

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: STREETWORKS

Report Number: P451282

Luminaire Tested: **GLAN-SA2A-827-U-T2R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P451282  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GLAN-SA2A-827-U-T2R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 2700K, 615mA 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: 5413 lumens  
Efficiency: N/A  
Efficacy: 85.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B0 - U0 - G1

Input Watts (W): 63  
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

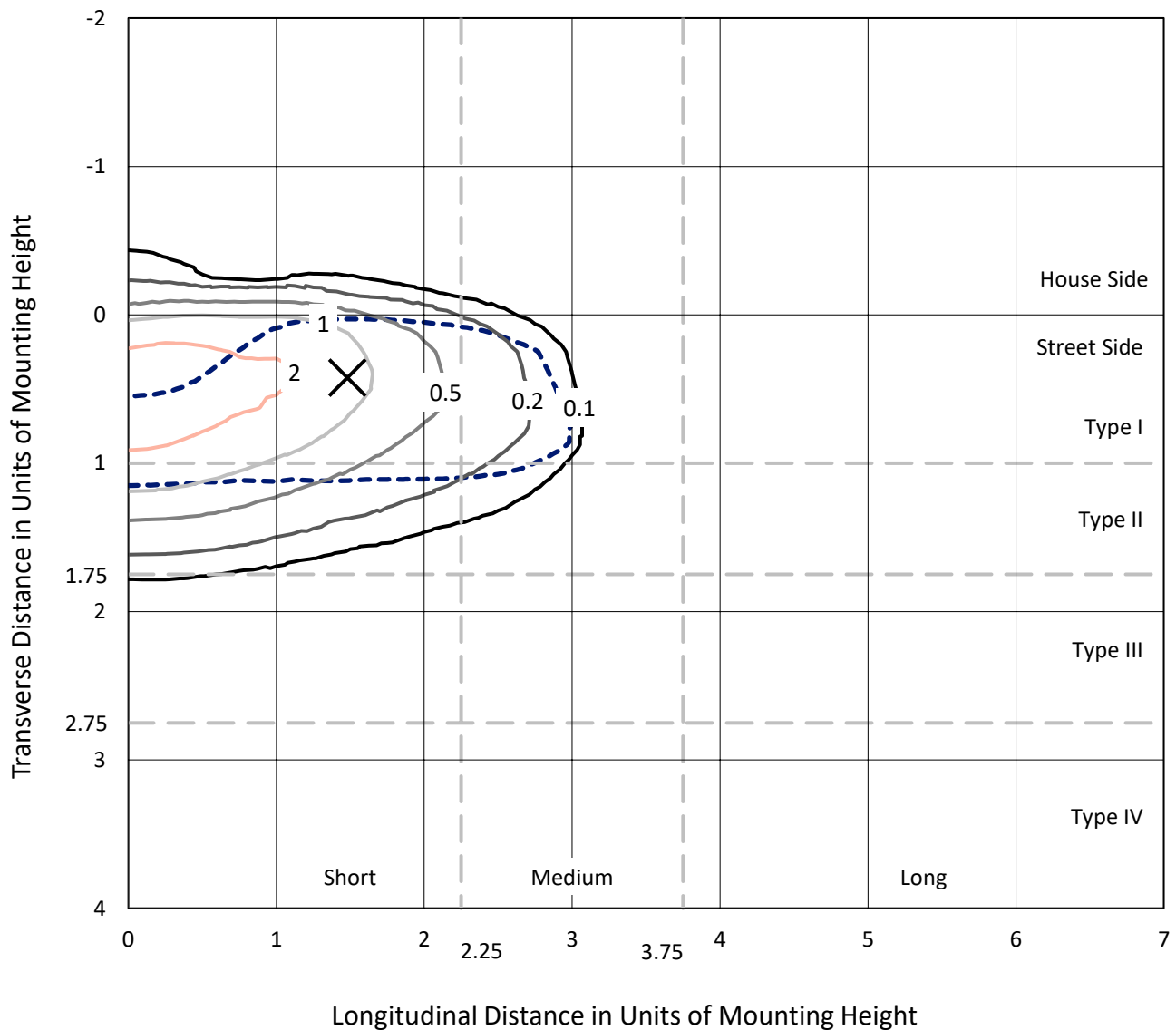


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## Iso-Footcandle Lines of Horizontal Illumination

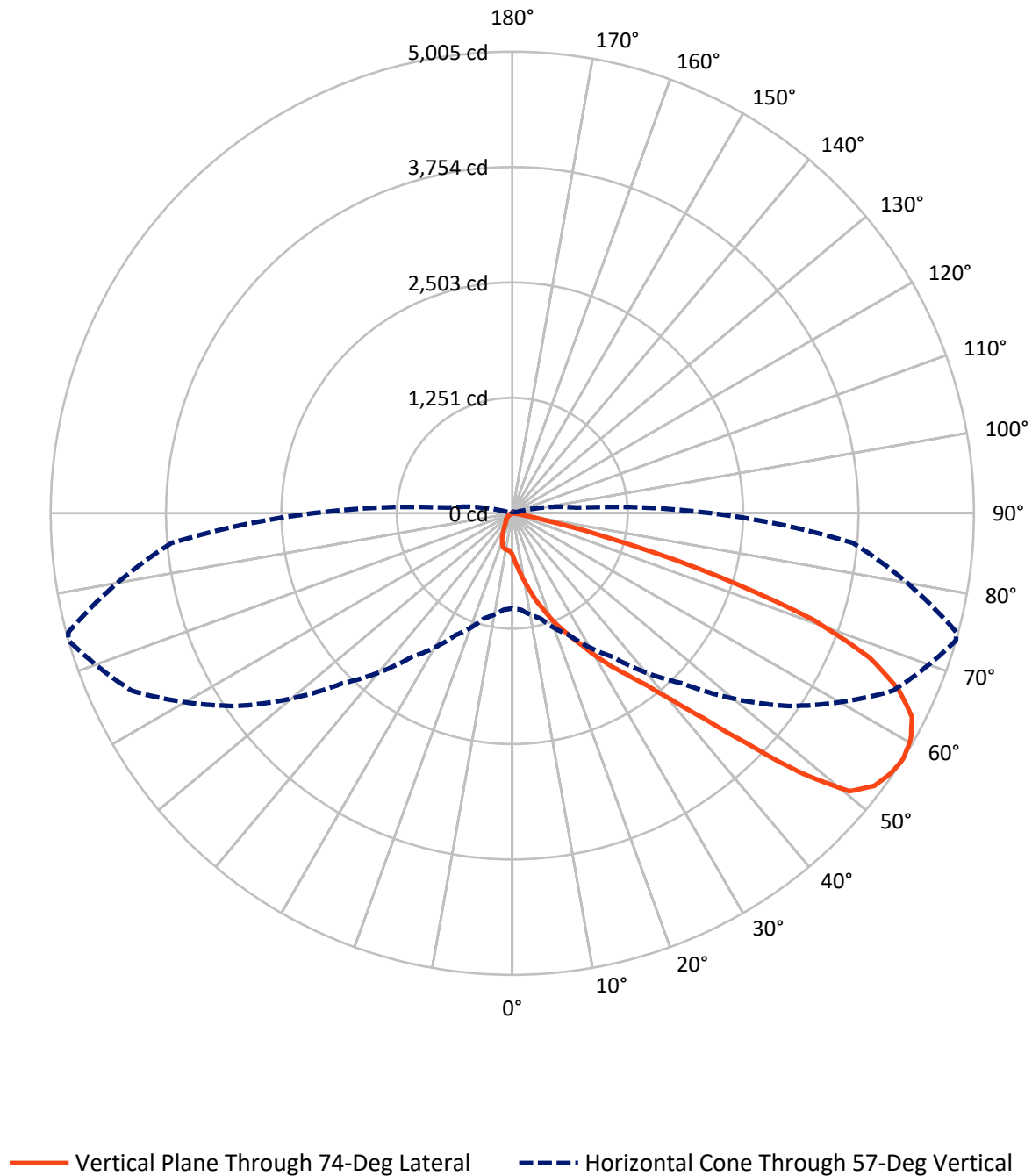
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type II - Short - N/A

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## Luminous Intensity Polar Plot



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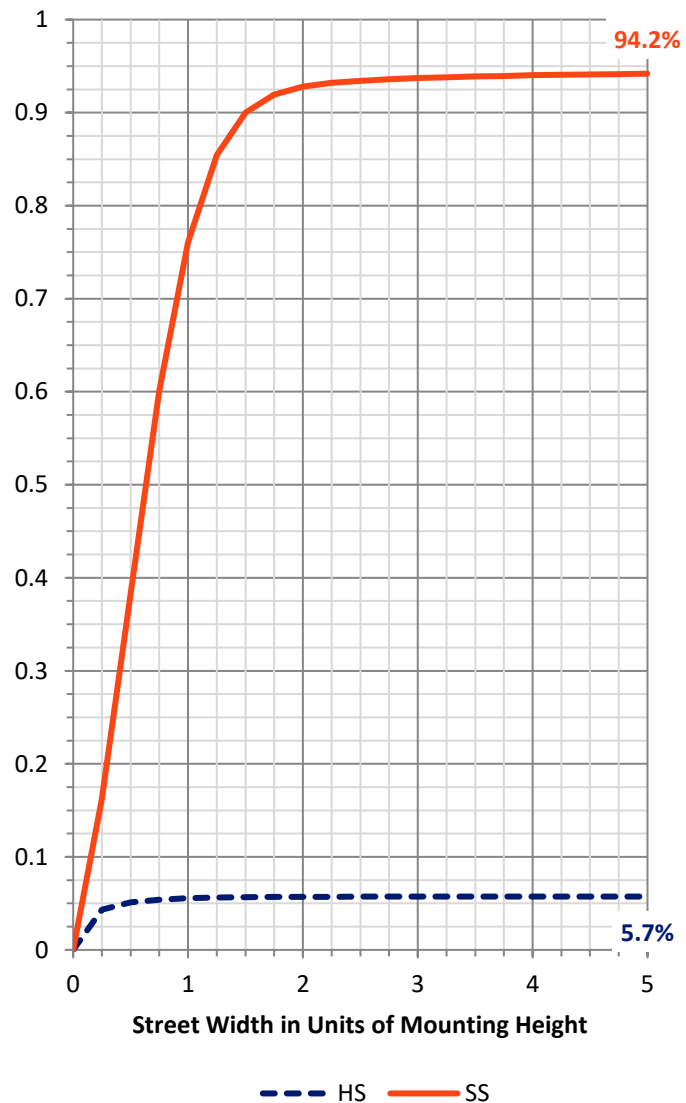
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 312.2    | 0.0    | 312.2  |
|                    | % Fixture | 5.8      | 0.0    | 5.8    |
| <b>Street Side</b> | Lumens    | 5100.8   | 0.0    | 5100.8 |
|                    | % Fixture | 94.2     | 0.0    | 94.2   |
| <b>Total</b>       | Lumens    | 5413.0   | 0.0    | 5413.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 54.7   | 1.0       |
| 10°-20°   | 215.7  | 4.0       |
| 20°-30°   | 461.5  | 8.5       |
