

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: P458661

Luminaire Tested: **GALN-SA2B-735-U-AFL-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458661  
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-SA2B-735-U-AFL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 3500K, 800mA 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: 8733 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

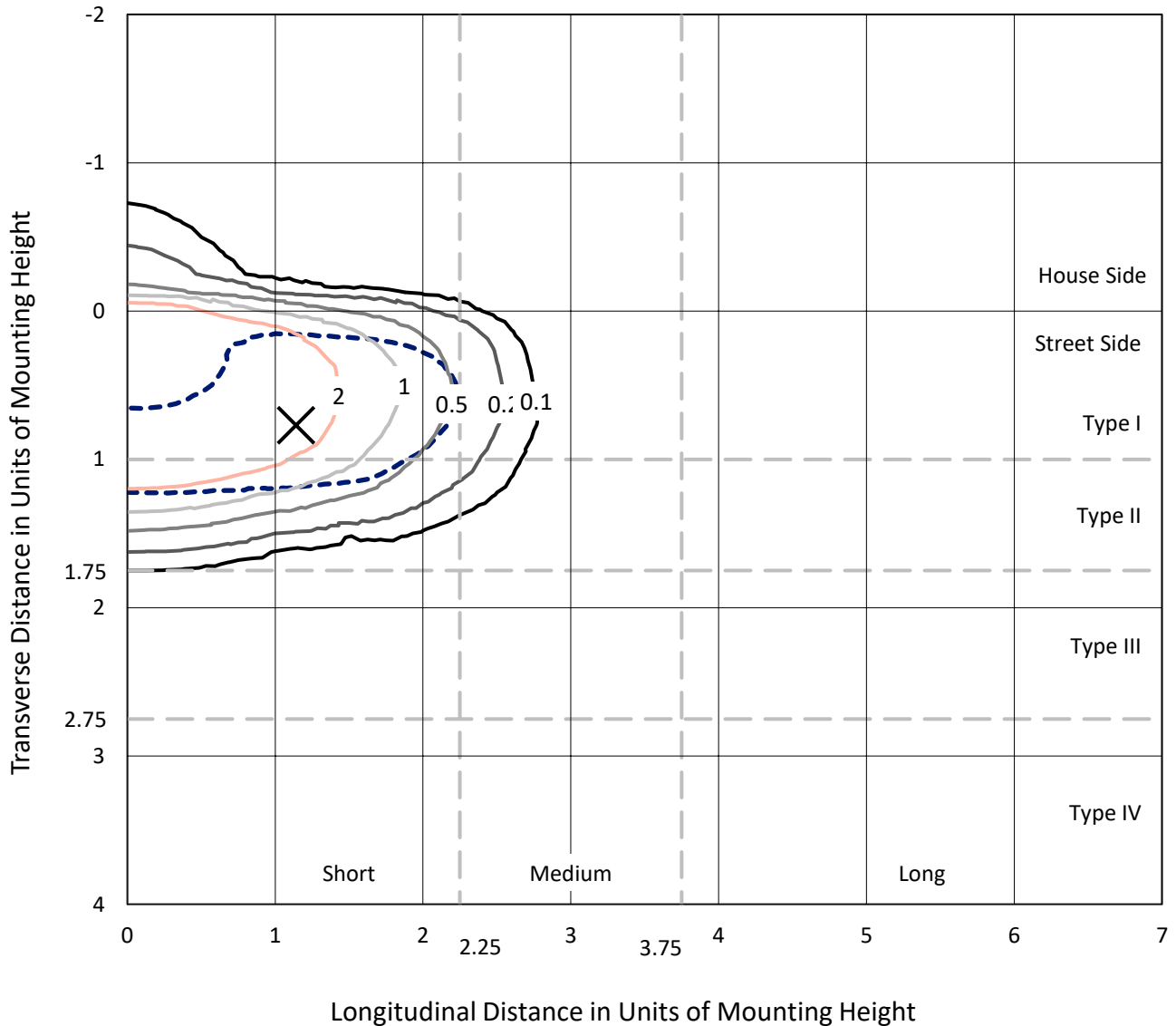
Input Watts (W): 82  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

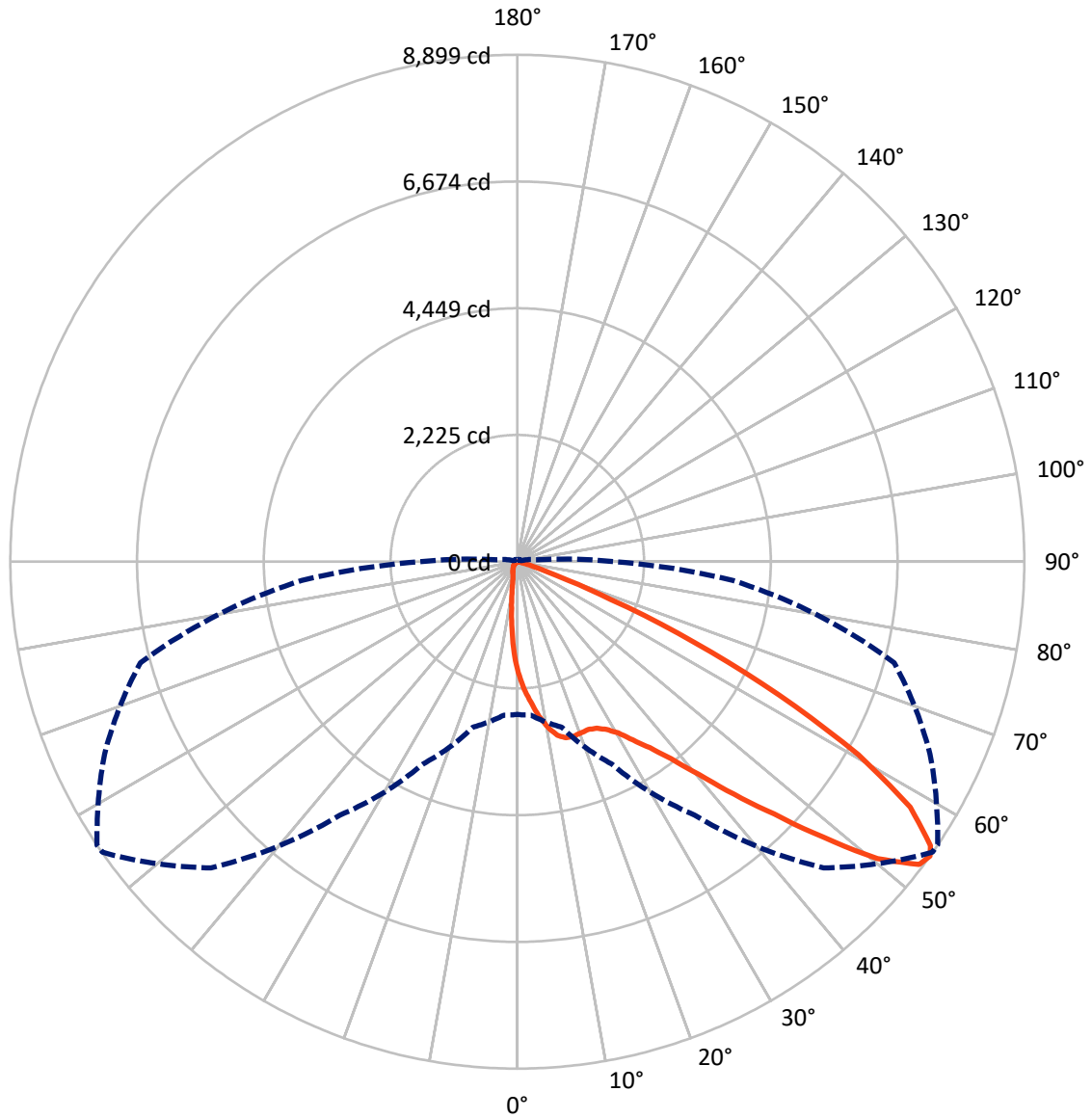
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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    | 413.0    | 0.0    | 413.0  |
|                    | % Fixture | 4.7      | 0.0    | 4.7    |
| <b>Street Side</b> | Lumens    | 8320.0   | 0.0    | 8320.0 |
|                    | % Fixture | 95.3     | 0.0    | 95.3   |
| <b>Total</b>       | Lumens    | 8733.0   | 0.0    | 8733.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 171.4  | 2.0       |
| 10°-20°   | 463.5  | 5.3       |
| 20°-30°   | 802.7  | 9.2       |
| 30°-40°   | 1385.6 | 15.9      |
| 40°-50°   | 2358.4 | 27.0      |
| 50°-60°   | 2333.9 | 26.7      |
| 60°-70°   | 1065.2 | 12.2      |
| 70°-80°   | 136.8  | 1.6       |
| 80°-90°   | 15.4   | 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°    | 8733.0 | 100.0     |
| 0°-180°   | 8733.0 | 100.0     |

