

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P302785

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-7060**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302785  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-04-LED-E1-T4W-7060  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

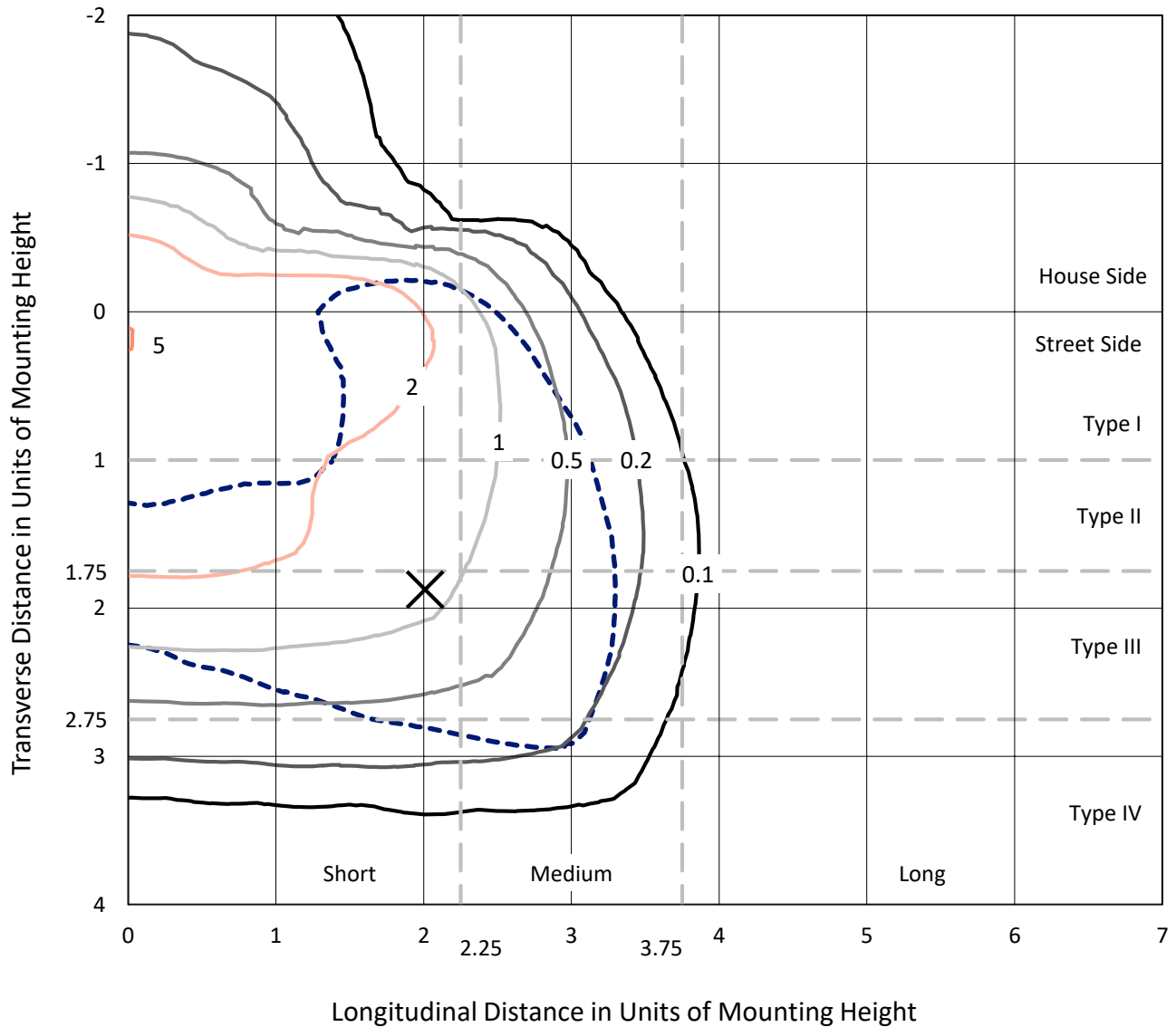
Lumens per Lamp: N/A  
Luminaire Lumens: 23762.6 lumens  
Efficiency: N/A  
Efficacy: 105.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

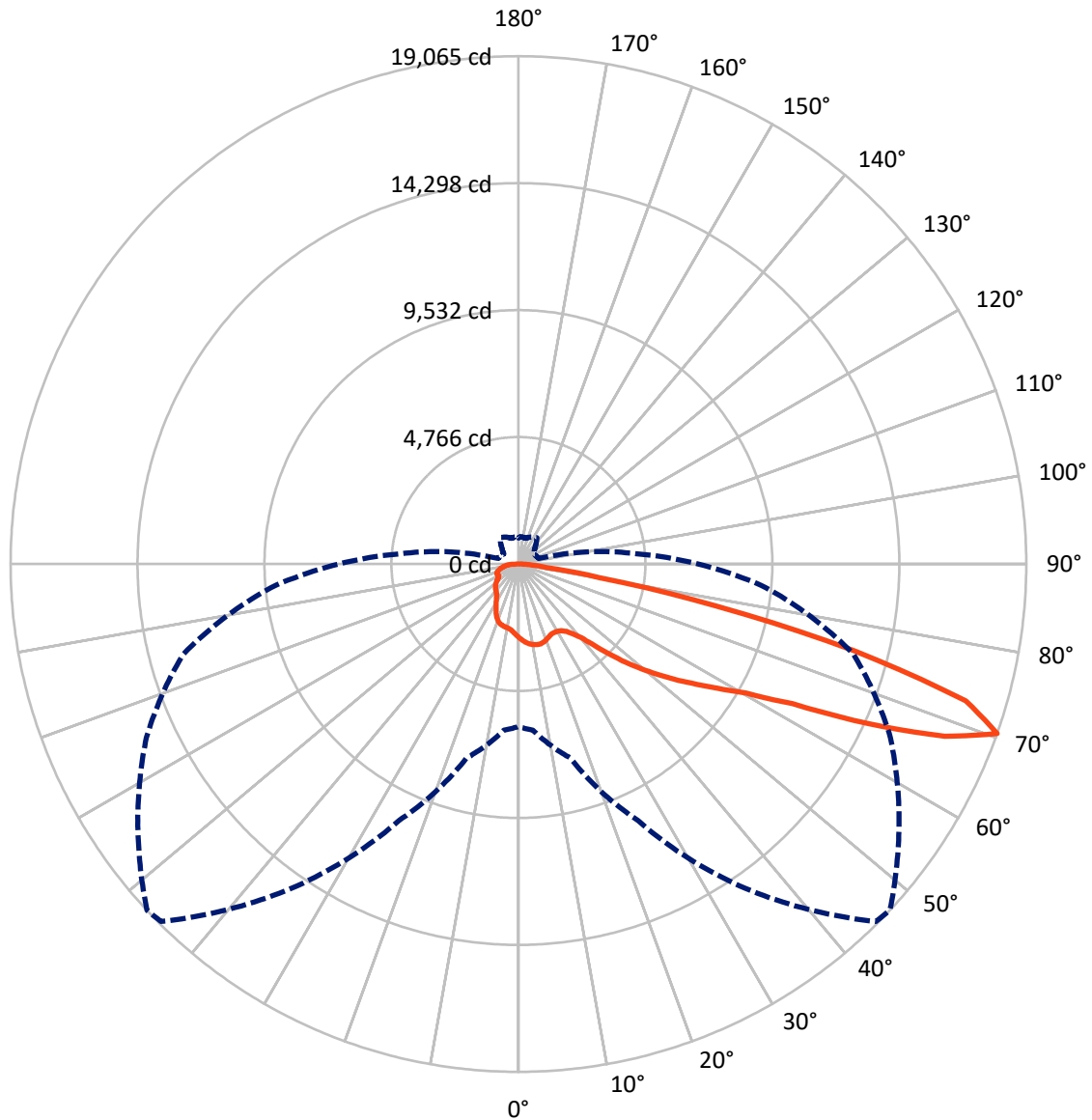
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4957.3   | 0.0    | 4957.3  |
|                    | % Fixture | 20.9     | 0.0    | 20.9    |
| <b>Street Side</b> | Lumens    | 18805.2  | 0.0    | 18805.2 |
|                    | % Fixture | 79.1     | 0.0    | 79.1    |
| <b>Total</b>       | Lumens    | 23762.6  | 0.0    | 23762.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 264.2   | 1.1       |
| 10°-20°   | 775.1   | 3.3       |
| 20°-30°   | 1144.5  | 4.8       |
| 30°-40°   | 1663.6  | 7.0       |
| 40°-50°   | 2993.8  | 12.6      |
| 50°-60°   | 5186.5  | 21.8      |
| 60°-70°   | 7402.7  | 31.2      |
| 70°-80°   | 3800.1  | 16.0      |
| 80°-90°   | 532.0   | 2.2       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-90°    | 23762.6 | 100.0     |
| 0°-180°   | 23762.6 | 100.0     |



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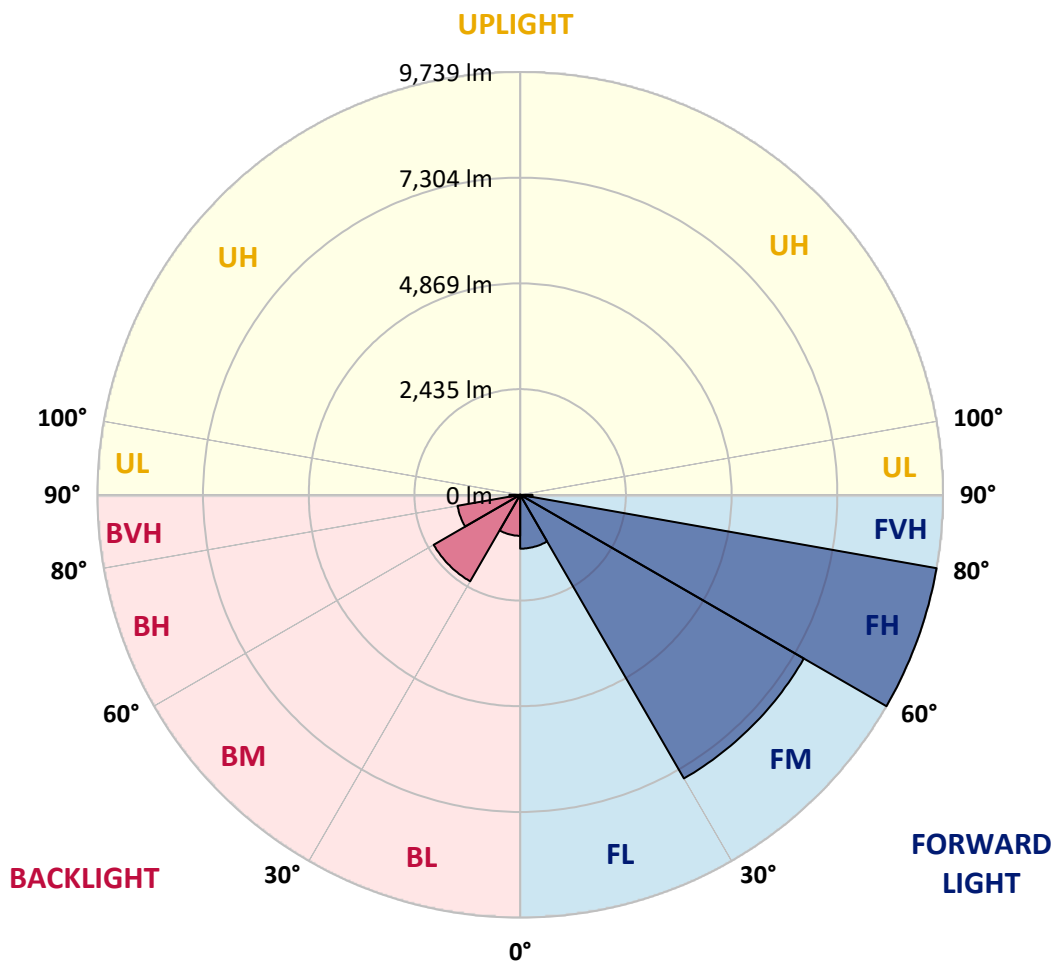
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1239.9 | 5.2       |                         |      |          |