| 30°-40°   | 848.2  | 15.7      |
| 40°-50°   | 1300.3 | 24.0      |
| 50°-60°   | 1375.6 | 25.4      |
| 60°-70°   | 898.3  | 16.6      |
| 70°-80°   | 245.4  | 4.5       |
| 80°-90°   | 13.2   | 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°    | 5413.0 | 100.0     |
| 0°-180°   | 5413.0 | 100.0     |

**Coefficient of Utilization**



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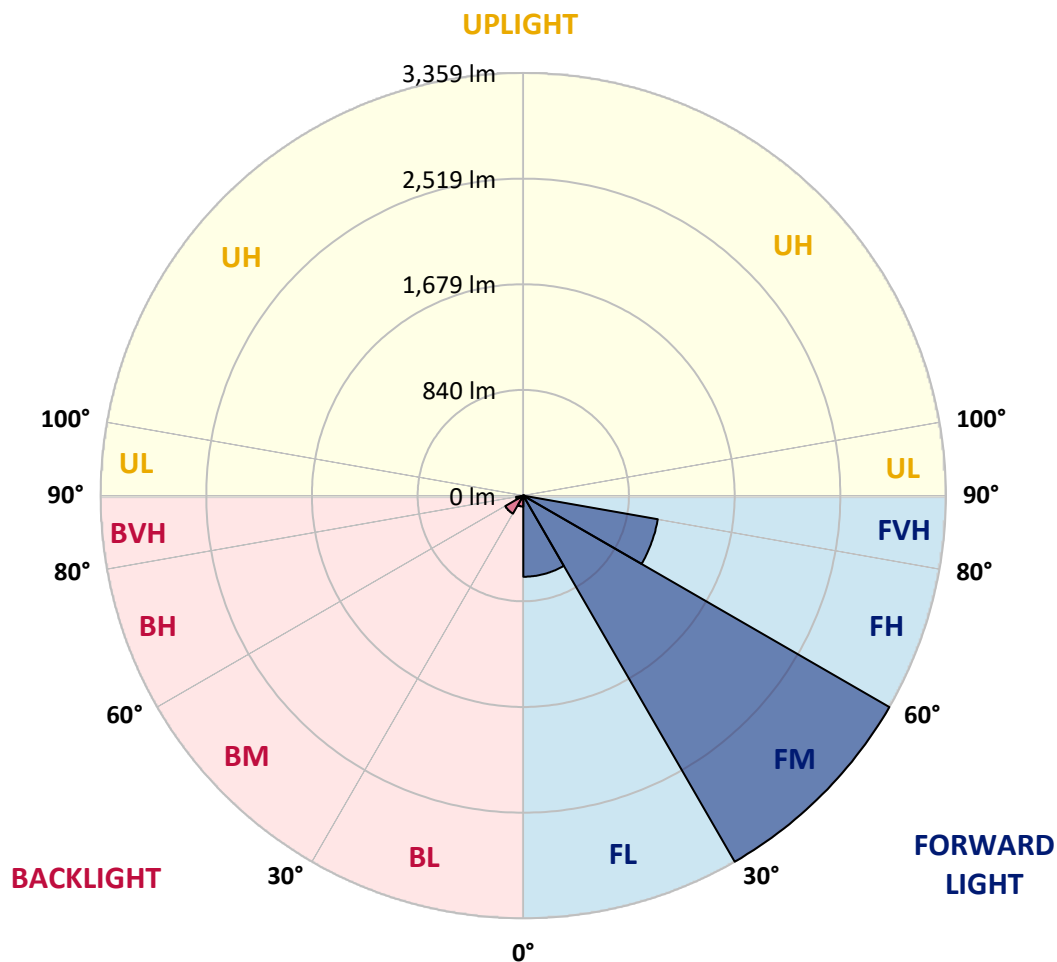
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 644.7  | 11.9      |                         |      |         |
| FM   | (30°-60°)   | 3358.9 | 62.1      |                         |      |         |
| FH   | (60°-80°)   | 1085.1 | 20.0      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 12.1   | 0.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 87.2   | 1.6       | B0/110                  |      |         |
| BM   | (30°-60°)   | 165.3  | 3.1       | B0/220                  |      |         |
| BH   | (60°-80°)   | 58.6   | 1.1       | B0/110                  |      | G0/110  |
| BVH  | (80°-90°)   | 1.1    | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B0-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 74°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 453.3  | 453.3  | 453.3  | 453.3  | 453.3  | 453.3  | 453.3  | 453.3  | 453.3  | 453.3  | 453.3  |
| 2.5°  | 663.4  | 657.4  | 645.4  | 641.3  | 623.8  | 596.5  | 572.6  | 540.4  | 515.0  | 512.4  | 481.7  |