**Coefficient of Utilization**



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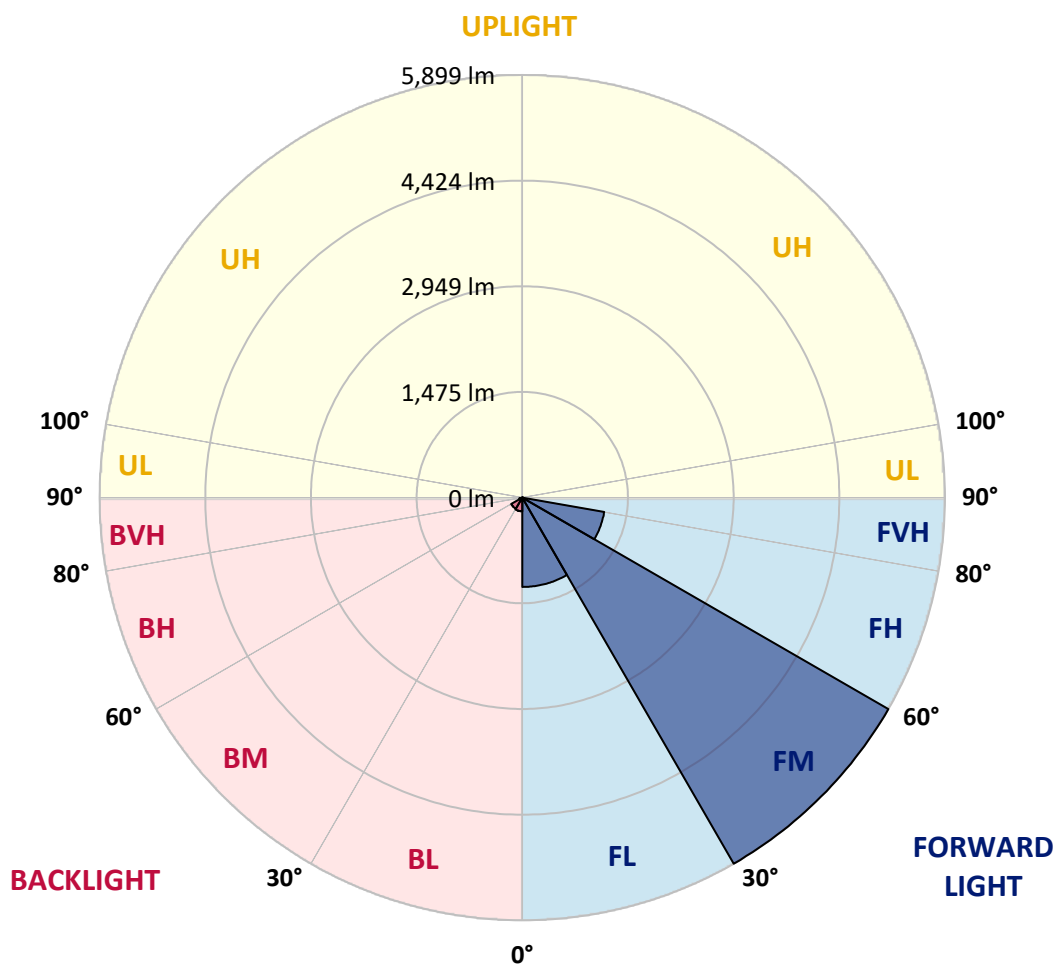
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1246.7 | 14.3      |                         |      |         |
| FM (30°-60°)   | 5898.9 | 67.5      |                         |      |         |
| FH (60°-80°)   | 1160.7 | 13.3      |                         |      | G1/1800 |
| FVH (80°-90°)  | 13.8   | 0.2       |                         |      | G1/100  |
| BL (0°-30°)    | 191.0  | 2.2       | B1/500                  |      |         |
| BM (30°-60°)   | 179.0  | 2.0       | B0/220                  |      |         |
| BH (60°-80°)   | 41.4   | 0.5       | B0/110                  |      | G0/110  |
| BVH (80°-90°)  | 1.7    | 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°    | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 |
| 2.5°  | 2465.8 | 2448.7 | 2425.1 | 2406.9 | 2363.9 | 2302.0 | 2236.6 | 2236.6 | 2173.5 | 2085.8 | 1996.2 |
| 5°    | 2844.0 | 2832.9 | 2809.9 | 2762.7 | 2714.4 | 2627.8 | 2496.4 | 2473.4 | 2360.9 | 2201.8 | 2034.5 |
| 7.5°  | 2997.8 | 3003.1 | 3004.3 | 2991.9 | 2969.0 | 2883.5 | 2753.3 | 2737.4 | 2557.7 | 2344.4 | 2084.6 |
| 10°   | 2850.5 | 2876.5 | 2901.8 | 2953.0 | 3025.5 | 3046.1 | 2972.5 | 2956.0 | 2779.2 | 2488.8 | 2138.8 |
| 12.5° | 2631.3 | 2645.5 | 2659.6 | 2740.3 | 2885.9 | 3052.6 | 3129.8 | 3129.2 | 2979.6 | 2632.5 | 2207.7 |
| 15°   | 2529.4 | 2541.8 | 2543.0 | 2578.9 | 2705.0 | 2947.7 | 3197.0 | 3205.8 | 3175.2 | 2809.9 | 2282.0 |
