

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: P452020

Luminaire Tested: **GALN-SA3A-722-U-AFL-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P452020  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA3A-722-U-AFL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2200K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8222 lumens  
Efficiency: N/A  
Efficacy: 88.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

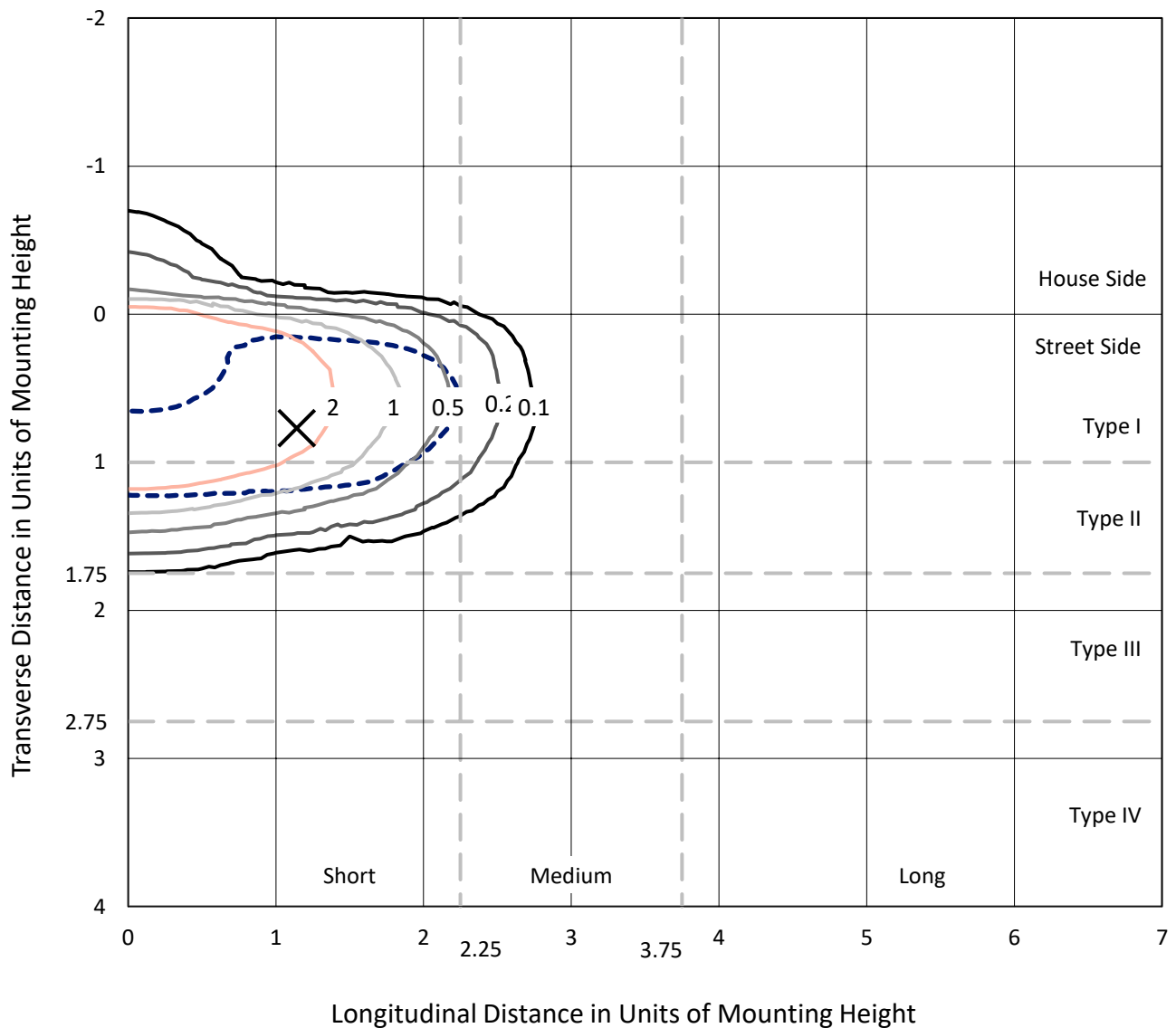
Input Watts (W): 93  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

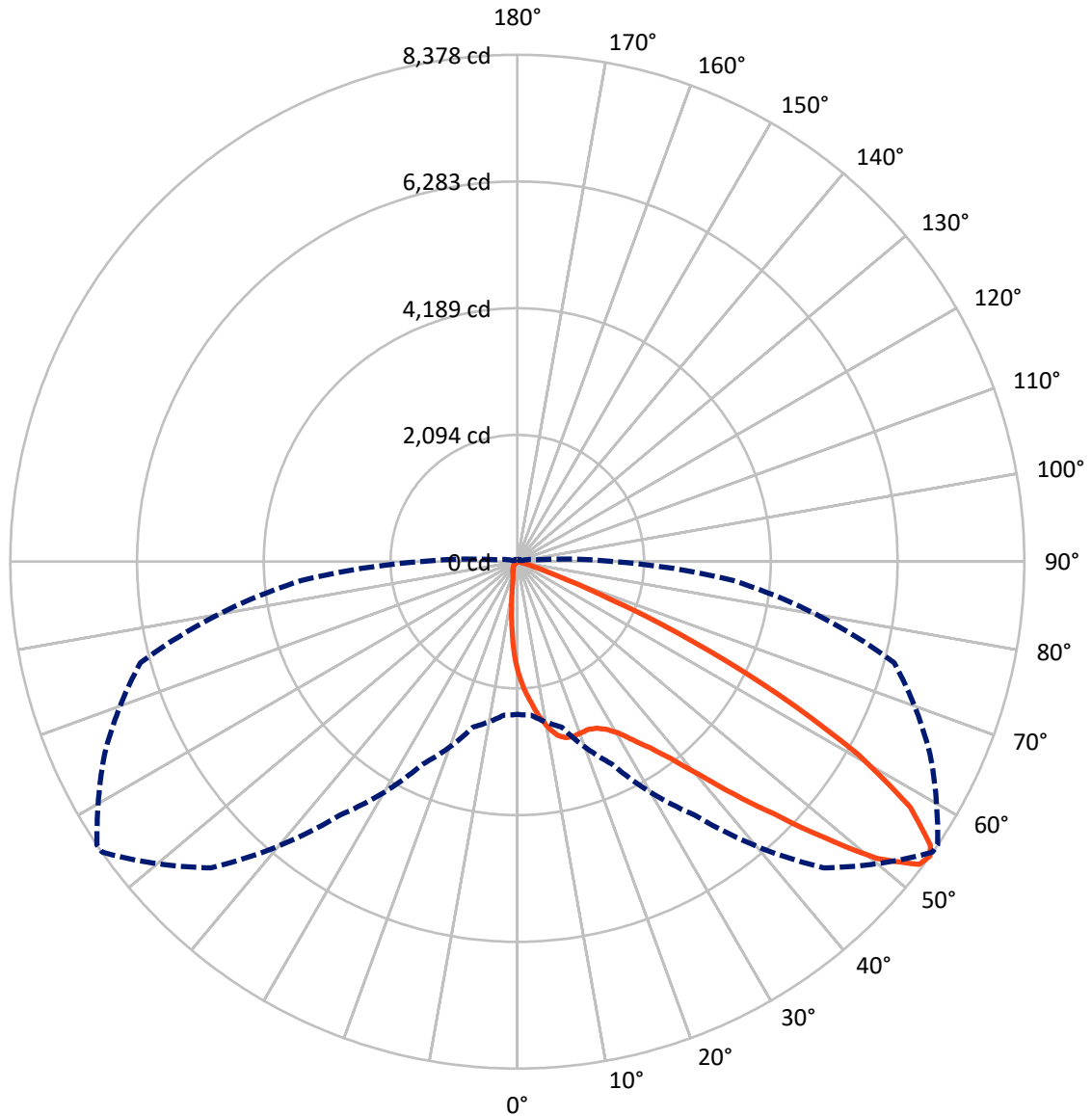
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral    - - - Horizontal Cone Through 54-Deg Vertical



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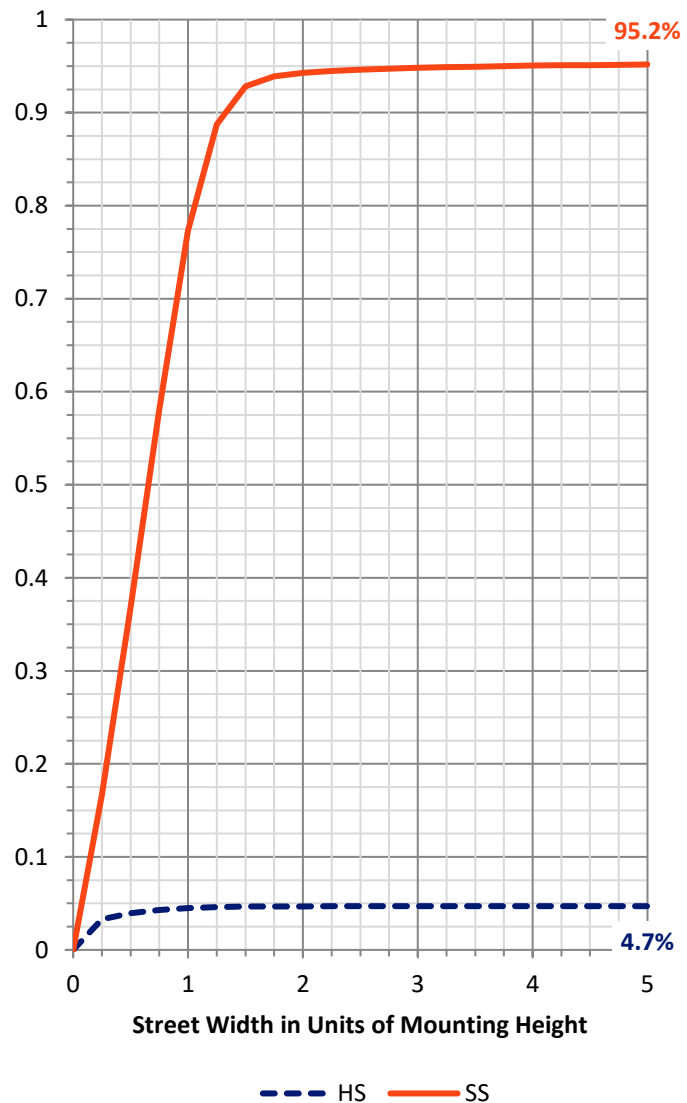
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 388.8    | 0.0    | 388.8  |
|                    | % Fixture | 4.7      | 0.0    | 4.7    |
| <b>Street Side</b> | Lumens    | 7833.2   | 0.0    | 7833.2 |
|                    | % Fixture | 95.3     | 0.0    | 95.3   |
| <b>Total</b>       | Lumens    | 8222.0   | 0.0    | 8222.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 161.4  | 2.0       |
| 10°-20°   | 436.4  | 5.3       |
| 20°-30°   | 755.7  | 9.2       |
| 30°-40°   | 1304.5 | 15.9      |
| 40°-50°   | 2220.4 | 27.0      |
| 50°-60°   | 2197.3 | 26.7      |
| 60°-70°   | 1002.9 | 12.2      |
| 70°-80°   | 128.8  | 1.6       |
