

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST] GEN FROM DG3230517-27161E-EE  
[TESTLAB] Bay Area Compliance Labs Corp.  
[TESTDATE] 2023-05-18  
[ISSUE DATE] 2026-09-18  
[MANUFAC] H.E. WILLIAMS, INC.  
[LUMCAT] GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_  
[LAMP] N/A

### CHARACTERISTICS

|                                 |                   |
|---------------------------------|-------------------|
| Lumens Per Lamp                 | N.A. (absolute)   |
| Total Lamp Lumens               | N.A. (absolute)   |
| Luminaire Lumens                | 22935             |
| Total Luminaire Efficiency      | N.A.              |
| Luminaire Efficacy Rating (LER) | 156               |
| Total Luminaire Watts           | 147               |
| Ballast Factor                  | 1.00              |
| CIE Type                        | Direct            |
| Spacing Criterion (0-180)       | 1.30              |
| Spacing Criterion (90-270)      | 1.28              |
| Spacing Criterion (Diagonal)    | 1.22              |
| Basic Luminous Shape            | Circular          |
| Luminous Length (0-180)         | 0.24 m (Diameter) |
| Luminous Width (90-270)         | 0.24 m (Diameter) |
| Luminous Height                 | 0.00 m            |

### LUMINANCE DATA (cd/sq.m)

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 163527           | 165645            | 159386            |
| 55                  | 95344            | 96245             | 91132             |
| 65                  | 58822            | 57884             | 55800             |
| 75                  | 39177            | 37423             | 36224             |
| 85                  | 24381            | 22084             | 20854             |

