



IES INDOOR REPORT

PHOTOMETRIC FILENAME : GS-4-L480-835-HA-HE-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 14617179.01
[TESTLAB] UL Verification Services Inc.
[ISSUE DATE] 2023-03-14
[TEST DATE] 1/6/2023
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
[LUMCAT] GS-4-L480-835-HA-HE-DIM-UNV
[LUMINAIRE] White aluminum housing, prismatic lense enclosure
[LAMP] 448 White LEDs
[BALLAST] 0-10V LED DRIVER

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 46902 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 150 |
| Total Luminaire Watts | 312 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.28 |
| Spacing Criterion (90-270) | 1.30 |
| Spacing Criterion (Diagonal) | 1.42 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 3.36 ft |
| Luminous Width (90-270) | 1.17 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 46427 | 47864 | 48730 |
| 55 | 44438 | 46226 | 33250 |
| 65 | 40308 | 28192 | 9139 |
| 75 | 32997 | 9071 | 9187 |
| 85 | 14467 | 12435 | 11580 |

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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 | 17779.5581 | 7779.5581 | 7779.5581 | 7779.5581 | 7779.5581 |
| 0.5 | 17559.9191 | 7790.7261 | 7829.8141 | 7801.8941 | 7837.259 |
| 1.0 | 17565.5031 | 7792.5871 | 7831.6751 | 7801.8941 | 7835.398 |
| 1.5 | 17572.9491 | 7790.7261 | 7833.5371 | 7796.3101 | 7829.814 |
| 2.0 | 17571.0871 | 7794.4481 | 7829.8141 | 7798.1711 | 7831.675 |
| 2.5 | 17567.3641 | 7790.7261 | 7831.6751 | 7794.4481 | 7826.091 |
| 3.0 | 17565.5031 | 7783.2801 | 7827.9531 | 7796.3101 | 7829.814 |
| 3.5 | 17559.9191 | 7772.1121 | 7826.0911 | 7796.3101 | 7829.814 |
| 4.0 | 17546.8901 | 7766.5281 | 7820.5071 | 7803.7551 | 7833.537 |
| 4.5 | 17530.1381 | 7755.3601 | 7813.0621 | 7807.4781 | 7837.259 |
| 5.0 | 17507.8011 | 7742.3311 | 7807.4781 | 7803.7551 | 7831.675 |
| 5.5 | 17491.0491 | 7731.1631 | 7800.0321 | 7798.1711 | 7824.230 |
| 6.0 | 17478.0201 | 7719.9951 | 7790.7261 | 7785.1421 | 7809.339 |
| 6.5 | 17459.4071 | 7703.2431 | 7781.4191 | 7772.1121 | 7788.864 |
| 7.0 | 17435.2091 | 7684.6291 | 7762.8061 | 7753.4991 | 7764.667 |
| 7.5 | 17414.7341 | 7667.8771 | 7746.0541 | 7729.3011 | 7738.608 |
| 8.0 | 17396.1211 | 7647.4021 | 7721.8561 | 7703.2431 | 7714.411 |
| 8.5 | 17386.8141 | 7625.0661 | 7699.5201 | 7677.1841 | 7695.797 |
| 9.0 | 17371.9231 | 7600.8691 | 7675.3221 | 7651.1251 | 7673.461 |
| 9.5 | 17351.4491 | 7582.2551 | 7654.8481 | 7632.5121 | 7656.709 |
