

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: P459546

Luminaire Tested: **GALN-SA9D-735-U-T2**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P459546  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA9D-735-U-T2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 65702 lumens  
Efficiency: N/A  
Efficacy: 119.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G5

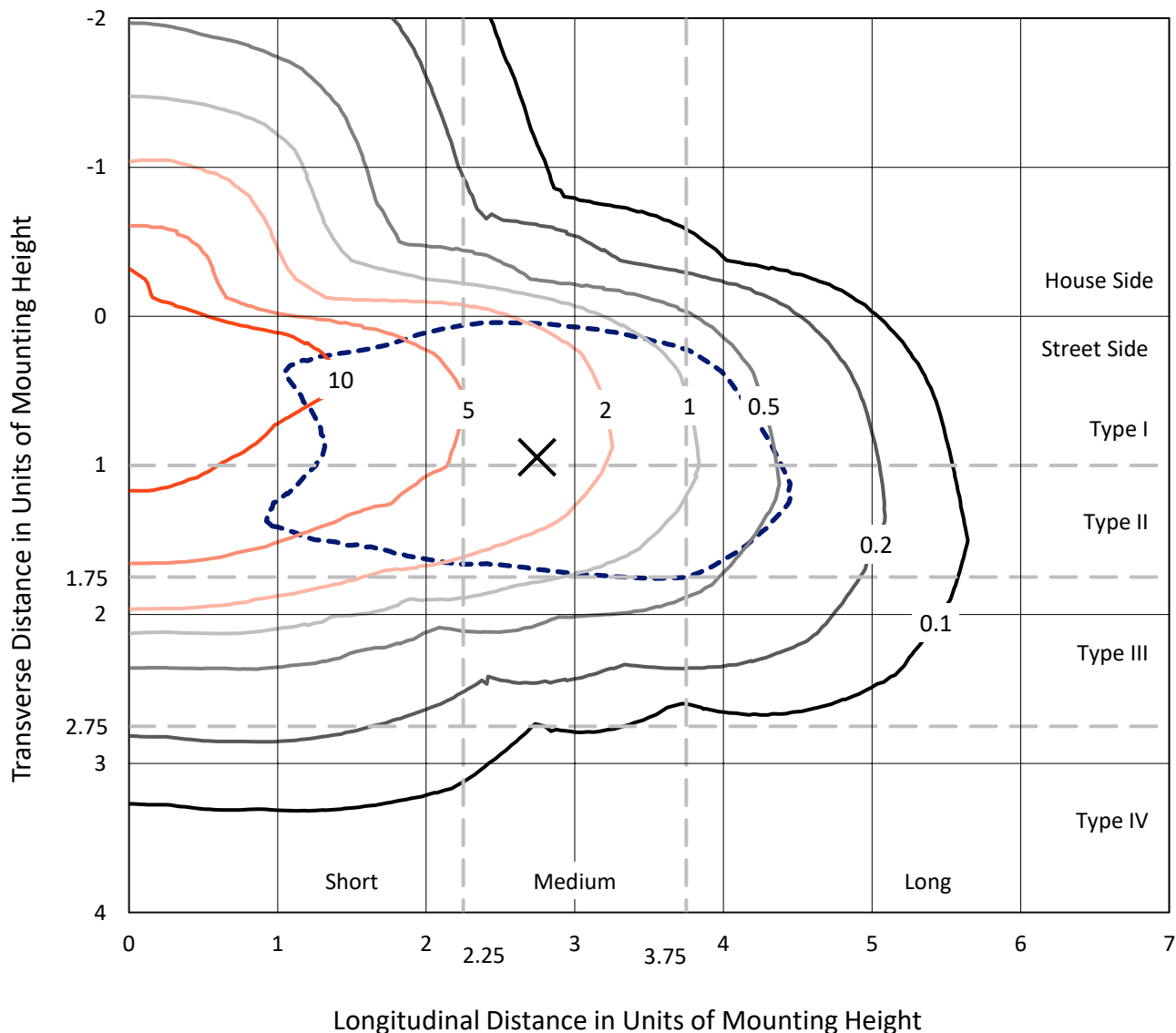
Input Watts (W): 552  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

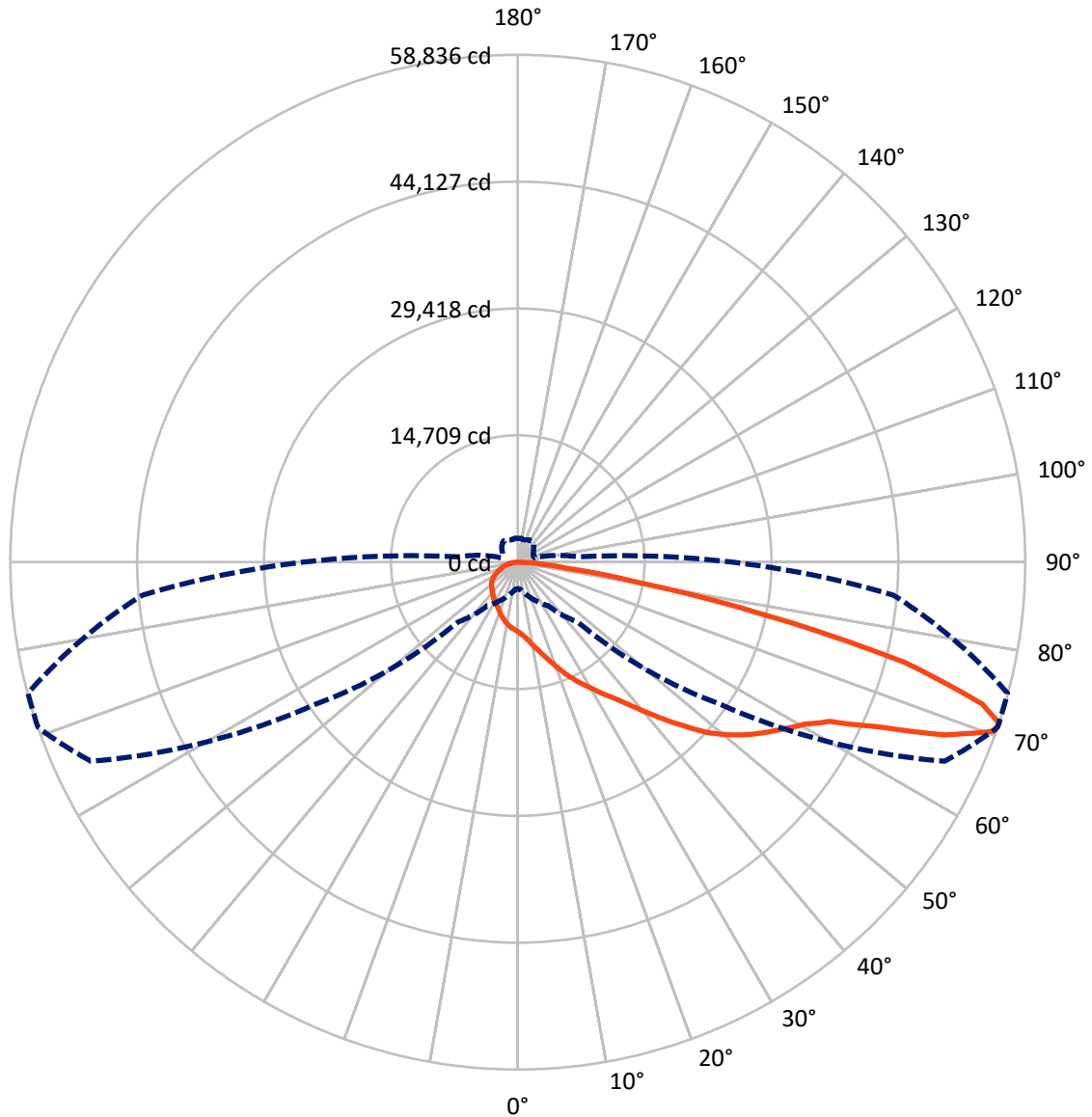
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 18.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 11816.3  | 0.0    | 11816.3 |
|                    | % Fixture | 18.0     | 0.0    | 18.0    |
| <b>Street Side</b> | Lumens    | 53885.7  | 0.0    | 53885.7 |
|                    | % Fixture | 82.0     | 0.0    | 82.0    |
| <b>Total</b>       | Lumens    | 65702.0  | 0.0    | 65702.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 809.6   | 1.2       |
| 10°-20°   | 2630.5  | 4.0       |
| 20°-30°   | 4597.0  | 7.0       |
| 30°-40°   | 6837.4  | 10.4      |
| 40°-50°   | 10074.0 | 15.3      |
| 50°-60°   | 14103.8 | 21.5      |
| 60°-70°   | 15774.6 | 24.0      |
| 70°-80°   | 9635.7  | 14.7      |
| 80°-90°   | 1239.5  | 1.9       |
| 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°    | 65702.0 | 100.0     |
| 0°-180°   | 65702.0 | 100.0     |

**Coefficient of Utilization**



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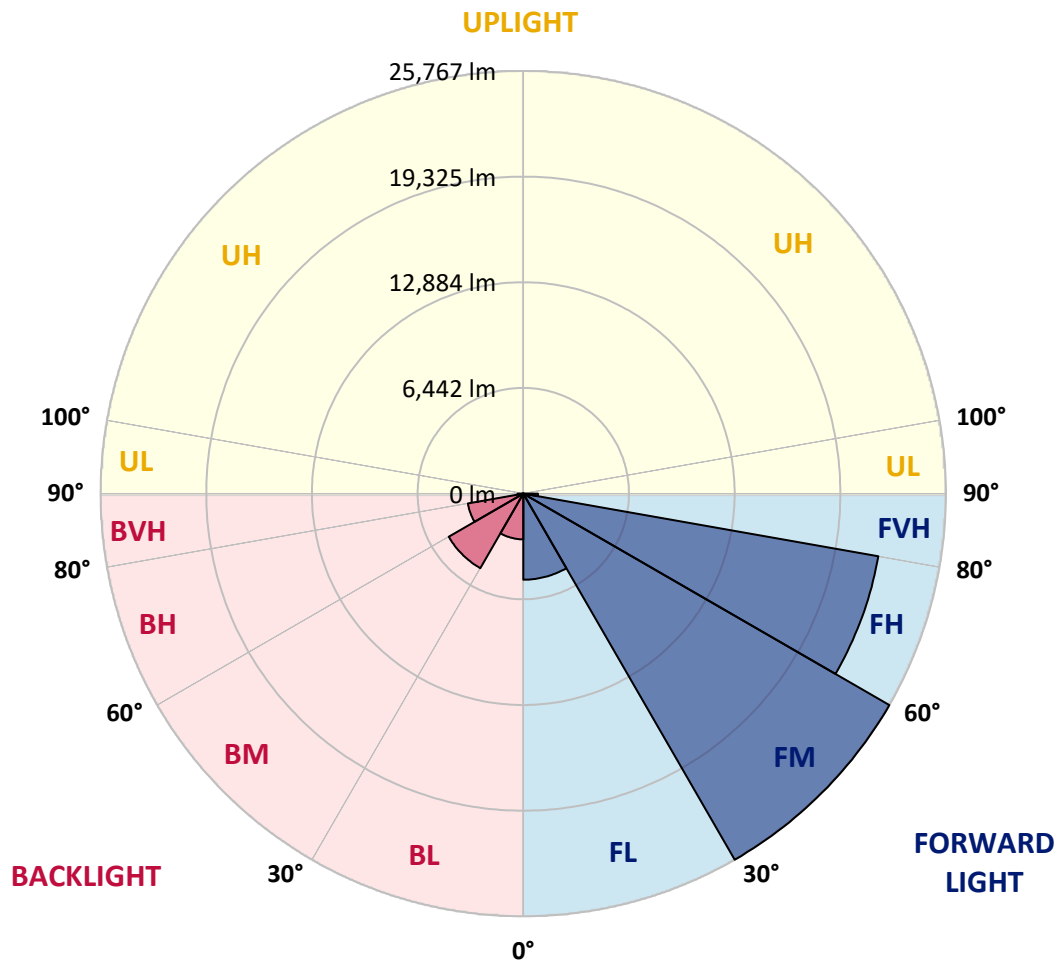
