



IES INDOOR REPORT

PHOTOMETRIC FILENAME : FRM-22-L25-830-DMA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GENERATED FROM 15746385.02
 [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-22-L25-830-DMA-DIM-UNV
 [LUMINAIRE] Recessed 2 x 2 narrow aperture LED luminaire
 [MORE] with center frame driver housing
 [LAMP] LED
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] INDOOR
 [_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2442 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 96 |
| Total Luminaire Watts | 25.4 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 0.98 |
| Spacing Criterion (90-270) | 1.00 |
| Spacing Criterion (Diagonal) | 1.06 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 1.90 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 | 2394 | 2075 | 2439 |
| 55 | 2109 | 1801 | 2142 |
| 65 | 1819 | 1539 | 1838 |
| 75 | 1484 | 1282 | 1522 |
| 85 | 1038 | 784 | 1038 |

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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 | 1311.152 | 1311.152 | 1311.152 | 1311.152 | 1311.152 |
| 0.5 | 1306.144 | 1311.778 | 1313.969 | 1311.465 | 1306.144 |
| 1.0 | 1305.205 | 1311.152 | 1313.030 | 1311.152 | 1305.205 |
| 1.5 | 1304.266 | 1309.900 | 1312.091 | 1309.900 | 1304.266 |
| 2.0 | 1302.701 | 1308.335 | 1310.526 | 1308.022 | 1302.388 |
| 2.5 | 1300.510 | 1306.457 | 1308.335 | 1306.144 | 1300.510 |
| 3.0 | 1298.319 | 1303.953 | 1305.831 | 1303.640 | 1298.319 |
| 3.5 | 1295.502 | 1300.823 | 1302.701 | 1300.823 | 1295.189 |
| 4.0 | 1292.059 | 1297.380 | 1299.258 | 1297.693 | 1292.372 |
| 4.5 | 1288.303 | 1293.624 | 1295.502 | 1293.937 | 1288.929 |
| 5.0 | 1283.921 | 1289.242 | 1291.433 | 1289.868 | 1284.860 |
| 5.5 | 1279.226 | 1284.547 | 1286.738 | 1285.799 | 1280.791 |
| 6.0 | 1274.531 | 1279.226 | 1281.730 | 1281.104 | 1276.409 |
| 6.5 | 1268.898 | 1273.905 | 1276.409 | 1275.783 | 1271.401 |
| 7.0 | 1262.951 | 1267.959 | 1270.462 | 1270.149 | 1266.081 |
| 7.5 | 1256.691 | 1261.699 | 1264.203 | 1264.516 | 1260.447 |
| 8.0 | 1250.431 | 1254.813 | 1257.630 | 1258.569 | 1254.813 |
| 8.5 | 1243.545 | 1247.927 | 1251.057 | 1251.996 | 1248.240 |
| 9.0 | 1236.346 | 1240.415 | 1243.858 | 1245.110 | 1241.980 |