| FM   | (30°-60°)   | 7542.9 | 31.7      |                         |      |          |
| FH   | (60°-80°)   | 9738.5 | 41.0      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 283.9  | 1.2       |                         |      | G3/500   |
| BL   | (0°-30°)    | 943.9  | 4.0       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 2301.0 | 9.7       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 1464.3 | 6.2       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 248.1  | 1.0       |                         |      | G3/500   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 47°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2757.1  | 2757.1  | 2757.1  | 2757.1  | 2757.1  | 2757.1  | 2757.1  | 2757.1  | 2757.1  | 2757.1  | 2757.1  |
| 2.5°  | 2919.2  | 2913.4  | 2911.1  | 2906.5  | 2900.7  | 2871.6  | 2865.8  | 2845.1  | 2816.3  | 2785.9  | 2754.8  |
| 5°    | 3111.1  | 3110.0  | 3096.9  | 3073.9  | 3037.0  | 2973.3  | 2958.3  | 2907.6  | 2839.3  | 2773.3  | 2707.6  |
| 7.5°  | 3279.7  | 3269.3  | 3245.1  | 3198.7  | 3134.2  | 3047.4  | 3026.7  | 2956.0  | 2862.3  | 2772.1  | 2683.0  |
| 10°   | 3403.3  | 3397.6  | 3344.6  | 3280.8  | 3196.4  | 3100.4  | 3076.2  | 2997.5  | 2894.6  | 2780.2  | 2669.2  |
| 12.5° | 3474.0  | 3462.4  | 3401.0  | 3325.0  | 3224.4  | 3130.7  | 3106.1  | 3026.7  | 2911.1  | 2780.2  | 2649.6  |
| 15°   | 3469.4  | 3461.3  | 3399.9  | 3316.5  | 3215.2  | 3133.0  | 3111.1  | 3031.3  | 2907.6  | 2768.7  | 2624.3  |
