

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: P648449

Luminaire Tested: **GALN-SA5B-835-U-T2R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P648449  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA5B-835-U-T2R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 3500K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22739.1 lumens  
Efficiency: N/A  
Efficacy: 111.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G3

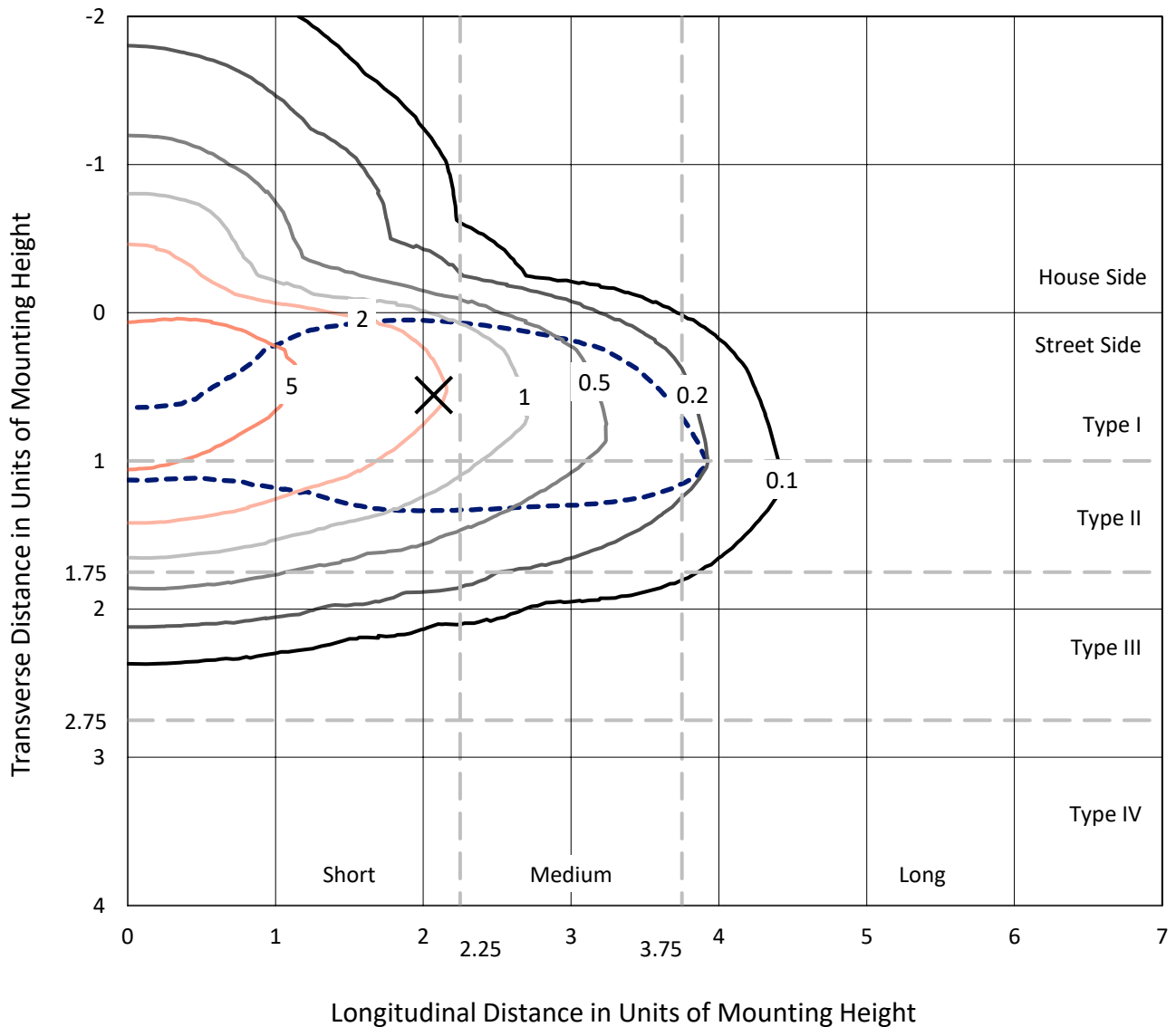
Input Watts (W): 204  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

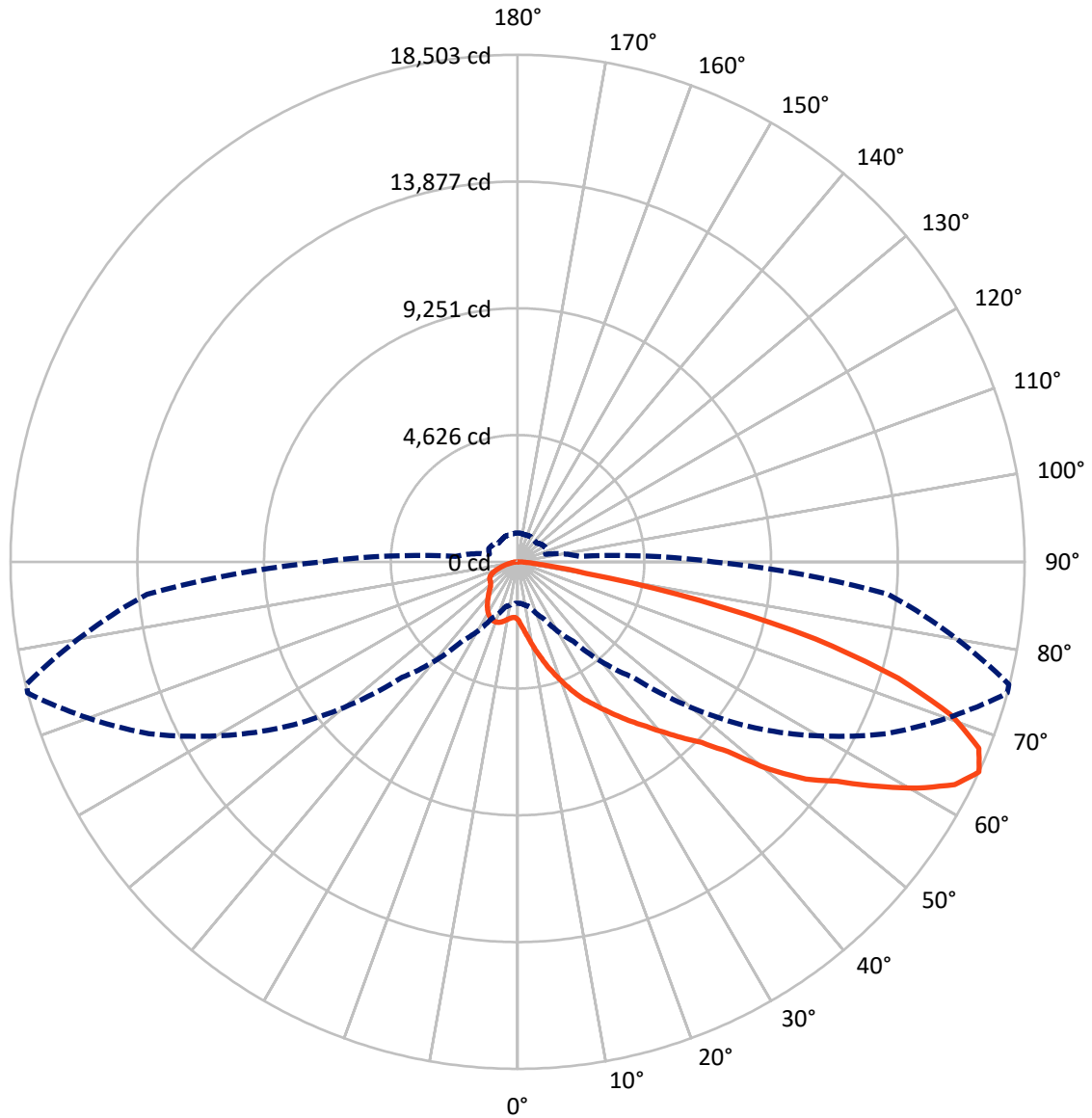
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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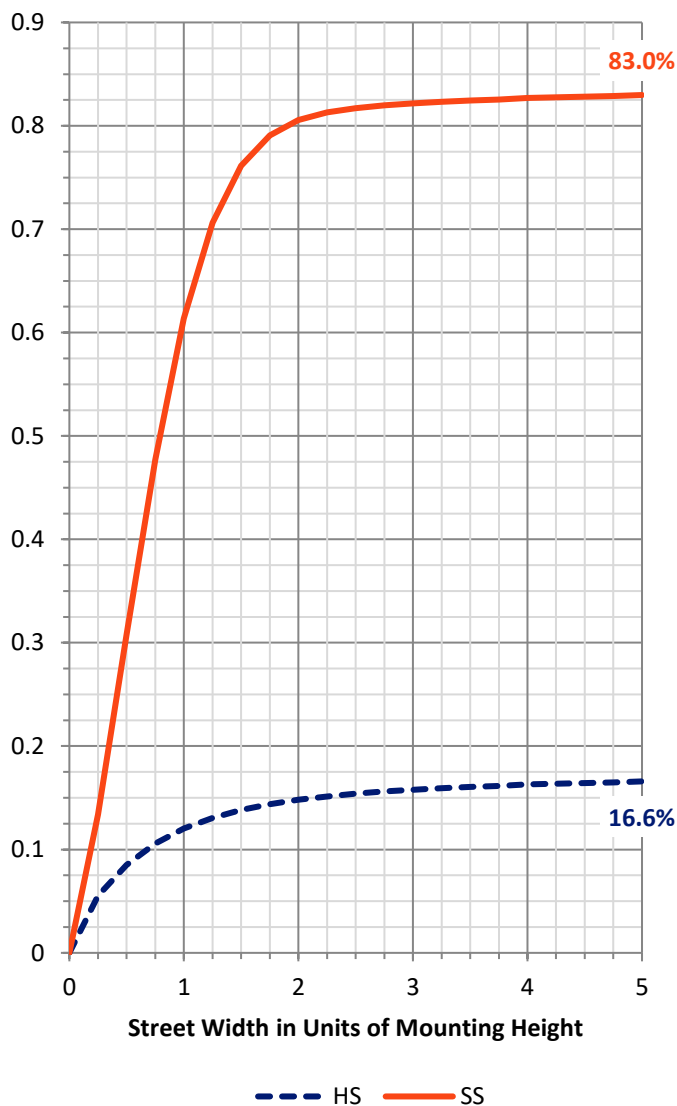
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3822.7   | 0.0    | 3822.7  |
|                    | % Fixture | 16.8     | 0.0    | 16.8    |
| <b>Street Side</b> | Lumens    | 18916.4  | 0.0    | 18916.4 |
|                    | % Fixture | 83.2     | 0.0    | 83.2    |
| <b>Total</b>       | Lumens    | 22739.1  | 0.0    | 22739.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 256.7   | 1.1       |
| 10°-20°   | 1005.4  | 4.4       |
| 20°-30°   | 1942.1  | 8.5       |
| 30°-40°   | 3154.6  | 13.9      |
| 40°-50°   | 4339.5  | 19.1      |
| 50°-60°   | 5123.5  | 22.5      |
| 60°-70°   | 4489.0  | 19.7      |
| 70°-80°   | 2143.1  | 9.4       |
| 80°-90°   | 285.2   | 1.3       |
| 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°    | 22739.1 | 100.0     |