| 9.5 | 1229.147 | 1233.216 | 1236.346 | 1238.224 | 1235.094 |
| 10.0 | 1221.635 | 1225.391 | 1228.521 | 1230.712 | 1227.895 |
| 10.5 | 1213.810 | 1217.253 | 1221.009 | 1223.200 | 1221.009 |
| 11.0 | 1205.672 | 1209.115 | 1212.558 | 1215.375 | 1214.123 |
| 11.5 | 1197.221 | 1200.351 | 1204.107 | 1206.924 | 1206.298 |
| 12.0 | 1188.770 | 1191.587 | 1195.030 | 1198.786 | 1198.473 |
| 12.5 | 1180.319 | 1182.510 | 1185.953 | 1190.335 | 1190.335 |
| 13.0 | 1170.929 | 1173.433 | 1176.876 | 1181.571 | 1182.197 |
| 13.5 | 1162.478 | 1164.043 | 1167.486 | 1172.807 | 1174.059 |
| 14.0 | 1153.401 | 1154.653 | 1157.783 | 1164.043 | 1165.608 |
| 14.5 | 1143.698 | 1144.950 | 1147.767 | 1154.653 | 1156.844 |
| 15.0 | 1133.995 | 1135.247 | 1137.438 | 1145.263 | 1148.080 |
| 15.5 | 1124.605 | 1125.231 | 1127.109 | 1135.873 | 1139.003 |
| 16.0 | 1114.902 | 1114.902 | 1116.467 | 1126.170 | 1129.926 |
| 16.5 | 1104.886 | 1104.886 | 1106.138 | 1116.154 | 1120.536 |
| 17.0 | 1094.870 | 1094.244 | 1094.870 | 1105.825 | 1110.833 |
| 17.5 | 1084.854 | 1083.602 | 1083.915 | 1095.809 | 1101.756 |
| 18.0 | 1074.525 | 1072.960 | 1072.647 | 1085.167 | 1092.053 |
| 18.5 | 1064.196 | 1062.005 | 1061.379 | 1074.525 | 1082.037 |
| 19.0 | 1053.867 | 1050.737 | 1049.798 | 1063.883 | 1072.021 |
| 19.5 | 1043.538 | 1039.782 | 1038.217 | 1052.928 | 1061.692 |
| 20.0 | 1033.209 | 1028.514 | 1026.636 | 1041.660 | 1051.676 |
| 20.5 | 1022.254 | 1016.933 | 1014.742 | 1030.705 | 1041.347 |
| 21.0 | 1011.612 | 1005.665 | 1002.535 | 1019.437 | 1031.331 |
| 21.5 | 1000.657 | 994.397 | 990.328 | 1008.169 | 1020.689 |
| 22.0 | 990.015 | 983.130 | 978.435 | 996.588 | 1009.734 |
| 22.5 | 979.687 | 971.549 | 966.228 | 985.321 | 999.405 |
| 23.0 | 968.732 | 959.968 | 954.334 | 973.740 | 988.763 |
| 23.5 | 958.403 | 948.700 | 942.127 | 962.472 | 978.122 |
| 24.0 | 948.387 | 937.432 | 930.233 | 951.204 | 967.480 |
| 24.5 | 937.745 | 925.851 | 918.026 | 939.623 | 957.151 |
| 25.0 | 927.416 | 914.583 | 905.819 | 928.042 | 946.822 |
| 25.5 | 917.087 | 903.315 | 893.612 | 916.461 | 936.493 |
| 26.0 | 906.758 | 892.360 | 881.718 | 905.506 | 926.790 |
| 26.5 | 896.742 | 881.405 | 869.824 | 894.238 | 916.148 |

IES INDOOR REPORT
