

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: P529747

Luminaire Tested: **GALN-SA4D-830-U-T2-GRSBK**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P529747  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-830-U-T2-GRSBK  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH BLACK GLARE REDUCTION SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14345 lumens  
Efficiency: N/A  
Efficacy: 58.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G1

Input Watts (W): 245  
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

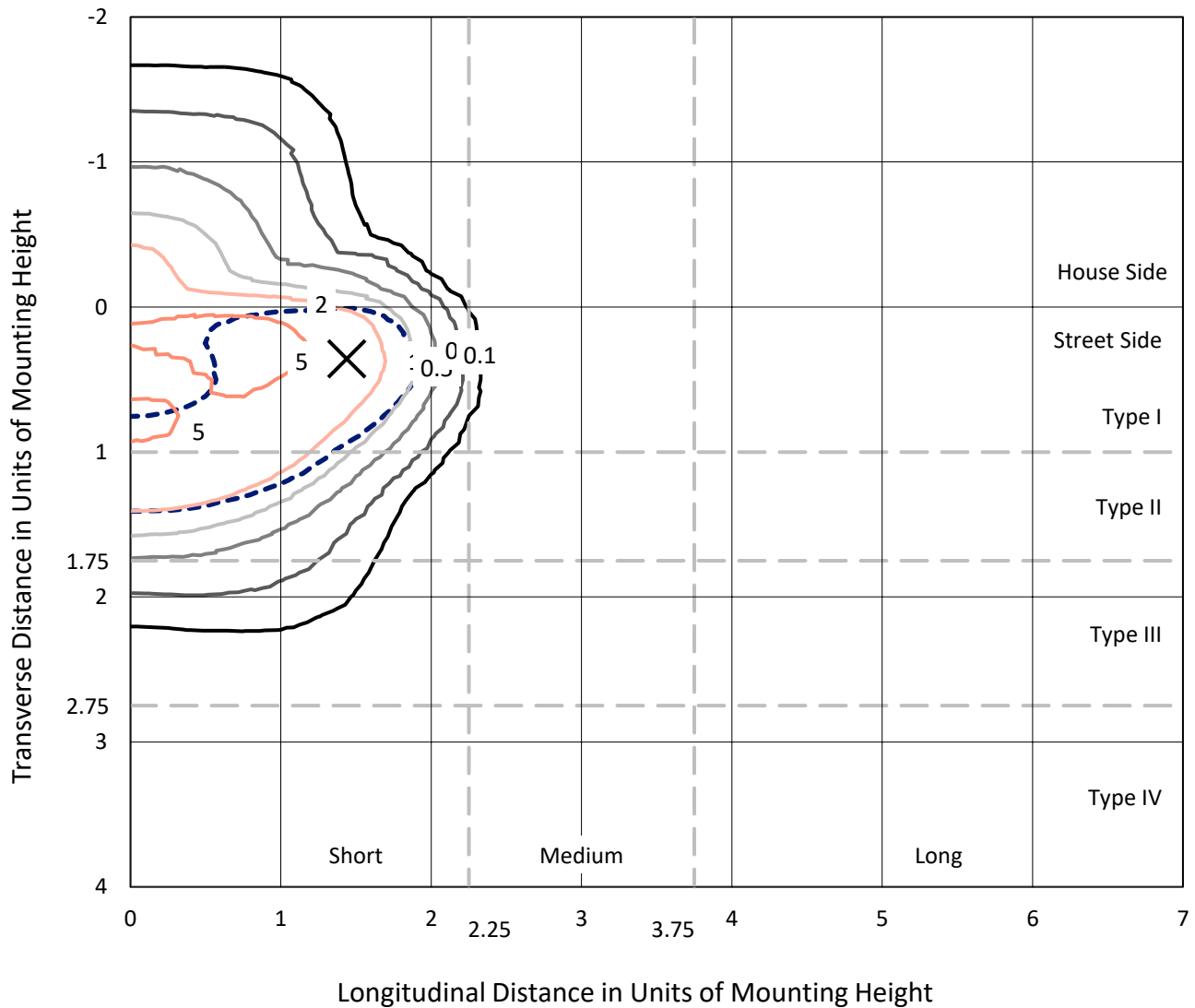


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## Iso-Footcandle Lines of Horizontal Illumination

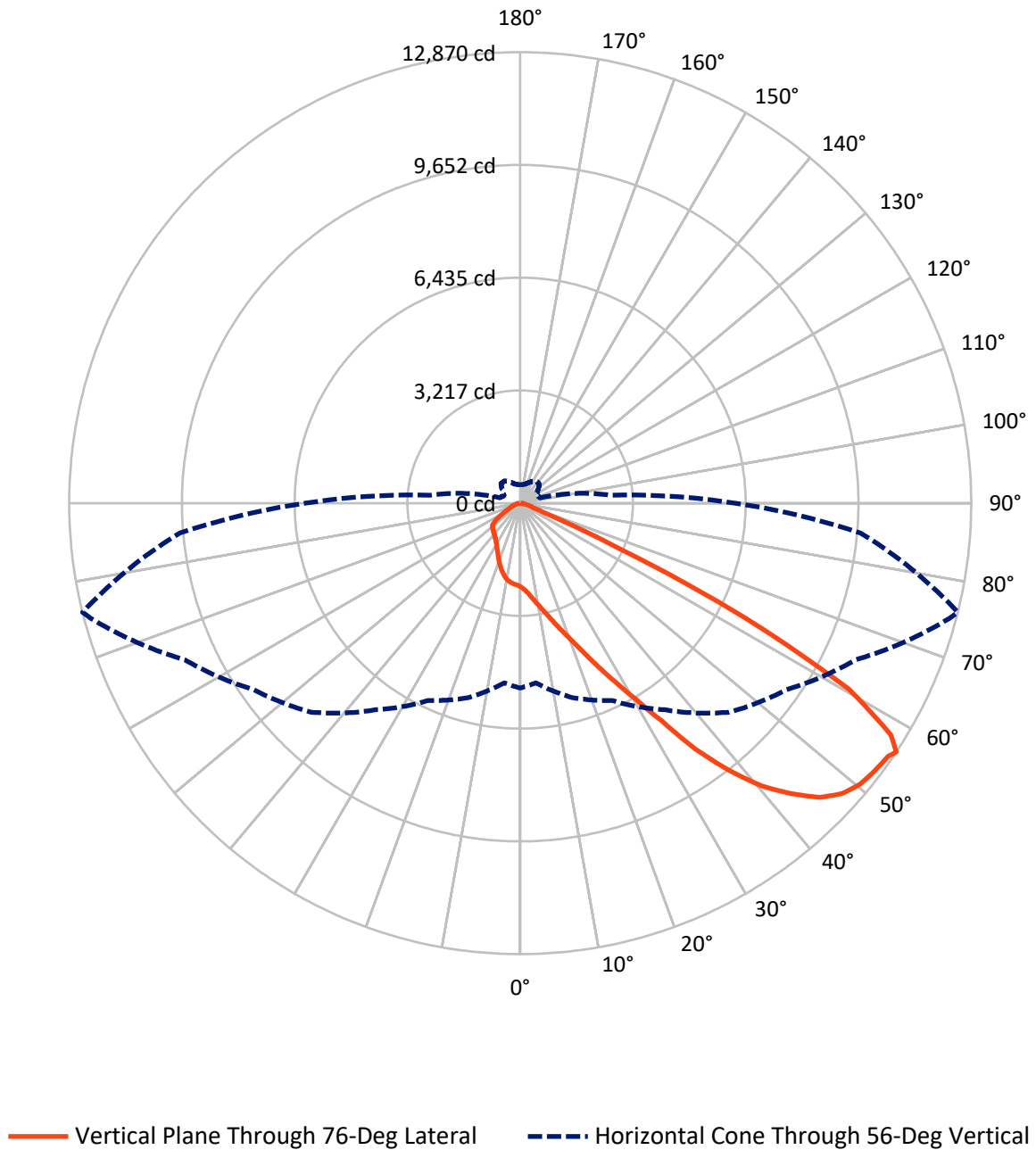
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc  
 Type II - Short - N/A

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## Luminous Intensity Polar Plot



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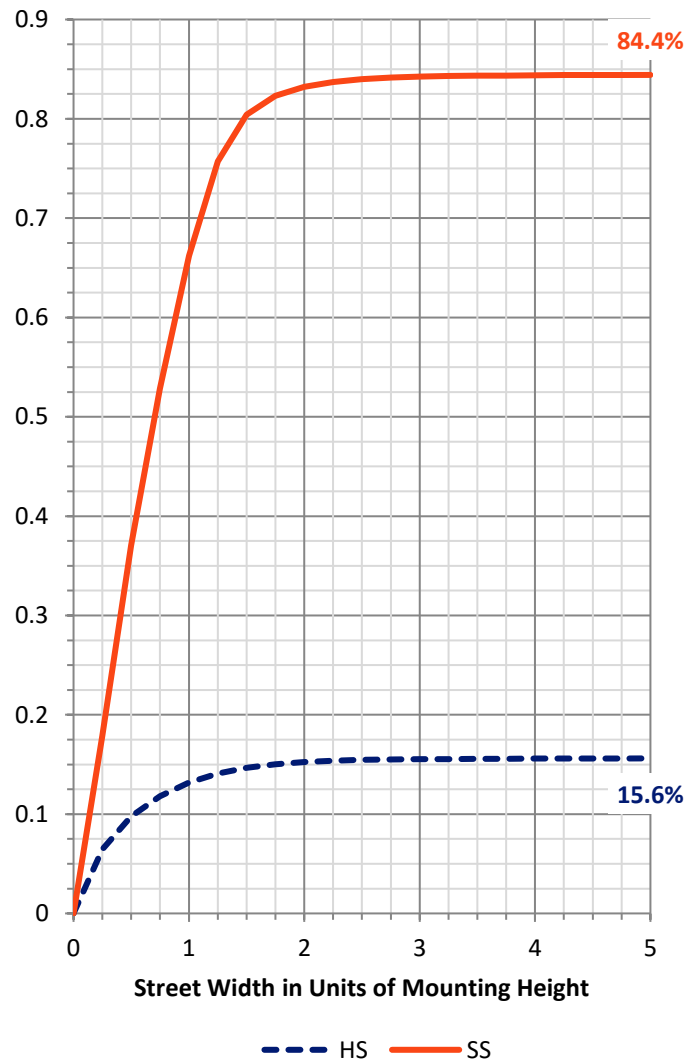
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2253.5   | 0.0    | 2253.5  |
|                    | % Fixture | 15.7     | 0.0    | 15.7    |
| <b>Street Side</b> | Lumens    | 12091.5  | 0.0    | 12091.5 |
|                    | % Fixture | 84.3     | 0.0    | 84.3    |
| <b>Total</b>       | Lumens    | 14345.0  | 0.0    | 14345.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 240.5   | 1.7       |
| 10°-20°   | 772.7   | 5.4       |
| 20°-30°   | 1401.2  | 9.8       |
| 30°-40°   | 2416.4  | 16.8      |
| 40°-50°   | 3925.5  | 27.4      |
