

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: P194372

Luminaire Tested: **GLEON-AF-04-LED-E1-SL2-7060-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194372  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-04-LED-E1-SL2-7060-600-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13104 lumens  
Efficiency: N/A  
Efficacy: 101.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

Input Watts (W): 129  
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: 25 FT



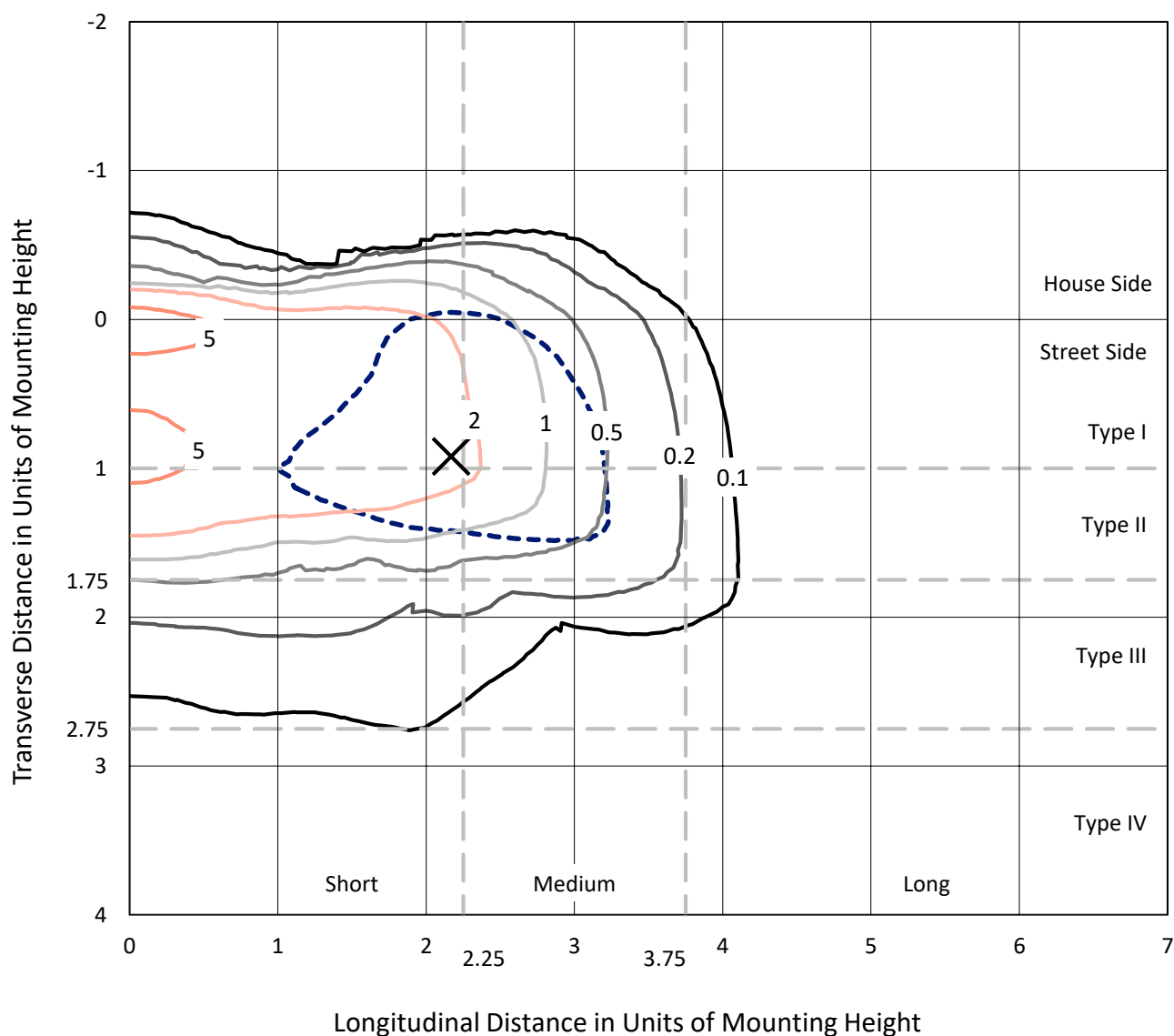
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

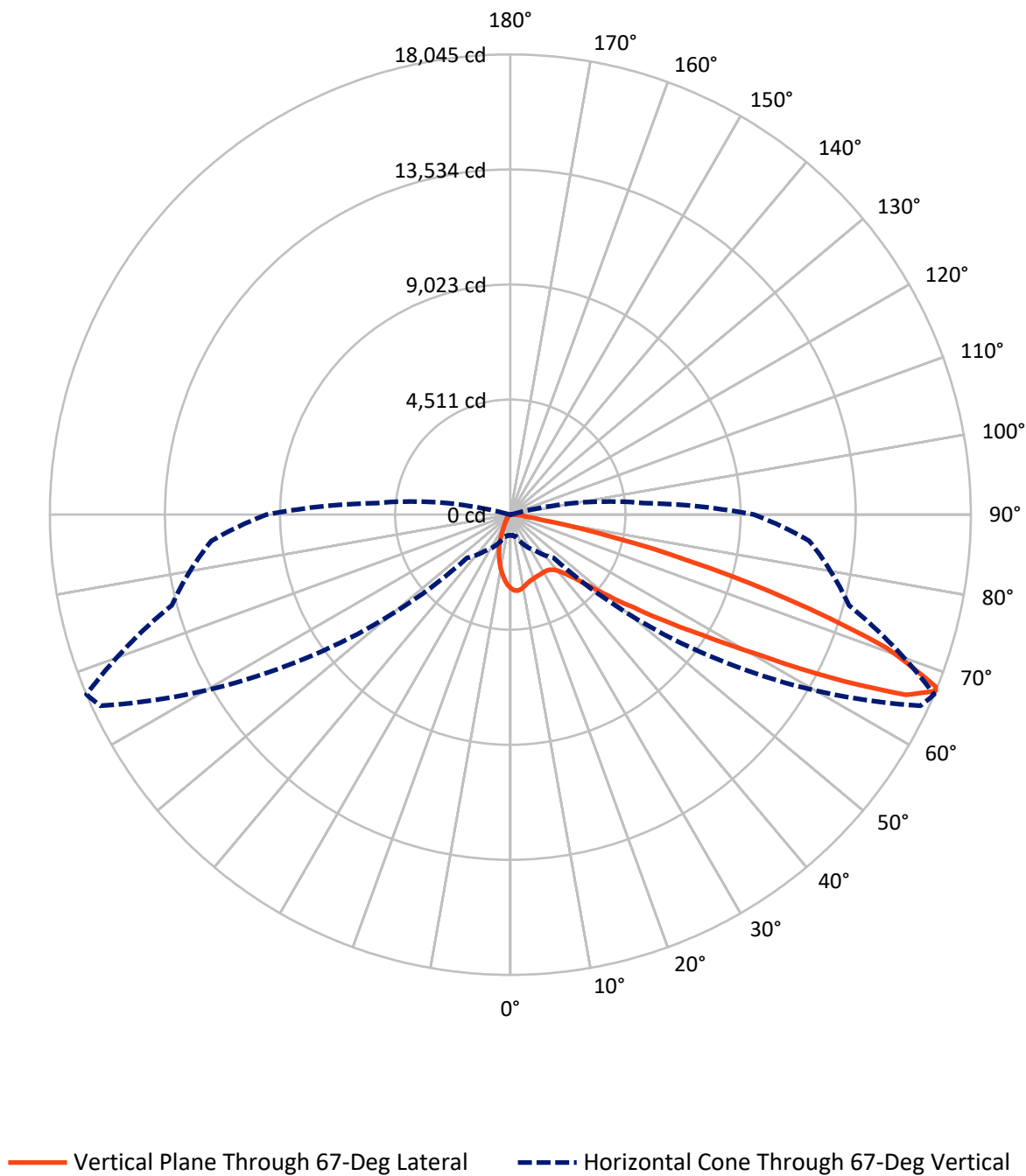


Based on 20 foot mounting height. Maximum calculated value = 7.2 fc  
 Type II - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1360.6   | 0.0    | 1360.6  |
|                    | % Fixture | 10.4     | 0.0    | 10.4    |
| <b>Street Side</b> | Lumens    | 11743.4  | 0.0    | 11743.4 |
|                    | % Fixture | 89.6     | 0.0    | 89.6    |
| <b>Total</b>       | Lumens    | 13104.0  | 0.0    | 13104.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 235.1   | 1.8       |
| 10°-20°   | 500.5   | 3.8       |
| 20°-30°   | 727.7   | 5.6       |
| 30°-40°   | 1135.2  | 8.7       |
| 40°-50°   | 2010.9  | 15.3      |
| 50°-60°   | 3182.1  | 24.3      |
| 60°-70°   | 3644.6  | 27.8      |
| 70°-80°   | 1511.8  | 11.5      |
| 80°-90°   | 156.2   | 1.2       |
| 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°    | 13104.0 | 100.0     |