| 0°-180°   | 22739.1 | 100.0     |

**Coefficient of Utilization**

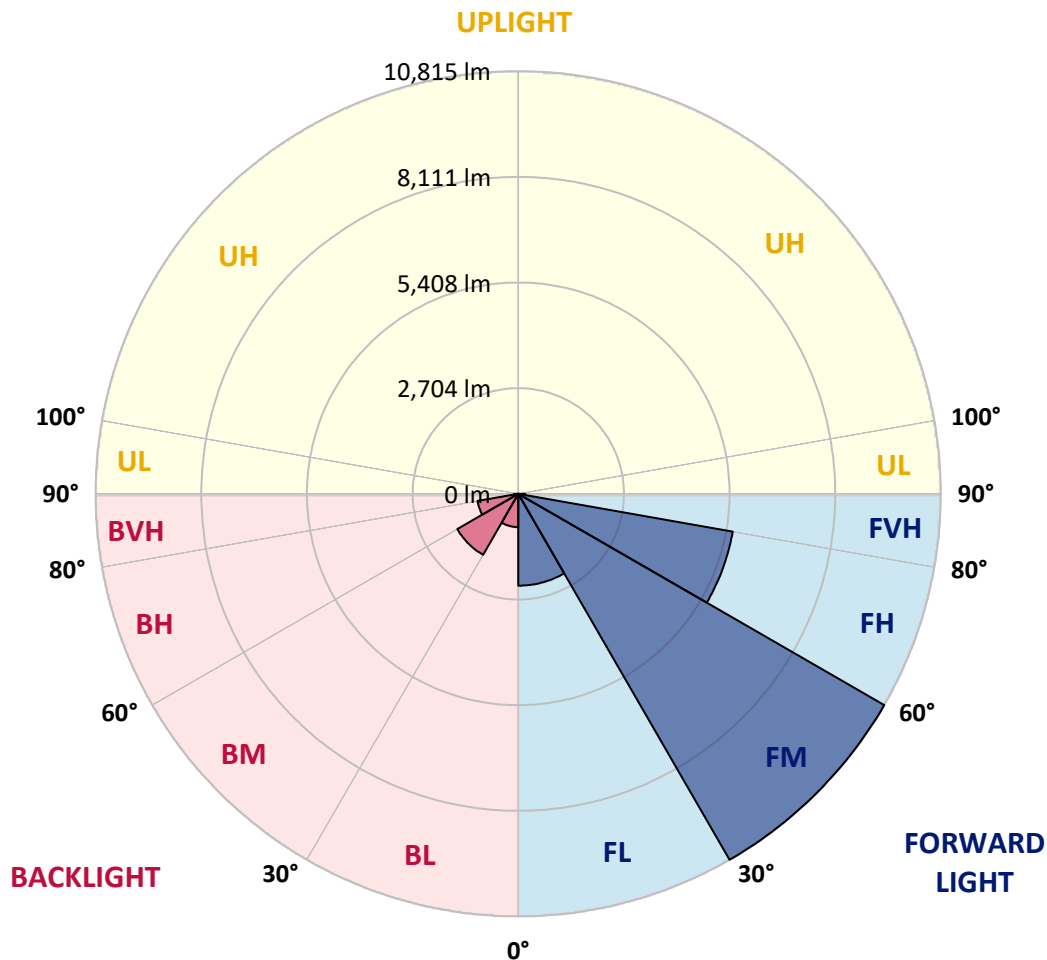


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2350.9  | 10.3      |                         |      |         |
| FM (30°-60°)   | 10815.2 | 47.6      |                         |      |         |
| FH (60°-80°)   | 5572.1  | 24.5      |                         |      | G3/7500 |
| FVH (80°-90°)  | 178.2   | 0.8       |                         |      | G2/225  |
| BL (0°-30°)    | 853.4   | 3.8       | B2/1000                 |      |         |
| BM (30°-60°)   | 1802.4  | 7.9       | B2/2500                 |      |         |
| BH (60°-80°)   | 1060.0  | 4.7       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 107.0   | 0.5       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2112.8  | 2112.8  | 2112.8  | 2112.8  | 2112.8  | 2112.8  | 2112.8  | 2112.8  | 2112.8  | 2112.8  | 2112.8  |
| 2.5°  | 2807.1  | 2788.7  | 2768.9  | 2714.7  | 2656.6  | 2591.3  | 2497.5  | 2407.5  | 2287.9  | 2284.2  | 2195.4  |
| 5°    | 3585.4  | 3573.1  | 3485.4  | 3434.9  | 3300.5  | 3121.7  | 2969.9  | 2734.4  | 2516.1  | 2490.2  | 2317.5  |
| 7.5°  | 4300.7  | 4252.6  | 4219.4  | 4128.1  | 3994.9  | 3765.4  | 3471.9  | 3153.7  | 2788.7  | 2754.1  | 2467.9  |
| 10°   | 4839.7  | 4834.8  | 4817.5  | 4738.6  | 4638.6  | 4410.5  | 4084.9  | 3628.6  | 3134.0  | 3066.1  | 2650.5  |
| 12.5° | 5243.0  | 5246.7  | 5244.2  | 5243.0  | 5171.5  | 4977.8  | 4625.1  | 4144.1  | 3483.0  | 3434.9  | 2861.4  |