| 50°-60°   | 4137.7  | 28.8      |
| 60°-70°   | 1264.2  | 8.8       |
| 70°-80°   | 162.1   | 1.1       |
| 80°-90°   | 24.6    | 0.2       |
| 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°    | 14345.0 | 100.0     |
| 0°-180°   | 14345.0 | 100.0     |

**Coefficient of Utilization**



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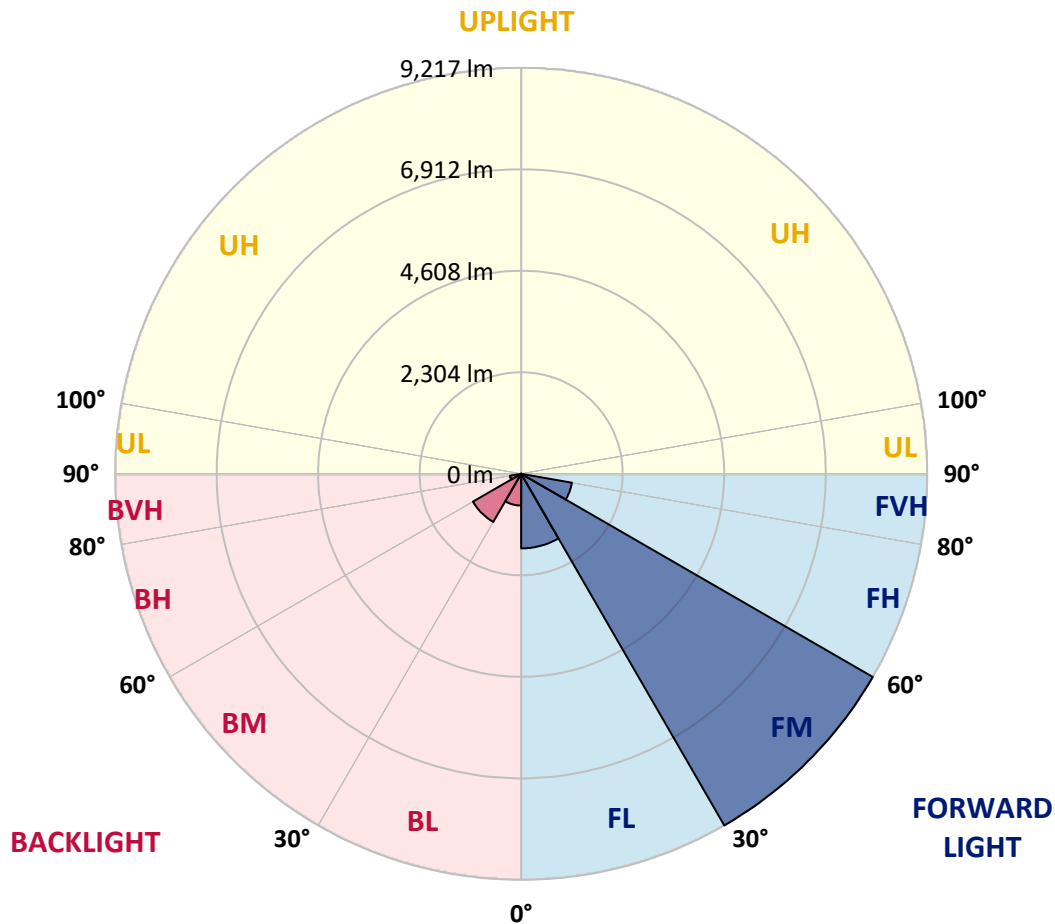
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1693.6 | 11.8      |                         |      |         |
| FM   | (30°-60°)   | 9216.6 | 64.2      |                         |      |         |
| FH   | (60°-80°)   | 1169.2 | 8.2       |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 12.1   | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 720.9  | 5.0       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1263.0 | 8.8       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 257.1  | 1.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 12.6   | 0.1       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G1**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°     | 75°     | 76°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
| 0°    | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7  | 2387.7  | 2387.7  | 2387.7 |
| 2.5°  | 2750.0 | 2686.5 | 2689.2 | 2683.9 | 2676.0 | 2646.9 | 2559.6 | 2546.4  | 2488.2  | 2472.4  | 2419.5 |
| 5°    | 3080.5 | 3025.0 | 3056.7 | 3009.1 | 2964.2 | 2937.7 | 2795.0 | 2728.9  | 2636.3  | 2601.9  | 2527.9 |
| 7.5°  | 3286.8 | 3260.3 | 3249.8 | 3252.4 | 3210.1 | 3144.0 | 3080.5 | 2935.1  | 2810.8  | 2784.4  | 2628.4 |