| 0°-180°   | 13104.0 | 100.0     |

**Coefficient of Utilization**



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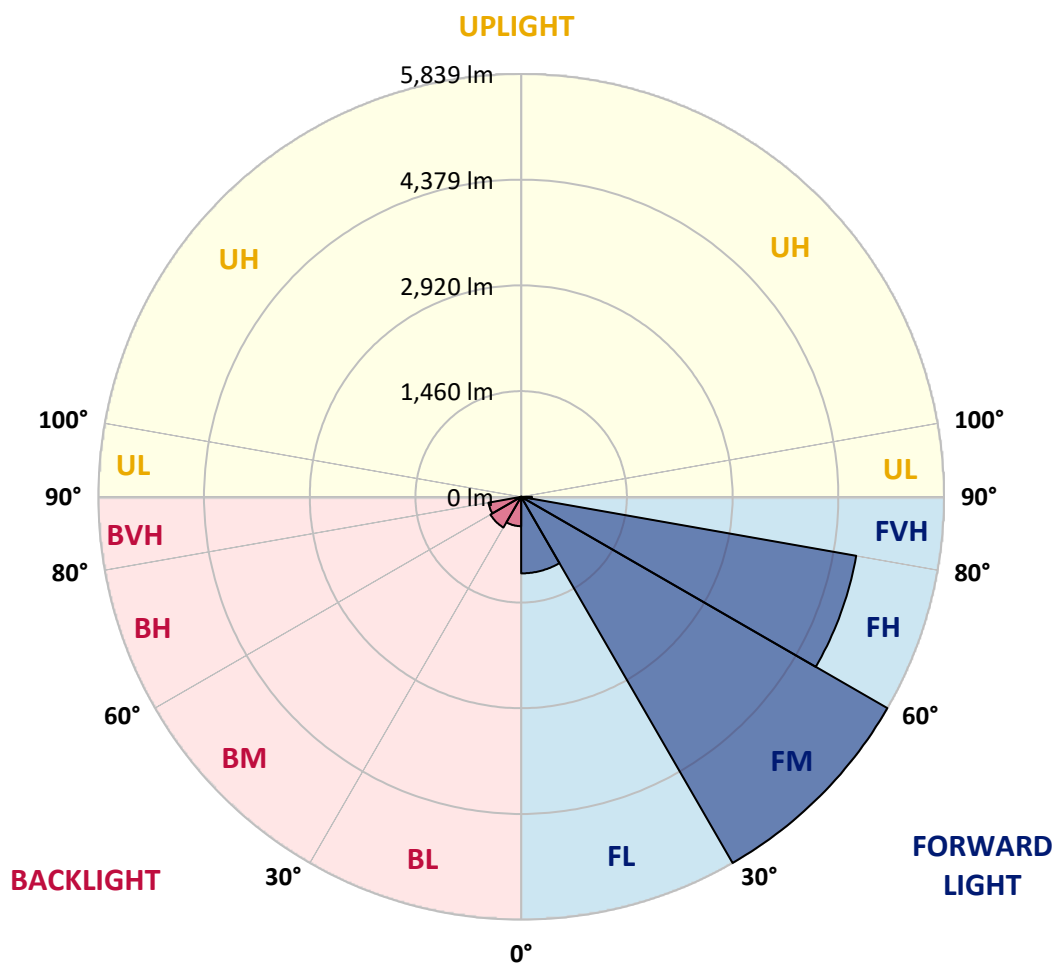
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1057.3 | 8.1       |                         |      |         |
| FM   | (30°-60°)   | 5839.2 | 44.6      |                         |      |         |
| FH   | (60°-80°)   | 4697.8 | 35.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 149.1  | 1.1       |                         |      | G2/225  |
| BL   | (0°-30°)    | 406.0  | 3.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 489.0  | 3.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 458.6  | 3.5       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 7.0    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0°    | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9  | 2889.9  | 2889.9  | 2889.9  | 2889.9  |
| 2.5°  | 2987.7 | 2993.9 | 2993.1 | 2997.7 | 3008.4 | 3009.2 | 2998.5  | 2977.8  | 2973.2  | 2946.5  | 2899.9  |
| 5°    | 2755.4 | 2773.0 | 2783.7 | 2827.2 | 2876.2 | 2935.0 | 2979.3  | 2995.4  | 2993.1  | 2974.0  | 2903.7  |
| 7.5°  | 2490.2 | 2507.8 | 2520.0 | 2571.2 | 2636.2 | 2737.1 | 2852.5  | 2947.2  | 2955.6  | 2976.3  | 2900.6  |
| 10°   | 2313.6 | 2316.7 | 2333.5 | 2382.4 | 2450.4 | 2553.6 | 2691.2  | 2857.0  | 2882.3  | 2957.9  | 2893.0  |
| 12.5° | 2168.4 | 2170.7 | 2192.9 | 2245.6 | 2318.2 | 2422.1 | 2566.6  | 2758.5  | 2797.4  | 2935.0  | 2891.4  |