| 80°-90°   | 14.5   | 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°    | 8222.0 | 100.0     |
| 0°-180°   | 8222.0 | 100.0     |



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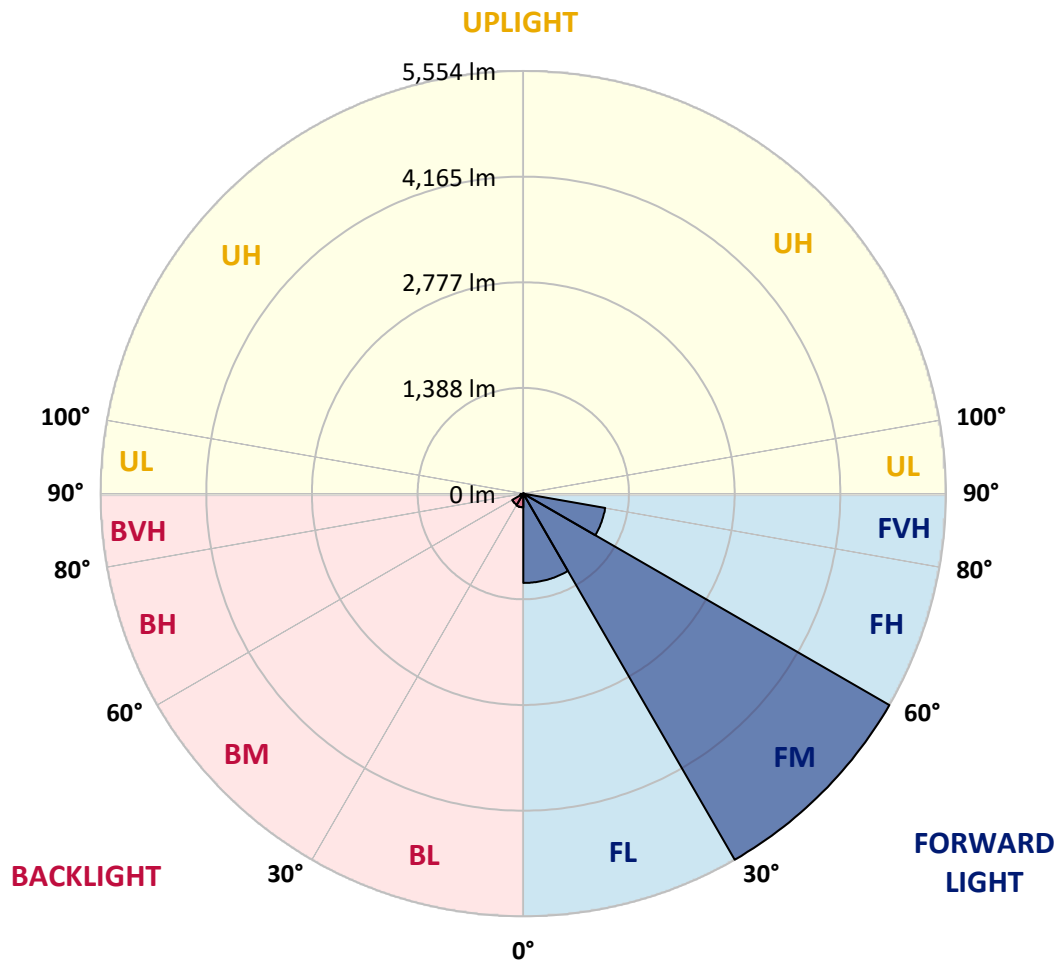
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1173.7 | 14.3      |                         |      |         |
| FM (30°-60°)   | 5553.7 | 67.5      |                         |      |         |
| FH (60°-80°)   | 1092.8 | 13.3      |                         |      | G1/1800 |
| FVH (80°-90°)  | 13.0   | 0.2       |                         |      | G1/100  |
| BL (0°-30°)    | 179.8  | 2.2       | B1/500                  |      |         |
| BM (30°-60°)   | 168.5  | 2.0       | B0/220                  |      |         |
| BH (60°-80°)   | 38.9   | 0.5       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 1.6    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 56°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 |
| 2.5°  | 2321.5 | 2305.4 | 2283.2 | 2266.0 | 2225.5 | 2167.3 | 2105.7 | 2105.7 | 2046.4 | 1963.7 | 1879.4 |
| 5°    | 2677.6 | 2667.1 | 2645.5 | 2601.1 | 2555.6 | 2474.0 | 2350.3 | 2328.7 | 2222.8 | 2073.0 | 1915.4 |
| 7.5°  | 2822.4 | 2827.4 | 2828.5 | 2816.9 | 2795.2 | 2714.8 | 2592.2 | 2577.2 | 2408.0 | 2207.2 | 1962.6 |
| 10°   | 2683.7 | 2708.1 | 2732.0 | 2780.3 | 2848.5 | 2867.9 | 2798.6 | 2783.0 | 2616.6 | 2343.1 | 2013.6 |
| 12.5° | 2477.4 | 2490.7 | 2504.0 | 2580.0 | 2717.0 | 2874.0 | 2946.7 | 2946.1 | 2805.2 | 2478.5 | 2078.5 |
