| 34.0 | 2209.741 | 2068.623 | 1860.266 | 1821.251 | 1867.737 |
| 34.5 | 2185.668 | 2042.059 | 1832.043 | 1793.858 | 1842.834 |
| 35.0 | 2161.595 | 2014.666 | 1802.989 | 1768.125 | 1818.761 |
| 35.5 | 2138.352 | 1987.273 | 1773.935 | 1741.561 | 1794.688 |
| 36.0 | 2114.279 | 1960.709 | 1744.882 | 1715.828 | 1770.615 |
| 36.5 | 2090.206 | 1934.146 | 1717.488 | 1690.095 | 1747.372 |
| 37.0 | 2066.133 | 1907.582 | 1690.095 | 1664.361 | 1724.129 |
| 37.5 | 2042.059 | 1881.849 | 1662.701 | 1639.458 | 1700.886 |
| 38.0 | 2018.817 | 1856.116 | 1636.138 | 1615.385 | 1677.643 |
| 38.5 | 1994.743 | 1829.552 | 1609.575 | 1591.312 | 1655.230 |
| 39.0 | 1969.840 | 1802.989 | 1583.011 | 1568.069 | 1632.817 |
| 39.5 | 1946.597 | 1778.086 | 1557.278 | 1543.996 | 1611.235 |
| 40.0 | 1922.524 | 1752.353 | 1532.375 | 1521.583 | 1589.652 |
| 40.5 | 1899.281 | 1727.450 | 1507.472 | 1498.340 | 1568.069 |
| 41.0 | 1874.378 | 1701.716 | 1483.398 | 1475.928 | 1546.487 |
| 41.5 | 1851.135 | 1677.643 | 1459.325 | 1454.345 | 1525.734 |
| 42.0 | 1827.062 | 1652.740 | 1435.252 | 1432.762 | 1504.151 |
| 42.5 | 1803.819 | 1628.667 | 1412.009 | 1411.179 | 1483.398 |
| 43.0 | 1779.746 | 1603.764 | 1388.766 | 1388.766 | 1463.476 |
| 43.5 | 1755.673 | 1579.691 | 1366.354 | 1368.014 | 1442.723 |
| 44.0 | 1731.600 | 1555.618 | 1343.941 | 1347.261 | 1422.801 |
| 44.5 | 1708.357 | 1531.545 | 1322.358 | 1326.509 | 1402.878 |
| 45.0 | 1684.284 | 1508.302 | 1299.945 | 1305.756 | 1382.126 |
| 45.5 | 1660.211 | 1484.229 | 1278.362 | 1285.833 | 1362.203 |
| 46.0 | 1636.968 | 1460.156 | 1257.610 | 1265.081 | 1342.281 |
| 46.5 | 1613.725 | 1436.913 | 1236.857 | 1245.158 | 1322.358 |
| 47.0 | 1590.482 | 1413.670 | 1216.105 | 1225.236 | 1301.605 |
| 47.5 | 1566.409 | 1390.427 | 1195.352 | 1206.143 | 1281.683 |
| 48.0 | 1542.336 | 1367.184 | 1175.429 | 1186.221 | 1261.760 |
| 48.5 | 1518.263 | 1343.941 | 1154.677 | 1166.298 | 1241.838 |
| 49.0 | 1495.850 | 1321.528 | 1135.584 | 1146.376 | 1221.915 |
| 49.5 | 1470.947 | 1298.285 | 1115.662 | 1127.283 | 1202.823 |
| 50.0 | 1447.704 | 1275.872 | 1095.739 | 1107.361 | 1182.900 |
| 50.5 | 1424.461 | 1253.459 | 1076.647 | 1088.268 | 1163.808 |
| 51.0 | 1400.388 | 1231.046 | 1057.554 | 1069.176 | 1143.885 |
| 51.5 | 1377.145 | 1207.803 | 1039.292 | 1049.253 | 1123.133 |
| 52.0 | 1352.242 | 1185.391 | 1020.200 | 1030.161 | 1104.040 |
| 52.5 | 1328.999 | 1162.978 | 1001.937 | 1011.068 | 1084.118 |
| 53.0 | 1305.756 | 1141.395 | 984.505 | 992.806 | 1064.195 |
| 53.5 | 1282.513 | 1118.982 | 966.243 | 973.714 | 1044.273 |
| 54.0 | 1258.440 | 1097.399 | 947.980 | 954.621 | 1024.350 |
| 54.5 | 1235.197 | 1076.647 | 930.548 | 936.359 | 1004.428 |