| 10.0 | 17329.1121 | 7565.5031 | 7632.5121 | 7610.1751 | 7634.373 |
| 10.5 | 17308.6381 | 7546.8901 | 7606.4531 | 7582.2551 | 7608.314 |
| 11.0 | 17286.3021 | 7528.2761 | 7576.6711 | 7550.6121 | 7580.394 |
| 11.5 | 17267.6881 | 7507.8011 | 7546.8901 | 7520.8311 | 7537.583 |
| 12.0 | 17232.3231 | 7481.7431 | 7522.6921 | 7481.7431 | 7481.743 |
| 12.5 | 17193.2341 | 7455.6841 | 7489.1881 | 7429.6251 | 7437.070 |
| 13.0 | 17154.1461 | 7425.9021 | 7453.8221 | 7377.5071 | 7388.675 |
| 13.5 | 17113.1971 | 7384.9531 | 7418.4571 | 7332.8351 | 7334.696 |
| 14.0 | 17068.5241 | 7345.8651 | 7381.2301 | 7282.5791 | 7284.440 |
| 14.5 | 17008.9611 | 7306.7761 | 7336.5581 | 7232.3231 | 7241.629 |
| 15.0 | 16966.1501 | 7267.6881 | 7293.7471 | 7182.0661 | 7208.125 |
| 15.5 | 16941.9531 | 7224.8771 | 7243.4911 | 7133.6711 | 7174.621 |
| 16.0 | 16906.5871 | 7176.4821 | 7193.2341 | 7090.8601 | 7133.671 |
| 16.5 | 16869.3601 | 7131.8101 | 7133.6711 | 7048.0501 | 7096.444 |
| 17.0 | 16845.1631 | 7085.2761 | 7081.5541 | 7005.2391 | 7053.634 |
| 17.5 | 16806.0751 | 7040.6041 | 7025.7131 | 6956.8441 | 7012.684 |
| 18.0 | 16761.4031 | 6988.4871 | 6966.1501 | 6912.1711 | 6964.289 |
| 18.5 | 16713.0081 | 6938.2301 | 6914.0331 | 6858.1921 | 6901.003 |
| 19.0 | 16655.3061 | 6889.8351 | 6848.8861 | 6802.3521 | 6841.440 |
| 19.5 | 16592.0201 | 6839.5791 | 6787.4611 | 6748.3731 | 6793.045 |
| 20.0 | 16532.4571 | 6789.3231 | 6727.8981 | 6690.6711 | 6740.928 |
| 20.5 | 16474.7561 | 6735.3441 | 6673.9191 | 6634.8311 | 6688.810 |
| 21.0 | 16418.9151 | 6677.6421 | 6618.0791 | 6582.7141 | 6632.970 |
| 21.5 | 16353.7681 | 6619.9401 | 6560.3771 | 6530.5961 | 6571.545 |
| 22.0 | 16290.4831 | 6562.2391 | 6502.6761 | 6474.7561 | 6510.121 |
| 22.5 | 16236.5041 | 6500.8141 | 6441.2511 | 6417.0541 | 6454.281 |
| 23.0 | 16182.5251 | 6437.5291 | 6372.3821 | 6350.0461 | 6387.272 |
| 23.5 | 16128.5461 | 6366.7981 | 6305.3731 | 6290.4831 | 6327.709 |
| 24.0 | 16061.5371 | 6303.5121 | 6232.7811 | 6230.9201 | 6262.562 |
| 24.5 | 16003.8361 | 6240.2261 | 6158.3271 | 6163.9111 | 6201.138 |
| 25.0 | 15940.5501 | 6162.0501 | 6078.2891 | 6102.4871 | 6130.407 |
| 25.5 | 15867.9571 | 6096.9031 | 6007.5581 | 6033.6171 | 6063.399 |
| 26.0 | 15784.1971 | 6031.7561 | 5938.6881 | 5964.7471 | 5988.945 |
| 26.5 | 15692.9911 | 5946.1341 | 5871.6801 | 5892.1551 | 5916.352 |

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CANDELA TABULATION - (Cont.)