| 5°    | 888.4  | 874.9  | 869.3  | 842.4  | 800.2  | 760.5  | 692.5  | 640.9  | 581.5  | 577.0  | 515.4  |
| 7.5°  | 1105.1 | 1086.4 | 1080.8 | 1055.4 | 1006.1 | 943.7  | 855.5  | 761.7  | 667.5  | 658.9  | 560.6  |
| 10°   | 1262.1 | 1264.7 | 1254.6 | 1237.8 | 1197.8 | 1134.3 | 1025.5 | 897.3  | 763.2  | 752.3  | 611.4  |
| 12.5° | 1374.6 | 1374.2 | 1376.1 | 1375.7 | 1354.4 | 1306.2 | 1191.8 | 1044.2 | 868.5  | 847.2  | 669.7  |
| 15°   | 1447.8 | 1448.9 | 1454.5 | 1474.0 | 1476.2 | 1446.3 | 1351.0 | 1184.7 | 990.8  | 964.2  | 732.9  |
| 17.5° | 1521.8 | 1529.7 | 1538.6 | 1556.9 | 1573.4 | 1561.4 | 1494.2 | 1331.2 | 1101.4 | 1081.6 | 800.5  |
| 20°   | 1644.0 | 1654.9 | 1649.6 | 1660.8 | 1669.4 | 1670.6 | 1618.6 | 1466.5 | 1235.5 | 1202.3 | 877.9  |
| 22.5° | 1839.5 | 1839.1 | 1825.7 | 1805.5 | 1788.7 | 1787.9 | 1740.8 | 1605.5 | 1357.4 | 1325.2 | 955.6  |
| 25°   | 2086.5 | 2087.6 | 2061.5 | 2003.9 | 1962.1 | 1910.9 | 1856.7 | 1727.4 | 1487.8 | 1448.2 | 1037.5 |
| 27.5° | 2369.8 | 2362.7 | 2323.1 | 2243.9 | 2160.9 | 2073.4 | 1995.3 | 1869.0 | 1626.1 | 1593.2 | 1131.3 |
| 30°   | 2624.3 | 2621.7 | 2575.4 | 2478.6 | 2369.4 | 2281.6 | 2168.4 | 2046.5 | 1805.1 | 1764.7 | 1236.3 |
| 32.5° | 2861.3 | 2865.0 | 2800.7 | 2700.6 | 2595.2 | 2493.9 | 2374.3 | 2216.2 | 1980.8 | 1923.6 | 1350.7 |
| 35°   | 3046.3 | 3050.0 | 2983.5 | 2900.1 | 2791.7 | 2707.7 | 2593.7 | 2397.1 | 2154.2 | 2106.0 | 1482.2 |
| 37.5° | 3144.9 | 3149.8 | 3111.3 | 3048.5 | 2980.9 | 2938.6 | 2832.5 | 2629.9 | 2364.9 | 2335.8 | 1637.7 |