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CANDELA TABULATION - (Cont.)

| | | | | | |
|------|---------|---------|---------|---------|---------|
| 27.0 | 886.726 | 870.450 | 857.930 | 883.283 | 906.445 |
| 27.5 | 876.710 | 859.495 | 846.036 | 872.328 | 896.429 |
| 28.0 | 867.320 | 848.853 | 834.142 | 861.373 | 886.413 |
| 28.5 | 857.304 | 838.211 | 822.561 | 850.418 | 876.710 |
| 29.0 | 847.914 | 827.569 | 810.980 | 839.463 | 867.007 |
| 29.5 | 838.211 | 817.240 | 799.086 | 828.508 | 856.991 |
| 30.0 | 828.508 | 806.598 | 787.505 | 817.866 | 847.288 |
| 30.5 | 819.118 | 796.269 | 775.924 | 807.224 | 837.585 |
| 31.0 | 809.728 | 785.940 | 764.343 | 796.582 | 828.195 |
| 31.5 | 800.338 | 775.611 | 753.075 | 785.940 | 818.492 |
| 32.0 | 790.635 | 765.595 | 741.807 | 775.611 | 809.102 |
| 32.5 | 781.245 | 755.579 | 730.852 | 764.969 | 799.712 |
| 33.0 | 772.168 | 745.250 | 719.584 | 754.327 | 790.009 |
| 33.5 | 762.778 | 735.547 | 708.629 | 743.998 | 780.619 |
| 34.0 | 753.701 | 725.218 | 697.675 | 733.669 | 770.916 |
| 34.5 | 744.624 | 715.515 | 687.033 | 723.027 | 761.839 |
| 35.0 | 735.860 | 705.500 | 676.391 | 712.698 | 752.449 |
| 35.5 | 726.783 | 695.797 | 665.749 | 702.683 | 742.746 |
| 36.0 | 718.019 | 686.094 | 655.420 | 692.667 | 733.669 |
| 36.5 | 709.255 | 676.391 | 645.091 | 682.651 | 724.592 |
| 37.0 | 700.492 | 667.001 | 634.762 | 672.635 | 715.202 |
| 37.5 | 691.728 | 657.611 | 624.746 | 662.619 | 705.812 |
| 38.0 | 683.277 | 648.534 | 615.043 | 653.229 | 696.736 |
| 38.5 | 674.826 | 639.457 | 605.340 | 643.526 | 687.659 |
| 39.0 | 666.062 | 630.067 | 595.637 | 634.136 | 678.895 |
| 39.5 | 657.924 | 620.990 | 586.247 | 624.746 | 670.131 |
| 40.0 | 649.473 | 612.226 | 576.857 | 615.356 | 661.367 |
| 40.5 | 640.709 | 603.462 | 567.780 | 605.966 | 652.603 |
| 41.0 | 632.258 | 594.698 | 558.703 | 596.889 | 643.839 |
| 41.5 | 624.120 | 585.934 | 549.939 | 588.125 | 635.388 |
| 42.0 | 615.669 | 577.796 | 540.862 | 579.048 | 626.937 |
| 42.5 | 607.218 | 569.032 | 532.098 | 570.597 | 618.486 |
| 43.0 | 598.767 | 560.894 | 523.647 | 561.833 | 610.035 |
| 43.5 | 590.629 | 552.443 | 515.196 | 553.382 | 601.584 |
| 44.0 | 582.491 | 544.305 | 506.745 | 544.931 | 593.133 |