| 15°   | 2381.4 | 2393.1 | 2394.2 | 2428.0 | 2546.7 | 2775.3 | 3009.9 | 3018.2 | 2989.4 | 2645.5 | 2148.4 |
| 17.5° | 2401.4 | 2410.8 | 2403.0 | 2411.4 | 2473.5 | 2666.5 | 3002.7 | 3030.4 | 3138.6 | 2805.8 | 2211.7 |
| 20°   | 2531.7 | 2550.0 | 2520.1 | 2496.8 | 2515.7 | 2637.7 | 2978.3 | 3017.1 | 3244.0 | 2962.2 | 2269.4 |
| 22.5° | 2765.8 | 2775.8 | 2738.1 | 2674.3 | 2641.0 | 2698.2 | 2971.6 | 3009.9 | 3333.9 | 3090.3 | 2302.6 |
| 25°   | 3026.0 | 3022.7 | 2981.1 | 2909.5 | 2839.6 | 2820.2 | 3015.5 | 3049.8 | 3408.2 | 3205.7 | 2312.6 |
| 27.5° | 3286.2 | 3296.1 | 3226.2 | 3137.5 | 3053.7 | 3003.3 | 3113.6 | 3139.2 | 3492.0 | 3337.2 | 2324.8 |
| 30°   | 3588.5 | 3572.4 | 3503.6 | 3402.1 | 3306.1 | 3235.7 | 3271.7 | 3278.9 | 3607.3 | 3511.4 | 2357.0 |
| 32.5° | 3981.8 | 3937.4 | 3860.3 | 3682.8 | 3614.0 | 3494.7 | 3503.6 | 3512.5 | 3747.7 | 3683.9 | 2395.8 |
| 35°   | 4515.4 | 4513.2 | 4362.3 | 4123.2 | 3955.7 | 3807.6 | 3768.8 | 3776.0 | 3960.1 | 3940.2 | 2481.8 |
| 37.5° | 5157.8 | 5166.7 | 4994.7 | 4753.9 | 4445.5 | 4210.3 | 4130.4 | 4131.6 | 4283.0 | 4294.1 | 2612.7 |
| 40°   | 5680.9 | 5704.2 | 5601.6 | 5439.0 | 5134.5 | 4766.7 | 4632.5 | 4620.3 | 4736.8 | 4722.9 | 2799.7 |
| 42.5° | 5906.1 | 5927.7 | 5966.0 | 6022.6 | 5855.1 | 5551.6 | 5234.9 | 5251.5 | 5287.0 | 5190.0 | 3009.4 |
| 45°   | 5795.7 | 5830.1 | 5980.4 | 6329.9 | 6487.4 | 6385.4 | 6007.6 | 5949.4 | 5799.0 | 5697.5 | 3220.1 |
| 47.5° | 5335.8 | 5419.6 | 5670.9 | 6252.8 | 6804.2 | 7149.2 | 6879.6 | 6802.5 | 6311.6 | 6068.1 | 3354.4 |