| 17.5° | 3376.8  | 3380.3  | 3328.4  | 3246.3  | 3163.0  | 3100.4  | 3080.8  | 3007.1  | 2884.2  | 2745.6  | 2594.3  |
| 20°   | 3215.2  | 3231.3  | 3196.4  | 3123.8  | 3077.3  | 3034.7  | 3022.1  | 2959.5  | 2848.5  | 2712.2  | 2561.7  |
| 22.5° | 3053.2  | 3068.1  | 3054.3  | 2992.9  | 2986.0  | 2960.6  | 2953.7  | 2908.8  | 2817.4  | 2691.5  | 2542.1  |
| 25°   | 2934.1  | 2948.0  | 2945.7  | 2892.3  | 2913.4  | 2912.2  | 2906.5  | 2884.2  | 2810.5  | 2691.5  | 2545.6  |
| 27.5° | 2901.9  | 2906.5  | 2901.9  | 2853.1  | 2881.9  | 2905.3  | 2900.7  | 2896.9  | 2831.2  | 2724.9  | 2589.7  |
| 30°   | 3012.8  | 3005.9  | 2969.8  | 2871.6  | 2898.4  | 2930.7  | 2926.1  | 2928.4  | 2893.4  | 2812.8  | 2688.0  |
| 32.5° | 3455.5  | 3424.1  | 3310.8  | 3034.7  | 2964.1  | 2981.4  | 2983.7  | 3022.1  | 3027.8  | 2948.0  | 2840.5  |
| 35°   | 4117.8  | 4083.3  | 3936.2  | 3471.7  | 3168.7  | 3108.8  | 3108.8  | 3166.4  | 3201.0  | 3142.2  | 3077.3  |
| 37.5° | 4819.7  | 4781.3  | 4703.0  | 4077.5  | 3598.7  | 3329.6  | 3323.8  | 3364.2  | 3413.7  | 3427.9  | 3444.0  |
| 40°   | 5617.2  | 5576.9  | 5598.7  | 4757.1  | 4198.9  | 3712.0  | 3629.8  | 3601.1  | 3735.1  | 3824.1  | 3953.9  |
| 42.5° | 6490.3  | 6471.5  | 6479.5  | 5514.3  | 4881.9  | 4284.5  | 4167.8  | 4018.4  | 4180.4  | 4338.6  | 4610.5  |
| 45°   | 7298.1  | 7314.2  | 7306.2  | 6324.8  | 5642.9  | 4982.5  | 4858.9  | 4569.8  | 4728.3  | 4999.8  | 5442.9  |
