

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: P321548

Luminaire Tested: **GAN-SA4A-730-U-T3R-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P321548  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA4A-730-U-T3R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13166 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G3

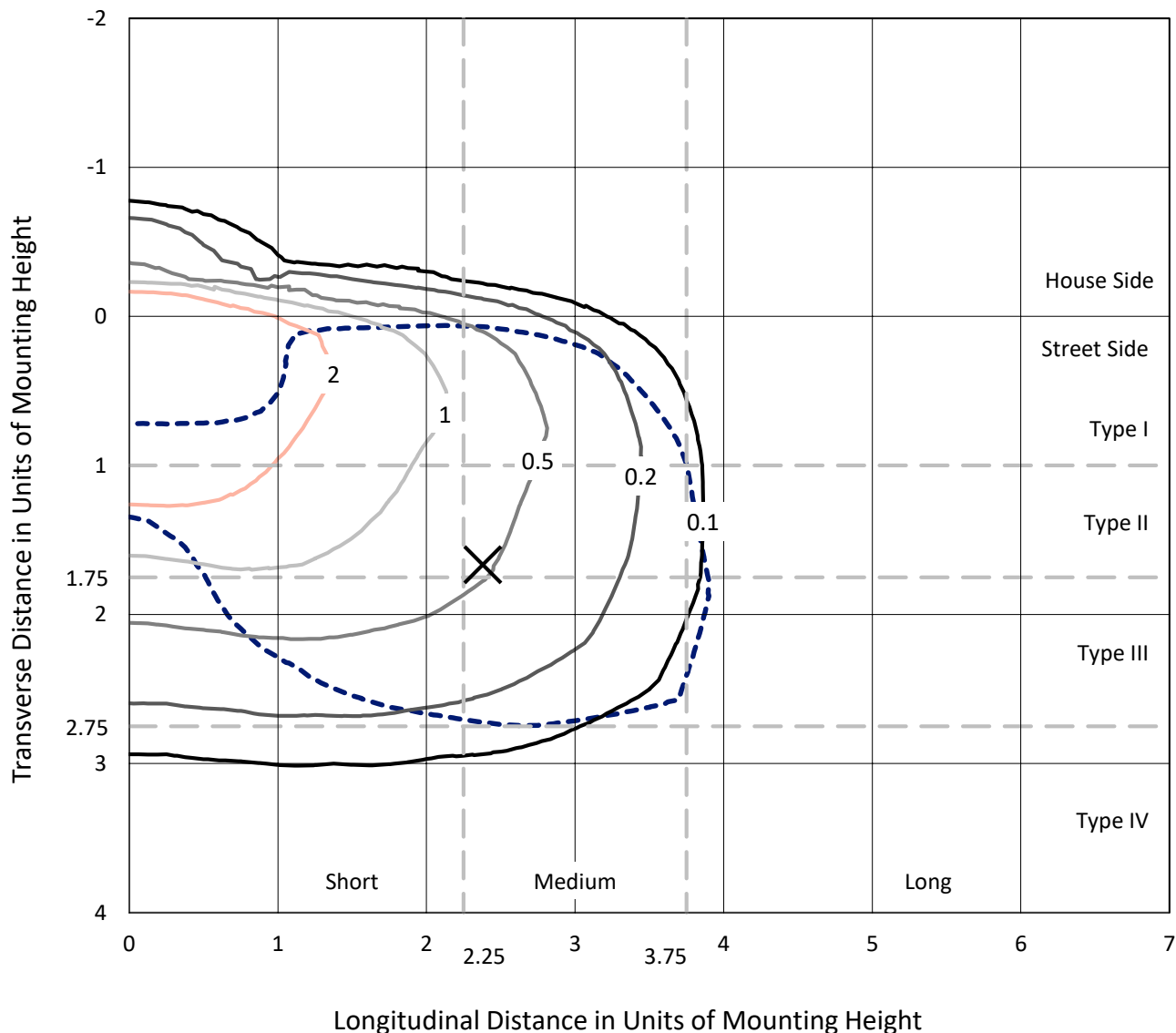
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

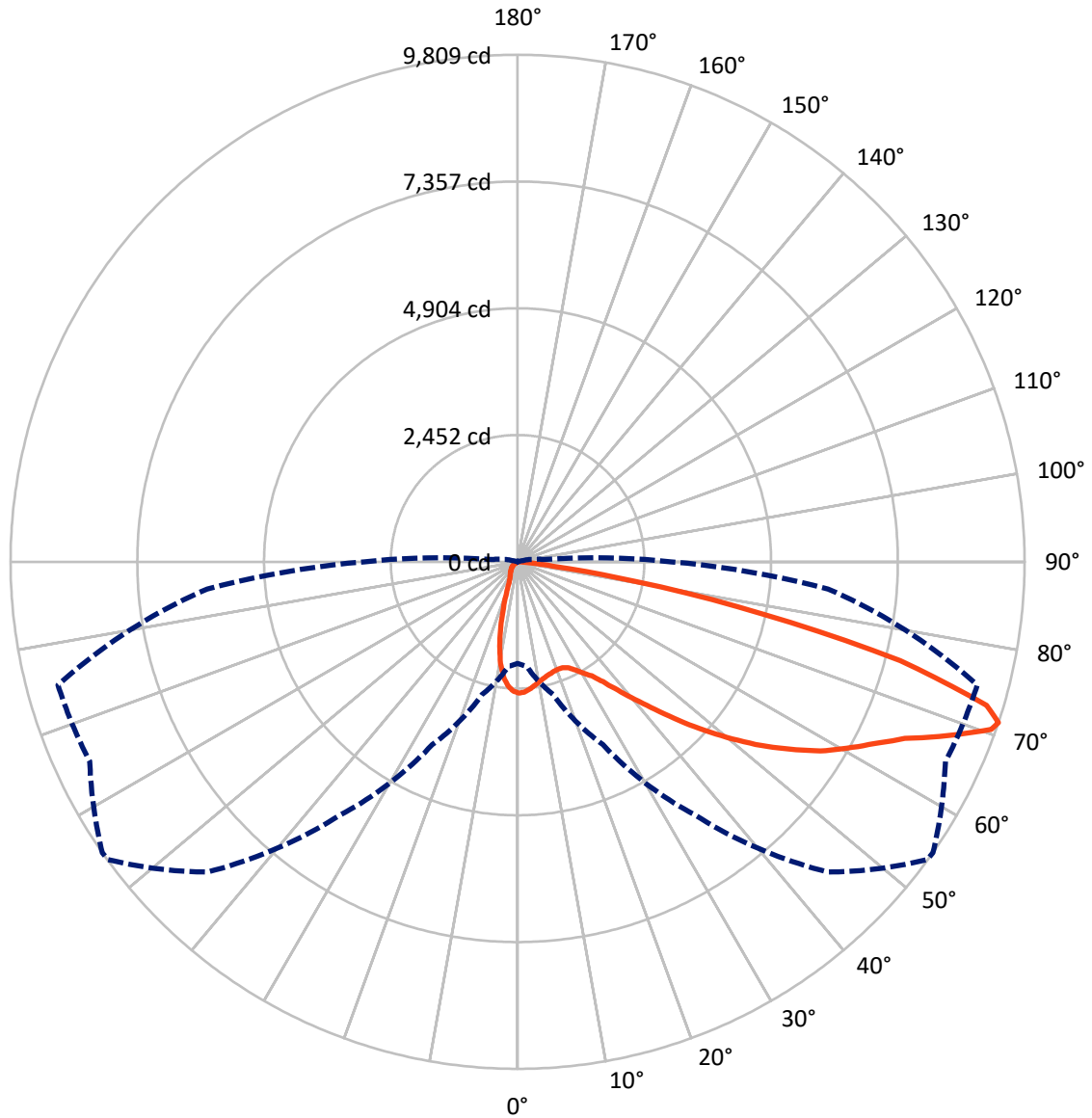
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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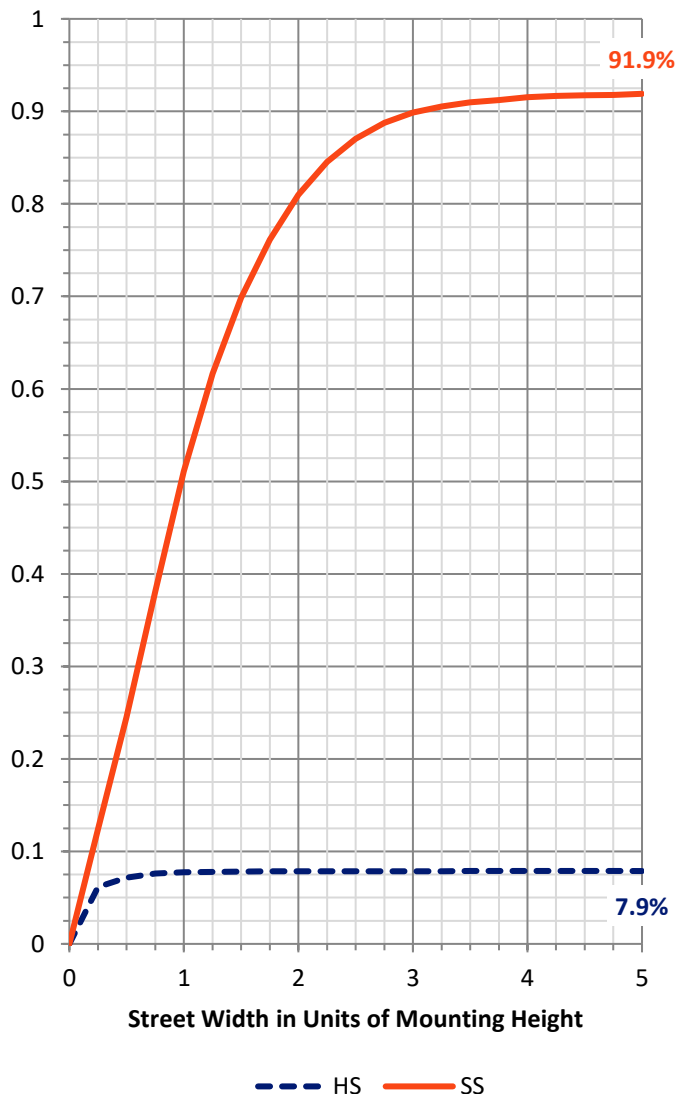
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1042.4   | 0.0    | 1042.4  |
|                    | % Fixture | 7.9      | 0.0    | 7.9     |
| <b>Street Side</b> | Lumens    | 12123.6  | 0.0    | 12123.6 |
|                    | % Fixture | 92.1     | 0.0    | 92.1    |
| <b>Total</b>       | Lumens    | 13166.0  | 0.0    | 13166.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 216.5   | 1.6       |
| 10°-20°   | 488.7   | 3.7       |
| 20°-30°   | 785.4   | 6.0       |
| 30°-40°   | 1334.5  | 10.1      |
| 40°-50°   | 2071.3  | 15.7      |
| 50°-60°   | 2784.8  | 21.2      |
| 60°-70°   | 3406.8  | 25.9      |
| 70°-80°   | 1991.8  | 15.1      |
| 80°-90°   | 86.1    | 0.7       |
| 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°    | 13166.0 | 100.0     |
| 0°-180°   | 13166.0 | 100.0     |