| 44.5 | 574.353 | 536.167 | 498.607 | 536.167 | 584.682 |
| 45.0 | 565.902 | 528.029 | 490.469 | 527.716 | 576.544 |
| 45.5 | 557.764 | 519.578 | 482.331 | 519.578 | 568.093 |
| 46.0 | 549.626 | 511.753 | 474.193 | 511.127 | 559.642 |
| 46.5 | 541.175 | 503.615 | 466.368 | 502.676 | 551.504 |
| 47.0 | 533.037 | 495.477 | 458.543 | 494.225 | 542.740 |
| 47.5 | 524.586 | 487.339 | 450.718 | 486.087 | 534.602 |
| 48.0 | 516.448 | 479.201 | 443.206 | 477.949 | 526.151 |
| 48.5 | 508.623 | 471.376 | 435.694 | 469.811 | 517.700 |
| 49.0 | 500.485 | 463.238 | 428.182 | 461.673 | 509.562 |
| 49.5 | 492.347 | 455.413 | 420.984 | 453.535 | 500.798 |
| 50.0 | 484.209 | 447.275 | 413.472 | 445.397 | 492.660 |
| 50.5 | 476.071 | 439.450 | 406.273 | 437.259 | 484.209 |
| 51.0 | 467.933 | 431.625 | 399.387 | 429.434 | 476.071 |
| 51.5 | 459.795 | 423.487 | 392.501 | 421.610 | 467.620 |
| 52.0 | 451.970 | 415.976 | 385.615 | 413.785 | 459.482 |
| 52.5 | 443.832 | 408.151 | 378.729 | 405.960 | 451.344 |
| 53.0 | 436.007 | 400.639 | 371.843 | 398.135 | 442.893 |
| 53.5 | 427.869 | 392.814 | 364.957 | 390.623 | 434.755 |
| 54.0 | 419.732 | 385.615 | 358.384 | 383.111 | 426.617 |
| 54.5 | 412.220 | 378.103 | 351.811 | 375.599 | 418.480 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|------|---------|---------|---------|---------|---------|
| 55.0 | 404.395 | 370.591 | 345.238 | 368.087 | 410.655 |
| 55.5 | 396.570 | 363.392 | 338.978 | 360.888 | 403.143 |
| 56.0 | 388.745 | 356.193 | 332.405 | 353.689 | 395.318 |
| 56.5 | 380.920 | 348.994 | 325.832 | 346.177 | 387.180 |
| 57.0 | 373.408 | 342.108 | 319.572 | 338.978 | 379.668 |
| 57.5 | 365.583 | 334.909 | 312.999 | 332.092 | 371.843 |
| 58.0 | 358.071 | 327.710 | 306.645 | 325.206 | 364.018 |
| 58.5 | 350.559 | 320.824 | 300.385 | 318.007 | 356.193 |
| 59.0 | 342.734 | 313.938 | 294.094 | 311.183 | 348.368 |
| 59.5 | 335.222 | 306.864 | 287.802 | 304.110 | 340.856 |
| 60.0 | 327.710 | 299.822 | 281.386 | 297.036 | 333.031 |
| 60.5 | 320.511 | 292.748 | 275.095 | 290.056 | 325.519 |
| 61.0 | 313.625 | 285.737 | 268.897 | 283.107 | 318.007 |
| 61.5 | 306.332 | 278.851 | 262.543 | 276.128 | 310.651 |
| 62.0 | 299.383 | 272.215 | 256.221 | 269.336 | 303.390 |