| 15°   | 2065.2 | 2073.6 | 2093.5 | 2148.5 | 2225.7 | 2328.9 | 2477.2  | 2685.8  | 2732.5  | 2926.6  | 2905.2  |
| 17.5° | 2030.8 | 2040.0 | 2046.1 | 2085.8 | 2156.2 | 2257.1 | 2409.2  | 2638.5  | 2691.2  | 2931.2  | 2932.0  |
| 20°   | 2066.7 | 2073.6 | 2059.9 | 2069.8 | 2113.4 | 2203.6 | 2351.8  | 2597.9  | 2660.6  | 2936.5  | 2966.3  |
| 22.5° | 2200.5 | 2203.6 | 2166.1 | 2122.5 | 2114.9 | 2164.6 | 2306.7  | 2565.8  | 2633.1  | 2951.1  | 3006.9  |
| 25°   | 2429.8 | 2424.4 | 2363.3 | 2269.3 | 2180.6 | 2157.7 | 2280.0  | 2546.0  | 2619.3  | 2966.3  | 3048.9  |
| 27.5° | 2706.5 | 2714.1 | 2630.0 | 2493.2 | 2324.3 | 2203.6 | 2276.2  | 2537.6  | 2613.2  | 2977.0  | 3085.6  |
| 30°   | 3042.8 | 3053.5 | 2957.2 | 2785.2 | 2542.9 | 2316.7 | 2311.3  | 2536.0  | 2609.4  | 2970.2  | 3088.6  |
| 32.5° | 3386.0 | 3399.0 | 3323.3 | 3146.0 | 2834.9 | 2506.2 | 2390.8  | 2552.8  | 2617.1  | 2946.5  | 3071.1  |
| 35°   | 3745.2 | 3763.5 | 3713.1 | 3561.0 | 3230.8 | 2779.9 | 2530.7  | 2604.1  | 2653.0  | 2944.2  | 3053.5  |
| 37.5° | 4241.2 | 4258.1 | 4163.3 | 4002.0 | 3710.0 | 3146.7 | 2755.4  | 2700.4  | 2737.8  | 2980.9  | 3058.1  |
| 40°   | 4981.9 | 4979.6 | 4735.0 | 4488.1 | 4236.7 | 3613.0 | 3071.1  | 2874.6  | 2893.7  | 3091.7  | 3114.6  |
| 42.5° | 5789.0 | 5785.2 | 5423.7 | 5048.4 | 4821.4 | 4187.0 | 3486.1  | 3175.8  | 3162.8  | 3295.8  | 3261.4  |
| 45°   | 6411.2 | 6410.4 | 6115.4 | 5692.7 | 5525.3 | 4845.8 | 4022.6  | 3594.6  | 3574.8  | 3627.5  | 3531.9  |
| 47.5° | 6676.4 | 6681.0 | 6532.7 | 6235.4 | 6305.7 | 5737.0 | 4699.1  | 4201.5  | 4171.7  | 4150.3  | 4005.1  |