| 15°   | 5508.2  | 5545.2  | 5560.0  | 5621.7  | 5627.8  | 5498.3  | 5194.9  | 4642.4  | 3876.5  | 3804.9  | 3088.3  |
| 17.5° | 5683.3  | 5701.8  | 5770.9  | 5875.7  | 5960.8  | 5937.4  | 5667.3  | 5103.7  | 4278.5  | 4158.9  | 3323.9  |
| 20°   | 5851.0  | 5883.1  | 5936.2  | 6079.2  | 6229.7  | 6298.8  | 6108.8  | 5576.1  | 4676.9  | 4600.4  | 3584.2  |
| 22.5° | 6200.1  | 6245.8  | 6264.2  | 6337.1  | 6465.3  | 6587.4  | 6501.1  | 6028.7  | 5113.5  | 5009.9  | 3860.4  |
| 25°   | 6790.9  | 6839.0  | 6787.2  | 6769.9  | 6811.9  | 6872.3  | 6853.8  | 6455.4  | 5525.5  | 5377.5  | 4121.9  |
| 27.5° | 7560.5  | 7566.7  | 7465.5  | 7369.4  | 7265.8  | 7234.9  | 7178.2  | 6834.0  | 5883.1  | 5759.8  | 4384.6  |
| 30°   | 8386.9  | 8357.3  | 8189.6  | 8015.6  | 7840.5  | 7667.8  | 7505.0  | 7199.1  | 6281.5  | 6139.7  | 4642.4  |
| 32.5° | 9154.1  | 9138.0  | 8951.7  | 8681.7  | 8385.6  | 8222.8  | 7893.5  | 7567.9  | 6708.3  | 6571.3  | 4907.5  |
| 35°   | 9728.8  | 9752.2  | 9547.4  | 9252.7  | 8929.6  | 8785.3  | 8369.6  | 7955.2  | 7149.8  | 7000.6  | 5196.1  |
| 37.5° | 10137.0 | 10124.7 | 9943.4  | 9688.1  | 9404.4  | 9278.6  | 8925.8  | 8378.3  | 7624.6  | 7481.6  | 5511.9  |
| 40°   | 10282.5 | 10275.2 | 10140.7 | 9954.4  | 9774.4  | 9730.0  | 9508.0  | 8834.6  | 8168.6  | 8000.9  | 5891.8  |
| 42.5° | 10190.0 | 10206.1 | 10117.3 | 10066.7 | 10033.4 | 10065.5 | 10086.4 | 9432.7  | 8761.8  | 8607.7  | 6303.7  |
| 45°   | 9906.4  | 9897.7  | 9885.4  | 9968.1  | 10155.5 | 10366.5 | 10658.7 | 9997.7  | 9406.9  | 9283.5  | 6856.3  |