| 10°   | 3387.3 | 3371.4 | 3387.3 | 3379.3 | 3397.8 | 3405.8 | 3294.7 | 3207.5  | 3025.0  | 2980.1  | 2736.8 |
| 12.5° | 3411.1 | 3442.8 | 3456.0 | 3490.4 | 3535.3 | 3612.0 | 3604.1 | 3485.1  | 3241.8  | 3212.7  | 2903.4 |
| 15°   | 3469.2 | 3495.7 | 3482.5 | 3538.0 | 3622.6 | 3752.2 | 3820.9 | 3802.4  | 3540.6  | 3487.7  | 3096.4 |
| 17.5° | 3522.1 | 3474.5 | 3519.5 | 3630.5 | 3715.2 | 3913.5 | 4080.1 | 4156.7  | 3865.9  | 3805.1  | 3273.6 |
| 20°   | 3593.5 | 3580.3 | 3572.4 | 3627.9 | 3778.6 | 4043.0 | 4373.6 | 4513.7  | 4230.8  | 4167.3  | 3527.4 |
| 22.5° | 3810.3 | 3813.0 | 3807.7 | 3725.7 | 3834.1 | 4132.9 | 4630.1 | 4976.5  | 4667.1  | 4614.2  | 3815.6 |
| 25°   | 4095.9 | 4061.5 | 4035.1 | 3969.0 | 3955.8 | 4214.9 | 4889.2 | 5542.3  | 5190.6  | 5153.6  | 4127.7 |
| 27.5° | 4397.4 | 4397.4 | 4318.0 | 4257.2 | 4172.6 | 4418.5 | 5127.2 | 6092.3  | 5822.6  | 5772.4  | 4400.0 |
| 30°   | 4725.3 | 4743.8 | 4733.2 | 4603.6 | 4550.7 | 4640.6 | 5370.4 | 6795.7  | 6547.1  | 6483.7  | 4849.5 |
| 32.5° | 5209.1 | 5169.5 | 5214.4 | 5106.0 | 4950.0 | 5029.3 | 5753.9 | 7425.0  | 7488.5  | 7398.6  | 5439.2 |
| 35°   | 5849.1 | 5825.3 | 5796.2 | 5619.0 | 5433.9 | 5497.4 | 6295.9 | 8199.8  | 8670.5  | 8625.5  | 6034.2 |
| 37.5° | 6422.9 | 6409.6 | 6385.8 | 6264.2 | 6050.0 | 6126.7 | 6912.0 | 9006.3  | 9823.3  | 9675.3  | 6875.0 |
| 40°   | 7025.7 | 7097.1 | 7020.5 | 6912.0 | 6716.4 | 6885.6 | 7636.6 | 9484.9  | 10793.8 | 10614.0 | 7517.6 |
| 42.5° | 7842.8 | 7787.3 | 7821.7 | 7623.3 | 7517.6 | 7702.7 | 8363.7 | 9963.5  | 11547.4 | 11333.2 | 8199.8 |