| 40°   | 3163.6 | 3169.2 | 3152.4 | 3135.6 | 3131.8 | 3162.1 | 3131.1 | 2904.2 | 2657.2 | 2611.6 | 1869.4 |
| 42.5° | 3107.5 | 3115.0 | 3122.5 | 3159.9 | 3236.1 | 3347.1 | 3455.1 | 3276.5 | 3033.5 | 2972.3 | 2152.7 |
| 45°   | 2960.3 | 2959.5 | 2989.1 | 3085.9 | 3256.7 | 3493.6 | 3793.7 | 3742.5 | 3546.3 | 3473.4 | 2552.9 |
| 47.5° | 2708.4 | 2704.7 | 2768.6 | 2906.5 | 3172.6 | 3520.5 | 4069.9 | 4308.3 | 4200.7 | 4133.4 | 2983.1 |
| 50°   | 2324.6 | 2342.9 | 2443.4 | 2635.9 | 2963.7 | 3439.0 | 4155.1 | 4679.4 | 4737.7 | 4666.4 | 3330.7 |
| 52.5° | 1875.0 | 1874.2 | 2032.0 | 2293.2 | 2654.2 | 3259.7 | 4095.7 | 4746.7 | 4912.3 | 4857.7 | 3501.8 |
| 55°   | 1387.7 | 1397.4 | 1561.4 | 1824.9 | 2252.5 | 2932.3 | 3901.7 | 4677.6 | 4978.8 | 4940.3 | 3614.7 |
| 57°   | 1032.2 | 1049.4 | 1181.0 | 1459.8 | 1902.6 | 2608.2 | 3643.5 | 4553.9 | 5005.0 | 4984.0 | 3708.5 |
| 57.5° | 963.5  | 964.2  | 1092.4 | 1345.8 | 1800.2 | 2483.8 | 3569.5 | 4502.3 | 5004.2 | 4992.6 | 3723.8 |
| 60°   | 593.1  | 611.8  | 700.4  | 909.7  | 1317.8 | 1938.5 | 3073.5 | 4205.9 | 4965.3 | 4982.2 | 3789.2 |
| 62.5° | 355.0  | 362.9  | 420.4  | 548.3  | 849.5  | 1414.9 | 2515.2 | 3826.6 | 4864.1 | 4915.3 | 3784.7 |
| 65°   | 228.3  | 230.2  | 256.4  | 331.9  | 531.1  | 956.4  | 1938.2 | 3325.4 | 4602.1 | 4696.3 | 3636.7 |
| 67.5° | 176.4  | 179.4  | 189.9  | 217.9  | 308.0  | 595.7  | 1370.8 | 2790.6 | 4178.3 | 4299.7 | 3278.0 |
| 70°   | 156.6  | 158.1  | 161.8  | 170.8  | 203.7  | 336.4  | 852.8  | 2180.0 | 3464.8 | 3499.2 | 2565.3 |