| 17.5° | 2550.6 | 2560.6 | 2552.4 | 2561.2 | 2627.2 | 2832.3 | 3189.3 | 3218.8 | 3333.7 | 2980.2 | 2349.1 |
| 20°   | 2689.1 | 2708.5 | 2676.7 | 2652.0 | 2672.0 | 2801.6 | 3163.4 | 3204.6 | 3445.6 | 3146.3 | 2410.4 |
| 22.5° | 2937.7 | 2948.3 | 2908.3 | 2840.5 | 2805.2 | 2865.8 | 3156.3 | 3197.0 | 3541.1 | 3282.4 | 2445.8 |
| 25°   | 3214.1 | 3210.5 | 3166.3 | 3090.3 | 3016.1 | 2995.5 | 3202.9 | 3239.4 | 3620.0 | 3405.0 | 2456.4 |
| 27.5° | 3490.4 | 3501.0 | 3426.8 | 3332.5 | 3243.5 | 3189.9 | 3307.2 | 3334.3 | 3709.0 | 3544.6 | 2469.3 |
| 30°   | 3811.5 | 3794.4 | 3721.4 | 3613.5 | 3511.6 | 3436.8 | 3475.1 | 3482.7 | 3831.5 | 3729.6 | 2503.5 |
| 32.5° | 4229.2 | 4182.1 | 4100.2 | 3911.7 | 3838.6 | 3711.9 | 3721.4 | 3730.8 | 3980.6 | 3912.8 | 2544.7 |
| 35°   | 4796.1 | 4793.7 | 4633.4 | 4379.5 | 4201.6 | 4044.2 | 4003.0 | 4010.7 | 4206.3 | 4185.1 | 2636.1 |
| 37.5° | 5478.3 | 5487.8 | 5305.1 | 5049.4 | 4721.8 | 4472.0 | 4387.2 | 4388.3 | 4549.2 | 4561.0 | 2775.1 |
| 40°   | 6034.0 | 6058.7 | 5949.7 | 5777.1 | 5453.6 | 5063.0 | 4920.4 | 4907.4 | 5031.1 | 5016.4 | 2973.7 |
| 42.5° | 6273.2 | 6296.1 | 6336.8 | 6396.9 | 6219.0 | 5896.7 | 5560.2 | 5577.9 | 5615.6 | 5512.5 | 3196.4 |
| 45°   | 6155.9 | 6192.4 | 6352.1 | 6723.3 | 6890.6 | 6782.2 | 6381.0 | 6319.1 | 6159.5 | 6051.6 | 3420.3 |
| 47.5° | 5667.5 | 5756.4 | 6023.3 | 6641.4 | 7227.1 | 7593.6 | 7307.2 | 7225.3 | 6703.9 | 6445.2 | 3562.9 |