| 50°   | 6470.0 | 6479.2 | 6491.4 | 6433.3 | 6878.2 | 6934.7 | 5606.3  | 5056.8  | 5042.3  | 4946.7  | 4719.7  |
| 52.5° | 5795.9 | 5842.5 | 5986.2 | 6170.4 | 7076.9 | 8084.3 | 7028.7  | 6119.2  | 6041.2  | 5939.6  | 5689.6  |
| 55°   | 4660.1 | 4711.3 | 4984.2 | 5431.3 | 6781.1 | 8839.4 | 9022.1  | 7488.9  | 7358.9  | 7055.5  | 6694.7  |
| 57.5° | 3084.1 | 3163.5 | 3559.5 | 4128.1 | 5922.0 | 8961.0 | 11010.9 | 9389.7  | 8937.3  | 8106.4  | 7699.8  |
| 60°   | 1699.1 | 1775.5 | 2205.1 | 2720.2 | 4277.2 | 8360.2 | 12348.4 | 11864.6 | 11065.1 | 9281.2  | 8920.4  |
| 62.5° | 1046.4 | 1087.6 | 1404.8 | 1884.1 | 2565.1 | 6598.4 | 12625.1 | 14974.7 | 14049.1 | 10793.8 | 10394.8 |
| 65°   | 833.1  | 850.7  | 1005.9 | 1540.1 | 1839.0 | 3924.8 | 11731.6 | 17345.6 | 17036.8 | 12625.1 | 11714.8 |
| 67°   | 808.7  | 815.5  | 888.9  | 1322.3 | 1733.5 | 2406.1 | 9828.5  | 17731.6 | 18045.0 | 13733.4 | 11756.1 |
| 67.5° | 814.0  | 821.7  | 891.2  | 1261.9 | 1730.4 | 2211.2 | 9172.7  | 17579.5 | 17975.4 | 13821.3 | 11573.4 |
| 70°   | 785.0  | 808.7  | 1020.4 | 1261.1 | 1645.6 | 1837.4 | 5493.2  | 15231.5 | 15643.5 | 12842.2 | 9820.1  |
| 72.5° | 278.2  | 279.7  | 441.0  | 1020.4 | 1789.3 | 1857.3 | 2758.5  | 11166.0 | 11471.0 | 9823.9  | 7080.0  |
| 75°   | 165.1  | 140.6  | 146.8  | 290.4  | 1709.8 | 1803.8 | 1591.3  | 7135.0  | 7248.9  | 5629.3  | 3585.5  |
| 77.5° | 113.9  | 99.4   | 102.4  | 128.4  | 651.2  | 1778.6 | 1264.2  | 3720.7  | 3599.2  | 1974.3  | 763.6   |