| 72.5° | 127.8  | 131.9  | 143.5  | 146.5  | 161.5  | 210.0  | 474.6  | 1463.1 | 2327.9 | 2336.5 | 1435.1 |
| 75°   | 99.0   | 99.8   | 117.0  | 125.6  | 136.0  | 144.6  | 211.9  | 737.7  | 1118.2 | 1058.4 | 553.1  |
| 77.5° | 74.0   | 77.4   | 85.2   | 96.0   | 111.0  | 103.5  | 94.9   | 278.1  | 347.2  | 340.8  | 160.7  |
| 80°   | 47.5   | 49.3   | 59.4   | 72.1   | 86.3   | 67.6   | 53.4   | 81.5   | 76.2   | 78.5   | 38.5   |
| 82.5° | 23.9   | 24.3   | 38.1   | 58.7   | 54.9   | 34.0   | 33.6   | 33.3   | 28.4   | 28.0   | 17.9   |
| 85°   | 2.6    | 5.6    | 24.7   | 33.6   | 24.7   | 11.2   | 15.7   | 15.3   | 14.9   | 15.3   | 10.5   |
| 87.5° | 0.4    | 0.4    | 4.1    | 4.9    | 3.4    | 3.7    | 4.5    | 4.9    | 6.0    | 5.6    | 4.5    |
| 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°    | 453.3  | 453.3 | 453.3 | 453.3 | 453.3 | 453.3 | 453.3 | 453.3 | 453.3 | 453.3 | 453.3 |
| 2.5°  | 466.8  | 451.8 | 424.2 | 397.6 | 377.8 | 365.1 | 348.7 | 342.7 | 334.1 | 333.0 | 328.9 |
| 5°    | 487.0  | 458.6 | 410.4 | 372.2 | 341.6 | 318.4 | 298.2 | 281.4 | 268.0 | 265.0 | 266.5 |
| 7.5°  | 515.7  | 473.5 | 406.2 | 354.3 | 311.7 | 272.1 | 239.9 | 220.1 | 205.9 | 200.7 | 201.4 |
| 10°   | 548.3  | 493.3 | 405.5 | 335.2 | 270.2 | 221.6 | 186.5 | 168.9 | 160.7 | 157.7 | 154.3 |
| 12.5° | 586.8  | 516.1 | 403.6 | 305.7 | 224.6 | 176.8 | 151.7 | 141.3 | 133.4 | 131.2 | 131.2 |
| 15°   | 630.1  | 540.4 | 394.7 | 269.1 | 182.4 | 146.1 | 129.3 | 121.1 | 118.5 | 116.2 | 116.2 |