| | |
|------|---|
| 27.0 | 15609.23115862.37315799.08815821.42415843.760 |
| 27.5 | 15527.33115774.89015732.07915750.69315773.029 |
| 28.0 | 15449.15515687.40715659.48715683.68415702.298 |
| 28.5 | 15382.14715599.92415583.17215611.09215625.983 |
| 29.0 | 15307.69315514.30215504.99515525.47015551.529 |
| 29.5 | 15233.23915428.68015426.81915447.29415484.521 |
| 30.0 | 15158.78515333.75215343.05815365.39515406.344 |
| 30.5 | 15084.33215246.26915266.74315281.63415335.613 |
| 31.0 | 15004.29415149.47915190.42815203.45815257.437 |
| 31.5 | 14914.94915054.55015110.39015123.42015179.260 |
| 32.0 | 14821.88214968.92815026.63015041.52115097.361 |
| 32.5 | 14725.09214877.72214946.59214968.92815011.739 |
| 33.0 | 14624.58014788.37814874.00014888.89014933.563 |
| 33.5 | 14527.79014693.44914790.23914806.99114862.832 |
| 34.0 | 14429.13914592.93714699.03314721.37014780.933 |
| 34.5 | 14336.07114494.28614605.96614635.74814695.311 |
| 35.0 | 14250.45014391.91214503.59214551.98714604.105 |
| 35.5 | 14170.41214289.53814386.32814464.50414522.206 |
| 36.0 | 14073.62214179.71814291.39914377.02114436.584 |
| 36.5 | 13973.10914069.89914200.19314285.81514345.378 |
| 37.0 | 13857.70613960.08014099.68114196.47114256.034 |
| 37.5 | 13732.99613852.12213997.30714107.12614161.105 |
| 38.0 | 13613.87013746.02513906.10114014.05914062.454 |
| 38.5 | 13492.88313638.06713818.61813917.26913954.496 |
| 39.0 | 13386.78613530.10913716.24413813.03413853.983 |
| 39.5 | 13286.27313414.70613602.70213703.21413755.332 |
| 40.0 | 13182.03813293.71913489.16013598.97913652.958 |
| 40.5 | 13074.08013172.73113381.20213492.88313556.168 |
| 41.0 | 12973.56813051.74413271.38313377.47913457.517 |
| 41.5 | 12850.71912928.89513154.11813271.38313343.975 |
| 42.0 | 12714.84112807.90813034.99213157.84113228.572 |
| 42.5 | 12567.79512685.05912914.00513044.29913115.030 |
| 43.0 | 12424.47112560.34912798.60112930.75713005.210 |
| 43.5 | 12290.45412428.19412679.47512815.35312897.252 |
| 44.0 | 12171.32812303.48412571.51712703.67312796.740 |
| 44.5 | 12072.67712180.63512456.11412603.16012688.782 |
| 45.0 | 11970.30312050.34112340.71112498.92512564.072 |
| 45.5 | 11858.62211923.77012216.00112374.21512450.530 |
| 46.0 | 11726.46711793.47512076.40012236.47512327.681 |
| 46.5 | 11590.58911657.59711929.35412122.93312210.417 |
| 47.0 | 11447.26511527.30311804.64412005.66912096.875 |
| 47.5 | 11318.83311402.59311679.93311882.82011975.887 |
| 48.0 | 11201.56811281.60611547.77811765.55511851.177 |
| 48.5 | 11086.16511171.78711417.48411650.15211702.270 |
| 49.0 | 10963.31611021.01811294.63511531.02611512.413 |
| 49.5 | 10831.16110860.94211173.64811411.90011292.774 |