| 50°   | 4579.8 | 4584.8 | 4934.8 | 5678.7 | 6640.0 | 7631.3 | 7770.0 | 7712.3 | 6789.2 | 6276.1 | 3422.1 |
| 52.5° | 3320.0 | 3429.3 | 3749.9 | 4611.4 | 5928.8 | 7558.1 | 8337.4 | 8313.6 | 7281.8 | 6382.6 | 3519.7 |
| 54°   | 2524.0 | 2545.1 | 2830.2 | 3685.0 | 5111.7 | 7155.9 | 8372.4 | 8377.9 | 7526.4 | 6447.0 | 3577.4 |
| 55°   | 2069.1 | 2018.6 | 2318.2 | 3139.2 | 4554.2 | 6800.3 | 8258.1 | 8284.7 | 7636.3 | 6480.2 | 3620.1 |
| 57.5° | 980.7  | 981.3  | 1210.4 | 1655.8 | 2852.4 | 5280.4 | 7559.7 | 7654.0 | 7648.5 | 6537.4 | 3751.6 |
| 60°   | 496.5  | 499.8  | 550.3  | 764.4  | 1409.0 | 3510.3 | 6250.6 | 6475.2 | 7059.9 | 6545.7 | 3794.8 |
| 62.5° | 347.3  | 343.4  | 335.1  | 367.8  | 593.0  | 1784.0 | 4653.5 | 4848.8 | 5998.2 | 6228.9 | 3657.3 |
| 65°   | 297.3  | 289.0  | 265.7  | 260.7  | 299.5  | 710.6  | 2898.4 | 3216.8 | 4579.8 | 5393.5 | 3265.6 |
| 67.5° | 254.1  | 250.7  | 229.7  | 216.9  | 211.9  | 309.5  | 1495.5 | 1663.0 | 3130.3 | 3876.9 | 2473.5 |
| 70°   | 215.8  | 214.1  | 201.4  | 185.3  | 171.4  | 185.3  | 554.7  | 687.3  | 1744.6 | 2087.4 | 1167.1 |
| 72.5° | 175.3  | 177.0  | 179.2  | 158.6  | 144.2  | 131.5  | 236.9  | 275.7  | 730.0  | 746.1  | 408.3  |
| 75°   | 153.7  | 152.0  | 152.0  | 138.1  | 120.4  | 97.6   | 130.4  | 140.3  | 223.6  | 207.5  | 94.9   |
| 77.5° | 108.2  | 104.3  | 122.0  | 113.7  | 100.4  | 69.3   | 74.3   | 78.8   | 92.6   | 79.3   | 44.4   |