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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> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> | <u>202.5</u> |
|----|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| 0  | 12287.4661 | 2287.4661   | 2287.4661   | 2287.4661   | 2287.4661   | 2287.4661    | 2287.4661    | 2287.4661    | 2287.4661    | 2287.4661    |
| 1  | 12291.6731 | 2302.1931   | 2290.6211   | 2296.9331   | 2299.0371   | 2292.7251    | 2285.3621    | 2283.2581    | 2282.2061    | 2274.843     |
| 2  | 12292.7251 | 2299.0371   | 2303.2441   | 2304.2961   | 2294.8291   | 2296.9331    | 2284.3101    | 2282.2061    | 2271.6871    | 2265.375     |
| 3  | 12293.7771 | 2293.7771   | 2296.9331   | 2303.2441   | 2296.9331   | 2292.7251    | 2280.1021    | 2270.6351    | 2252.7521    | 2247.493     |
| 4  | 12284.3101 | 2295.8811   | 2300.0891   | 2295.8811   | 2290.6211   | 2283.2581    | 2265.3751    | 2255.9081    | 2233.8181    | 2224.351     |
| 5  | 12272.7391 | 2286.4141   | 2287.4661   | 2292.7251   | 2288.5181   | 2270.6351    | 2247.4931    | 2227.5061    | 2209.6241    | 2194.897     |
| 6  | 12252.7521 | 2272.7391   | 2280.1021   | 2275.8951   | 2273.7911   | 2253.8041    | 2225.4021    | 2209.6241    | 2174.9101    | 2164.391     |
| 7  | 12239.0771 | 2252.7521   | 2256.9601   | 2265.3751   | 2253.8041   | 2229.6101    | 2198.0531    | 2178.0661    | 2146.5091    | 2126.522     |
| 8  | 12218.0391 | 2226.4541   | 2233.8181   | 2238.0251   | 2224.3511   | 2201.2081    | 2166.4951    | 2140.1971    | 2111.7951    | 2093.913     |
| 9  | 12184.3781 | 2207.5201   | 2213.8311   | 2205.4161   | 2199.1041   | 2172.8061    | 2140.1971    | 2110.7431    | 2065.5111    | 2050.784     |
| 10 | 12153.8721 | 2170.7031   | 2182.2741   | 2179.1181   | 2162.2871   | 2138.0931    | 2099.1721    | 2069.7181    | 2022.3821    | 2005.551     |
| 11 | 12121.2621 | 2137.0411   | 2149.6641   | 2140.1971   | 2120.2111   | 2093.9131    | 2052.8881    | 2029.7451    | 1973.9941    | 1957.163     |
| 12 | 12081.2901 | 2098.1201   | 2104.4321   | 2099.1721   | 2072.8741   | 2051.8361    | 1999.2401    | 1981.3571    | 1923.5021    | 1906.671     |
| 13 | 12043.4201 | 2057.0951   | 2059.1991   | 2047.6281   | 2028.6941   | 2000.2921    | 1959.2671    | 1923.5021    | 1870.9061    | 1858.283     |
| 14 | 11999.2401 | 2017.1221   | 2009.7591   | 1997.1361   | 1979.2531   | 1948.7481    | 1902.4631    | 1879.3211    | 1825.6731    | 1805.687     |
| 15 | 11956.1111 | 1961.3711   | 1965.5781   | 1943.4881   | 1923.5021   | 1889.8401    | 1846.7121    | 1828.8291    | 1777.2851    | 1755.195     |
| 16 | 11902.4631 | 1908.7751   | 1907.7231   | 1884.5811   | 1866.6981   | 1829.8811    | 1785.7001    | 1766.7661    | 1721.5331    | 1705.754     |
| 17 | 11855.1271 | 1861.4381   | 1848.8151   | 1827.7771   | 1811.9981   | 1779.3891    | 1737.3121    | 1722.5851    | 1681.5601    | 1654.210     |
| 18 | 11798.3231 | 1800.4271   | 1798.3231   | 1775.1811   | 1757.2981   | 1716.2741    | 1677.3531    | 1663.6781    | 1623.7051    | 1604.770     |
| 19 | 11758.3501 | 1757.2981   | 1740.4681   | 1719.4291   | 1704.7031   | 1672.0931    | 1619.4971    | 1601.6141    | 1569.0051    | 1555.330     |
| 20 | 11713.1181 | 1705.7541   | 1680.5081   | 1666.8331   | 1648.9511   | 1613.1861    | 1562.6931    | 1540.6031    | 1515.3571    | 1500.630     |
| 21 | 11664.7301 | 1650.0031   | 1626.8611   | 1601.6141   | 1591.0951   | 1547.9671    | 1502.7341    | 1480.6441    | 1451.1901    | 1437.515     |
| 22 | 11613.1861 | 1592.1471   | 1559.5381   | 1534.2921   | 1520.6171   | 1481.6961    | 1439.6191    | 1407.0091    | 1385.9711    | 1375.452     |
| 23 | 11555.3301 | 1535.3441   | 1497.4741   | 1465.9171   | 1455.3981   | 1418.5811    | 1365.9851    | 1332.3231    | 1314.4411    | 1303.921     |
| 24 | 11476.4361 | 1475.3841   | 1429.1001   | 1391.2311   | 1369.1401   | 1341.7901    | 1290.2461    | 1243.9621    | 1232.3911    | 1225.027     |
| 25 | 11398.5941 | 1404.9061   | 1365.9851   | 1311.2851   | 1280.7791   | 1263.9481    | 1206.0931    | 1166.1201    | 1141.9261    | 1134.562     |