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| | | | | | |
|------|----------|----------|---------|---------|---------|
| 55.0 | 1211.954 | 1055.064 | 913.116 | 918.097 | 986.165 |
| 55.5 | 1188.711 | 1033.481 | 895.684 | 899.834 | 967.073 |
| 56.0 | 1165.468 | 1012.729 | 878.252 | 881.572 | 947.150 |
| 56.5 | 1143.055 | 991.976 | 860.819 | 864.140 | 928.058 |
| 57.0 | 1120.642 | 971.223 | 844.217 | 845.877 | 908.966 |
| 57.5 | 1097.399 | 950.471 | 827.532 | 827.947 | 889.873 |
| 58.0 | 1074.987 | 930.548 | 810.598 | 810.349 | 871.611 |
| 58.5 | 1052.574 | 909.796 | 794.079 | 792.502 | 853.348 |
| 59.0 | 1030.161 | 889.873 | 777.228 | 774.986 | 834.256 |
| 59.5 | 1008.578 | 869.951 | 760.709 | 757.720 | 815.496 |
| 60.0 | 986.165 | 850.028 | 744.024 | 740.454 | 797.482 |
| 60.5 | 964.583 | 830.105 | 727.338 | 723.354 | 779.884 |
| 61.0 | 943.000 | 810.515 | 710.985 | 706.088 | 761.871 |
| 61.5 | 920.587 | 791.174 | 693.968 | 689.154 | 744.273 |
| 62.0 | 899.834 | 771.915 | 677.532 | 672.219 | 727.089 |
| 62.5 | 878.252 | 753.072 | 660.764 | 655.534 | 709.491 |
| 63.0 | 856.669 | 734.145 | 644.162 | 639.098 | 691.727 |
| 63.5 | 836.746 | 715.800 | 627.643 | 622.828 | 675.125 |
| 64.0 | 815.164 | 697.123 | 610.626 | 606.558 | 658.025 |
| 64.5 | 793.581 | 678.694 | 593.940 | 590.537 | 641.256 |
| 65.0 | 771.417 | 660.764 | 577.172 | 575.014 | 624.820 |
| 65.5 | 750.332 | 642.419 | 560.736 | 559.740 | 608.384 |
| 66.0 | 729.414 | 624.073 | 544.549 | 544.300 | 590.537 |
| 66.5 | 709.076 | 606.226 | 528.528 | 529.524 | 574.101 |
| 67.0 | 688.739 | 588.130 | 512.756 | 514.914 | 557.914 |
| 67.5 | 667.986 | 570.448 | 497.150 | 500.222 | 541.976 |
| 68.0 | 646.403 | 553.016 | 482.125 | 485.778 | 525.872 |
| 68.5 | 625.318 | 536.165 | 467.598 | 471.334 | 510.515 |
| 69.0 | 605.313 | 518.982 | 453.238 | 456.973 | 494.660 |
| 69.5 | 585.805 | 502.297 | 439.126 | 442.861 | 478.971 |
| 70.0 | 566.049 | 486.027 | 425.180 | 428.999 | 463.448 |
| 70.5 | 546.957 | 469.591 | 411.400 | 415.385 | 448.506 |
| 71.0 | 527.366 | 453.404 | 397.870 | 401.771 | 433.398 |
| 71.5 | 508.689 | 437.466 | 384.505 | 388.323 | 418.705 |
| 72.0 | 489.679 | 421.777 | 371.140 | 374.959 | 404.095 |
| 72.5 | 471.168 | 405.922 | 357.775 | 361.760 | 389.569 |
| 73.0 | 452.657 | 390.316 | 344.743 | 348.478 | 375.291 |
| 73.5 | 434.643 | 374.793 | 331.627 | 335.363 | 360.930 |
| 74.0 | 416.879 | 359.353 | 318.594 | 322.164 | 346.652 |
| 74.5 | 399.032 | 344.079 | 305.728 | 309.214 | 332.623 |
| 75.0 | 381.516 | 328.888 | 293.193 | 296.265 | 318.677 |
| 75.5 | 364.001 | 313.863 | 280.659 | 283.647 | 304.566 |
| 76.0 | 346.818 | 298.921 | 267.875 | 270.863 | 290.952 |
| 76.5 | 329.884 | 283.979 | 255.506 | 258.246 | 277.089 |
| 77.0 | 313.365 | 268.871 | 243.304 | 245.711 | 263.475 |
| 77.5 | 296.846 | 254.344 | 230.935 | 233.592 | 249.945 |
| 78.0 | 280.493 | 240.482 | 218.650 | 221.389 | 236.580 |
| 78.5 | 264.306 | 226.536 | 206.696 | 209.436 | 223.298 |
| 79.0 | 248.617 | 213.005 | 194.743 | 197.565 | 210.349 |
| 79.5 | 233.592 | 199.723 | 182.955 | 185.695 | 197.482 |
| 80.0 | 218.650 | 187.023 | 171.168 | 173.824 | 184.698 |
| 80.5 | 204.040 | 174.405 | 159.463 | 162.120 | 172.911 |
| 81.0 | 189.762 | 162.037 | 147.925 | 150.996 | 161.539 |
| 81.5 | 175.899 | 150.249 | 136.469 | 140.620 | 151.079 |
| 82.0 | 162.618 | 138.711 | 125.429 | 130.659 | 140.786 |
| 82.5 | 149.917 | 127.670 | 114.472 | 121.361 | 130.576 |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : FRM-24-L78-935-DMA-DIM-UNV_.IES_.IES****CANDELA TABULATION - (Cont.)**