**Coefficient of Utilization**

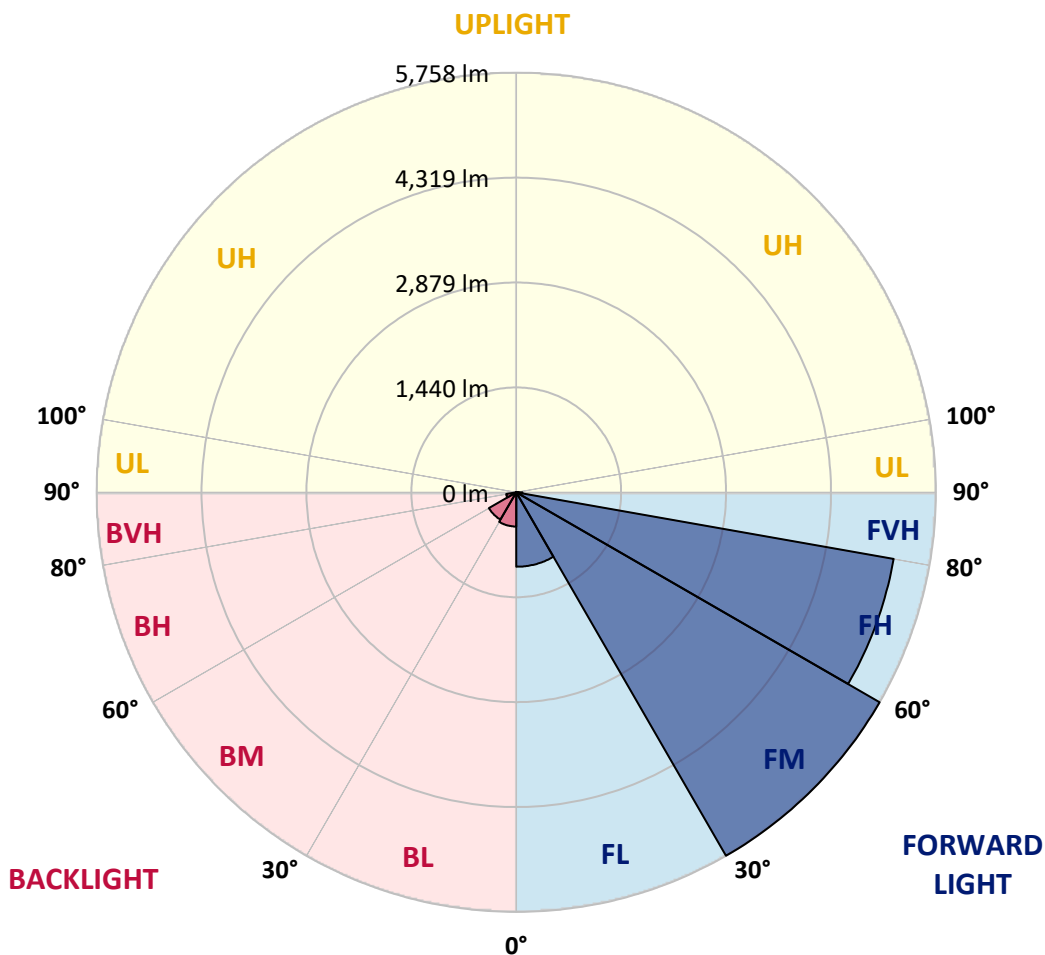


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1021.5 | 7.8       |                         |      |         |
| FM (30°-60°)   | 5758.4 | 43.7      |                         |      |         |
| FH (60°-80°)   | 5258.9 | 39.9      |                         |      | G3/7500 |
| FVH (80°-90°)  | 84.7   | 0.6       |                         |      | G1/100  |
| BL (0°-30°)    | 469.2  | 3.6       | B1/500                  |      |         |
| BM (30°-60°)   | 432.2  | 3.3       | B1/1000                 |      |         |
| BH (60°-80°)   | 139.7  | 1.1       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 1.4    | 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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 54°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 |
| 2.5°  | 2464.6 | 2467.6 | 2478.2 | 2482.9 | 2494.2 | 2513.1 | 2522.6 | 2523.1 | 2538.5 | 2544.4 | 2549.2 |
| 5°    | 2290.2 | 2308.0 | 2325.7 | 2344.6 | 2378.9 | 2424.4 | 2469.4 | 2473.5 | 2523.1 | 2559.8 | 2579.3 |
| 7.5°  | 2140.1 | 2156.0 | 2177.3 | 2207.5 | 2255.9 | 2327.5 | 2402.5 | 2411.4 | 2505.4 | 2588.8 | 2632.5 |
| 10°   | 1985.8 | 1998.8 | 2029.5 | 2073.9 | 2140.7 | 2236.4 | 2337.5 | 2352.3 | 2489.5 | 2627.8 | 2704.6 |
| 12.5° | 1820.8 | 1828.5 | 1865.8 | 1929.6 | 2027.7 | 2149.5 | 2282.5 | 2302.0 | 2479.4 | 2672.7 | 2789.8 |
| 15°   | 1695.5 | 1699.0 | 1734.5 | 1800.7 | 1913.1 | 2071.5 | 2240.0 | 2263.6 | 2481.8 | 2726.5 | 2882.6 |
