

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: P321401

Luminaire Tested: **GLEON-SA7B-827-U-T2R-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P321401  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA7B-827-U-T2R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(7) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23985 lumens  
Efficiency: N/A  
Efficacy: 81.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G3

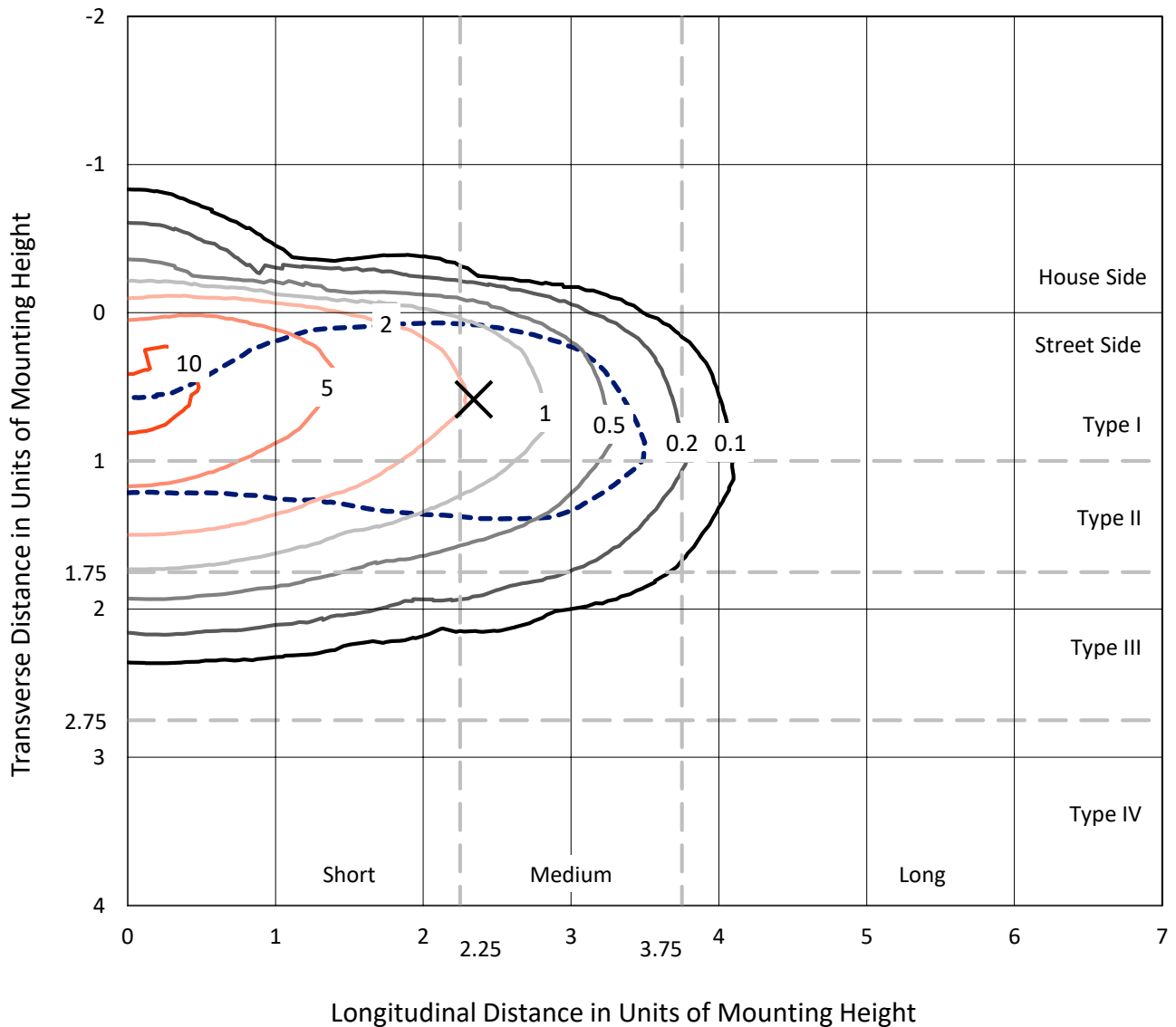
Input Watts (W): 295  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

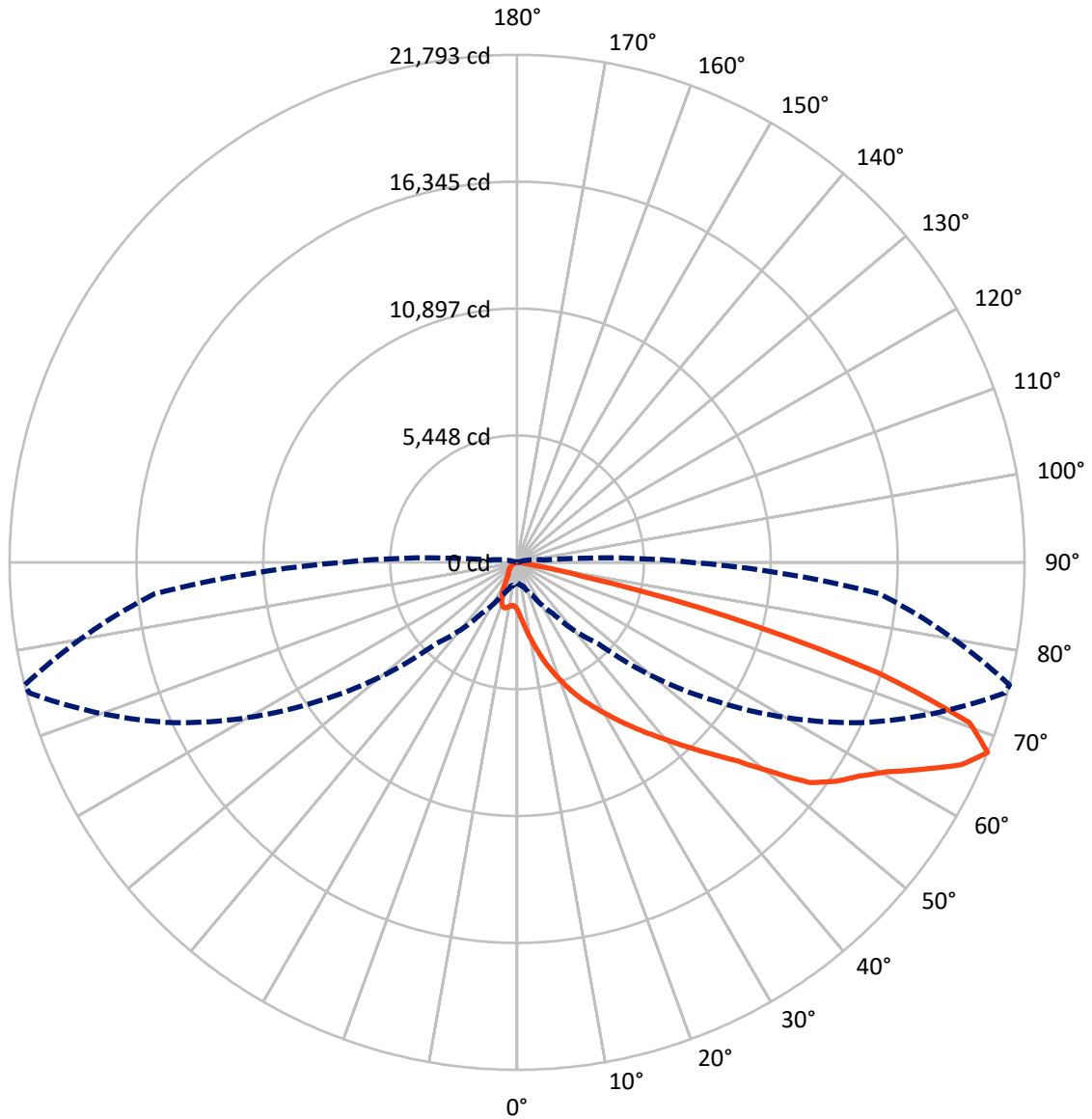
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.5 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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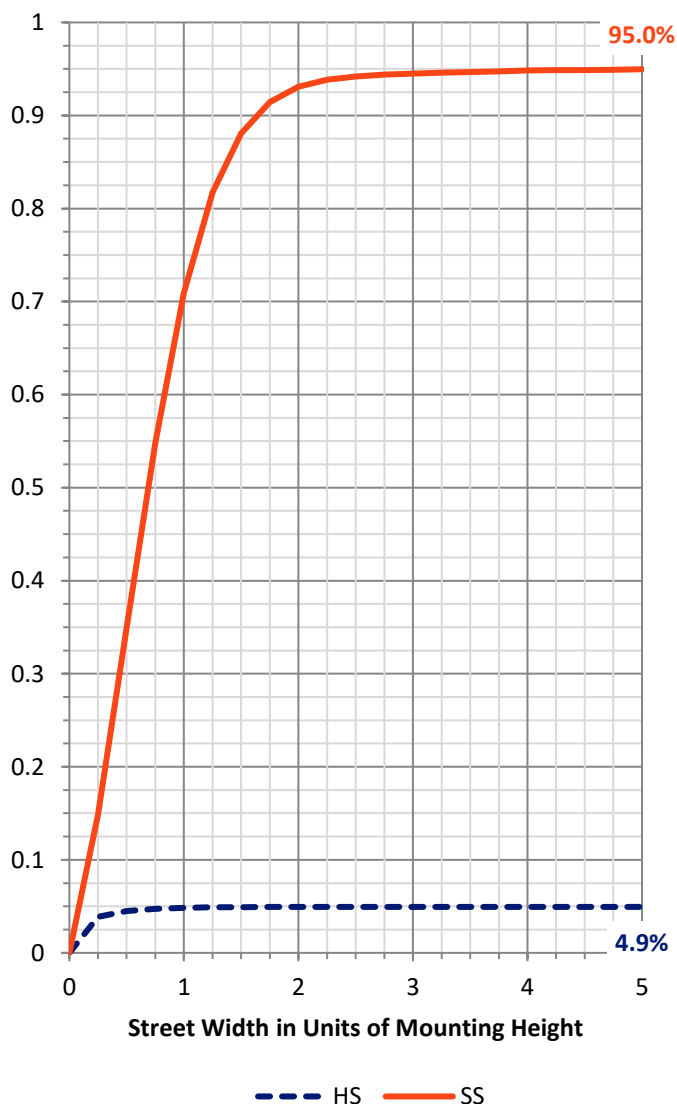
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1191.0   | 0.0    | 1191.0  |
|                    | % Fixture | 5.0      | 0.0    | 5.0     |
| <b>Street Side</b> | Lumens    | 22794.0  | 0.0    | 22794.0 |
|                    | % Fixture | 95.0     | 0.0    | 95.0    |
| <b>Total</b>       | Lumens    | 23985.0  | 0.0    | 23985.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 253.0   | 1.1       |
| 10°-20°   | 1002.9  | 4.2       |
| 20°-30°   | 2040.6  | 8.5       |
| 30°-40°   | 3541.9  | 14.8      |
| 40°-50°   | 5004.3  | 20.9      |
| 50°-60°   | 5675.1  | 23.7      |
| 60°-70°   | 4706.9  | 19.6      |
| 70°-80°   | 1705.0  | 7.1       |
| 80°-90°   | 55.3    | 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°    | 23985.0 | 100.0     |