| 50°   | 4864.4 | 4869.7 | 5241.5 | 6031.6 | 7052.7 | 8105.6 | 8252.9 | 8191.6 | 7211.2 | 6666.2 | 3634.7 |
| 52.5° | 3526.3 | 3642.4 | 3983.0 | 4898.0 | 6297.3 | 8027.8 | 8855.6 | 8830.3 | 7734.4 | 6779.3 | 3738.4 |
| 54°   | 2680.8 | 2703.2 | 3006.1 | 3914.0 | 5429.4 | 7600.6 | 8892.7 | 8898.6 | 7994.2 | 6847.6 | 3799.7 |
| 55°   | 2197.7 | 2144.1 | 2462.2 | 3334.3 | 4837.3 | 7223.0 | 8771.4 | 8799.6 | 8110.9 | 6883.0 | 3845.1 |
| 57.5° | 1041.7 | 1042.3 | 1285.6 | 1758.7 | 3029.6 | 5608.6 | 8029.6 | 8129.7 | 8123.8 | 6943.7 | 3984.7 |
| 60°   | 527.3  | 530.9  | 584.5  | 811.9  | 1496.6 | 3728.4 | 6639.1 | 6877.7 | 7498.7 | 6952.5 | 4030.7 |
| 62.5° | 368.8  | 364.7  | 355.9  | 390.6  | 629.9  | 1894.9 | 4942.8 | 5150.2 | 6371.0 | 6616.1 | 3884.6 |
| 65°   | 315.8  | 307.0  | 282.2  | 276.9  | 318.2  | 754.8  | 3078.5 | 3416.7 | 4864.4 | 5728.8 | 3468.6 |
| 67.5° | 269.9  | 266.3  | 243.9  | 230.4  | 225.1  | 328.8  | 1588.5 | 1766.4 | 3324.8 | 4117.9 | 2627.2 |
| 70°   | 229.2  | 227.4  | 213.9  | 196.8  | 182.1  | 196.8  | 589.2  | 730.0  | 1853.0 | 2217.1 | 1239.7 |
| 72.5° | 186.2  | 188.0  | 190.3  | 168.5  | 153.2  | 139.6  | 251.6  | 292.8  | 775.4  | 792.5  | 433.6  |
| 75°   | 163.2  | 161.4  | 161.4  | 146.7  | 127.9  | 103.7  | 138.5  | 149.1  | 237.4  | 220.4  | 100.8  |
| 77.5° | 114.9  | 110.8  | 129.6  | 120.8  | 106.6  | 73.6   | 79.0   | 83.7   | 98.4   | 84.3   | 47.1   |
| 80°   | 79.5   | 79.5   | 83.1   | 108.4  | 96.0   | 53.6   | 48.3   | 51.8   | 58.3   | 50.1   | 27.1   |