| 17.5° | 1663.6 | 1665.3 | 1684.3 | 1729.8 | 1829.1 | 2001.7 | 2206.3 | 2235.2 | 2488.9 | 2779.1 | 2976.0 |
| 20°   | 1793.0 | 1780.6 | 1761.1 | 1754.0 | 1796.6 | 1959.8 | 2186.2 | 2218.7 | 2498.3 | 2825.8 | 3059.9 |
| 22.5° | 2148.3 | 2111.7 | 2030.7 | 1922.5 | 1856.9 | 1962.7 | 2191.5 | 2224.0 | 2528.5 | 2883.2 | 3156.9 |
| 25°   | 2675.7 | 2624.8 | 2487.1 | 2274.3 | 2069.7 | 2047.8 | 2235.8 | 2268.9 | 2587.0 | 2951.8 | 3249.7 |
| 27.5° | 3275.7 | 3225.5 | 3057.0 | 2753.1 | 2404.3 | 2216.3 | 2337.5 | 2368.3 | 2673.9 | 3012.6 | 3320.6 |
| 30°   | 3850.3 | 3836.2 | 3637.5 | 3292.3 | 2825.2 | 2489.5 | 2468.8 | 2494.8 | 2738.3 | 3049.3 | 3376.8 |
| 32.5° | 4337.5 | 4315.0 | 4155.4 | 3819.6 | 3307.1 | 2817.6 | 2623.1 | 2630.7 | 2786.8 | 3096.6 | 3450.1 |
| 35°   | 4789.1 | 4761.3 | 4621.2 | 4303.8 | 3801.3 | 3218.4 | 2860.7 | 2849.5 | 2892.6 | 3191.8 | 3556.5 |
| 37.5° | 5183.5 | 5208.9 | 5053.4 | 4751.3 | 4244.7 | 3635.2 | 3181.1 | 3147.4 | 3058.2 | 3346.7 | 3710.8 |
| 40°   | 5513.3 | 5513.3 | 5432.3 | 5180.5 | 4723.5 | 4066.1 | 3543.5 | 3499.2 | 3307.1 | 3585.5 | 3906.5 |
| 42.5° | 5632.2 | 5657.6 | 5687.7 | 5545.3 | 5152.1 | 4514.2 | 3947.3 | 3901.2 | 3657.6 | 3924.2 | 4153.6 |
| 45°   | 5639.2 | 5679.4 | 5833.7 | 5833.2 | 5539.3 | 4959.4 | 4402.5 | 4380.6 | 4106.9 | 4359.3 | 4459.8 |
| 47.5° | 5539.3 | 5589.6 | 5843.8 | 5988.0 | 5846.2 | 5373.8 | 4900.3 | 4873.1 | 4634.8 | 4892.6 | 4780.3 |