| 80°   | 74.9   | 74.9   | 78.2   | 102.1  | 90.4   | 50.5   | 45.5   | 48.8   | 54.9   | 47.2   | 25.5   |
| 82.5° | 42.2   | 43.3   | 51.0   | 54.4   | 52.7   | 33.8   | 30.0   | 30.5   | 36.6   | 32.2   | 16.1   |
| 85°   | 5.0    | 8.3    | 29.4   | 28.8   | 21.6   | 15.0   | 16.6   | 17.2   | 22.7   | 20.0   | 9.4    |
| 87.5° | 0.6    | 1.1    | 6.1    | 7.8    | 5.5    | 6.1    | 6.1    | 6.1    | 7.8    | 8.9    | 6.7    |
| 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°    | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 | 1826.7 |
| 2.5°  | 1833.9 | 1791.7 | 1691.3 | 1574.8 | 1500.5 | 1379.6 | 1277.5 | 1203.7 | 1185.4 | 1149.9 | 1160.5 |
| 5°    | 1831.7 | 1744.0 | 1539.3 | 1323.0 | 1092.2 | 920.3  | 792.1  | 691.2  | 646.8  | 617.4  | 596.9  |
| 7.5°  | 1832.8 | 1695.8 | 1367.4 | 1022.9 | 747.2  | 578.6  | 459.9  | 398.3  | 357.2  | 340.0  | 342.3  |
| 10°   | 1836.1 | 1641.4 | 1167.7 | 757.7  | 504.2  | 373.9  | 301.2  | 271.8  | 257.9  | 255.7  | 255.2  |
| 12.5° | 1843.9 | 1582.1 | 976.9  | 562.5  | 352.8  | 271.8  | 244.1  | 234.1  | 229.7  | 229.7  | 228.0  |
| 15°   | 1852.2 | 1516.6 | 818.2  | 418.3  | 271.8  | 233.5  | 220.8  | 215.8  | 213.0  | 213.0  | 212.5  |
| 17.5° | 1852.2 | 1441.2 | 670.1  | 324.5  | 234.1  | 214.7  | 204.7  | 198.0  | 195.8  | 195.8  | 195.3  |
| 20°   | 1840.6 | 1353.5 | 538.6  | 261.3  | 212.5  | 196.9  | 186.9  | 179.7  | 177.0  | 175.8  | 175.3  |
| 22.5° | 1800.1 | 1236.5 | 428.8  | 224.7  | 194.7  | 181.4  | 168.6  | 160.3  | 158.1  | 157.0  | 157.5  |