| 50.0 | 10665.50110726.92511047.07711283.46711028.463 |
| 50.5 | 10514.73210609.66110911.19811145.72810706.451 |
| 51.0 | 10373.27010470.06010775.32010978.20710336.043 |
| 51.5 | 10250.42110334.18210633.85810773.4599980.526 |
| 52.0 | 10133.15710187.13610499.84110535.2079693.879 |
| 52.5 | 9999.140 10045.67310363.96310226.2249422.123 |
| 53.0 | 9844.648 9893.043 10224.3629872.568 9014.489 |
| 53.5 | 9686.434 9751.581 10090.3469504.022 8465.392 |
| 54.0 | 9539.388 9623.148 9948.884 9193.178 7838.119 |
| 54.5 | 9416.539 9481.686 9805.560 8925.144 7318.805 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|------|----------|----------|----------|----------|----------|
| 55.0 | 9293.690 | 9316.027 | 9667.821 | 8590.102 | 6953.981 |
| 55.5 | 9137.338 | 9163.396 | 9526.358 | 8113.598 | 6676.641 |
| 56.0 | 8967.955 | 9040.548 | 9388.619 | 7519.830 | 6406.746 |
| 56.5 | 8826.493 | 8910.254 | 9249.018 | 6967.011 | 6069.843 |
| 57.0 | 8707.367 | 8765.069 | 9101.972 | 6576.128 | 5729.217 |
| 57.5 | 8573.350 | 8603.132 | 8940.035 | 6296.927 | 5446.292 |
| 58.0 | 8418.859 | 8444.918 | 8766.930 | 6069.843 | 5271.326 |
| 58.5 | 8245.754 | 8294.149 | 8554.737 | 5792.502 | 5161.507 |
| 59.0 | 8106.153 | 8147.103 | 8310.901 | 5412.788 | 5070.301 |
| 59.5 | 7970.275 | 7988.888 | 8033.561 | 5098.221 | 4941.868 |
| 60.0 | 7795.309 | 7823.229 | 7705.964 | 4912.087 | 4770.625 |
| 60.5 | 7627.788 | 7681.767 | 7411.872 | 4802.267 | 4552.847 |
| 61.0 | 7477.019 | 7527.275 | 7134.531 | 4709.200 | 4282.952 |
| 61.5 | 7344.863 | 7367.199 | 6812.519 | 4573.322 | 3998.167 |
| 62.0 | 7186.649 | 7197.817 | 6462.586 | 4398.356 | 3713.381 |
| 62.5 | 6991.208 | 7026.574 | 6010.280 | 4169.411 | 3335.528 |
| 63.0 | 6819.964 | 6879.527 | 5500.271 | 3884.625 | 2767.818 |
| 63.5 | 6684.086 | 6734.343 | 5087.053 | 3609.146 | 2309.928 |
| 64.0 | 6518.427 | 6564.960 | 4805.990 | 3333.667 | 2038.172 |
| 64.5 | 6360.212 | 6416.053 | 4591.936 | 2924.171 | 1788.938 |
| 65.0 | 6211.305 | 6263.422 | 4344.377 | 2388.104 | 1408.293 |
| 65.5 | 6014.002 | 6090.318 | 4033.532 | 2017.697 | 1220.297 |
| 66.0 | 5846.481 | 5930.242 | 3772.944 | 1791.544 | 1178.231 |
| 66.5 | 5701.297 | 5785.057 | 3616.591 | 1458.363 | 1158.873 |
| 67.0 | 5543.082 | 5623.120 | 3493.743 | 1222.158 | 1141.935 |
| 67.5 | 5377.423 | 5463.045 | 3365.310 | 1136.723 | 1125.182 |
| 68.0 | 5206.179 | 5317.860 | 3199.650 | 1113.270 | 1109.547 |
| 68.5 | 5057.272 | 5146.616 | 2965.121 | 1094.656 | 1094.284 |
| 69.0 | 4912.087 | 4992.125 | 2697.087 | 1077.346 | 1079.021 |
| 69.5 | 4750.150 | 4833.910 | 2468.142 | 1061.152 | 1063.386 |