| 47.5° | 8005.7  | 7938.5  | 8042.6  | 7210.2  | 6494.9  | 5764.2  | 5611.4  | 5224.4  | 5384.9  | 5720.1  | 6469.1  |
| 50°   | 8864.6  | 8855.4  | 8703.0  | 8392.0  | 7524.6  | 6549.0  | 6349.0  | 5900.5  | 6150.1  | 6616.2  | 7763.1  |
| 52.5° | 9767.7  | 9599.9  | 9460.1  | 9310.8  | 8617.3  | 7353.8  | 7108.4  | 6574.4  | 7049.7  | 7635.6  | 9339.9  |
| 55°   | 9952.3  | 9877.5  | 10050.6 | 10301.7 | 9670.5  | 8189.6  | 7904.0  | 7419.4  | 8062.5  | 8801.3  | 11158.3 |
| 57.5° | 10347.8 | 10346.6 | 10705.3 | 11152.6 | 10754.8 | 9076.2  | 8788.2  | 8440.3  | 9200.9  | 10136.2 | 13088.8 |
| 60°   | 10615.0 | 10689.9 | 11356.0 | 12224.2 | 11819.5 | 10100.5 | 9835.6  | 9618.3  | 10496.0 | 11628.6 | 14887.6 |
| 62.5° | 10754.8 | 10856.5 | 11765.3 | 12658.8 | 13324.5 | 11805.6 | 11541.1 | 11227.8 | 12209.2 | 13265.8 | 15939.6 |
| 65°   | 10173.5 | 10373.1 | 11701.6 | 13034.7 | 14642.6 | 14569.7 | 14450.7 | 13900.5 | 14351.2 | 14559.3 | 15559.5 |
| 67.5° | 8564.0  | 8768.6  | 10315.5 | 12684.1 | 15583.7 | 17235.8 | 17261.2 | 16321.3 | 15669.3 | 14670.3 | 13081.9 |
| 70°   | 6101.7  | 6262.2  | 7542.3  | 10634.6 | 14866.9 | 18977.8 | 19064.6 | 17436.6 | 15406.7 | 13010.1 | 9139.9  |
| 72.5° | 2896.9  | 2995.2  | 4206.9  | 6921.4  | 11797.6 | 17388.3 | 17556.0 | 16012.6 | 13100.3 | 9632.1  | 4986.0  |
| 75°   | 1064.7  | 1094.6  | 1421.8  | 2944.5  | 6842.7  | 12823.1 | 13020.8 | 11478.5 | 8684.1  | 4795.5  | 1899.4  |
| 77.5° | 638.1   | 657.7   | 797.8   | 1242.8  | 2691.5  | 7329.6  | 7621.8  | 6242.6  | 3795.3  | 1785.0  | 934.1   |