| 50°   | 5385.0 | 5440.6 | 5736.2 | 6048.9 | 6054.8 | 5734.4 | 5424.7 | 5383.9 | 5216.0 | 5502.1 | 5111.3 |
| 52.5° | 5109.0 | 5216.6 | 5639.8 | 6063.1 | 6192.0 | 6046.0 | 5923.6 | 5905.9 | 5866.3 | 6089.1 | 5375.0 |
| 55°   | 4518.4 | 4637.8 | 5398.0 | 6067.9 | 6319.1 | 6322.1 | 6391.2 | 6396.0 | 6475.8 | 6637.7 | 5571.3 |
| 57.5° | 4239.3 | 4306.7 | 4975.9 | 6090.3 | 6507.7 | 6635.4 | 6867.7 | 6904.4 | 7027.9 | 7158.6 | 5795.3 |
| 60°   | 4063.8 | 4143.6 | 4767.9 | 6059.6 | 6803.9 | 7046.3 | 7309.3 | 7321.7 | 7454.2 | 7696.0 | 6098.6 |
| 62.5° | 3923.6 | 4002.3 | 4636.6 | 5941.3 | 7136.7 | 7540.5 | 7740.9 | 7742.1 | 7841.4 | 8336.2 | 6443.3 |
| 65°   | 3577.8 | 3644.0 | 4371.2 | 5808.3 | 7356.6 | 8029.4 | 8242.2 | 8234.5 | 8315.5 | 9011.3 | 6843.5 |
| 67.5° | 3077.7 | 3128.5 | 3829.1 | 5304.1 | 7273.9 | 8473.9 | 8998.9 | 8973.5 | 8875.4 | 9594.8 | 7000.7 |
| 70°   | 2379.5 | 2397.8 | 3018.0 | 4420.2 | 6498.2 | 8644.8 | 9730.2 | 9717.2 | 9218.8 | 9490.2 | 6424.3 |
| 71°   | 1966.8 | 2027.2 | 2659.7 | 3901.2 | 5978.6 | 8487.0 | 9801.1 | 9808.8 | 9132.5 | 9205.2 | 6027.7 |
| 72.5° | 1142.2 | 1193.6 | 1927.8 | 2996.1 | 5075.9 | 7828.4 | 9433.4 | 9489.0 | 8729.3 | 8372.9 | 5148.6 |
| 75°   | 244.7  | 261.9  | 714.7  | 1450.2 | 2792.1 | 5486.7 | 7445.9 | 7643.9 | 7114.8 | 5696.0 | 3103.1 |
| 77.5° | 170.3  | 183.9  | 306.2  | 658.0  | 922.8  | 2711.1 | 4625.4 | 4848.8 | 4250.6 | 2140.7 | 993.2  |
| 80°   | 134.8  | 150.2  | 238.8  | 325.1  | 249.5  | 874.4  | 2166.7 | 2303.2 | 1417.6 | 477.7  | 167.3  |