| 47.5° | 9399.4  | 9461.1  | 9492.0  | 9720.2  | 10129.6 | 10629.1 | 11317.3 | 10754.9 | 10343.0 | 10235.7 | 7698.6  |
| 50°   | 8690.3  | 8739.6  | 8922.1  | 9328.0  | 9938.5  | 10727.8 | 11961.2 | 11993.2 | 11904.4 | 11703.3 | 8613.8  |
| 52.5° | 7582.7  | 7659.1  | 8035.4  | 8779.1  | 9546.3  | 10687.1 | 12350.9 | 13055.1 | 13172.3 | 13021.8 | 9515.4  |
| 55°   | 6343.2  | 6450.5  | 6847.6  | 7823.2  | 9006.0  | 10465.1 | 12619.8 | 13670.6 | 14138.0 | 13998.6 | 10383.7 |
| 57.5° | 5129.6  | 5243.0  | 5651.3  | 6596.0  | 8063.7  | 9974.2  | 12796.1 | 14356.3 | 15452.8 | 15271.5 | 11464.1 |
| 60°   | 3844.4  | 3962.8  | 4313.1  | 5286.2  | 6721.8  | 9014.7  | 12676.5 | 14950.8 | 16766.3 | 16688.6 | 12545.8 |
| 62.5° | 2480.3  | 2611.0  | 2915.7  | 3721.1  | 5166.5  | 7703.5  | 12036.4 | 15278.9 | 17903.5 | 17809.7 | 13335.1 |
| 65°   | 1510.9  | 1525.7  | 1693.4  | 2310.1  | 3536.0  | 5964.5  | 10572.4 | 14843.5 | 18502.9 | 18474.6 | 13575.7 |
| 67.5° | 976.8   | 1000.3  | 1076.7  | 1383.8  | 2120.1  | 4142.9  | 8453.5  | 13406.7 | 18152.6 | 18142.7 | 13078.6 |
| 70°   | 825.1   | 832.5   | 867.0   | 933.6   | 1232.1  | 2512.3  | 5936.2  | 11116.3 | 16821.8 | 16821.8 | 11883.4 |
| 72.5° | 737.6   | 747.5   | 759.7   | 780.7   | 879.4   | 1423.3  | 3542.2  | 8653.2  | 14524.1 | 14620.3 | 10114.8 |
| 75°   | 669.7   | 667.3   | 674.6   | 678.3   | 749.9   | 930.0   | 1831.5  | 6399.9  | 11235.9 | 11043.5 | 7325.0  |