| 80°   | 446.1   | 460.0   | 572.1   | 773.3   | 1271.6  | 2793.2  | 3053.2  | 2547.9  | 1512.0  | 1129.6  | 679.6   |
| 82.5° | 301.8   | 308.7   | 402.4   | 522.6   | 845.1   | 997.5   | 1076.2  | 1133.0  | 1019.8  | 840.5   | 431.2   |
| 85°   | 197.7   | 204.6   | 273.0   | 344.4   | 537.5   | 515.6   | 527.2   | 666.9   | 744.5   | 570.9   | 239.2   |
| 87.5° | 113.3   | 117.9   | 164.3   | 183.9   | 263.8   | 218.5   | 220.8   | 351.3   | 476.5   | 385.1   | 145.5   |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2757.1  | 2757.1  | 2757.1 | 2757.1 | 2757.1 | 2757.1 | 2757.1 | 2757.1 | 2757.1 | 2757.1 | 2757.1 |
| 2.5°  | 2746.8  | 2731.8  | 2698.4 | 2677.3 | 2657.7 | 2653.1 | 2645.0 | 2643.9 | 2642.7 | 2642.7 | 2639.3 |
| 5°    | 2685.3  | 2660.0  | 2608.2 | 2579.0 | 2554.8 | 2552.5 | 2551.3 | 2557.1 | 2559.4 | 2561.7 | 2558.2 |
| 7.5°  | 2646.2  | 2611.6  | 2546.7 | 2505.3 | 2476.5 | 2469.2 | 2481.1 | 2507.6 | 2524.8 | 2531.8 | 2528.3 |
| 10°   | 2622.0  | 2579.0  | 2504.1 | 2458.8 | 2434.6 | 2431.2 | 2446.1 | 2477.6 | 2513.3 | 2527.1 | 2526.0 |
| 12.5° | 2594.3  | 2545.6  | 2465.7 | 2418.5 | 2404.7 | 2411.6 | 2431.2 | 2460.0 | 2497.2 | 2519.1 | 2520.2 |
| 15°   | 2566.3  | 2509.9  | 2427.7 | 2386.2 | 2380.5 | 2389.7 | 2408.1 | 2430.0 | 2458.8 | 2481.1 | 2483.4 |
| 17.5° | 2532.9  | 2473.8  | 2392.0 | 2349.0 | 2344.4 | 2349.0 | 2350.1 | 2361.7 | 2380.5 | 2401.2 | 2407.0 |
| 20°   | 2497.2  | 2436.9  | 2351.3 | 2308.7 | 2287.9 | 2269.5 | 2248.4 | 2250.7 | 2256.5 | 2277.6 | 2282.2 |