| 82.5° | 44.8   | 46.0   | 54.2   | 57.7   | 56.0   | 35.9   | 31.8   | 32.4   | 38.9   | 34.2   | 17.1   |
| 85°   | 5.3    | 8.8    | 31.2   | 30.6   | 23.0   | 15.9   | 17.7   | 18.3   | 24.2   | 21.2   | 10.0   |
| 87.5° | 0.6    | 1.2    | 6.5    | 8.2    | 5.9    | 6.5    | 6.5    | 6.5    | 8.2    | 9.4    | 7.1    |
| 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°    | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 | 1940.2 |
| 2.5°  | 1947.9 | 1903.1 | 1796.5 | 1672.7 | 1593.8 | 1465.3 | 1356.9 | 1278.6 | 1259.1 | 1221.4 | 1232.6 |
| 5°    | 1945.5 | 1852.4 | 1635.0 | 1405.2 | 1160.1 | 977.5  | 841.4  | 734.1  | 687.0  | 655.8  | 634.0  |
| 7.5°  | 1946.7 | 1801.2 | 1452.4 | 1086.5 | 793.6  | 614.5  | 488.4  | 423.0  | 379.4  | 361.2  | 363.5  |
| 10°   | 1950.2 | 1743.4 | 1240.3 | 804.8  | 535.6  | 397.1  | 319.9  | 288.7  | 274.0  | 271.6  | 271.0  |
| 12.5° | 1958.5 | 1680.4 | 1037.6 | 597.4  | 374.7  | 288.7  | 259.2  | 248.6  | 243.9  | 243.9  | 242.2  |
| 15°   | 1967.3 | 1610.9 | 869.1  | 444.3  | 288.7  | 248.1  | 234.5  | 229.2  | 226.3  | 226.3  | 225.7  |
| 17.5° | 1967.3 | 1530.7 | 711.7  | 344.7  | 248.6  | 228.0  | 217.4  | 210.3  | 208.0  | 208.0  | 207.4  |
| 20°   | 1955.0 | 1437.6 | 572.1  | 277.5  | 225.7  | 209.2  | 198.6  | 190.9  | 188.0  | 186.8  | 186.2  |
| 22.5° | 1911.9 | 1313.3 | 455.4  | 238.6  | 206.8  | 192.7  | 179.1  | 170.3  | 167.9  | 166.7  | 167.3  |