| 26 | 11319.7001 | 1320.7521   | 1294.4541   | 1238.7021   | 1192.4181   | 1171.3801    | 1115.6281    | 1081.9661    | 1050.4091    | 1033.578     |
| 27 | 11235.5471 | 1235.5471   | 1217.6641   | 1155.6011   | 1108.2781   | 1083.0181    | 1015.6961    | 0989.3981    | 0937.8541    | 0925.231     |
| 28 | 11140.8741 | 1130.3551   | 1128.2511   | 11067.2401  | 10988.3461  | 10984.1381   | 10895.7771   | 10884.2061   | 10814.7791   | 10790.585    |
| 29 | 11039.8901 | 1017.7991   | 1007.2801   | 0968.3591   | 0871.5831   | 0867.3751    | 0768.4951    | 0761.1311    | 0662.2511    | 0640.161     |
| 30 | 10930.4901 | 0883.1541   | 0867.3751   | 0827.4021   | 0742.1971   | 0718.0031    | 0610.7071    | 0612.8111    | 0476.7971    | 0455.338     |
| 31 | 10786.3771 | 0719.0541   | 0700.1201   | 0655.9391   | 0585.4611   | 0552.8511    | 0419.5731    | 0424.4121    | 0257.5781    | 0228.229     |
| 32 | 10612.8111 | 0515.2981   | 0492.0501   | 0446.6071   | 0398.8501   | 0331.1071    | 0205.9281    | 0197.3039    | 996.071      | 9974.085     |
| 33 | 10377.8121 | 0272.4101   | 0241.5881   | 0194.8831   | 0163.5361   | 0082.3289    | 951.680      | 9921.174     | 9701.428     | 9676.182     |
| 34 | 10087.0629 | 985.762     | 9940.845    | 9891.299    | 9885.514    | 9782.215     | 9647.885     | 9598.340     | 9373.440     | 9339.989     |
| 35 | 9752.656   | 9660.508    | 9612.751    | 9546.375    | 9538.801    | 9438.238     | 9296.755     | 9239.004     | 9000.219     | 8959.930     |
| 36 | 9366.392   | 9290.548    | 9228.801    | 9165.370    | 9149.276    | 9051.237     | 8911.858     | 8844.114     | 8584.290     | 8560.306     |
| 37 | 8936.788   | 8875.566    | 8811.399    | 8741.762    | 8710.520    | 8637.412     | 8501.188     | 8415.141     | 8137.540     | 8121.130     |
| 38 | 8471.104   | 8424.293    | 8348.134    | 8263.139    | 8235.579    | 8175.304     | 8046.023     | 7952.928     | 7660.810     | 7669.647     |
| 39 | 7965.025   | 7944.934    | 7864.146    | 7772.629    | 7747.383    | 7706.358     | 7571.292     | 7471.255     | 7175.350     | 7212.272     |
| 40 | 7458.106   | 7448.323    | 7370.376    | 7278.227    | 7238.570    | 7220.477     | 7100.664     | 6991.895     | 6679.475     | 6746.482     |
| 41 | 6933.303   | 6949.187    | 6873.133    | 6780.565    | 6731.650    | 6733.228     | 6627.616     | 6501.385     | 6202.114     | 6302.047     |
| 42 | 6423.859   | 6467.829    | 6405.661    | 6311.935    | 6242.192    | 6265.019     | 6178.972     | 6037.594     | 5742.531     | 5859.189     |
| 43 | 5939.240   | 6013.190    | 5951.968    | 5857.295    | 5775.456    | 5808.276     | 5740.953     | 5586.426     | 5322.815     | 5452.412     |
| 44 | 5477.658   | 5580.220    | 5519.945    | 5428.112    | 5337.963    | 5380.145     | 5323.236     | 5168.078     | 4921.719     | 5058.678     |
| 45 | 5060.256   | 5174.705    | 5125.791    | 5034.274    | 4932.133    | 4977.365     | 4940.863     | 4786.021     | 4563.645     | 4690.928     |
| 46 | 4675.675   | 4794.857    | 4742.682    | 4661.369    | 4542.712    | 4584.999     | 4571.219     | 4425.634     | 4223.665     | 4349.054     |
| 47 | 4320.336   | 4433.418    | 4407.120    | 4319.916    | 4199.050    | 4231.554     | 4232.817     | 4098.276     | 3916.505     | 4018.120     |
| 48 | 3997.082   | 4092.280    | 4076.922    | 3996.345    | 3873.376    | 3899.990     | 3913.770     | 3796.796     | 3625.754     | 3716.325     |
| 49 | 3702.755   | 3779.019    | 3787.224    | 3700.441    | 3589.253    | 3600.929     | 3623.966     | 3515.198     | 3366.562     | 3437.987     |
| 50 | 3444.298   | 3488.689    | 3514.567    | 3428.414    | 3324.695    | 3328.272     | 3359.934     | 3261.896     | 3127.566     | 3183.843     |
| 51 | 3200.148   | 3219.608    | 3258.424    | 3167.959    | 3081.912    | 3075.706     | 3109.052     | 3019.533     | 2909.503     | 2948.213     |
| 52 | 2979.981   | 2978.509    | 3036.469    | 2930.646    | 2858.274    | 2845.336     | 2886.886     | 2797.368     | 2704.063     | 2734.463     |
| 53 | 2771.596   | 2750.242    | 2810.728    | 2711.321    | 2653.255    | 2633.374     | 2670.822     | 2583.723     | 2513.666     | 2537.544     |