| 77.5° | 573.5   | 577.2   | 573.5   | 589.5   | 662.3   | 708.0   | 930.0   | 4294.6  | 6809.4  | 6560.3  | 3676.7  |
| 80°   | 471.1   | 477.3   | 483.5   | 493.4   | 566.1   | 537.8   | 558.7   | 1957.3  | 2518.5  | 2465.5  | 1135.9  |
| 82.5° | 354.0   | 362.6   | 372.5   | 395.9   | 445.2   | 355.2   | 352.7   | 836.2   | 909.0   | 832.5   | 418.1   |
| 85°   | 143.1   | 169.0   | 255.3   | 278.7   | 280.0   | 194.9   | 217.0   | 349.1   | 371.2   | 362.6   | 164.0   |
| 87.5° | 33.3    | 39.5    | 82.6    | 124.6   | 114.7   | 72.7    | 80.2    | 113.5   | 129.5   | 119.6   | 55.5    |
| 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°    | 2112.8 | 2112.8 | 2112.8 | 2112.8 | 2112.8 | 2112.8 | 2112.8 | 2112.8 | 2112.8 | 2112.8 | 2112.8 |
| 2.5°  | 2154.7 | 2111.5 | 2037.5 | 1980.8 | 1940.1 | 1904.3 | 1882.1 | 1868.6 | 1863.6 | 1862.4 | 1863.6 |
| 5°    | 2227.5 | 2151.0 | 2033.8 | 1959.8 | 1919.1 | 1895.6 | 1882.1 | 1880.8 | 1882.1 | 1883.3 | 1879.7 |
| 7.5°  | 2327.4 | 2217.6 | 2064.6 | 1995.6 | 1964.8 | 1947.5 | 1941.3 | 1938.9 | 1940.1 | 1938.9 | 1938.9 |
| 10°   | 2460.6 | 2310.1 | 2125.1 | 2053.6 | 2027.7 | 2007.9 | 1998.1 | 1991.9 | 1986.9 | 1982.0 | 1979.6 |
| 12.5° | 2607.3 | 2412.4 | 2190.4 | 2121.4 | 2084.3 | 2053.6 | 2031.3 | 2015.3 | 2004.2 | 1993.1 | 1990.6 |
| 15°   | 2771.4 | 2521.0 | 2263.2 | 2167.0 | 2114.0 | 2068.4 | 2030.1 | 2004.2 | 1984.5 | 1968.5 | 1967.2 |
| 17.5° | 2928.0 | 2623.4 | 2312.6 | 2188.0 | 2110.3 | 2046.1 | 1995.6 | 1959.8 | 1935.2 | 1914.2 | 1911.7 |