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 5249.6  | 8.0       |                         |      |         |
| FM   | (30°-60°)   | 25767.0 | 39.2      |                         |      |         |
| FH   | (60°-80°)   | 21977.1 | 33.4      |                         |      | G5      |
| FVH  | (80°-90°)   | 891.9   | 1.4       |                         |      | G5      |
| BL   | (0°-30°)    | 2787.4  | 4.2       | B4/5000                 |      |         |
| BM   | (30°-60°)   | 5248.1  | 8.0       | B4/8500                 |      |         |
| BH   | (60°-80°)   | 3433.2  | 5.2       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 347.6   | 0.5       |                         |      | G3/500  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G5**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 71°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 8063.6  | 8063.6  | 8063.6  | 8063.6  | 8063.6  | 8063.6  | 8063.6  | 8063.6  | 8063.6  | 8063.6  | 8063.6  |
| 2.5°  | 8952.0  | 8908.6  | 8912.2  | 8850.8  | 8771.4  | 8684.7  | 8562.0  | 8453.6  | 8367.0  | 8316.4  | 8168.3  |
| 5°    | 9919.7  | 9876.4  | 9822.2  | 9688.6  | 9630.8  | 9417.8  | 9147.0  | 8901.4  | 8713.6  | 8608.9  | 8312.8  |
| 7.5°  | 10703.4 | 10692.5 | 10678.1 | 10602.2 | 10454.2 | 10158.1 | 9927.0  | 9500.8  | 9222.8  | 9024.2  | 8518.6  |
| 10°   | 11187.2 | 11205.3 | 11216.1 | 11230.6 | 11169.2 | 11013.9 | 10696.1 | 10158.1 | 9804.2  | 9551.4  | 8785.8  |
| 12.5° | 11432.8 | 11450.9 | 11512.2 | 11645.9 | 11728.9 | 11710.9 | 11450.9 | 10923.6 | 10436.1 | 10103.9 | 9071.1  |