| 0°-180°   | 23985.0 | 100.0     |

**Coefficient of Utilization**



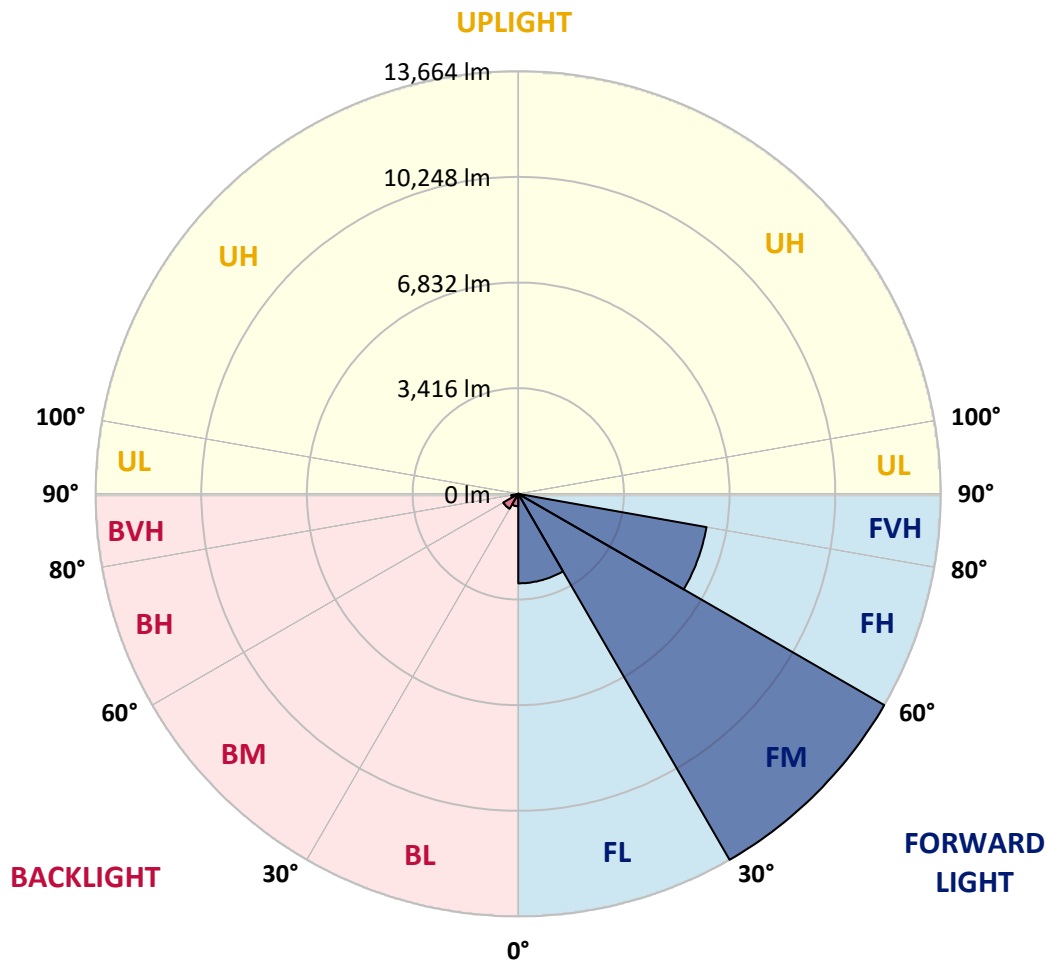
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2894.9  | 12.1      |                         |      |         |
| FM (30°-60°)   | 13663.8 | 57.0      |                         |      |         |
| FH (60°-80°)   | 6181.7  | 25.8      |                         |      | G3/7500 |
| FVH (80°-90°)  | 53.6    | 0.2       |                         |      | G1/100  |
| BL (0°-30°)    | 401.7   | 1.7       | B1/500                  |      |         |
| BM (30°-60°)   | 557.4   | 2.3       | B1/1000                 |      |         |
| BH (60°-80°)   | 230.2   | 1.0       | B1/500                  |      | G1/500  |
| 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-G3**

Type II Medium





REPORT NUMBER: P321401

CATALOG NUMBER: GLEON-SA7B-827-U-T2R-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2034.6  | 2034.6  | 2034.6  | 2034.6  | 2034.6  | 2034.6  | 2034.6  | 2034.6  | 2034.6  | 2034.6  | 2034.6  |
| 2.5°  | 3037.2  | 2968.9  | 2984.7  | 2940.5  | 2860.7  | 2696.7  | 2556.9  | 2424.5  | 2270.0  | 2264.8  | 2137.6  |
| 5°    | 4095.5  | 4037.7  | 4030.4  | 3941.0  | 3796.0  | 3517.5  | 3246.4  | 2937.4  | 2592.7  | 2567.4  | 2297.4  |
| 7.5°  | 5056.1  | 5009.8  | 4993.0  | 4886.9  | 4616.8  | 4345.6  | 3992.5  | 3538.5  | 2999.4  | 2953.1  | 2512.8  |
| 10°   | 5793.8  | 5771.8  | 5776.0  | 5700.3  | 5469.1  | 5216.9  | 4753.4  | 4174.3  | 3460.8  | 3389.3  | 2771.3  |