| 80°   | 65.0   | 57.3   | 61.1   | 112.4  | 236.9  | 1659.4 | 1192.3  | 1508.8  | 1286.4  | 334.8   | 211.0   |
| 82.5° | 34.4   | 29.0   | 35.2   | 92.5   | 165.1  | 1034.1 | 1194.6  | 729.2   | 577.8   | 113.1   | 143.7   |
| 85°   | 12.2   | 9.9    | 16.8   | 63.4   | 110.1  | 317.2  | 1107.5  | 613.0   | 481.5   | 55.0    | 109.3   |
| 87.5° | 2.3    | 2.3    | 6.9    | 26.0   | 44.3   | 97.1   | 655.0   | 363.8   | 243.8   | 32.9    | 74.9    |
| 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°    | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 | 2889.9 |
| 2.5°  | 2880.7 | 2847.9 | 2803.5 | 2749.3 | 2685.1 | 2628.5 | 2586.5 | 2542.9 | 2533.7 | 2518.5 | 2516.2 |
| 5°    | 2861.6 | 2805.1 | 2695.0 | 2568.9 | 2434.4 | 2312.8 | 2214.3 | 2126.4 | 2087.4 | 2053.7 | 2049.9 |
| 7.5°  | 2833.4 | 2748.5 | 2561.3 | 2357.9 | 2147.8 | 1956.7 | 1794.6 | 1680.0 | 1574.5 | 1524.1 | 1516.4 |
| 10°   | 2800.5 | 2679.0 | 2410.7 | 2128.6 | 1838.2 | 1568.4 | 1327.6 | 1125.9 | 1003.6 | 930.9  | 921.8  |
| 12.5° | 2769.9 | 2610.9 | 2257.1 | 1890.9 | 1505.0 | 1144.2 | 834.6  | 642.0  | 513.6  | 461.7  | 455.5  |
| 15°   | 2755.4 | 2555.9 | 2113.4 | 1647.9 | 1156.4 | 728.4  | 456.3  | 353.1  | 311.1  | 298.9  | 298.1  |
| 17.5° | 2753.9 | 2509.3 | 1972.7 | 1396.4 | 810.2  | 423.4  | 297.3  | 271.3  | 262.9  | 259.9  | 259.9  |
| 20°   | 2753.1 | 2465.0 | 1832.1 | 1135.8 | 514.4  | 282.0  | 247.6  | 241.5  | 235.4  | 231.6  | 231.6  |
| 22.5° | 2761.5 | 2425.2 | 1685.3 | 869.8  | 324.1  | 228.5  | 217.8  | 211.7  | 204.1  | 198.7  | 198.0  |