| 70.0 | 4591.936 | 4686.864 | 2153.575 | 1045.703 | 1047.937 |
| 70.5 | 4439.305 | 4519.343 | 1750.036 | 1029.882 | 1033.046 |
| 71.0 | 4305.289 | 4344.377 | 1490.006 | 1015.177 | 1018.155 |
| 71.5 | 4150.797 | 4161.965 | 1293.820 | 1000.472 | 1001.403 |
| 72.0 | 3996.306 | 3968.385 | 1069.342 | 983.906 | 985.209 |
| 72.5 | 3843.675 | 3720.827 | 958.406 | 968.085 | 967.899 |
| 73.0 | 3700.352 | 3462.100 | 929.555 | 952.077 | 949.099 |
| 73.5 | 3557.028 | 3240.600 | 910.383 | 934.953 | 930.114 |
| 74.0 | 3413.705 | 3006.071 | 891.584 | 916.526 | 909.267 |
| 74.5 | 3272.243 | 2749.205 | 873.901 | 896.609 | 888.606 |
| 75.0 | 3114.028 | 2421.609 | 856.032 | 876.321 | 867.014 |
| 75.5 | 2968.844 | 2192.663 | 838.908 | 855.474 | 844.492 |
| 76.0 | 2823.659 | 2025.142 | 822.342 | 833.882 | 821.597 |
| 76.5 | 2669.167 | 1841.986 | 804.473 | 811.732 | 797.958 |
| 77.0 | 2514.676 | 1647.662 | 786.604 | 789.024 | 774.505 |
| 77.5 | 2358.323 | 1521.090 | 767.432 | 766.129 | 750.308 |
| 78.0 | 2183.356 | 1366.785 | 747.516 | 742.490 | 726.110 |
| 78.5 | 2038.172 | 1173.577 | 726.110 | 717.734 | 701.168 |
| 79.0 | 1909.739 | 1024.484 | 704.519 | 693.537 | 676.785 |
| 79.5 | 1776.467 | 808.754 | 682.369 | 669.339 | 651.843 |
| 80.0 | 1641.892 | 695.212 | 659.474 | 644.397 | 626.342 |
| 80.5 | 1507.130 | 588.929 | 636.580 | 618.711 | 601.214 |
| 81.0 | 1370.321 | 552.819 | 612.754 | 593.210 | 578.506 |
| 81.5 | 1235.374 | 530.297 | 587.812 | 568.082 | 556.728 |
| 82.0 | 1113.828 | 506.844 | 561.754 | 542.582 | 527.691 |
| 82.5 | 1005.312 | 483.205 | 535.695 | 517.267 | 502.004 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|---------|---------|---------|---------|---------|
| 83.0 | 888.606 | 460.124 | 507.961 | 491.209 | 477.062 |
| 83.5 | 774.691 | 436.113 | 480.413 | 465.522 | 451.562 |
| 84.0 | 664.686 | 411.543 | 451.934 | 438.719 | 425.317 |
| 84.5 | 561.940 | 385.484 | 424.014 | 410.799 | 397.955 |
| 85.0 | 459.752 | 359.239 | 395.163 | 380.645 | 367.988 |
| 85.5 | 406.704 | 331.319 | 364.265 | 348.257 | 337.276 |
| 86.0 | 348.444 | 302.468 | 331.691 | 314.195 | 303.957 |
| 86.5 | 263.752 | 272.315 | 295.209 | 277.340 | 270.267 |
| 87.0 | 219.452 | 240.858 | 256.493 | 238.810 | 233.599 |
| 87.5 | 191.532 | 208.098 | 215.171 | 199.722 | 194.138 |
| 88.0 | 163.798 | 172.174 | 173.850 | 156.725 | 149.838 |
| 88.5 | 133.458 | 133.458 | 131.783 | 110.192 | 101.629 |
| 89.0 | 97.534 | 96.231 | 89.717 | 71.476 | 65.705 |
| 89.5 | 61.052 | 64.589 | 57.702 | 48.953 | 47.464 |