| | | | | | |
|-------|---------|---------|---------|---------|---------|
| 83.0 | 137.881 | 116.879 | 104.178 | 112.479 | 120.614 |
| 83.5 | 126.259 | 106.586 | 94.715 | 103.514 | 110.985 |
| 84.0 | 115.468 | 96.790 | 86.082 | 94.632 | 101.522 |
| 84.5 | 104.759 | 87.244 | 78.279 | 85.916 | 92.391 |
| 85.0 | 94.632 | 78.113 | 70.891 | 77.366 | 83.592 |
| 85.5 | 84.920 | 69.397 | 64.001 | 69.148 | 75.042 |
| 86.0 | 75.291 | 60.930 | 57.443 | 61.428 | 67.405 |
| 86.5 | 65.910 | 53.044 | 51.218 | 54.538 | 60.515 |
| 87.0 | 56.530 | 45.988 | 45.407 | 48.644 | 54.123 |
| 87.5 | 47.150 | 39.596 | 40.260 | 43.664 | 48.561 |
| 88.0 | 37.936 | 33.536 | 35.446 | 39.098 | 43.581 |
| 88.5 | 29.718 | 27.726 | 30.465 | 34.532 | 38.766 |
| 89.0 | 22.164 | 21.417 | 24.405 | 27.975 | 30.963 |
| 89.5 | 13.697 | 13.614 | 16.353 | 21.002 | 24.405 |
| 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 |

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PHOTOMETRIC FILENAME : FRM-24-L78-935-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-L78-935-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-L78-935-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-L78-935-DMA-DIM-UNV_.IES_.IES****ZONAL LUMEN SUMMARY**