| 20°   | 3095.7 | 2720.8 | 2334.7 | 2174.4 | 2073.3 | 1995.6 | 1929.0 | 1885.8 | 1857.4 | 1834.0 | 1830.3 |
| 22.5° | 3264.7 | 2803.5 | 2332.3 | 2131.2 | 2009.2 | 1917.9 | 1847.6 | 1801.9 | 1768.6 | 1745.2 | 1736.5 |
| 25°   | 3426.3 | 2870.0 | 2301.5 | 2062.2 | 1920.3 | 1825.4 | 1753.8 | 1711.9 | 1682.3 | 1653.9 | 1653.9 |
| 27.5° | 3571.8 | 2909.5 | 2243.5 | 1978.3 | 1829.1 | 1729.2 | 1672.4 | 1634.2 | 1607.1 | 1588.6 | 1577.4 |
| 30°   | 3714.9 | 2928.0 | 2164.5 | 1872.2 | 1732.9 | 1647.7 | 1602.2 | 1579.9 | 1555.3 | 1534.3 | 1531.9 |
| 32.5° | 3843.1 | 2924.3 | 2065.9 | 1768.6 | 1641.6 | 1581.2 | 1562.6 | 1545.4 | 1519.5 | 1489.9 | 1482.5 |
| 35°   | 3967.7 | 2899.6 | 1948.7 | 1655.2 | 1565.1 | 1541.7 | 1546.7 | 1522.0 | 1475.1 | 1438.1 | 1432.0 |
| 37.5° | 4103.4 | 2855.2 | 1820.5 | 1562.6 | 1501.0 | 1523.2 | 1535.5 | 1481.3 | 1404.8 | 1346.8 | 1333.3 |
| 40°   | 4260.1 | 2804.6 | 1687.2 | 1470.2 | 1450.4 | 1505.9 | 1505.9 | 1406.0 | 1301.2 | 1265.4 | 1255.5 |
| 42.5° | 4443.8 | 2762.7 | 1576.3 | 1392.5 | 1408.5 | 1464.0 | 1457.9 | 1306.1 | 1263.0 | 1244.5 | 1239.6 |
| 45°   | 4734.9 | 2747.9 | 1461.5 | 1324.6 | 1373.9 | 1414.6 | 1364.1 | 1271.6 | 1246.9 | 1232.1 | 1227.2 |
| 47.5° | 5194.9 | 2765.2 | 1360.4 | 1274.1 | 1334.5 | 1365.3 | 1259.3 | 1248.2 | 1230.9 | 1209.9 | 1207.5 |
| 50°   | 5621.7 | 2749.2 | 1288.9 | 1245.7 | 1299.9 | 1306.1 | 1216.1 | 1219.8 | 1209.9 | 1186.5 | 1181.5 |
| 52.5° | 5970.7 | 2698.6 | 1243.2 | 1230.9 | 1270.3 | 1202.5 | 1175.4 | 1189.0 | 1185.2 | 1155.6 | 1150.7 |