| 62.5 | 292.372 | 265.673 | 249.804 | 262.481 | 296.316 |
| 63.0 | 285.361 | 259.226 | 243.200 | 255.877 | 288.961 |
| 63.5 | 278.256 | 252.621 | 236.565 | 249.523 | 281.668 |
| 64.0 | 271.120 | 246.080 | 230.148 | 242.856 | 274.344 |
| 64.5 | 264.108 | 239.632 | 223.826 | 236.377 | 266.988 |
| 65.0 | 256.972 | 233.184 | 217.472 | 230.117 | 259.726 |
| 65.5 | 249.585 | 226.830 | 211.274 | 223.826 | 252.684 |
| 66.0 | 242.512 | 220.508 | 204.983 | 217.816 | 245.610 |
| 66.5 | 235.313 | 214.216 | 198.692 | 211.744 | 238.255 |
| 67.0 | 228.583 | 207.988 | 192.588 | 205.703 | 231.525 |
| 67.5 | 221.822 | 201.822 | 186.610 | 199.881 | 224.702 |
| 68.0 | 215.093 | 195.812 | 180.976 | 194.059 | 218.035 |
| 68.5 | 208.332 | 189.865 | 175.624 | 188.144 | 211.399 |
| 69.0 | 201.759 | 183.949 | 170.522 | 182.416 | 205.046 |
| 69.5 | 195.468 | 178.159 | 165.483 | 176.782 | 198.754 |
| 70.0 | 188.989 | 172.431 | 160.443 | 171.273 | 192.275 |
| 70.5 | 182.697 | 166.641 | 155.435 | 165.796 | 185.921 |
| 71.0 | 176.406 | 160.913 | 150.396 | 160.443 | 179.755 |
| 71.5 | 170.146 | 155.310 | 145.325 | 155.028 | 173.683 |
| 72.0 | 163.949 | 149.801 | 140.349 | 149.676 | 167.454 |
| 72.5 | 157.877 | 144.292 | 135.403 | 144.418 | 161.351 |
| 73.0 | 151.804 | 138.878 | 130.521 | 139.191 | 155.279 |
| 73.5 | 145.857 | 133.431 | 125.638 | 133.901 | 149.332 |
| 74.0 | 139.973 | 128.079 | 120.786 | 128.611 | 143.573 |
| 74.5 | 134.120 | 122.664 | 115.872 | 123.353 | 137.563 |
| 75.0 | 128.361 | 117.312 | 110.958 | 118.157 | 131.679 |
| 75.5 | 122.570 | 111.960 | 106.169 | 112.961 | 125.763 |
| 76.0 | 116.874 | 106.576 | 101.318 | 107.703 | 119.910 |
| 76.5 | 111.302 | 101.255 | 96.529 | 102.382 | 114.057 |
| 77.0 | 105.668 | 95.997 | 91.709 | 97.030 | 108.266 |
| 77.5 | 100.066 | 90.707 | 87.014 | 91.928 | 102.476 |
| 78.0 | 94.526 | 85.668 | 82.381 | 86.951 | 96.811 |
| 78.5 | 89.017 | 80.754 | 77.718 | 81.974 | 91.270 |
| 79.0 | 83.539 | 75.808 | 73.117 | 77.217 | 85.574 |
| 79.5 | 78.187 | 70.863 | 68.547 | 72.428 | 80.096 |
| 80.0 | 72.897 | 66.074 | 63.946 | 67.639 | 74.650 |
| 80.5 | 67.702 | 61.410 | 59.470 | 62.913 | 69.298 |
| 81.0 | 62.694 | 56.778 | 55.025 | 58.249 | 64.133 |
| 81.5 | 57.936 | 52.240 | 50.737 | 53.679 | 59.094 |