| 25°   | 1835.3 | 1173.1 | 360.6  | 209.8  | 189.7  | 172.6  | 160.9  | 154.4  | 152.0  | 152.0  | 152.6  |
| 27.5° | 1756.4 | 1026.4 | 285.8  | 188.0  | 169.1  | 153.8  | 144.4  | 140.2  | 139.6  | 141.4  | 142.0  |
| 30°   | 1683.3 | 879.1  | 231.6  | 170.3  | 150.8  | 137.9  | 131.4  | 130.2  | 130.2  | 130.8  | 131.4  |
| 32.5° | 1602.0 | 750.0  | 193.8  | 155.0  | 136.1  | 124.9  | 121.4  | 121.4  | 122.6  | 122.6  | 123.7  |
| 35°   | 1550.8 | 639.3  | 170.3  | 140.2  | 124.9  | 115.5  | 113.1  | 113.7  | 115.5  | 117.8  | 119.0  |
| 37.5° | 1523.1 | 550.9  | 155.0  | 128.4  | 114.3  | 107.8  | 105.5  | 106.6  | 110.8  | 114.9  | 115.5  |
| 40°   | 1525.4 | 484.3  | 142.6  | 118.4  | 106.1  | 99.0   | 97.2   | 100.8  | 104.9  | 109.0  | 109.6  |
| 42.5° | 1551.4 | 434.8  | 130.8  | 106.6  | 99.0   | 89.0   | 88.4   | 91.9   | 93.7   | 97.8   | 98.4   |
| 45°   | 1582.0 | 398.9  | 118.4  | 94.3   | 86.0   | 77.2   | 77.8   | 80.7   | 83.1   | 89.6   | 90.7   |
| 47.5° | 1591.4 | 374.1  | 104.3  | 80.1   | 70.7   | 67.8   | 68.3   | 70.1   | 74.8   | 80.7   | 81.3   |
| 50°   | 1602.0 | 358.8  | 90.7   | 67.8   | 60.1   | 59.5   | 60.1   | 61.3   | 64.2   | 66.6   | 66.0   |
| 52.5° | 1647.4 | 358.2  | 79.5   | 58.9   | 51.3   | 52.4   | 53.0   | 52.4   | 50.1   | 46.5   | 45.4   |
| 54°   | 1689.8 | 360.0  | 74.2   | 54.8   | 47.1   | 48.9   | 48.3   | 45.4   | 39.5   | 35.9   | 34.2   |
| 55°   | 1724.0 | 361.8  | 71.3   | 51.8   | 44.8   | 45.4   | 46.0   | 40.1   | 32.4   | 28.9   | 27.7   |