| 12.5° | 6352.9  | 6358.2  | 6396.0  | 6349.8  | 6220.5  | 6033.5  | 5538.5  | 4852.2  | 3971.5  | 3873.8  | 3066.6  |
| 15°   | 6763.9  | 6790.1  | 6859.5  | 6917.3  | 6907.8  | 6746.0  | 6292.0  | 5540.6  | 4513.8  | 4405.5  | 3395.6  |
| 17.5° | 7029.7  | 7059.2  | 7160.1  | 7288.3  | 7406.0  | 7368.2  | 7019.2  | 6204.8  | 5062.4  | 4937.3  | 3747.7  |
| 20°   | 7263.1  | 7297.7  | 7406.0  | 7575.2  | 7794.8  | 7842.1  | 7613.0  | 6849.0  | 5609.9  | 5457.5  | 4111.3  |
| 22.5° | 7768.6  | 7767.5  | 7833.7  | 7932.5  | 8141.6  | 8263.6  | 8118.5  | 7447.0  | 6151.2  | 5992.5  | 4482.3  |
| 25°   | 8682.9  | 8648.2  | 8625.1  | 8547.3  | 8593.5  | 8669.2  | 8588.3  | 8006.1  | 6695.5  | 6534.8  | 4858.5  |
| 27.5° | 9769.6  | 9790.6  | 9603.5  | 9394.4  | 9232.5  | 9154.8  | 9022.3  | 8524.2  | 7218.9  | 7042.4  | 5226.3  |
| 30°   | 10916.1 | 10922.4 | 10701.7 | 10434.8 | 10078.5 | 9783.2  | 9554.1  | 9019.2  | 7757.0  | 7564.7  | 5583.7  |
| 32.5° | 11950.3 | 11909.3 | 11690.7 | 11327.0 | 10877.2 | 10545.1 | 10069.1 | 9572.0  | 8326.6  | 8140.6  | 5980.9  |
| 35°   | 12770.0 | 12721.6 | 12455.8 | 12124.7 | 11658.1 | 11323.9 | 10751.1 | 10123.7 | 8925.6  | 8743.8  | 6379.2  |
| 37.5° | 13369.0 | 13312.3 | 13039.0 | 12698.5 | 12296.0 | 12101.6 | 11542.5 | 10723.8 | 9579.3  | 9383.9  | 6798.5  |
| 40°   | 13577.1 | 13527.7 | 13356.4 | 13107.3 | 12783.7 | 12739.5 | 12382.2 | 11414.3 | 10290.8 | 10082.7 | 7273.6  |
| 42.5° | 13453.1 | 13404.8 | 13343.8 | 13259.7 | 13125.2 | 13167.2 | 13174.6 | 12201.4 | 11081.1 | 10876.2 | 7798.0  |