| 82.0 | 53.210 | 47.826 | 46.386 | 49.203 | 54.243 |
| 82.5 | 48.859 | 43.632 | 42.067 | 44.884 | 49.610 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|--------|--------|--------|--------|--------|
| 83.0 | 44.728 | 39.751 | 37.685 | 40.721 | 45.228 |
| 83.5 | 40.940 | 36.183 | 33.460 | 36.777 | 41.065 |
| 84.0 | 37.278 | 32.896 | 29.484 | 33.147 | 37.247 |
| 84.5 | 33.710 | 29.797 | 25.854 | 29.766 | 33.679 |
| 85.0 | 30.236 | 26.887 | 22.849 | 26.636 | 30.236 |
| 85.5 | 26.730 | 23.913 | 20.408 | 23.538 | 26.918 |
| 86.0 | 23.475 | 21.002 | 18.342 | 20.595 | 23.631 |
| 86.5 | 20.345 | 18.185 | 16.432 | 17.810 | 20.689 |
| 87.0 | 17.591 | 15.493 | 14.617 | 15.274 | 18.029 |
| 87.5 | 14.961 | 13.083 | 12.802 | 13.146 | 15.650 |
| 88.0 | 12.551 | 11.018 | 10.892 | 11.331 | 13.428 |
| 88.5 | 10.172 | 9.077 | 8.701 | 9.421 | 11.205 |
| 89.0 | 7.136 | 6.542 | 5.790 | 6.479 | 8.388 |
| 89.5 | 2.817 | 3.099 | 2.723 | 2.880 | 3.912 |
| 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 : FRM-22-L25-830-DMA-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 : FRM-22-L25-830-DMA-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 : FRM-22-L25-830-DMA-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 440.34 | N.A. | 18.00 |
| 0-30 | 864.02 | N.A. | 35.40 |
| 0-40 | 1308.12 | N.A. | 53.60 |
| 0-60 | 2050.83 | N.A. | 84.00 |
| 0-80 | 2410.06 | N.A. | 98.70 |
| 0-90 | 2442.35 | N.A. | 100.00 |
| 10-90 | 2321.3 | N.A. | 95.00 |
| 20-40 | 867.78 | N.A. | 35.50 |
| 20-50 | 1276.45 | N.A. | 52.30 |
| 40-70 | 975.88 | N.A. | 40.00 |
| 60-80 | 359.23 | N.A. | 14.70 |
| 70-80 | 126.06 | N.A. | 5.20 |
| 80-90 | 32.29 | 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 | 2442.35 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 121.05 |
| 10-20 | 319.30 |
| 20-30 | 423.67 |
| 30-40 | 444.11 |
| 40-50 | 408.67 |
| 50-60 | 334.04 |
| 60-70 | 233.17 |
| 70-80 | 126.06 |
| 80-90 | 32.29 |
| 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 : FRM-22-L25-830-DMA-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 | 110 | 105 | 102 | 98 | 107 | 103 | 100 | 97 | 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 | 73 | 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 | 74 | 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 | 54 | 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-22-L25-830-DMA-DIM-UNV_.IES