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**CANDELA TABULATION - (Cont.)**

|     |          |          |          |          |          |          |          |          |          |          |
|-----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 54  | 2574.046 | 2544.908 | 2606.550 | 2501.884 | 2459.176 | 2438.348 | 2473.062 | 2386.278 | 2337.048 | 2353.458 |
| 55  | 2393.221 | 2354.300 | 2415.837 | 2315.694 | 2287.503 | 2263.309 | 2284.978 | 2208.609 | 2171.687 | 2187.781 |
| 56  | 2220.811 | 2180.523 | 2236.590 | 2138.446 | 2118.460 | 2096.790 | 2112.464 | 2040.407 | 2015.056 | 2030.414 |
| 57  | 2054.713 | 2016.529 | 2067.652 | 1973.400 | 1961.198 | 1946.050 | 1953.098 | 1883.671 | 1869.470 | 1884.197 |
| 58  | 1904.394 | 1864.842 | 1906.077 | 1823.712 | 1817.085 | 1805.619 | 1804.251 | 1739.664 | 1735.666 | 1748.710 |
| 59  | 1759.755 | 1726.304 | 1759.440 | 1680.546 | 1677.180 | 1671.289 | 1666.976 | 1604.808 | 1609.752 | 1620.902 |
| 60  | 1626.688 | 1593.447 | 1621.638 | 1551.160 | 1549.897 | 1548.004 | 1536.328 | 1480.576 | 1502.877 | 1502.246 |
| 61  | 1500.878 | 1468.269 | 1492.463 | 1427.875 | 1429.032 | 1428.401 | 1415.673 | 1364.023 | 1396.002 | 1397.895 |
| 62  | 1385.588 | 1354.766 | 1375.279 | 1314.373 | 1317.213 | 1317.949 | 1304.380 | 1258.516 | 1289.127 | 1293.650 |
| 63  | 1277.345 | 1245.367 | 1262.829 | 1210.128 | 1214.440 | 1215.703 | 1203.185 | 1158.058 | 1190.772 | 1193.823 |
| 64  | 1178.675 | 1147.959 | 1161.003 | 1112.089 | 1116.402 | 1119.873 | 1108.302 | 1067.908 | 1100.097 | 1101.464 |
| 65  | 1087.895 | 1056.863 | 1070.538 | 1026.547 | 1031.996 | 1035.025 | 1023.275 | 986.689  | 1014.902 | 1016.133 |
| 66  | 1001.553 | 973.498  | 982.398  | 942.951  | 946.359  | 950.482  | 940.352  | 909.899  | 936.082  | 935.840  |
| 67  | 922.070  | 895.583  | 905.145  | 870.421  | 871.767  | 877.216  | 864.867  | 838.895  | 861.437  | 863.121  |
| 68  | 848.983  | 824.031  | 830.280  | 800.910  | 801.120  | 807.211  | 795.966  | 772.908  | 793.178  | 795.577  |
| 69  | 781.166  | 758.171  | 761.463  | 736.806  | 734.818  | 741.382  | 729.316  | 712.212  | 727.812  | 732.020  |
| 70  | 716.388  | 697.769  | 697.633  | 678.088  | 675.448  | 682.233  | 666.769  | 659.111  | 667.590  | 674.448  |
| 71  | 667.695  | 642.964  | 639.935  | 623.578  | 619.696  | 626.691  | 611.733  | 606.231  | 610.166  | 618.949  |
| 72  | 607.105  | 588.191  | 582.248  | 569.078  | 563.965  | 571.171  | 556.728  | 553.362  | 555.003  | 565.743  |
| 73  | 546.367  | 533.418  | 524.560  | 514.578  | 508.224  | 515.651  | 502.544  | 502.838  | 502.028  | 514.167  |
| 74  | 492.782  | 482.684  | 471.060  | 464.633  | 458.858  | 465.116  | 452.378  | 454.461  | 452.799  | 465.642  |
| 75  | 443.742  | 434.642  | 423.871  | 417.359  | 410.290  | 417.286  | 405.389  | 409.396  | 405.094  | 419.411  |
| 76  | 395.921  | 387.390  | 376.082  | 371.170  | 363.848  | 370.654  | 360.019  | 365.142  | 360.282  | 373.494  |
| 77  | 351.888  | 344.356  | 334.268  | 329.209  | 323.223  | 328.819  | 318.689  | 324.286  | 318.847  | 331.838  |
| 78  | 310.947  | 302.437  | 293.454  | 288.731  | 283.113  | 288.226  | 280.315  | 286.185  | 279.905  | 292.128  |
| 79  | 272.594  | 264.852  | 257.163  | 252.334  | 247.685  | 251.829  | 244.697  | 249.831  | 243.667  | 255.090  |
| 80  | 237.008  | 228.845  | 222.870  | 216.664  | 212.477  | 216.916  | 211.236  | 215.580  | 210.910  | 221.576  |
| 81  | 203.294  | 195.141  | 189.934  | 183.602  | 179.657  | 183.349  | 180.067  | 183.455  | 181.056  | 189.472  |
| 82  | 172.336  | 165.225  | 160.975  | 154.285  | 151.045  | 154.190  | 150.740  | 154.359  | 151.192  | 159.481  |
| 83  | 142.535  | 137.496  | 131.374  | 127.030  | 123.453  | 126.725  | 123.232  | 127.955  | 121.528  | 129.628  |
| 84  | 115.900  | 111.461  | 106.885  | 102.684  | 100.851  | 101.831  | 100.141  | 103.440  | 98.090   | 104.590  |
| 85  | 92.991   | 88.172   | 84.232   | 80.638   | 79.538   | 80.075   | 78.976   | 81.647   | 77.523   | 82.232   |
| 86  | 71.807   | 69.459   | 64.887   | 65.577   | 64.383   | 64.702   | 63.959   | 63.397   | 58.261   | 63.397   |
| 87  | 59.473   | 57.622   | 50.906   | 50.660   | 49.354   | 49.460   | 49.069   | 49.374   | 42.412   | 46.034   |
| 88  | 47.172   | 45.828   | 36.944   | 35.744   | 34.326   | 34.219   | 34.179   | 35.353   | 34.243   | 36.316   |
| 89  | 34.871   | 34.034   | 32.129   | 31.149   | 29.738   | 29.630   | 29.466   | 30.502   | 29.776   | 31.551   |
| 90  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 91  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 92  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 93  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 94  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 95  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 96  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 97  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 98  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 99  | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 100 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 101 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 102 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 103 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 104 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 105 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 106 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 107 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 108 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 109 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.IES**