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 1176.34 | N.A. | 18.00 |
| 0-30 | 2308.78 | N.A. | 35.40 |
| 0-40 | 3493.9 | N.A. | 53.50 |
| 0-60 | 5476.52 | N.A. | 83.90 |
| 0-80 | 6436.2 | N.A. | 98.60 |
| 0-90 | 6529.18 | N.A. | 100.00 |
| 10-90 | 6206.02 | N.A. | 95.10 |
| 20-40 | 2317.55 | N.A. | 35.50 |
| 20-50 | 3407.99 | N.A. | 52.20 |
| 40-70 | 2605.83 | N.A. | 39.90 |
| 60-80 | 959.68 | N.A. | 14.70 |
| 70-80 | 336.47 | N.A. | 5.20 |
| 80-90 | 92.98 | 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 | 6529.18 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 323.16 |
| 10-20 | 853.19 |
| 20-30 | 1132.43 |
| 30-40 | 1185.12 |
| 40-50 | 1090.44 |
| 50-60 | 892.18 |
| 60-70 | 623.21 |
| 70-80 | 336.47 |
| 80-90 | 92.98 |
| 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-L78-935-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-L78-935-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

| | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|
| X=2H | Y=2H | 15.3 | 16.9 | 15.7 | 17.2 | 17.5 | 14.3 | 15.8 | 14.6 | 16.1 | 16.4 |
| | 3H | 17.0 | 18.4 | 17.4 | 18.7 | 19.1 | 15.9 | 17.3 | 16.3 | 17.6 | 18.0 |
| | 4H | 17.6 | 18.9 | 18.0 | 19.3 | 19.6 | 16.5 | 17.8 | 16.9 | 18.2 | 18.5 |
| | 6H | 18.0 | 19.2 | 18.5 | 19.6 | 20.0 | 16.9 | 18.1 | 17.4 | 18.5 | 18.9 |
| | 8H | 18.2 | 19.3 | 18.6 | 19.7 | 20.1 | 17.1 | 18.2 | 17.5 | 18.6 | 19.0 |
| | 12H | 18.3 | 19.3 | 18.7 | 19.7 | 20.2 | 17.2 | 18.3 | 17.6 | 18.7 | 19.1 |