| 45°   | 12961.3 | 12918.2 | 12981.2 | 13104.2 | 13271.3 | 13479.4 | 13897.6 | 13047.4 | 11963.9 | 11745.3 | 8404.4  |
| 47.5° | 12237.2 | 12205.6 | 12380.1 | 12687.0 | 13175.7 | 13749.5 | 14558.7 | 13936.5 | 12955.0 | 12752.1 | 9161.1  |
| 50°   | 11207.2 | 11202.0 | 11550.9 | 12111.0 | 12862.5 | 13879.8 | 15241.8 | 14947.5 | 14331.7 | 14118.3 | 10213.0 |
| 52.5° | 9603.5  | 9614.0  | 10300.3 | 11196.7 | 12312.8 | 13791.5 | 15681.1 | 16246.5 | 15933.3 | 15711.6 | 11124.2 |
| 55°   | 8076.5  | 8139.5  | 8626.1  | 9918.8  | 11470.0 | 13463.6 | 15832.4 | 16852.9 | 16817.2 | 16607.0 | 11630.8 |
| 57.5° | 6581.0  | 6695.5  | 7164.3  | 8371.8  | 10239.3 | 12708.0 | 15749.4 | 17115.6 | 17475.1 | 17314.3 | 12299.2 |
| 60°   | 4960.4  | 5013.0  | 5553.2  | 6681.9  | 8659.8  | 11329.1 | 15147.2 | 17258.6 | 18374.7 | 18263.3 | 13269.2 |
| 62.5° | 3156.0  | 3287.3  | 3766.6  | 4855.3  | 6742.8  | 9414.3  | 14132.0 | 17256.5 | 19500.2 | 19561.2 | 14520.9 |
| 65°   | 1662.6  | 1816.0  | 2070.4  | 3008.8  | 4633.6  | 7275.7  | 12605.0 | 17094.6 | 20881.2 | 20966.3 | 15499.3 |
| 67.5° | 896.5   | 940.6   | 1075.1  | 1561.7  | 2687.3  | 4928.9  | 10361.2 | 16295.9 | 21680.9 | 21793.4 | 15635.9 |
| 70°   | 655.8   | 680.0   | 730.4   | 863.9   | 1352.6  | 2862.8  | 7560.5  | 14485.1 | 20649.9 | 20607.9 | 13892.4 |
| 72.5° | 503.4   | 541.2   | 579.1   | 632.7   | 777.7   | 1528.1  | 4707.2  | 11342.8 | 16476.7 | 16199.2 | 10384.4 |
| 75°   | 397.3   | 403.6   | 457.2   | 505.5   | 583.3   | 870.2   | 2090.3  | 6606.2  | 10056.5 | 9399.6  | 5385.0  |