| 45°   | 8712.8 | 8715.4 | 8622.9 | 8559.4 | 8284.4 | 8485.4 | 8810.6 | 10227.9 | 12147.6 | 11981.0 | 8715.4 |
| 47.5° | 9270.7 | 9268.1 | 9368.5 | 9469.0 | 9186.1 | 8987.8 | 9114.7 | 10479.1 | 12457.0 | 12380.3 | 8903.1 |
| 50°   | 9183.4 | 9209.9 | 9339.4 | 9714.9 | 9863.0 | 9595.9 | 9400.3 | 10405.1 | 12597.1 | 12589.2 | 9064.4 |
| 52.5° | 7988.2 | 8075.5 | 8292.3 | 8834.4 | 9580.1 | 9910.6 | 9699.1 | 10542.6 | 12665.9 | 12679.1 | 9305.1 |
| 55°   | 6081.7 | 6129.3 | 6541.8 | 7200.3 | 8025.3 | 9157.0 | 9580.1 | 10651.0 | 12718.8 | 12742.6 | 9595.9 |
| 56°   | 5275.3 | 5148.3 | 5743.3 | 6211.3 | 7197.6 | 8435.1 | 9278.6 | 10566.4 | 12687.1 | 12869.5 | 9741.4 |
| 57.5° | 3982.2 | 3897.6 | 4378.9 | 4963.2 | 5912.5 | 7218.8 | 8342.6 | 10167.1 | 12472.9 | 12470.2 | 9532.5 |
| 60°   | 2422.1 | 2337.5 | 2707.7 | 3051.5 | 3582.9 | 4445.0 | 5637.5 | 8096.7  | 10545.2 | 10767.3 | 7718.5 |
| 62.5° | 1441.1 | 1494.0 | 1858.9 | 2067.8 | 2239.7 | 2329.6 | 2916.6 | 4812.5  | 7036.3  | 7195.0  | 4788.7 |
| 65°   | 959.9  | 978.4  | 1253.4 | 1597.1 | 1673.8 | 1332.7 | 1187.3 | 1948.8  | 3051.5  | 2953.6  | 1975.2 |
| 67.5° | 592.3  | 634.6  | 840.9  | 1200.5 | 1330.1 | 973.1  | 563.2  | 727.2   | 840.9   | 840.9   | 571.2  |
| 70°   | 359.6  | 380.8  | 560.6  | 817.1  | 912.3  | 626.7  | 409.9  | 409.9   | 404.6   | 396.6   | 341.1  |
| 72.5° | 171.9  | 185.1  | 285.6  | 420.4  | 428.4  | 330.5  | 317.3  | 346.4   | 338.5   | 335.8   | 282.9  |
| 75°   | 74.0   | 79.3   | 100.5  | 132.2  | 150.7  | 140.1  | 193.0  | 248.6   | 256.5   | 248.6   | 203.6  |