| 15°   | 11584.5 | 11613.4 | 11721.7 | 11898.6 | 12176.7 | 12353.6 | 12227.2 | 11739.7 | 11205.3 | 10811.7 | 9410.6  |
| 17.5° | 11750.6 | 11783.1 | 11902.2 | 12155.0 | 12519.7 | 12902.5 | 13039.7 | 12620.9 | 12039.5 | 11570.0 | 9789.7  |
| 20°   | 11844.5 | 11887.8 | 12057.5 | 12389.7 | 12815.9 | 13372.0 | 13827.0 | 13606.7 | 12971.1 | 12451.1 | 10226.7 |
| 22.5° | 11996.1 | 12032.2 | 12176.7 | 12530.6 | 13039.7 | 13736.7 | 14614.2 | 14567.2 | 14007.5 | 13335.9 | 10707.0 |
| 25°   | 12407.8 | 12465.6 | 12537.8 | 12750.9 | 13242.0 | 14108.6 | 15267.8 | 15592.8 | 15011.4 | 14260.3 | 11147.5 |
| 27.5° | 13184.2 | 13231.1 | 13227.5 | 13256.4 | 13534.5 | 14430.0 | 15834.7 | 16607.5 | 16008.1 | 15195.6 | 11573.6 |
| 30°   | 14068.9 | 14087.0 | 14101.4 | 14036.4 | 14097.8 | 14758.6 | 16354.7 | 17611.4 | 17012.0 | 16156.1 | 11945.6 |
| 32.5° | 15145.0 | 15181.1 | 15058.4 | 14892.2 | 14841.7 | 15246.1 | 16784.5 | 18615.3 | 18200.0 | 17131.1 | 12313.9 |
| 35°   | 16416.1 | 16510.0 | 16260.9 | 15968.4 | 15762.5 | 15946.7 | 17362.3 | 19640.9 | 19417.0 | 18377.0 | 12801.4 |
| 37.5° | 17867.8 | 17983.4 | 17752.3 | 17178.1 | 16885.6 | 16936.1 | 18117.0 | 20908.4 | 20955.3 | 19796.1 | 13527.2 |
| 40°   | 19055.9 | 19207.5 | 19214.8 | 18402.3 | 17958.1 | 18015.9 | 19073.9 | 22273.4 | 22811.4 | 21551.1 | 14383.1 |
| 42.5° | 19839.5 | 19987.5 | 20142.8 | 19666.1 | 19200.3 | 19528.9 | 20189.8 | 23753.9 | 24898.7 | 23681.7 | 15578.4 |
| 45°   | 20698.9 | 20832.5 | 20919.2 | 20702.5 | 20442.5 | 21294.8 | 21536.7 | 25328.4 | 27123.1 | 26061.4 | 16885.6 |