| 55°   | 6354.3 | 2667.8 | 1221.0 | 1230.9 | 1250.6 | 1112.5 | 1137.2 | 1156.9 | 1151.9 | 1131.0 | 1129.8 |
| 57.5° | 6819.2 | 2673.9 | 1205.0 | 1234.6 | 1230.9 | 1066.8 | 1098.9 | 1122.4 | 1121.1 | 1115.0 | 1115.0 |
| 60°   | 7295.4 | 2676.4 | 1180.3 | 1233.4 | 1207.5 | 1031.1 | 1059.5 | 1092.8 | 1095.3 | 1098.9 | 1098.9 |
| 62.5° | 7453.2 | 2569.1 | 1132.2 | 1211.1 | 1155.6 | 996.5  | 1022.4 | 1068.1 | 1065.7 | 1075.5 | 1076.7 |
| 65°   | 7158.4 | 2271.9 | 1060.7 | 1160.6 | 1089.1 | 971.9  | 994.1  | 1036.0 | 1022.4 | 1048.4 | 1053.3 |
| 67.5° | 6515.9 | 1879.7 | 949.7  | 1069.3 | 1015.1 | 946.0  | 975.6  | 991.6  | 966.9  | 1017.5 | 1018.8 |
| 70°   | 5631.6 | 1467.7 | 809.1  | 939.8  | 931.2  | 918.9  | 960.8  | 936.2  | 901.6  | 963.2  | 951.0  |
| 72.5° | 4709.0 | 1121.1 | 646.3  | 768.4  | 818.9  | 878.1  | 934.9  | 864.6  | 816.5  | 835.0  | 812.8  |
| 75°   | 3537.3 | 828.8  | 519.2  | 601.9  | 682.1  | 820.2  | 911.5  | 778.2  | 704.2  | 687.0  | 682.1  |
| 77.5° | 1803.2 | 541.4  | 388.5  | 450.1  | 511.8  | 741.3  | 879.4  | 677.1  | 583.4  | 556.2  | 544.0  |
| 80°   | 643.8  | 336.7  | 273.8  | 310.8  | 345.3  | 637.7  | 768.4  | 559.9  | 452.7  | 447.7  | 452.7  |
| 82.5° | 298.5  | 217.0  | 183.8  | 203.5  | 204.8  | 425.5  | 585.8  | 418.1  | 344.1  | 523.0  | 441.5  |
| 85°   | 128.3  | 108.5  | 103.6  | 101.2  | 93.7   | 190.0  | 329.3  | 224.5  | 350.2  | 156.6  | 144.3  |
| 87.5° | 38.2   | 43.1   | 38.2   | 28.3   | 21.0   | 21.0   | 33.3   | 12.4   | 8.6    | 6.2    | 6.2    |
| 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)