| 17.5° | 675.3  | 564.3 | 376.0 | 223.9 | 151.4 | 125.2 | 114.7 | 109.9 | 106.1 | 103.5 | 103.5 |
| 20°   | 726.9  | 587.9 | 346.1 | 183.9 | 127.8 | 111.7 | 103.5 | 97.9  | 94.9  | 92.7  | 91.9  |
| 22.5° | 775.9  | 606.9 | 308.0 | 151.0 | 111.4 | 100.5 | 93.1  | 87.1  | 84.1  | 83.0  | 83.0  |
| 25°   | 826.7  | 618.5 | 262.0 | 124.8 | 101.7 | 91.2  | 83.0  | 78.1  | 75.5  | 74.7  | 74.4  |
| 27.5° | 876.0  | 625.2 | 221.6 | 109.1 | 92.7  | 82.6  | 74.7  | 71.0  | 68.4  | 67.6  | 68.0  |
| 30°   | 935.8  | 626.4 | 182.4 | 97.9  | 84.8  | 74.4  | 67.3  | 63.9  | 62.4  | 61.7  | 61.3  |
| 32.5° | 996.4  | 624.9 | 153.2 | 91.2  | 77.4  | 67.3  | 61.3  | 58.7  | 57.6  | 56.4  | 56.4  |
| 35°   | 1064.4 | 617.0 | 130.4 | 84.5  | 70.3  | 61.3  | 56.1  | 53.8  | 52.3  | 51.2  | 50.8  |
| 37.5° | 1148.8 | 612.9 | 117.4 | 77.0  | 63.9  | 55.7  | 50.8  | 48.6  | 47.5  | 46.0  | 45.6  |
| 40°   | 1281.9 | 631.2 | 113.2 | 70.3  | 57.6  | 50.5  | 46.0  | 43.4  | 41.9  | 40.4  | 40.0  |
| 42.5° | 1447.8 | 663.4 | 106.5 | 63.5  | 51.9  | 45.6  | 41.1  | 38.1  | 35.5  | 33.6  | 32.9  |
| 45°   | 1662.7 | 705.6 | 96.0  | 56.4  | 47.1  | 40.4  | 36.3  | 32.5  | 29.2  | 27.7  | 27.3  |
| 47.5° | 1888.1 | 746.3 | 86.7  | 50.8  | 41.9  | 35.9  | 31.4  | 27.3  | 24.3  | 23.2  | 22.8  |
| 50°   | 2026.4 | 754.6 | 80.7  | 44.5  | 36.6  | 31.0  | 26.5  | 22.8  | 20.9  | 19.8  | 19.8  |
| 52.5° | 2089.5 | 741.5 | 72.5  | 38.9  | 31.8  | 27.3  | 22.8  | 19.8  | 18.7  | 17.9  | 17.6  |