| 47.5° | 21695.6 | 21843.6 | 21926.7 | 21720.9 | 21623.4 | 22843.9 | 22988.4 | 26798.1 | 29499.2 | 28372.5 | 18330.0 |
| 50°   | 23024.5 | 23136.4 | 23093.1 | 22963.1 | 22941.4 | 24032.0 | 24382.3 | 28173.9 | 31460.1 | 30860.6 | 19828.6 |
| 52.5° | 24678.4 | 24812.0 | 24858.9 | 24674.8 | 24591.7 | 24880.6 | 25505.3 | 29427.0 | 33243.9 | 32998.4 | 21428.4 |
| 55°   | 25678.7 | 25891.7 | 26606.7 | 26895.6 | 27094.2 | 25978.4 | 26715.0 | 30810.1 | 34843.7 | 35251.7 | 23147.3 |
| 57.5° | 24396.7 | 24671.2 | 26270.9 | 27715.3 | 29582.3 | 28722.8 | 28430.3 | 32254.5 | 36443.4 | 37436.5 | 25205.6 |
| 60°   | 21269.5 | 21330.9 | 23392.8 | 26054.2 | 29809.8 | 32250.9 | 32008.9 | 34551.2 | 38176.7 | 39639.2 | 27917.5 |
| 62.5° | 14755.0 | 14885.0 | 17322.5 | 21569.2 | 27000.3 | 33522.0 | 38097.3 | 38516.2 | 40661.2 | 42936.2 | 31893.4 |
| 65°   | 7608.6  | 7438.9  | 9659.7  | 13556.1 | 20355.9 | 30503.1 | 43030.1 | 45807.0 | 46049.0 | 48092.9 | 37490.6 |
| 67.5° | 4683.6  | 4759.5  | 5799.5  | 7915.6  | 12035.9 | 22168.6 | 42513.7 | 54715.6 | 53440.9 | 54423.1 | 42687.0 |
| 70°   | 3517.2  | 3611.1  | 4326.1  | 5416.7  | 7337.8  | 12675.0 | 34190.1 | 56875.1 | 58655.4 | 58402.6 | 44268.7 |
| 71°   | 3058.6  | 3156.1  | 3900.0  | 4929.2  | 6164.2  | 9782.5  | 28805.9 | 54614.5 | 58835.9 | 58792.6 | 43672.9 |
| 72.5° | 2607.2  | 2668.6  | 3250.0  | 4174.5  | 5196.4  | 6857.5  | 21641.4 | 48981.2 | 56326.2 | 57767.0 | 41545.9 |
| 75°   | 2047.5  | 2094.4  | 2354.4  | 3185.0  | 4091.4  | 4210.6  | 11613.4 | 36721.4 | 46262.0 | 49006.5 | 34587.3 |