| 22.5° | 2471.5  | 2411.6  | 2320.2 | 2261.1 | 2205.8 | 2150.1 | 2108.6 | 2102.9 | 2105.2 | 2122.5 | 2128.2 |
| 25°   | 2473.8  | 2410.4  | 2312.1 | 2210.4 | 2089.1 | 2000.0 | 1944.3 | 1935.1 | 1933.9 | 1946.6 | 1955.1 |
| 27.5° | 2519.1  | 2455.4  | 2342.1 | 2158.2 | 1962.0 | 1829.9 | 1771.2 | 1764.2 | 1755.0 | 1758.5 | 1767.7 |
| 30°   | 2619.7  | 2560.6  | 2415.0 | 2105.2 | 1824.1 | 1663.6 | 1602.2 | 1595.3 | 1582.6 | 1576.9 | 1583.8 |
| 32.5° | 2783.6  | 2735.2  | 2521.4 | 2054.1 | 1686.7 | 1521.2 | 1459.0 | 1444.0 | 1436.0 | 1429.1 | 1434.8 |
| 35°   | 3056.6  | 3035.9  | 2663.5 | 1998.8 | 1565.4 | 1411.4 | 1355.0 | 1331.9 | 1320.4 | 1333.1 | 1342.3 |
| 37.5° | 3484.3  | 3495.9  | 2849.7 | 1912.1 | 1471.7 | 1338.8 | 1291.2 | 1264.7 | 1247.4 | 1257.8 | 1268.2 |
| 40°   | 4090.2  | 4098.3  | 3055.5 | 1789.6 | 1390.7 | 1295.8 | 1245.1 | 1221.0 | 1196.4 | 1178.0 | 1176.8 |
| 42.5° | 4885.4  | 4803.6  | 3257.8 | 1656.7 | 1297.0 | 1269.3 | 1212.9 | 1182.6 | 1145.7 | 1094.6 | 1084.3 |
| 45°   | 5828.7  | 5541.1  | 3411.4 | 1503.9 | 1191.8 | 1237.1 | 1176.8 | 1135.3 | 1077.4 | 1022.1 | 1016.3 |
| 47.5° | 6915.7  | 6332.8  | 3486.6 | 1345.7 | 1093.5 | 1189.5 | 1133.0 | 1067.0 | 994.0  | 966.4  | 962.9  |
| 50°   | 8242.6  | 7272.8  | 3522.3 | 1191.8 | 1008.2 | 1127.3 | 1069.3 | 991.7  | 930.7  | 924.9  | 921.5  |
| 52.5° | 9753.8  | 8403.5  | 3534.2 | 1065.8 | 937.6  | 1046.3 | 1017.5 | 942.2  | 893.4  | 898.4  | 898.4  |
| 55°   | 11335.3 | 9571.1  | 3376.8 | 974.5  | 872.7  | 962.9  | 982.5  | 922.6  | 881.9  | 900.7  | 907.7  |