| 57.5° | 1791.2 | 357.6  | 64.2   | 45.4   | 39.5   | 37.1   | 36.5   | 26.5   | 17.7   | 15.3   | 14.1   |
| 60°   | 1757.6 | 322.9  | 58.3   | 38.9   | 33.6   | 30.0   | 24.7   | 14.7   | 8.8    | 6.5    | 6.5    |
| 62.5° | 1625.6 | 274.0  | 51.8   | 31.8   | 27.7   | 23.0   | 13.0   | 8.2    | 4.1    | 2.4    | 1.8    |
| 65°   | 1454.1 | 230.4  | 46.5   | 25.3   | 21.8   | 14.7   | 7.1    | 5.3    | 1.8    | 0.0    | 0.0    |
| 67.5° | 1081.2 | 170.9  | 39.5   | 20.0   | 16.5   | 9.4    | 4.7    | 2.9    | 0.6    | 0.0    | 0.0    |
| 70°   | 500.8  | 104.3  | 33.6   | 15.3   | 11.8   | 7.1    | 3.5    | 1.8    | 0.0    | 0.0    | 0.0    |
| 72.5° | 143.8  | 65.4   | 27.7   | 11.2   | 8.2    | 5.9    | 2.9    | 1.2    | 0.6    | 0.0    | 0.0    |
| 75°   | 50.1   | 52.4   | 20.6   | 8.2    | 6.5    | 4.1    | 2.4    | 1.2    | 0.6    | 0.0    | 0.0    |
| 77.5° | 30.0   | 42.4   | 13.0   | 7.1    | 5.3    | 3.5    | 2.4    | 1.2    | 0.6    | 0.6    | 0.0    |
| 80°   | 17.1   | 28.3   | 8.2    | 5.9    | 4.7    | 2.9    | 1.8    | 1.2    | 0.6    | 0.6    | 0.0    |
| 82.5° | 9.4    | 13.6   | 6.5    | 5.3    | 4.1    | 2.9    | 1.8    | 1.2    | 0.6    | 0.6    | 0.6    |
| 85°   | 7.7    | 7.1    | 5.3    | 4.7    | 3.5    | 2.4    | 1.8    | 0.6    | 0.0    | 0.0    | 0.0    |
| 87.5° | 5.9    | 4.7    | 4.7    | 4.7    | 3.5    | 2.4    | 1.8    | 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)