| 77.5° | 1668.3  | 1700.8  | 1834.4  | 2365.3  | 3156.1  | 2982.8  | 6092.0  | 23902.0 | 28982.8 | 31745.3 | 20373.9 |
| 80°   | 1325.3  | 1361.4  | 1440.8  | 1603.3  | 2365.3  | 2126.9  | 2906.9  | 12111.7 | 14000.3 | 13971.4 | 8132.2  |
| 82.5° | 1029.2  | 1040.0  | 1133.9  | 1177.2  | 1617.8  | 1509.4  | 1574.4  | 5127.8  | 5680.3  | 5868.1  | 2935.8  |
| 85°   | 650.0   | 682.5   | 1003.9  | 902.8   | 967.8   | 884.7   | 776.4   | 2036.7  | 2509.7  | 2473.6  | 1173.6  |
| 87.5° | 198.6   | 209.4   | 339.4   | 382.8   | 429.7   | 386.4   | 285.3   | 599.4   | 733.1   | 794.4   | 292.5   |
| 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°    | 8063.6  | 8063.6 | 8063.6 | 8063.6 | 8063.6 | 8063.6 | 8063.6 | 8063.6 | 8063.6 | 8063.6 | 8063.6 |
| 2.5°  | 8110.6  | 8070.8 | 7930.0 | 7814.5 | 7706.1 | 7587.0 | 7485.8 | 7457.0 | 7431.7 | 7420.8 | 7417.2 |
| 5°    | 8186.4  | 8067.2 | 7789.2 | 7561.7 | 7381.1 | 7215.0 | 7110.3 | 7063.3 | 7016.4 | 7016.4 | 7030.8 |
| 7.5°  | 8294.7  | 8078.1 | 7648.3 | 7308.9 | 7081.4 | 6926.1 | 6850.3 | 6843.1 | 6853.9 | 6864.7 | 6868.3 |
| 10°   | 8413.9  | 8070.8 | 7442.5 | 7020.0 | 6817.8 | 6745.6 | 6749.2 | 6810.6 | 6868.3 | 6911.7 | 6918.9 |
| 12.5° | 8529.5  | 8027.5 | 7200.6 | 6749.2 | 6619.2 | 6633.6 | 6734.7 | 6872.0 | 6983.9 | 7045.3 | 7048.9 |
| 15°   | 8659.5  | 7958.9 | 6908.1 | 6492.8 | 6449.5 | 6561.4 | 6749.2 | 6958.6 | 7128.3 | 7229.5 | 7240.3 |
| 17.5° | 8767.8  | 7843.3 | 6601.1 | 6243.6 | 6297.8 | 6503.6 | 6763.6 | 7034.5 | 7240.3 | 7366.7 | 7388.3 |
| 20°   | 8890.6  | 7695.3 | 6283.3 | 6005.3 | 6160.6 | 6438.6 | 6734.7 | 7027.2 | 7240.3 | 7363.1 | 7392.0 |