| 82.5° | 75.1   | 89.3   | 186.2  | 175.6  | 95.8   | 166.1  | 606.5  | 685.8  | 283.8  | 96.4   | 39.6   |
| 85°   | 21.9   | 26.6   | 120.0  | 127.7  | 40.8   | 31.9   | 103.5  | 128.3  | 53.8   | 25.4   | 17.7   |
| 87.5° | 0.0    | 0.0    | 57.9   | 49.1   | 11.8   | 4.7    | 9.5    | 10.6   | 10.6   | 10.6   | 11.8   |
| 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°    | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 | 2539.1 |
| 2.5°  | 2549.2 | 2553.3 | 2538.5 | 2519.0 | 2498.3 | 2472.9 | 2446.3 | 2425.6 | 2425.0 | 2415.0 | 2404.9 |
| 5°    | 2580.5 | 2578.1 | 2537.3 | 2475.3 | 2402.0 | 2325.7 | 2253.0 | 2170.8 | 2143.6 | 2109.9 | 2098.7 |
| 7.5°  | 2638.4 | 2621.9 | 2535.6 | 2399.6 | 2238.8 | 2079.2 | 1914.2 | 1748.1 | 1677.2 | 1613.3 | 1602.1 |
| 10°   | 2711.1 | 2679.8 | 2524.3 | 2286.1 | 1991.1 | 1696.7 | 1447.8 | 1222.0 | 1122.6 | 1046.4 | 1042.8 |
| 12.5° | 2786.8 | 2738.9 | 2493.0 | 2114.6 | 1666.5 | 1252.7 | 966.0  | 743.7  | 660.9  | 607.7  | 612.5  |
| 15°   | 2866.0 | 2794.5 | 2425.6 | 1883.5 | 1297.0 | 850.1  | 593.5  | 462.9  | 429.8  | 416.2  | 419.7  |
| 17.5° | 2947.0 | 2832.9 | 2331.6 | 1605.0 | 932.3  | 548.6  | 410.9  | 374.2  | 374.2  | 377.2  | 378.4  |
| 20°   | 3017.4 | 2853.6 | 2193.3 | 1292.9 | 632.0  | 399.6  | 359.4  | 354.1  | 357.1  | 361.8  | 362.4  |
| 22.5° | 3087.1 | 2854.8 | 2013.0 | 976.6  | 442.2  | 350.0  | 342.3  | 339.9  | 341.7  | 347.0  | 347.6  |