**CANDELA TABULATION - (Cont.)**

|     |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 110 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 111 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 112 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 113 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 114 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 116 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 117 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 118 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 119 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 121 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 123 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 124 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 126 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 127 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 128 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 129 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 131 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 132 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 133 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 134 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 136 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 141 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 143 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 144 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 146 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 148 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 149 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 151 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 153 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 154 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 156 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 158 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 159 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 161 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 163 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 164 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.IES**

**CANDELA TABULATION - (Cont.)**

|     |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 166 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 167 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 168 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 169 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 171 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 173 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 174 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 176 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 178 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 179 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**Vert. Horizontal Angles**

|    | <u>225.0</u> | <u>247.5</u> | <u>270.0</u> | <u>292.5</u> | <u>315.0</u> | <u>337.5</u> | <u>360.0</u> |
|----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0  | 12287.466    | 12287.466    | 12287.466    | 12287.466    | 12287.466    | 12287.466    | 12287.466    |
| 1  | 12275.895    | 12277.998    | 12273.791    | 12276.946    | 12274.843    | 12290.621    | 12291.673    |
| 2  | 12255.908    | 12264.323    | 12264.323    | 12271.687    | 12274.843    | 12286.414    | 12292.725    |
| 3  | 12240.129    | 12239.077    | 12244.337    | 12255.908    | 12260.116    | 12276.946    | 12293.777    |
| 4  | 12210.676    | 12216.987    | 12222.247    | 12233.818    | 12244.337    | 12263.272    | 12284.310    |
| 5  | 12184.378    | 12182.274    | 12194.897    | 12205.416    | 12225.402    | 12242.233    | 12272.739    |
| 6  | 12151.768    | 12157.028    | 12163.339    | 12175.962    | 12202.260    | 12225.402    | 12252.752    |
| 7  | 12124.418    | 12121.262    | 12123.366    | 12147.560    | 12169.651    | 12197.001    | 12239.077    |
| 8  | 12077.082    | 12081.290    | 12089.705    | 12109.691    | 12141.249    | 12175.962    | 12218.039    |
| 9  | 12038.161    | 12038.161    | 12050.784    | 12078.134    | 12107.587    | 12142.301    | 12184.378    |
| 10 | 11995.032    | 11997.136    | 12003.448    | 12031.849    | 12068.666    | 12103.380    | 12153.872    |
| 11 | 11938.229    | 11945.592    | 11961.371    | 11993.980    | 12029.745    | 12073.926    | 12121.262    |
| 12 | 11894.048    | 11898.256    | 11916.138    | 11943.488    | 11985.565    | 12028.694    | 12081.290    |
| 13 | 11848.815    | 11856.179    | 11864.594    | 11902.463    | 11936.125    | 11980.305    | 12043.420    |
| 14 | 11801.479    | 11805.687    | 11824.621    | 11854.075    | 11885.633    | 11939.280    | 11999.240    |
| 15 | 11753.091    | 11762.558    | 11774.129    | 11802.531    | 11845.660    | 11895.100    | 11956.111    |
| 16 | 11707.858    | 11712.066    | 11725.741    | 11757.298    | 11802.531    | 11845.660    | 11902.463    |
| 17 | 11657.366    | 11668.937    | 11680.508    | 11719.429    | 11763.610    | 11799.375    | 11855.127    |
| 18 | 11610.030    | 11624.757    | 11640.535    | 11681.560    | 11719.429    | 11752.039    | 11798.323    |
| 19 | 11559.538    | 11571.109    | 11599.511    | 11637.380    | 11682.612    | 11711.014    | 11758.350    |
| 20 | 11504.838    | 11518.513    | 11550.070    | 11600.563    | 11643.691    | 11668.937    | 11713.118    |
| 21 | 11444.879    | 11465.917    | 11497.474    | 11549.019    | 11598.459    | 11628.964    | 11664.730    |
| 22 | 11387.023    | 11408.061    | 11442.775    | 11495.371    | 11554.278    | 11566.901    | 11613.186    |
| 23 | 11317.596    | 11348.102    | 11373.348    | 11435.411    | 11490.111    | 11518.513    | 11555.330    |
| 24 | 11241.858    | 11282.883    | 11299.714    | 11356.517    | 11420.684    | 11449.086    | 11476.436    |
| 25 | 11150.341    | 11205.041    | 11222.924    | 11282.883    | 11338.635    | 11372.296    | 11398.594    |
| 26 | 11045.149    | 11122.991    | 11146.134    | 11197.678    | 11248.170    | 11281.831    | 11319.700    |
| 27 | 10933.646    | 11018.851    | 11052.513    | 11110.368    | 11148.237    | 11182.951    | 11235.547    |
| 28 | 10802.156    | 10898.933    | 10964.152    | 11012.540    | 11041.994    | 11086.174    | 11140.874    |
| 29 | 10652.784    | 10749.560    | 10848.440    | 10891.569    | 10915.763    | 10973.619    | 11039.890    |
| 30 | 10470.486    | 10560.215    | 10707.483    | 10751.664    | 10770.598    | 10837.921    | 10930.490    |
| 31 | 10247.374    | 10331.843    | 10520.242    | 10575.993    | 10592.824    | 10663.303    | 10786.377    |
| 32 | 9997.017     | 10075.280    | 10283.244    | 10364.032    | 10388.647    | 10460.388    | 10612.811    |
| 33 | 9712.999     | 9793.681     | 9998.280     | 10091.374    | 10142.603    | 10200.353    | 10377.812    |
| 34 | 9383.012     | 9464.536     | 9670.186     | 9784.845     | 9859.637     | 9896.454     | 10087.062    |
| 35 | 9015.577     | 9109.408     | 9303.171     | 9429.402     | 9524.706     | 9554.054     | 9752.656     |
| 36 | 8623.001     | 8724.406     | 8902.180     | 9052.499     | 9146.120     | 9160.531     | 9366.392     |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.IES