| 77.5° | 317.4   | 321.6   | 353.1   | 395.2   | 468.7   | 571.7   | 647.4   | 2599.0  | 3210.6  | 2864.9  | 1168.6  |
| 80°   | 188.1   | 198.6   | 262.7   | 304.8   | 388.8   | 360.5   | 236.5   | 564.4   | 501.3   | 454.0   | 196.5   |
| 82.5° | 105.1   | 113.5   | 148.2   | 240.7   | 271.1   | 172.4   | 117.7   | 152.4   | 117.7   | 114.6   | 55.7    |
| 85°   | 0.0     | 5.3     | 95.6    | 149.2   | 110.3   | 37.8    | 49.4    | 50.4    | 34.7    | 32.6    | 22.1    |
| 87.5° | 0.0     | 0.0     | 29.4    | 28.4    | 4.2     | 6.3     | 11.6    | 16.8    | 13.7    | 13.7    | 11.6    |
| 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°    | 2034.6 | 2034.6 | 2034.6 | 2034.6 | 2034.6 | 2034.6 | 2034.6 | 2034.6 | 2034.6 | 2034.6 | 2034.6 |
| 2.5°  | 2074.6 | 2017.8 | 1910.6 | 1805.5 | 1717.2 | 1644.7 | 1579.6 | 1553.3 | 1532.3 | 1529.1 | 1512.3 |
| 5°    | 2167.0 | 2052.5 | 1847.6 | 1679.4 | 1567.0 | 1487.1 | 1418.8 | 1376.7 | 1344.2 | 1331.5 | 1320.0 |
| 7.5°  | 2306.8 | 2133.4 | 1839.1 | 1645.8 | 1511.3 | 1376.7 | 1250.6 | 1114.0 | 1028.9 | 996.3  | 977.4  |
| 10°   | 2477.1 | 2240.6 | 1870.7 | 1636.3 | 1400.9 | 1117.2 | 908.0  | 734.6  | 664.2  | 641.1  | 634.8  |
| 12.5° | 2675.7 | 2374.1 | 1925.3 | 1577.5 | 1165.5 | 793.5  | 626.4  | 567.5  | 551.7  | 544.4  | 544.4  |
| 15°   | 2903.8 | 2520.2 | 1964.2 | 1407.2 | 861.8  | 600.1  | 542.3  | 515.0  | 498.1  | 488.7  | 489.7  |
| 17.5° | 3137.1 | 2663.1 | 1945.3 | 1160.2 | 635.8  | 533.9  | 490.8  | 461.4  | 438.2  | 428.8  | 426.7  |