| 77.5° | 23.8   | 26.4   | 37.0   | 47.6   | 50.2   | 60.8   | 82.0   | 103.1   | 119.0   | 111.1   | 100.5  |
| 80°   | 2.6    | 5.3    | 10.6   | 23.8   | 37.0   | 47.6   | 60.8   | 68.8    | 76.7    | 76.7    | 71.4   |
| 82.5° | 2.6    | 2.6    | 10.6   | 21.2   | 34.4   | 45.0   | 58.2   | 66.1    | 76.7    | 79.3    | 74.0   |
| 85°   | 0.0    | 2.6    | 7.9    | 18.5   | 29.1   | 29.1   | 26.4   | 26.4    | 18.5    | 18.5    | 18.5   |
| 87.5° | 0.0    | 0.0    | 2.6    | 2.6    | 2.6    | 5.3    | 5.3    | 5.3     | 5.3     | 5.3     | 5.3    |
| 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°    | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 | 2387.7 |
| 2.5°  | 2408.9 | 2403.6 | 2332.2 | 2287.3 | 2263.5 | 2215.9 | 2186.8 | 2165.6 | 2149.8 | 2131.3 | 2133.9 |
| 5°    | 2440.6 | 2422.1 | 2303.1 | 2221.2 | 2123.3 | 2070.4 | 2025.5 | 1988.5 | 1964.7 | 1959.4 | 1948.8 |
| 7.5°  | 2530.5 | 2432.7 | 2252.9 | 2104.8 | 1980.5 | 1927.6 | 1888.0 | 1864.2 | 1874.8 | 1851.0 | 1869.5 |
| 10°   | 2599.3 | 2453.9 | 2192.1 | 1977.9 | 1853.6 | 1813.9 | 1792.8 | 1811.3 | 1837.7 | 1827.2 | 1813.9 |
| 12.5° | 2683.9 | 2475.0 | 2094.2 | 1856.3 | 1739.9 | 1710.8 | 1747.8 | 1782.2 | 1835.1 | 1856.3 | 1829.8 |
| 15°   | 2779.1 | 2498.8 | 1970.0 | 1716.1 | 1642.1 | 1665.9 | 1729.3 | 1790.1 | 1843.0 | 1869.5 | 1885.3 |
| 17.5° | 2895.4 | 2490.9 | 1848.3 | 1605.1 | 1549.5 | 1618.3 | 1695.0 | 1750.5 | 1829.8 | 1869.5 | 1858.9 |
| 20°   | 3003.9 | 2464.4 | 1713.5 | 1494.0 | 1496.6 | 1560.1 | 1623.6 | 1713.5 | 1755.8 | 1808.7 | 1790.1 |