UGR Viewed Endwise

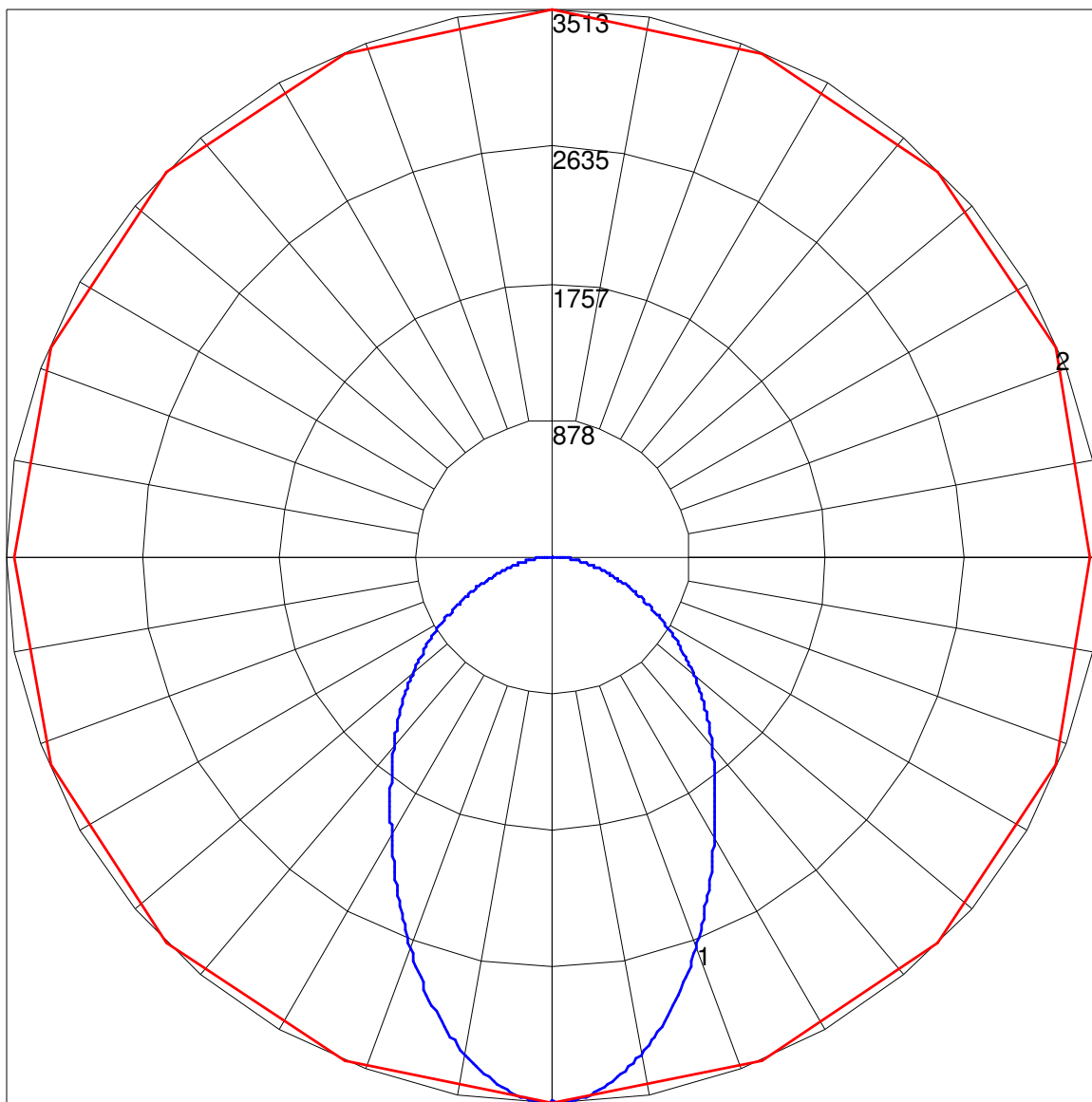
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 15.7 | 17.0 | 16.1 | 17.3 | 17.7 | 14.8 | 16.1 | 15.2 | 16.4 | 16.8 |
| | 3H | 17.6 | 18.6 | 18.0 | 19.0 | 19.4 | 16.6 | 17.7 | 17.0 | 18.1 | 18.5 |
| | 4H | 18.3 | 19.3 | 18.7 | 19.7 | 20.1 | 17.3 | 18.3 | 17.8 | 18.7 | 19.2 |
| | 6H | 18.8 | 19.7 | 19.3 | 20.1 | 20.6 | 17.9 | 18.8 | 18.4 | 19.2 | 19.7 |
| | 8H | 19.0 | 19.8 | 19.5 | 20.2 | 20.7 | 18.1 | 18.9 | 18.5 | 19.3 | 19.8 |
| | 12H | 19.1 | 19.8 | 19.6 | 20.3 | 20.8 | 18.2 | 18.9 | 18.7 | 19.4 | 19.9 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 18.5 | 19.2 | 18.9 | 19.7 | 20.2 | 17.6 | 18.4 | 18.1 | 18.8 | 19.3 |
| | 6H | 19.1 | 19.7 | 19.6 | 20.2 | 20.7 | 18.3 | 18.9 | 18.8 | 19.4 | 19.9 |
| | 8H | 19.3 | 19.9 | 19.8 | 20.4 | 20.9 | 18.5 | 19.1 | 19.0 | 19.6 | 20.1 |
| | 12H | 19.5 | 20.0 | 20.0 | 20.5 | 21.1 | 18.7 | 19.2 | 19.2 | 19.7 | 20.3 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 18.5 | 19.2 | 18.9 | 19.6 | 20.1 | 17.6 | 18.3 | 18.1 | 18.8 | 19.3 |
| | 6H | 19.1 | 19.7 | 19.6 | 20.2 | 20.7 | 18.3 | 18.9 | 18.8 | 19.4 | 19.9 |
| | 8H | 19.4 | 19.9 | 19.9 | 20.4 | 21.0 | 18.6 | 19.1 | 19.1 | 19.6 | 20.2 |

Maximum UGR = 21.1

POLAR GRAPH



Maximum Candela = 3513.006 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.)