| 20°   | 3372.5 | 2795.5 | 1840.2 | 863.9  | 538.1  | 484.5  | 436.1  | 403.6  | 380.4  | 371.0  | 368.9  |
| 22.5° | 3616.3 | 2908.0 | 1655.2 | 633.7  | 483.4  | 429.8  | 382.5  | 350.0  | 327.9  | 319.5  | 315.3  |
| 25°   | 3853.8 | 2999.4 | 1396.7 | 512.9  | 431.9  | 378.3  | 333.1  | 302.7  | 282.7  | 274.3  | 273.2  |
| 27.5° | 4075.6 | 3057.2 | 1097.2 | 453.0  | 386.7  | 332.1  | 291.1  | 263.8  | 247.0  | 240.7  | 239.6  |
| 30°   | 4275.2 | 3062.4 | 811.3  | 408.8  | 346.8  | 292.2  | 254.3  | 230.2  | 215.4  | 209.1  | 207.0  |
| 32.5° | 4477.0 | 3018.3 | 590.6  | 368.9  | 310.0  | 257.5  | 220.7  | 201.8  | 191.3  | 186.0  | 186.0  |
| 35°   | 4667.2 | 2916.4 | 460.3  | 334.2  | 274.3  | 223.9  | 194.4  | 180.8  | 174.5  | 169.2  | 169.2  |
| 37.5° | 4853.2 | 2770.3 | 391.0  | 303.7  | 240.7  | 195.5  | 171.3  | 162.9  | 157.6  | 152.4  | 152.4  |
| 40°   | 5042.4 | 2586.4 | 355.2  | 275.3  | 213.3  | 173.4  | 152.4  | 145.0  | 139.8  | 135.6  | 134.5  |
| 42.5° | 5274.7 | 2374.1 | 332.1  | 249.1  | 189.2  | 153.4  | 134.5  | 126.1  | 121.9  | 117.7  | 115.6  |
| 45°   | 5543.7 | 2191.2 | 313.2  | 222.8  | 169.2  | 136.6  | 116.7  | 108.2  | 101.9  | 96.7   | 95.6   |
| 47.5° | 5931.5 | 2058.8 | 288.0  | 194.4  | 150.3  | 118.8  | 100.9  | 91.4   | 82.0   | 76.7   | 75.7   |
| 50°   | 6426.5 | 1949.5 | 255.4  | 169.2  | 131.4  | 100.9  | 84.1   | 72.5   | 64.1   | 58.9   | 58.9   |
| 52.5° | 6672.4 | 1806.6 | 226.0  | 147.1  | 110.3  | 85.1   | 68.3   | 54.6   | 50.4   | 45.2   | 45.2   |