| 25°   | 2769.9 | 2394.6 | 1535.5 | 619.1  | 234.6  | 198.7  | 188.0  | 179.6  | 168.9  | 162.0  | 161.3  |
| 27.5° | 2771.4 | 2356.4 | 1375.0 | 414.3  | 196.4  | 173.5  | 159.7  | 146.8  | 134.5  | 127.6  | 126.9  |
| 30°   | 2748.5 | 2292.2 | 1196.9 | 279.7  | 173.5  | 150.6  | 132.2  | 118.5  | 107.0  | 101.7  | 101.7  |
| 32.5° | 2703.4 | 2212.7 | 1001.3 | 211.0  | 154.4  | 129.2  | 109.3  | 96.3   | 88.7   | 86.4   | 85.6   |
| 35°   | 2662.9 | 2127.1 | 800.2  | 178.9  | 138.3  | 109.3  | 89.4   | 81.0   | 76.4   | 75.7   | 74.9   |
| 37.5° | 2639.2 | 2058.3 | 611.5  | 162.0  | 123.1  | 91.7   | 75.7   | 69.6   | 67.3   | 65.7   | 66.5   |
| 40°   | 2657.6 | 2001.0 | 451.7  | 148.3  | 107.8  | 76.4   | 64.2   | 61.1   | 58.9   | 58.1   | 58.1   |
| 42.5° | 2737.8 | 1991.1 | 335.5  | 136.0  | 93.2   | 63.4   | 55.8   | 53.5   | 52.0   | 51.2   | 52.0   |
| 45°   | 2948.8 | 2052.2 | 260.6  | 124.6  | 78.7   | 53.5   | 47.4   | 46.6   | 45.9   | 45.9   | 45.9   |
| 47.5° | 3266.0 | 2178.3 | 217.1  | 111.6  | 65.7   | 45.9   | 41.3   | 40.5   | 39.7   | 40.5   | 40.5   |
| 50°   | 3803.3 | 2409.2 | 194.1  | 98.6   | 54.3   | 39.0   | 35.2   | 35.2   | 35.2   | 35.2   | 35.9   |
| 52.5° | 4620.3 | 2863.2 | 178.9  | 85.6   | 44.3   | 32.9   | 29.8   | 29.8   | 30.6   | 30.6   | 31.3   |
| 55°   | 5530.7 | 3465.5 | 165.1  | 72.6   | 37.5   | 27.5   | 24.5   | 25.2   | 26.0   | 26.8   | 26.8   |
| 57.5° | 6518.2 | 4132.7 | 153.6  | 59.6   | 32.1   | 22.2   | 20.6   | 21.4   | 22.2   | 23.7   | 23.7   |