| 25°   | 1728.0 | 1104.4 | 339.5  | 197.5  | 178.6  | 162.5  | 151.4  | 145.3  | 143.1  | 143.1  | 143.7  |
| 27.5° | 1653.6 | 966.3  | 269.0  | 177.0  | 159.2  | 144.8  | 135.9  | 132.0  | 131.5  | 133.1  | 133.7  |
| 30°   | 1584.8 | 827.6  | 218.0  | 160.3  | 142.0  | 129.8  | 123.7  | 122.6  | 122.6  | 123.1  | 123.7  |
| 32.5° | 1508.3 | 706.2  | 182.5  | 145.9  | 128.1  | 117.6  | 114.3  | 114.3  | 115.4  | 115.4  | 116.5  |
| 35°   | 1460.0 | 601.9  | 160.3  | 132.0  | 117.6  | 108.7  | 106.5  | 107.1  | 108.7  | 110.9  | 112.1  |
| 37.5° | 1434.0 | 518.7  | 145.9  | 120.9  | 107.6  | 101.5  | 99.3   | 100.4  | 104.3  | 108.2  | 108.7  |
| 40°   | 1436.2 | 456.0  | 134.2  | 111.5  | 99.8   | 93.2   | 91.5   | 94.9   | 98.7   | 102.6  | 103.2  |
| 42.5° | 1460.6 | 409.4  | 123.1  | 100.4  | 93.2   | 83.8   | 83.2   | 86.5   | 88.2   | 92.1   | 92.6   |
| 45°   | 1489.4 | 375.5  | 111.5  | 88.8   | 81.0   | 72.7   | 73.2   | 76.0   | 78.2   | 84.3   | 85.4   |
| 47.5° | 1498.3 | 352.2  | 98.2   | 75.4   | 66.6   | 63.8   | 64.3   | 66.0   | 70.4   | 76.0   | 76.6   |
| 50°   | 1508.3 | 337.8  | 85.4   | 63.8   | 56.6   | 56.0   | 56.6   | 57.7   | 60.5   | 62.7   | 62.1   |
| 52.5° | 1551.0 | 337.3  | 74.9   | 55.5   | 48.3   | 49.4   | 49.9   | 49.4   | 47.2   | 43.8   | 42.7   |
| 54°   | 1590.9 | 338.9  | 69.9   | 51.6   | 44.4   | 46.0   | 45.5   | 42.7   | 37.2   | 33.8   | 32.2   |
| 55°   | 1623.1 | 340.6  | 67.1   | 48.8   | 42.2   | 42.7   | 43.3   | 37.7   | 30.5   | 27.2   | 26.1   |