## CANDELA TABULATION - (Cont.)

|    |          |          |          |          |          |          |          |
|----|----------|----------|----------|----------|----------|----------|----------|
| 37 | 8183.193 | 8288.385 | 8462.688 | 8624.158 | 8703.998 | 8717.779 | 8936.788 |
| 38 | 7738.442 | 7829.854 | 7992.691 | 8171.096 | 8253.567 | 8243.994 | 8471.104 |
| 39 | 7282.856 | 7356.069 | 7509.755 | 7684.584 | 7772.629 | 7749.592 | 7965.025 |
| 40 | 6819.591 | 6874.711 | 7000.836 | 7183.239 | 7276.124 | 7245.513 | 7458.106 |
| 41 | 6371.894 | 6396.509 | 6494.127 | 6684.524 | 6778.776 | 6733.018 | 6933.303 |
| 42 | 5927.563 | 5941.975 | 6002.881 | 6197.381 | 6289.318 | 6235.881 | 6423.859 |
| 43 | 5516.894 | 5511.950 | 5531.726 | 5733.379 | 5832.154 | 5766.094 | 5939.240 |
| 44 | 5119.585 | 5106.330 | 5091.814 | 5298.621 | 5396.134 | 5328.075 | 5477.658 |
| 45 | 4752.149 | 4727.639 | 4692.821 | 4893.422 | 4987.569 | 4925.716 | 5060.256 |
| 46 | 4406.068 | 4372.406 | 4330.014 | 4513.784 | 4608.141 | 4549.339 | 4675.675 |
| 47 | 4085.127 | 4044.628 | 4000.448 | 4159.288 | 4253.750 | 4202.101 | 4320.336 |
| 48 | 3796.796 | 3738.625 | 3703.070 | 3838.452 | 3935.544 | 3881.686 | 3997.082 |
| 49 | 3519.195 | 3460.287 | 3436.935 | 3539.707 | 3645.530 | 3594.197 | 3702.755 |
| 50 | 3269.785 | 3204.145 | 3195.940 | 3272.204 | 3379.290 | 3326.273 | 3444.298 |
| 51 | 3028.580 | 2962.414 | 2976.510 | 3025.950 | 3129.775 | 3082.438 | 3200.148 |
| 52 | 2811.043 | 2744.141 | 2777.908 | 2803.049 | 2902.455 | 2852.489 | 2979.981 |
| 53 | 2604.025 | 2533.862 | 2588.983 | 2598.240 | 2683.235 | 2641.789 | 2771.596 |
| 54 | 2408.369 | 2341.677 | 2410.683 | 2407.632 | 2481.161 | 2441.399 | 2574.046 |
| 55 | 2229.016 | 2166.217 | 2243.848 | 2236.064 | 2292.026 | 2261.731 | 2393.221 |
| 56 | 2055.976 | 1997.910 | 2081.117 | 2070.282 | 2112.884 | 2089.532 | 2220.811 |
| 57 | 1897.136 | 1844.856 | 1931.323 | 1920.594 | 1944.788 | 1933.532 | 2054.713 |
| 58 | 1747.448 | 1702.952 | 1790.261 | 1778.269 | 1790.471 | 1789.419 | 1904.394 |
| 59 | 1609.646 | 1572.934 | 1656.667 | 1647.516 | 1645.938 | 1654.669 | 1759.755 |
| 60 | 1496.039 | 1463.956 | 1532.330 | 1523.284 | 1526.650 | 1531.068 | 1626.688 |
| 61 | 1382.432 | 1354.872 | 1426.192 | 1417.987 | 1407.257 | 1427.244 | 1500.878 |
| 62 | 1269.035 | 1245.893 | 1320.053 | 1312.795 | 1288.075 | 1323.314 | 1385.588 |
| 63 | 1167.525 | 1147.433 | 1214.125 | 1207.813 | 1181.515 | 1219.700 | 1277.345 |
| 64 | 1074.325 | 1057.073 | 1118.085 | 1113.035 | 1086.738 | 1124.817 | 1178.675 |
| 65 | 990.929  | 976.002  | 1030.681 | 1024.748 | 1000.680 | 1038.212 | 1087.895 |
| 66 | 912.666  | 900.811  | 946.927  | 944.381  | 921.502  | 957.530  | 1001.553 |
| 67 | 840.262  | 831.605  | 872.230  | 868.696  | 849.077  | 882.371  | 922.070  |
| 68 | 772.634  | 765.713  | 801.583  | 799.700  | 782.428  | 811.955  | 848.983  |
| 69 | 710.897  | 706.258  | 736.270  | 736.396  | 718.987  | 746.663  | 781.166  |
| 70 | 653.115  | 650.517  | 675.858  | 676.973  | 660.416  | 686.524  | 716.388  |
| 71 | 598.710  | 599.783  | 618.371  | 622.357  | 604.780  | 630.930  | 667.695  |
| 72 | 546.956  | 548.997  | 564.028  | 569.667  | 552.026  | 576.999  | 607.105  |
| 73 | 495.896  | 499.756  | 512.148  | 518.638  | 501.313  | 524.318  | 546.367  |
| 74 | 448.759  | 453.388  | 463.760  | 470.229  | 453.409  | 475.446  | 492.782  |
| 75 | 402.433  | 409.112  | 416.602  | 423.671  | 408.807  | 427.994  | 443.742  |
| 76 | 359.609  | 366.057  | 372.695  | 378.491  | 365.773  | 382.278  | 395.921  |
| 77 | 319.184  | 326.147  | 331.523  | 336.898  | 326.663  | 339.033  | 351.888  |
| 78 | 281.315  | 287.921  | 292.034  | 296.704  | 288.604  | 298.051  | 310.947  |
| 79 | 246.759  | 252.681  | 256.195  | 260.150  | 253.060  | 260.276  | 272.594  |
| 80 | 213.277  | 219.367  | 222.218  | 225.510  | 220.419  | 225.289  | 237.008  |
| 81 | 184.107  | 187.967  | 191.765  | 193.206  | 189.724  | 192.869  | 203.294  |
| 82 | 154.927  | 159.313  | 163.247  | 165.362  | 162.185  | 164.268  | 172.336  |
| 83 | 125.957  | 130.690  | 134.730  | 137.528  | 134.646  | 135.666  | 142.535  |
| 84 | 103.169  | 106.465  | 106.265  | 109.705  | 107.138  | 107.096  | 115.900  |
| 85 | 82.347   | 83.583   | 84.701   | 86.891   | 85.946   | 83.693   | 92.991   |
| 86 | 63.294   | 65.753   | 66.499   | 68.153   | 66.889   | 65.835   | 71.807   |
| 87 | 47.642   | 49.644   | 49.783   | 51.459   | 49.850   | 49.694   | 59.473   |
| 88 | 37.451   | 38.059   | 38.166   | 38.431   | 38.211   | 38.180   | 47.172   |
| 89 | 32.478   | 33.199   | 33.270   | 33.631   | 33.289   | 33.649   | 34.871   |
| 90 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 91 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |
| 92 | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    | 0.000    |

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.IES

CANDELA TABULATION - (Cont.)

|     |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|
| 93  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 94  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 95  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 96  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 97  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 98  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 99  | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 101 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 102 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 103 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 104 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 105 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 106 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 107 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 108 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 109 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 110 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 111 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 112 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 113 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 114 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 115 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 116 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 117 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 118 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 119 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 121 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 122 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 123 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 124 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 125 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 126 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 127 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 128 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 129 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 131 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 132 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 133 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 134 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 135 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 136 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 137 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 138 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 139 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 141 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 142 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 143 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 144 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 145 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 146 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 147 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 148 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.IES

CANDELA TABULATION - (Cont.)

|     |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|
| 149 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 151 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 152 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 153 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 154 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 155 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 156 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 157 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 158 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 159 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 161 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 162 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 163 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 164 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 165 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 166 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 167 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 168 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 169 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 170 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 171 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 172 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 173 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 174 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 176 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 177 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 178 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 179 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.IES**