| 55°   | 2133.6 | 721.3 | 61.7  | 33.6  | 27.3  | 23.2  | 20.2  | 17.9  | 16.4  | 15.7  | 15.3  |
| 57°   | 2159.4 | 694.0 | 53.4  | 29.5  | 23.5  | 20.2  | 17.9  | 16.1  | 14.6  | 13.1  | 13.1  |
| 57.5° | 2160.5 | 683.5 | 51.2  | 29.2  | 22.4  | 19.4  | 17.6  | 15.7  | 13.8  | 12.3  | 12.0  |
| 60°   | 2127.3 | 611.8 | 41.1  | 24.7  | 17.9  | 16.4  | 14.6  | 12.3  | 9.7   | 8.2   | 7.8   |
| 62.5° | 2020.4 | 520.6 | 34.0  | 20.9  | 14.6  | 12.7  | 10.5  | 9.3   | 6.7   | 4.9   | 4.9   |
| 65°   | 1858.5 | 422.3 | 29.2  | 16.8  | 12.0  | 9.3   | 7.1   | 6.7   | 4.1   | 2.2   | 1.9   |
| 67.5° | 1624.6 | 328.9 | 24.7  | 13.8  | 10.1  | 6.7   | 4.9   | 4.5   | 2.2   | 0.7   | 0.0   |
| 70°   | 1237.8 | 224.2 | 20.6  | 11.2  | 7.5   | 4.9   | 3.4   | 2.6   | 1.5   | 0.4   | 0.0   |
| 72.5° | 713.4  | 123.3 | 17.2  | 8.6   | 5.6   | 3.7   | 2.6   | 1.5   | 1.5   | 0.0   | 0.0   |
| 75°   | 254.9  | 53.1  | 13.1  | 6.4   | 4.5   | 3.0   | 1.9   | 0.7   | 1.1   | 0.4   | 0.0   |
| 77.5° | 81.1   | 28.4  | 8.6   | 4.9   | 3.7   | 2.2   | 1.5   | 0.7   | 0.7   | 0.4   | 0.0   |
| 80°   | 23.9   | 14.9  | 5.2   | 4.1   | 2.6   | 1.9   | 1.1   | 0.4   | 0.7   | 0.4   | 0.0   |
| 82.5° | 13.1   | 7.5   | 4.1   | 3.0   | 2.6   | 1.5   | 1.1   | 0.4   | 0.4   | 0.4   | 0.0   |
| 85°   | 6.7    | 4.5   | 3.4   | 3.0   | 2.6   | 1.5   | 1.1   | 0.4   | 0.0   | 0.4   | 0.4   |
| 87.5° | 3.7    | 3.4   | 3.4   | 3.0   | 2.6   | 1.9   | 1.1   | 0.4   | 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)