| 25°   | 3143.9 | 2840.6 | 1787.1 | 694.6  | 352.9  | 329.9  | 326.3  | 325.1  | 326.3  | 332.8  | 332.8  |
| 27.5° | 3166.9 | 2789.2 | 1511.6 | 488.3  | 316.3  | 307.4  | 306.2  | 307.4  | 309.2  | 313.9  | 314.5  |
| 30°   | 3169.3 | 2699.3 | 1211.3 | 353.5  | 286.7  | 277.3  | 279.6  | 283.8  | 282.0  | 280.8  | 282.0  |
| 32.5° | 3175.2 | 2595.3 | 918.7  | 290.9  | 261.9  | 247.1  | 244.2  | 244.2  | 237.1  | 232.9  | 230.6  |
| 35°   | 3194.7 | 2472.9 | 666.3  | 261.3  | 236.5  | 219.3  | 208.1  | 195.1  | 181.5  | 174.4  | 172.6  |
| 37.5° | 3225.5 | 2344.6 | 477.1  | 241.8  | 214.0  | 194.5  | 173.2  | 150.2  | 130.7  | 125.3  | 125.3  |
| 40°   | 3281.6 | 2212.2 | 352.9  | 226.4  | 196.3  | 172.0  | 140.1  | 110.0  | 92.2   | 89.3   | 89.3   |
| 42.5° | 3370.3 | 2072.7 | 281.4  | 212.8  | 180.9  | 149.0  | 107.0  | 79.8   | 66.8   | 65.0   | 64.4   |
| 45°   | 3462.5 | 1919.0 | 245.9  | 199.8  | 164.3  | 122.4  | 79.2   | 59.1   | 51.4   | 49.7   | 49.7   |
| 47.5° | 3554.8 | 1755.2 | 228.8  | 187.4  | 148.4  | 95.2   | 59.1   | 46.7   | 43.2   | 43.2   | 43.7   |
| 50°   | 3632.8 | 1584.4 | 216.4  | 173.8  | 127.7  | 72.1   | 46.7   | 39.6   | 38.4   | 40.8   | 41.4   |
| 52.5° | 3652.3 | 1416.5 | 201.0  | 156.7  | 102.3  | 55.0   | 38.4   | 34.9   | 34.9   | 34.9   | 34.9   |
| 55°   | 3640.5 | 1286.4 | 180.9  | 135.4  | 75.7   | 43.7   | 33.1   | 30.7   | 30.2   | 30.2   | 30.2   |
| 57.5° | 3680.7 | 1209.6 | 144.8  | 105.2  | 54.4   | 35.5   | 29.0   | 27.2   | 26.0   | 25.4   | 25.4   |