UGR TABLE - CORRECTED

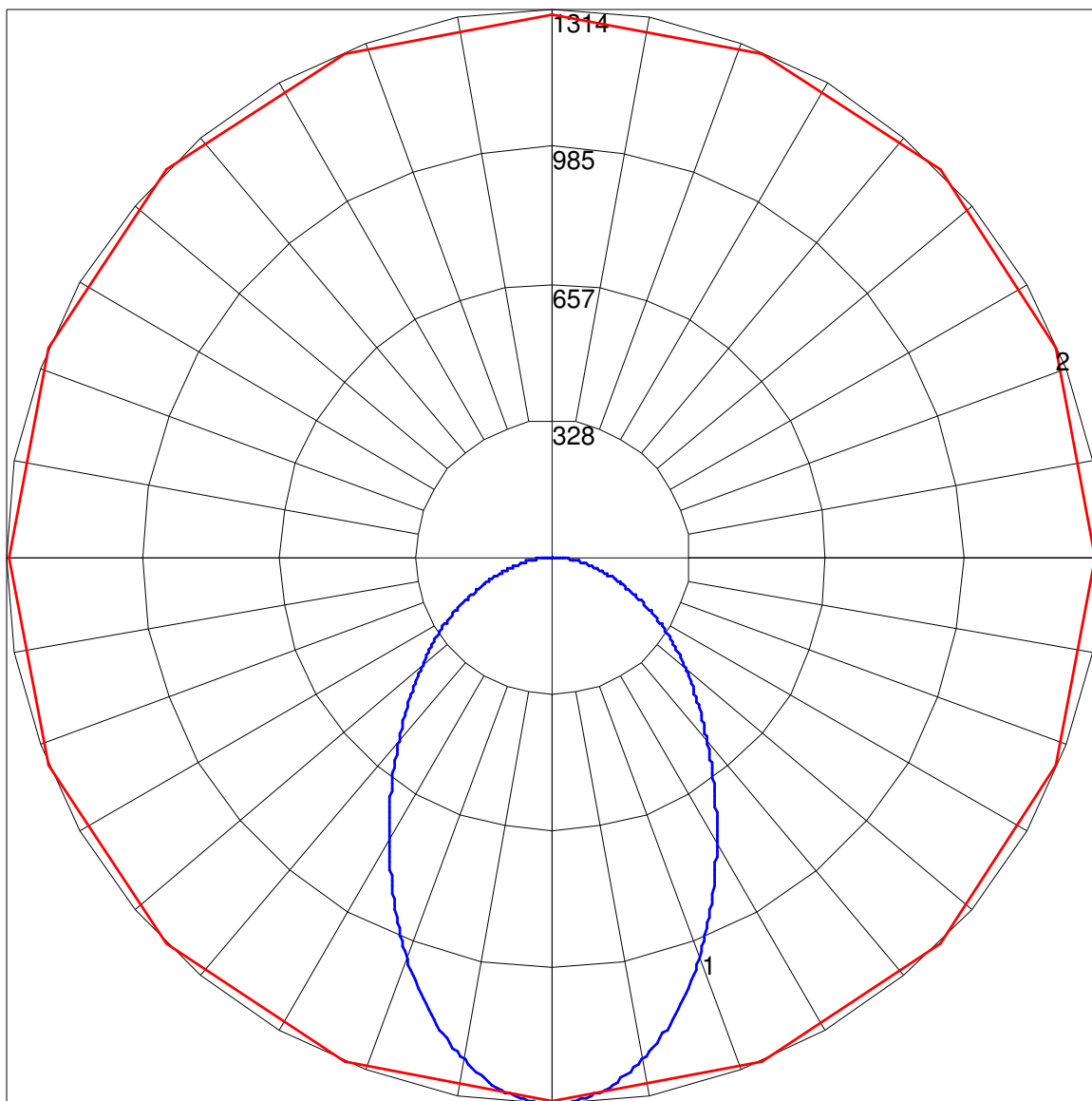
Reflectances

| | | | | | | | | | | |
|----------------|----|----|----|----|----|----|----|----|----|----|
| 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 | | | | | UGR Viewed Endwise | | | | |
|-----------|------|----------------------|------|------|------|------|--------------------|------|------|------|------|
| X=2H | Y=2H | 13.9 | 15.4 | 14.3 | 15.8 | 16.1 | 13.9 | 15.4 | 14.3 | 15.7 | 16.0 |
| | 3H | 15.5 | 16.9 | 15.9 | 17.3 | 17.6 | 15.5 | 16.9 | 15.9 | 17.2 | 17.6 |
| | 4H | 16.1 | 17.4 | 16.5 | 17.8 | 18.2 | 16.2 | 17.5 | 16.6 | 17.8 | 18.2 |
| | 6H | 16.6 | 17.8 | 17.0 | 18.1 | 18.5 | 16.6 | 17.8 | 17.0 | 18.2 | 18.5 |
| | 8H | 16.7 | 17.8 | 17.1 | 18.2 | 18.6 | 16.7 | 17.9 | 17.2 | 18.2 | 18.6 |
| | 12H | 16.7 | 17.8 | 17.2 | 18.2 | 18.6 | 16.8 | 17.9 | 17.2 | 18.3 | 18.7 |
| 4H | 2H | 14.3 | 15.6 | 14.7 | 16.0 | 16.4 | 14.3 | 15.6 | 14.7 | 16.0 | 16.3 |
| | 3H | 16.2 | 17.3 | 16.6 | 17.7 | 18.1 | 16.2 | 17.3 | 16.6 | 17.7 | 18.1 |
| | 4H | 16.9 | 17.9 | 17.3 | 18.3 | 18.7 | 16.9 | 17.9 | 17.3 | 18.3 | 18.7 |
| | 6H | 17.4 | 18.3 | 17.9 | 18.7 | 19.2 | 17.5 | 18.3 | 17.9 | 18.8 | 19.2 |
| | 8H | 17.6 | 18.4 | 18.1 | 18.8 | 19.3 | 17.6 | 18.4 | 18.1 | 18.9 | 19.3 |
| | 12H | 17.7 | 18.4 | 18.2 | 18.9 | 19.4 | 17.8 | 18.5 | 18.2 | 18.9 | 19.4 |
| 8H | 4H | 17.1 | 17.9 | 17.6 | 18.4 | 18.8 | 17.1 | 17.9 | 17.6 | 18.4 | 18.8 |
| | 6H | 17.7 | 18.4 | 18.2 | 18.9 | 19.4 | 17.8 | 18.4 | 18.3 | 18.9 | 19.4 |
| | 8H | 17.9 | 18.5 | 18.5 | 19.0 | 19.5 | 18.0 | 18.6 | 18.5 | 19.1 | 19.6 |
| | 12H | 18.1 | 18.6 | 18.6 | 19.1 | 19.7 | 18.2 | 18.7 | 18.7 | 19.2 | 19.7 |
| 12H | 4H | 17.1 | 17.8 | 17.6 | 18.3 | 18.8 | 17.2 | 17.9 | 17.6 | 18.3 | 18.8 |
| | 6H | 17.8 | 18.4 | 18.3 | 18.8 | 19.4 | 17.8 | 18.4 | 18.3 | 18.9 | 19.4 |
| | 8H | 18.0 | 18.5 | 18.5 | 19.0 | 19.6 | 18.1 | 18.6 | 18.6 | 19.1 | 19.6 |

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 1313.969 Located At Horizontal Angle = 45, Vertical Angle = .5
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)