| 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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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 : GS-4-L480-835-HA-HE-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 : GS-4-L480-835-HA-HE-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 : GS-4-L480-835-HA-HE-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|----------|-------|--------|
| 0-20 | 6548.67 | N.A. | 14.00 |
| 0-30 | 13967.19 | N.A. | 29.80 |
| 0-40 | 23015.06 | N.A. | 49.10 |
| 0-60 | 40416.04 | N.A. | 86.20 |
| 0-80 | 46480.01 | N.A. | 99.10 |
| 0-90 | 46902.22 | N.A. | 100.00 |
| 10-90 | 45213.52 | N.A. | 96.40 |
| 20-40 | 16466.39 | N.A. | 35.10 |
| 20-50 | 25934.39 | N.A. | 55.30 |
| 40-70 | 21778.00 | N.A. | 46.40 |
| 60-80 | 6063.97 | N.A. | 12.90 |
| 70-80 | 1686.95 | N.A. | 3.60 |
| 80-90 | 422.21 | N.A. | 0.90 |
| 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 | 46902.22 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 1688.7 |
| 10-20 | 4859.97 |
| 20-30 | 7418.52 |
| 30-40 | 9047.87 |
| 40-50 | 9468.00 |
| 50-60 | 7932.98 |
| 60-70 | 4377.01 |
| 70-80 | 1686.95 |
| 80-90 | 422.21 |
| 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 : GS-4-L480-835-HA-HE-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 | 106 | 102 | 98 | 107 | 103 | 100 | 97 | 99 | 96 | 94 | 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 | 92 | 82 | 75 | 69 | 90 | 81 | 74 | 68 | 78 | 72 | 67 | 75 | 70 | 66 | 73 | 68 | 65 | 63 |
| 4 | 85 | 73 | 65 | 59 | 82 | 72 | 64 | 58 | 70 | 63 | 57 | 67 | 61 | 57 | 65 | 60 | 56 | 54 |
| 5 | 78 | 66 | 57 | 51 | 76 | 65 | 57 | 50 | 62 | 55 | 50 | 61 | 54 | 49 | 59 | 53 | 49 | 47 |
| 6 | 72 | 59 | 51 | 44 | 70 | 58 | 50 | 44 | 57 | 49 | 44 | 55 | 48 | 43 | 53 | 48 | 43 | 41 |
| 7 | 67 | 54 | 45 | 39 | 65 | 53 | 45 | 39 | 51 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 36 |
| 8 | 62 | 49 | 41 | 35 | 61 | 48 | 40 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 34 | 32 |
| 9 | 58 | 45 | 37 | 32 | 57 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 |
| 10 | 54 | 41 | 34 | 29 | 53 | 41 | 34 | 29 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GS-4-L480-835-HA-HE-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 | 25.8 | 27.4 | 26.2 | 27.7 | 28.0 | 23.4 | 25.0 | 23.8 | 25.3 | 25.6 |
| | 3H | 27.5 | 28.9 | 27.9 | 29.2 | 29.6 | 23.5 | 24.9 | 23.9 | 25.2 | 25.6 |
| | 4H | 28.0 | 29.3 | 28.4 | 29.7 | 30.1 | 23.6 | 24.9 | 24.0 | 25.3 | 25.6 |
| | 6H | 28.3 | 29.5 | 28.7 | 29.9 | 30.3 | 23.7 | 24.9 | 24.1 | 25.3 | 25.7 |
| | 8H | 28.4 | 29.5 | 28.8 | 29.9 | 30.3 | 23.8 | 24.9 | 24.2 | 25.3 | 25.7 |
| | 12H | 28.4 | 29.5 | 28.8 | 29.9 | 30.3 | 23.8 | 24.9 | 24.3 | 25.3 | 25.7 |