| 22.5° | 8988.1  | 7485.8 | 5980.0 | 5810.3 | 6037.8 | 6359.2 | 6637.2 | 6872.0 | 7045.3 | 7110.3 | 7153.6 |
| 25°   | 9027.8  | 7222.2 | 5694.7 | 5651.4 | 5940.3 | 6229.2 | 6417.0 | 6550.6 | 6604.7 | 6597.5 | 6615.6 |
| 27.5° | 9006.1  | 6918.9 | 5449.2 | 5525.0 | 5817.5 | 6027.0 | 6120.8 | 6110.0 | 6012.5 | 5922.2 | 5965.6 |
| 30°   | 8915.8  | 6557.8 | 5243.3 | 5395.0 | 5658.6 | 5774.2 | 5759.7 | 5618.9 | 5434.7 | 5265.0 | 5275.8 |
| 32.5° | 8753.3  | 6167.8 | 5052.0 | 5247.0 | 5434.7 | 5485.3 | 5387.8 | 5203.6 | 4940.0 | 4719.7 | 4687.2 |
| 35°   | 8616.1  | 5795.8 | 4882.2 | 5077.2 | 5210.8 | 5185.6 | 5091.7 | 4853.3 | 4615.0 | 4420.0 | 4387.5 |
| 37.5° | 8594.5  | 5478.1 | 4719.7 | 4885.8 | 4961.7 | 4925.6 | 4810.0 | 4607.8 | 4521.1 | 4373.1 | 4355.0 |
| 40°   | 8710.0  | 5254.2 | 4553.6 | 4683.6 | 4719.7 | 4690.8 | 4564.5 | 4448.9 | 4528.3 | 4492.2 | 4492.2 |
| 42.5° | 9024.2  | 5135.0 | 4405.6 | 4481.4 | 4510.3 | 4532.0 | 4441.7 | 4344.2 | 4441.7 | 4275.6 | 4221.4 |
| 45°   | 9522.5  | 5138.6 | 4272.0 | 4282.8 | 4369.5 | 4445.3 | 4383.9 | 4239.5 | 4188.9 | 3856.7 | 3791.7 |
| 47.5° | 10255.6 | 5261.4 | 4163.6 | 4095.0 | 4250.3 | 4376.7 | 4290.0 | 4080.6 | 3856.7 | 3636.4 | 3596.7 |
| 50°   | 11111.4 | 5481.7 | 4066.1 | 3900.0 | 4091.4 | 4290.0 | 4225.0 | 3979.5 | 3748.3 | 3614.7 | 3589.5 |
| 52.5° | 12061.1 | 5759.7 | 3947.0 | 3683.3 | 3896.4 | 4250.3 | 4239.5 | 3965.0 | 3647.2 | 3557.0 | 3535.3 |
| 55°   | 13234.7 | 6034.2 | 3798.9 | 3430.6 | 3723.1 | 4217.8 | 4199.7 | 3845.8 | 3625.6 | 3560.6 | 3553.3 |