| 57.5° | 1686.3 | 336.7  | 60.5   | 42.7   | 37.2   | 34.9   | 34.4   | 25.0   | 16.6   | 14.4   | 13.3   |
| 60°   | 1654.7 | 304.0  | 54.9   | 36.6   | 31.6   | 28.3   | 23.3   | 13.9   | 8.3    | 6.1    | 6.1    |
| 62.5° | 1530.5 | 257.9  | 48.8   | 30.0   | 26.1   | 21.6   | 12.2   | 7.8    | 3.9    | 2.2    | 1.7    |
| 65°   | 1369.0 | 216.9  | 43.8   | 23.9   | 20.5   | 13.9   | 6.7    | 5.0    | 1.7    | 0.0    | 0.0    |
| 67.5° | 1017.9 | 160.9  | 37.2   | 18.9   | 15.5   | 8.9    | 4.4    | 2.8    | 0.6    | 0.0    | 0.0    |
| 70°   | 471.5  | 98.2   | 31.6   | 14.4   | 11.1   | 6.7    | 3.3    | 1.7    | 0.0    | 0.0    | 0.0    |
| 72.5° | 135.4  | 61.6   | 26.1   | 10.5   | 7.8    | 5.5    | 2.8    | 1.1    | 0.6    | 0.0    | 0.0    |
| 75°   | 47.2   | 49.4   | 19.4   | 7.8    | 6.1    | 3.9    | 2.2    | 1.1    | 0.6    | 0.0    | 0.0    |
| 77.5° | 28.3   | 39.9   | 12.2   | 6.7    | 5.0    | 3.3    | 2.2    | 1.1    | 0.6    | 0.6    | 0.0    |
| 80°   | 16.1   | 26.6   | 7.8    | 5.5    | 4.4    | 2.8    | 1.7    | 1.1    | 0.6    | 0.6    | 0.0    |
| 82.5° | 8.9    | 12.8   | 6.1    | 5.0    | 3.9    | 2.8    | 1.7    | 1.1    | 0.6    | 0.6    | 0.6    |
| 85°   | 7.2    | 6.7    | 5.0    | 4.4    | 3.3    | 2.2    | 1.7    | 0.6    | 0.0    | 0.0    | 0.0    |
| 87.5° | 5.5    | 4.4    | 4.4    | 4.4    | 3.3    | 2.2    | 1.7    | 0.6    | 0.0    | 0.0    | 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)