| 22.5° | 3107.0 | 2416.8 | 1573.3 | 1417.3 | 1417.3 | 1515.1 | 1546.9 | 1605.1 | 1642.1 | 1668.5 | 1665.9 |
| 25°   | 3252.4 | 2326.9 | 1457.0 | 1343.3 | 1375.0 | 1438.5 | 1464.9 | 1483.4 | 1467.6 | 1488.7 | 1491.4 |
| 27.5° | 3355.5 | 2234.4 | 1361.8 | 1277.2 | 1335.3 | 1382.9 | 1375.0 | 1364.4 | 1327.4 | 1298.3 | 1316.8 |
| 30°   | 3466.6 | 2126.0 | 1279.8 | 1232.2 | 1263.9 | 1306.3 | 1274.5 | 1242.8 | 1184.6 | 1137.0 | 1139.7 |
| 32.5° | 3625.3 | 2075.7 | 1208.4 | 1179.3 | 1221.6 | 1226.9 | 1192.6 | 1145.0 | 1086.8 | 1041.8 | 1039.2 |
| 35°   | 3921.4 | 2044.0 | 1147.6 | 1145.0 | 1152.9 | 1155.5 | 1121.2 | 1063.0 | 1039.2 | 1002.2 | 1015.4 |
| 37.5° | 4217.6 | 2028.1 | 1105.3 | 1094.7 | 1092.1 | 1094.7 | 1055.1 | 999.5  | 1044.5 | 1041.8 | 1047.1 |
| 40°   | 4595.7 | 2099.5 | 1044.5 | 1031.3 | 1033.9 | 1033.9 | 983.7  | 967.8  | 1047.1 | 1055.1 | 1057.7 |
| 42.5° | 4979.1 | 2189.4 | 1004.8 | 962.5  | 973.1  | 973.1  | 946.6  | 928.1  | 983.7  | 930.8  | 922.8  |
| 45°   | 5312.3 | 2321.6 | 962.5  | 893.8  | 920.2  | 933.4  | 925.5  | 893.8  | 859.4  | 769.5  | 769.5  |
| 47.5° | 5420.7 | 2438.0 | 912.3  | 827.6  | 848.8  | 907.0  | 883.2  | 817.1  | 756.3  | 682.2  | 676.9  |
| 50°   | 5611.1 | 2564.9 | 872.6  | 751.0  | 795.9  | 867.3  | 843.5  | 777.4  | 708.7  | 655.8  | 658.4  |
| 52.5° | 5806.7 | 2710.3 | 798.6  | 661.1  | 716.6  | 835.6  | 835.6  | 761.5  | 655.8  | 618.8  | 613.5  |
| 55°   | 6100.3 | 2705.1 | 666.3  | 542.1  | 639.9  | 788.0  | 801.2  | 682.2  | 587.0  | 557.9  | 557.9  |