| 60°   | 3761.7 | 1159.3 | 103.5  | 75.7   | 40.8   | 29.6   | 24.8   | 23.1   | 21.3   | 20.1   | 20.1   |
| 62.5° | 3869.3 | 1115.6 | 76.9   | 56.2   | 31.3   | 23.6   | 20.7   | 18.9   | 16.6   | 15.4   | 15.4   |
| 65°   | 3952.0 | 1037.5 | 58.5   | 42.0   | 23.6   | 18.9   | 16.0   | 15.4   | 11.8   | 10.6   | 10.1   |
| 67.5° | 3825.5 | 866.1  | 47.3   | 30.7   | 17.7   | 14.8   | 12.4   | 11.8   | 7.1    | 5.9    | 5.9    |
| 70°   | 3281.0 | 603.0  | 37.8   | 22.5   | 13.0   | 11.8   | 10.1   | 7.7    | 5.3    | 4.7    | 4.7    |
| 71°   | 2975.4 | 503.7  | 34.3   | 18.9   | 11.2   | 11.2   | 9.5    | 6.5    | 4.7    | 4.1    | 4.1    |
| 72.5° | 2471.7 | 357.7  | 29.0   | 14.8   | 10.1   | 11.8   | 10.1   | 5.9    | 4.7    | 4.1    | 3.5    |
| 75°   | 1434.8 | 149.6  | 20.1   | 10.1   | 7.7    | 14.2   | 13.0   | 5.3    | 3.5    | 3.0    | 3.0    |
| 77.5° | 431.6  | 55.0   | 11.2   | 6.5    | 5.9    | 12.4   | 14.8   | 4.7    | 1.8    | 0.6    | 0.6    |
| 80°   | 78.6   | 23.6   | 7.1    | 4.1    | 4.1    | 7.7    | 11.2   | 2.4    | 0.0    | 0.0    | 0.0    |
| 82.5° | 27.8   | 11.8   | 4.1    | 2.4    | 1.8    | 3.5    | 5.3    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 16.0   | 8.3    | 2.4    | 1.2    | 0.0    | 0.6    | 1.2    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 10.6   | 2.4    | 0.0    | 0.0    | 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)