| 60°   | 7709.8 | 4855.0 | 136.8  | 46.6   | 26.8   | 17.6   | 16.1   | 17.6   | 19.9   | 21.4   | 22.2   |
| 62.5° | 9018.3 | 5553.6 | 115.4  | 36.7   | 22.2   | 13.8   | 13.0   | 16.1   | 19.1   | 20.6   | 21.4   |
| 65°   | 9912.5 | 5773.0 | 88.7   | 29.8   | 16.8   | 9.9    | 10.7   | 14.5   | 18.3   | 20.6   | 20.6   |
| 67°   | 9550.3 | 5234.1 | 72.6   | 25.2   | 13.8   | 7.6    | 9.9    | 14.5   | 18.3   | 19.9   | 20.6   |
| 67.5° | 9298.8 | 5023.1 | 69.6   | 24.5   | 13.0   | 7.6    | 9.9    | 14.5   | 18.3   | 20.6   | 20.6   |
| 70°   | 7566.1 | 3773.5 | 58.1   | 18.3   | 10.7   | 6.9    | 8.4    | 13.8   | 17.6   | 19.9   | 19.9   |
| 72.5° | 5257.0 | 2326.6 | 52.0   | 13.0   | 9.2    | 6.1    | 7.6    | 13.0   | 16.8   | 19.1   | 19.9   |
| 75°   | 2499.3 | 842.3  | 44.3   | 9.9    | 8.4    | 5.4    | 6.9    | 13.0   | 16.8   | 19.1   | 19.1   |
| 77.5° | 509.8  | 195.7  | 35.9   | 8.4    | 6.9    | 5.4    | 6.1    | 12.2   | 16.1   | 18.3   | 18.3   |
| 80°   | 167.4  | 75.7   | 26.8   | 7.6    | 6.9    | 5.4    | 6.1    | 11.5   | 16.1   | 17.6   | 18.3   |
| 82.5° | 120.8  | 38.2   | 17.6   | 7.6    | 6.9    | 5.4    | 5.4    | 11.5   | 15.3   | 17.6   | 17.6   |
| 85°   | 92.5   | 26.8   | 11.5   | 7.6    | 6.9    | 5.4    | 5.4    | 10.7   | 14.5   | 16.8   | 16.8   |
| 87.5° | 61.1   | 10.7   | 9.2    | 7.6    | 6.9    | 5.4    | 5.4    | 10.7   | 13.8   | 16.1   | 16.8   |
| 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)