| 56°   | 6142.6 | 2583.4 | 600.2  | 507.7  | 605.5  | 774.8  | 777.4  | 661.1  | 560.6  | 528.8  | 528.8  |
| 57.5° | 5825.3 | 2332.2 | 526.2  | 465.4  | 563.2  | 751.0  | 753.6  | 642.5  | 539.4  | 494.5  | 489.2  |
| 60°   | 4482.0 | 1578.6 | 438.9  | 415.1  | 510.3  | 676.9  | 690.1  | 584.4  | 473.3  | 438.9  | 436.3  |
| 62.5° | 2530.5 | 875.2  | 386.1  | 375.5  | 438.9  | 576.4  | 616.1  | 510.3  | 401.9  | 383.4  | 388.7  |
| 65°   | 1155.5 | 481.3  | 325.2  | 304.1  | 354.3  | 444.2  | 497.1  | 420.4  | 330.5  | 309.4  | 309.4  |
| 67.5° | 423.1  | 327.9  | 277.6  | 240.6  | 248.6  | 288.2  | 322.6  | 272.4  | 219.5  | 187.7  | 195.7  |
| 70°   | 301.4  | 275.0  | 243.3  | 208.9  | 193.0  | 187.7  | 185.1  | 153.4  | 108.4  | 84.6   | 89.9   |
| 72.5° | 243.3  | 227.4  | 203.6  | 177.2  | 150.7  | 126.9  | 108.4  | 79.3   | 50.2   | 34.4   | 31.7   |
| 75°   | 174.5  | 166.6  | 148.1  | 126.9  | 105.8  | 89.9   | 74.0   | 50.2   | 26.4   | 13.2   | 13.2   |
| 77.5° | 89.9   | 89.9   | 87.3   | 79.3   | 66.1   | 52.9   | 42.3   | 29.1   | 15.9   | 5.3    | 5.3    |
| 80°   | 68.8   | 74.0   | 76.7   | 68.8   | 60.8   | 47.6   | 34.4   | 21.2   | 10.6   | 2.6    | 2.6    |
| 82.5° | 66.1   | 76.7   | 82.0   | 71.4   | 60.8   | 45.0   | 34.4   | 21.2   | 10.6   | 2.6    | 2.6    |
| 85°   | 15.9   | 15.9   | 23.8   | 26.4   | 34.4   | 37.0   | 29.1   | 18.5   | 7.9    | 2.6    | 2.6    |
| 87.5° | 5.3    | 5.3    | 5.3    | 5.3    | 5.3    | 5.3    | 2.6    | 2.6    | 2.6    | 2.6    | 0.0    |
| 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)