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens   | %Lamp | %Fixt  |
|---------|----------|-------|--------|
| 0-20    | 4515.37  | N.A.  | 19.70  |
| 0-30    | 9701.19  | N.A.  | 42.30  |
| 0-40    | 15439.89 | N.A.  | 67.30  |
| 0-60    | 21339.85 | N.A.  | 93.00  |
| 0-80    | 22830.26 | N.A.  | 99.50  |
| 0-90    | 22934.88 | N.A.  | 100.00 |
| 10-90   | 21771.49 | N.A.  | 94.90  |
| 20-40   | 10924.52 | N.A.  | 47.60  |
| 20-50   | 14757.74 | N.A.  | 64.30  |
| 40-70   | 6939.65  | N.A.  | 30.30  |
| 60-80   | 1490.41  | N.A.  | 6.50   |
| 70-80   | 450.72   | N.A.  | 2.00   |
| 80-90   | 104.62   | N.A.  | 0.50   |
| 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   | 22934.88 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  |
|---------|---------|
| 0-10    | 1163.39 |
| 10-20   | 3351.98 |
| 20-30   | 5185.82 |
| 30-40   | 5738.7  |
| 40-50   | 3833.22 |
| 50-60   | 2066.74 |
| 60-70   | 1039.69 |
| 70-80   | 450.72  |
| 80-90   | 104.62  |
| 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 : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.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  | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 89  |
| 2  | 104 | 97  | 92  | 87  | 101 | 95  | 91  | 86  | 92  | 88  | 84  | 89  | 86  | 83  | 86  | 83  | 81  | 79  |
| 3  | 96  | 88  | 81  | 76  | 94  | 86  | 80  | 75  | 84  | 78  | 74  | 81  | 77  | 73  | 79  | 75  | 72  | 70  |
| 4  | 90  | 80  | 73  | 67  | 88  | 79  | 72  | 67  | 76  | 70  | 66  | 74  | 69  | 65  | 72  | 68  | 64  | 62  |
| 5  | 83  | 73  | 65  | 60  | 82  | 72  | 65  | 59  | 70  | 63  | 59  | 68  | 62  | 58  | 66  | 61  | 58  | 56  |
| 6  | 78  | 67  | 59  | 53  | 76  | 66  | 58  | 53  | 64  | 58  | 53  | 62  | 57  | 52  | 61  | 56  | 52  | 50  |
| 7  | 73  | 61  | 54  | 48  | 71  | 60  | 53  | 48  | 59  | 52  | 48  | 58  | 52  | 47  | 56  | 51  | 47  | 45  |
| 8  | 68  | 56  | 49  | 44  | 67  | 56  | 49  | 44  | 54  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 41  |
| 9  | 64  | 52  | 45  | 40  | 63  | 52  | 45  | 40  | 51  | 44  | 40  | 50  | 44  | 40  | 49  | 43  | 39  | 38  |
| 10 | 60  | 48  | 41  | 37  | 59  | 48  | 41  | 37  | 47  | 41  | 36  | 46  | 40  | 36  | 45  | 40  | 36  | 35  |

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : GFRS-LS-8CS-PC-DIM-UNV\_HIGH\_4K\_.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 | 24.6 | 25.9 | 24.9 | 26.2 | 26.5 | 24.5 | 25.8 | 24.8 | 26.1 | 26.4 |
|------|------|------|------|------|------|------|------|------|------|------|------|
|      | 3H   | 25.4 | 26.6 | 25.8 | 27.0 | 27.3 | 25.3 | 26.5 | 25.7 | 26.8 | 27.2 |
|      | 4H   | 25.7 | 26.8 | 26.1 | 27.2 | 27.6 | 25.6 | 26.7 | 26.0 | 27.0 | 27.4 |
|      | 6H   | 25.9 | 26.9 | 26.3 | 27.3 | 27.7 | 25.7 | 26.7 | 26.1 | 27.1 | 27.5 |
|      | 8H   | 25.9 | 26.9 | 26.3 | 27.3 | 27.7 | 25.7 | 26.7 | 26.1 | 27.1 | 27.5 |
|      | 12H  | 25.9 | 26.8 | 26.4 | 27.2 | 27.7 | 25.7 | 26.6 | 26.1 | 27.0 | 27.4 |