UGR Viewed Endwise

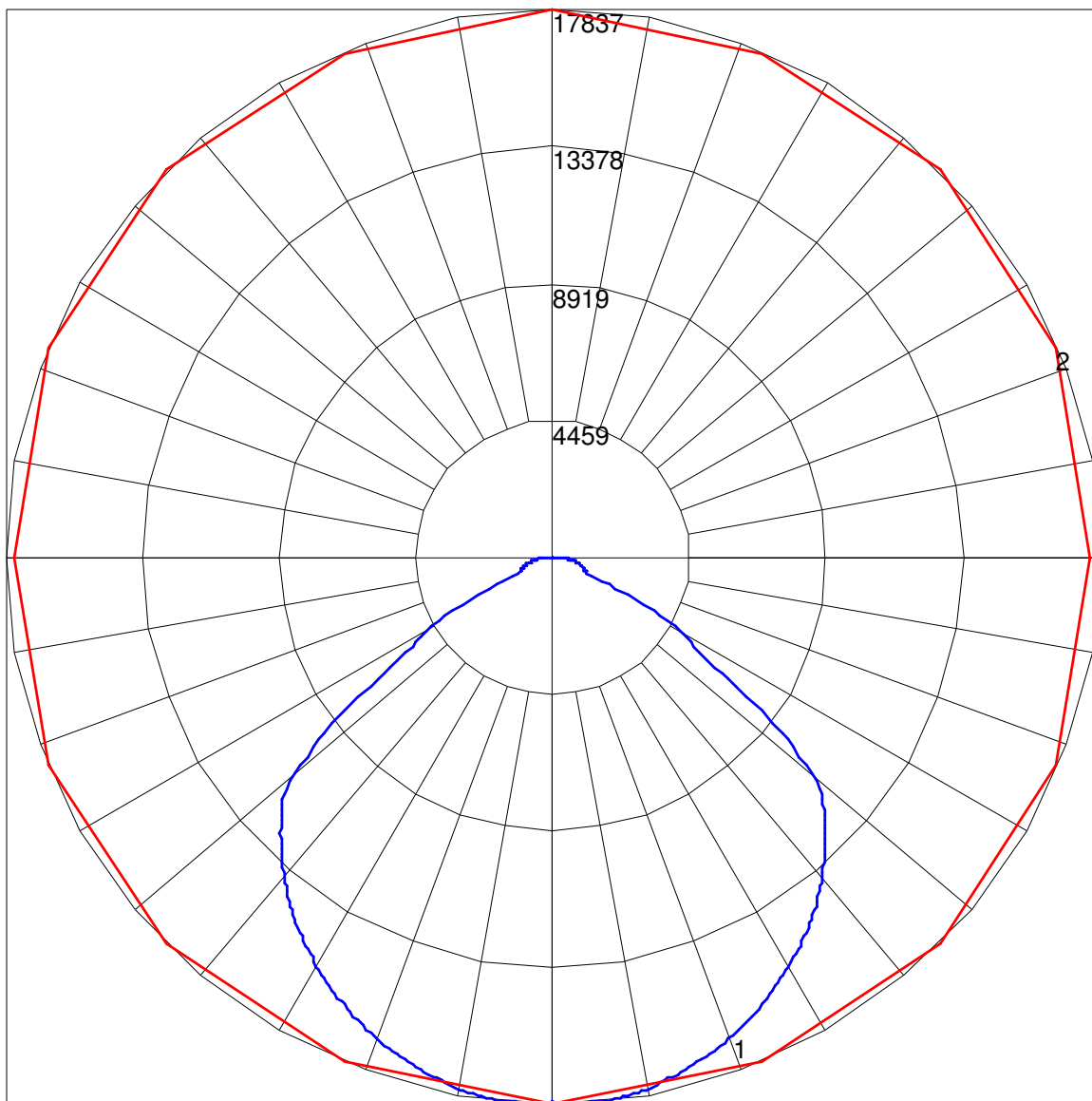
| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H | 26.0 | 27.3 | 26.4 | 27.7 | 28.1 | 24.0 | 25.3 | 24.4 | 25.7 | 26.0 |
| | 3H | 27.9 | 29.0 | 28.3 | 29.4 | 29.8 | 24.2 | 25.3 | 24.6 | 25.7 | 26.1 |
| | 4H | 28.5 | 29.5 | 28.9 | 29.9 | 30.3 | 24.3 | 25.3 | 24.8 | 25.7 | 26.1 |
| | 6H | 28.8 | 29.7 | 29.3 | 30.1 | 30.6 | 24.5 | 25.4 | 25.0 | 25.8 | 26.3 |
| | 8H | 28.9 | 29.7 | 29.4 | 30.1 | 30.6 | 24.6 | 25.4 | 25.1 | 25.8 | 26.3 |
| | 12H | 28.9 | 29.6 | 29.4 | 30.1 | 30.6 | 24.7 | 25.4 | 25.2 | 25.9 | 26.4 |

| | | | | | | | | | | | |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H | 28.4 | 29.2 | 28.9 | 29.7 | 30.1 | 24.5 | 25.3 | 25.0 | 25.7 | 26.2 |
| | 6H | 28.8 | 29.4 | 29.3 | 29.9 | 30.4 | 24.8 | 25.4 | 25.3 | 25.9 | 26.4 |
| | 8H | 28.9 | 29.5 | 29.4 | 30.0 | 30.5 | 24.9 | 25.5 | 25.4 | 26.0 | 26.5 |
| | 12H | 29.0 | 29.5 | 29.5 | 30.0 | 30.5 | 25.1 | 25.6 | 25.6 | 26.1 | 26.7 |

| | | | | | | | | | | | |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 28.4 | 29.1 | 28.9 | 29.6 | 30.1 | 24.5 | 25.2 | 25.0 | 25.7 | 26.2 |
| | 6H | 28.8 | 29.4 | 29.3 | 29.8 | 30.4 | 24.8 | 25.4 | 25.3 | 25.8 | 26.4 |
| | 8H | 28.9 | 29.4 | 29.4 | 29.9 | 30.4 | 25.0 | 25.5 | 25.5 | 26.0 | 26.6 |

Maximum UGR = 30.6

POLAR GRAPH



Maximum Candela = 17837.259 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.)