| 57.5° | 12787.0 | 10605.8 | 2881.9 | 904.2  | 811.7  | 899.6  | 969.9  | 941.1  | 913.4  | 988.3  | 992.9  |
| 60°   | 13901.6 | 11217.1 | 2152.4 | 840.5  | 766.4  | 877.3  | 1003.6 | 1011.7 | 1018.6 | 1197.5 | 1222.1 |
| 62.5° | 14135.1 | 11013.9 | 1479.7 | 790.9  | 745.6  | 896.1  | 1064.7 | 1065.8 | 1057.8 | 1182.6 | 1197.5 |
| 65°   | 13063.5 | 9727.0  | 1076.2 | 762.9  | 728.4  | 929.5  | 1116.9 | 1092.3 | 1039.3 | 1134.2 | 1106.2 |
| 67.5° | 10374.3 | 7328.4  | 896.1  | 742.2  | 703.0  | 927.2  | 1172.2 | 1116.9 | 1029.0 | 1111.1 | 1065.8 |
| 70°   | 6734.1  | 4431.1  | 797.8  | 724.9  | 672.7  | 883.1  | 1204.4 | 1114.6 | 998.7  | 1033.6 | 980.2  |
| 72.5° | 3285.4  | 1981.6  | 731.8  | 699.6  | 641.6  | 822.0  | 1203.3 | 1093.5 | 967.6  | 965.2  | 936.5  |
| 75°   | 1285.5  | 907.7   | 671.5  | 661.2  | 588.6  | 752.5  | 1171.0 | 1063.5 | 930.7  | 893.4  | 883.1  |
| 77.5° | 752.5   | 647.3   | 595.5  | 604.7  | 524.9  | 683.0  | 1123.8 | 1011.7 | 879.6  | 835.9  | 824.3  |
| 80°   | 547.9   | 484.5   | 507.6  | 522.6  | 448.5  | 613.9  | 1060.1 | 948.0  | 823.2  | 845.1  | 828.9  |
| 82.5° | 351.3   | 312.2   | 411.6  | 426.6  | 373.6  | 543.3  | 990.6  | 880.8  | 743.3  | 675.0  | 658.9  |
| 85°   | 179.3   | 197.7   | 306.4  | 324.8  | 288.0  | 446.1  | 906.5  | 792.1  | 653.1  | 561.7  | 570.9  |
| 87.5° | 100.6   | 135.1   | 195.4  | 218.5  | 203.5  | 343.2  | 735.3  | 653.1  | 532.9  | 433.5  | 381.6  |
| 90°   | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)