| 57.5° | 14599.7 | 6431.4 | 3585.8 | 3174.2 | 3524.5 | 4084.2 | 4044.5 | 3773.6 | 3553.3 | 3506.4 | 3502.8 |
| 60°   | 16798.9 | 7048.9 | 3282.5 | 2939.4 | 3322.2 | 3849.5 | 3900.0 | 3650.8 | 3437.8 | 3427.0 | 3423.3 |
| 62.5° | 19691.4 | 7915.6 | 2968.3 | 2697.5 | 3087.5 | 3546.1 | 3690.6 | 3484.7 | 3315.0 | 3369.2 | 3376.4 |
| 65°   | 23685.3 | 8645.0 | 2643.3 | 2491.7 | 2827.5 | 3253.6 | 3492.0 | 3329.4 | 3177.8 | 3282.5 | 3282.5 |
| 67.5° | 26288.9 | 8659.5 | 2347.2 | 2278.6 | 2563.9 | 3008.1 | 3282.5 | 3145.3 | 3000.8 | 3177.8 | 3185.0 |
| 70°   | 25747.3 | 7587.0 | 2101.7 | 2054.7 | 2307.5 | 2744.4 | 3051.4 | 2943.1 | 2776.9 | 2935.8 | 2878.1 |
| 71°   | 24873.4 | 6991.1 | 2004.2 | 1968.1 | 2206.4 | 2618.1 | 2943.1 | 2852.8 | 2686.7 | 2791.4 | 2758.9 |
| 72.5° | 23479.5 | 6070.3 | 1845.3 | 1852.5 | 2054.7 | 2459.2 | 2791.4 | 2697.5 | 2531.4 | 2589.2 | 2578.3 |
| 75°   | 19846.7 | 5301.1 | 1578.1 | 1610.6 | 1765.8 | 2188.3 | 2488.1 | 2415.8 | 2246.1 | 2246.1 | 2235.3 |
| 77.5° | 12407.8 | 3705.0 | 1310.8 | 1328.9 | 1498.6 | 1874.2 | 2137.8 | 2076.4 | 1913.9 | 1859.7 | 1845.3 |
| 80°   | 4629.5  | 1913.9 | 1025.6 | 1047.2 | 1151.9 | 1476.9 | 1769.4 | 1711.7 | 1545.6 | 1484.2 | 1426.4 |
| 82.5° | 1751.4  | 960.6  | 754.7  | 736.7  | 848.6  | 1126.7 | 1386.7 | 1318.1 | 1188.1 | 1040.0 | 996.7  |
| 85°   | 660.8   | 476.7  | 462.2  | 447.8  | 498.3  | 668.1  | 859.4  | 845.0  | 707.8  | 603.1  | 592.2  |
| 87.5° | 173.3   | 155.3  | 180.6  | 133.6  | 140.8  | 126.4  | 130.0  | 54.2   | 25.3   | 10.8   | 7.2    |
| 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)