### UGR Viewed Endwise

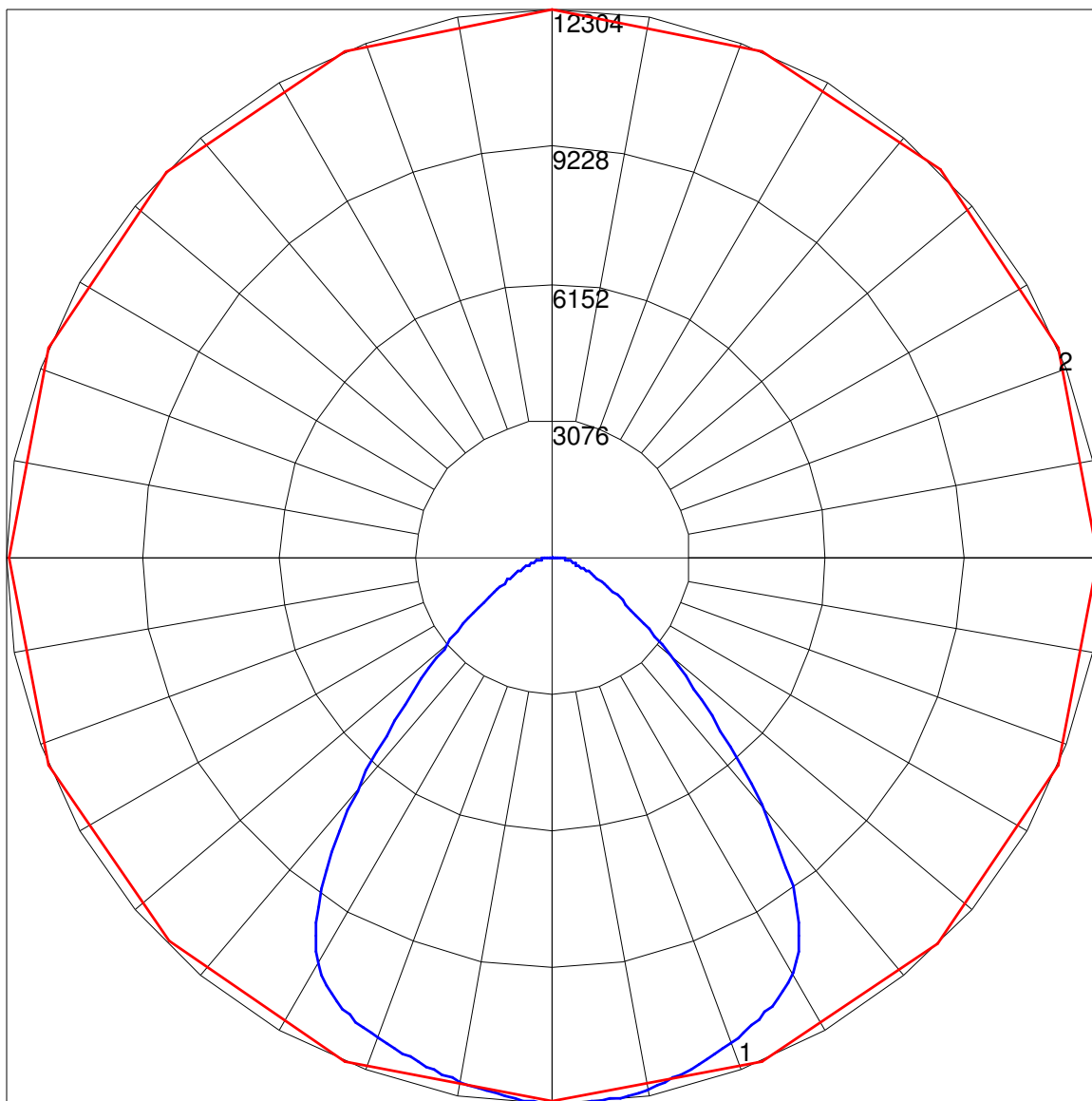
|    |     |      |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 4H | 2H  | 24.8 | 25.9 | 25.2 | 26.3 | 26.7 | 24.8 | 25.9 | 25.2 | 26.2 | 26.6 |
|    | 3H  | 25.9 | 26.8 | 26.3 | 27.2 | 27.6 | 25.8 | 26.7 | 26.2 | 27.1 | 27.5 |
|    | 4H  | 26.2 | 27.0 | 26.7 | 27.5 | 27.9 | 26.1 | 26.9 | 26.5 | 27.3 | 27.8 |
|    | 6H  | 26.5 | 27.2 | 26.9 | 27.6 | 28.1 | 26.3 | 27.0 | 26.8 | 27.5 | 27.9 |
|    | 8H  | 26.5 | 27.2 | 27.0 | 27.6 | 28.1 | 26.3 | 27.0 | 26.8 | 27.4 | 27.9 |
|    | 12H | 26.6 | 27.1 | 27.1 | 27.6 | 28.1 | 26.4 | 26.9 | 26.9 | 27.4 | 27.9 |

|    |     |      |      |      |      |      |      |      |      |      |      |
|----|-----|------|------|------|------|------|------|------|------|------|------|
| 8H | 4H  | 26.3 | 27.0 | 26.8 | 27.4 | 27.9 | 26.2 | 26.8 | 26.6 | 27.3 | 27.7 |
|    | 6H  | 26.6 | 27.1 | 27.1 | 27.6 | 28.1 | 26.5 | 27.0 | 27.0 | 27.5 | 28.0 |
|    | 8H  | 26.7 | 27.2 | 27.2 | 27.7 | 28.2 | 26.5 | 27.0 | 27.0 | 27.5 | 28.0 |
|    | 12H | 26.8 | 27.2 | 27.3 | 27.7 | 28.3 | 26.6 | 27.0 | 27.1 | 27.5 | 28.1 |

|     |    |      |      |      |      |      |      |      |      |      |      |
|-----|----|------|------|------|------|------|------|------|------|------|------|
| 12H | 4H | 26.3 | 26.9 | 26.8 | 27.3 | 27.8 | 26.2 | 26.7 | 26.6 | 27.2 | 27.7 |
|     | 6H | 26.6 | 27.1 | 27.1 | 27.6 | 28.1 | 26.4 | 26.9 | 27.0 | 27.4 | 27.9 |
|     | 8H | 26.7 | 27.1 | 27.2 | 27.6 | 28.2 | 26.5 | 27.0 | 27.0 | 27.5 | 28.0 |

Maximum UGR = 28.3

POLAR GRAPH



Maximum Candela = 12304.296 Located At Horizontal Angle = 67.5, Vertical Angle = 2  
# 1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2) (Through Max. Cd.)