| 55°   | 6771.2 | 1697.3 | 196.5  | 125.1  | 91.4   | 70.4   | 53.6   | 42.0   | 38.9   | 35.7   | 34.7   |
| 57.5° | 7048.7 | 1665.7 | 171.3  | 106.1  | 75.7   | 55.7   | 41.0   | 31.5   | 29.4   | 25.2   | 25.2   |
| 60°   | 7495.3 | 1681.5 | 148.2  | 90.4   | 61.0   | 43.1   | 30.5   | 24.2   | 22.1   | 17.9   | 17.9   |
| 62.5° | 7977.7 | 1661.5 | 125.1  | 77.8   | 47.3   | 31.5   | 21.0   | 17.9   | 17.9   | 10.5   | 9.5    |
| 65°   | 8070.2 | 1479.7 | 107.2  | 64.1   | 36.8   | 23.1   | 13.7   | 11.6   | 15.8   | 2.1    | 0.0    |
| 67.5° | 7490.1 | 1147.6 | 92.5   | 49.4   | 27.3   | 17.9   | 10.5   | 5.3    | 13.7   | 0.0    | 0.0    |
| 70°   | 5989.3 | 729.4  | 74.6   | 35.7   | 21.0   | 14.7   | 8.4    | 2.1    | 10.5   | 0.0    | 0.0    |
| 72.5° | 4235.3 | 423.5  | 58.9   | 25.2   | 17.9   | 11.6   | 6.3    | 0.0    | 6.3    | 0.0    | 0.0    |
| 75°   | 2141.8 | 226.0  | 36.8   | 18.9   | 13.7   | 8.4    | 4.2    | 0.0    | 1.1    | 0.0    | 0.0    |
| 77.5° | 463.5  | 105.1  | 23.1   | 13.7   | 9.5    | 5.3    | 2.1    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 100.9  | 46.2   | 14.7   | 8.4    | 5.3    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 36.8   | 24.2   | 7.4    | 4.2    | 2.1    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 20.0   | 12.6   | 4.2    | 2.1    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 10.5   | 4.2    | 1.1    | 1.1    | 0.0    | 0.0    | 0.0    | 0.0    | 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)