

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: P299718

Luminaire Tested: **GAA-AF-04-LED-U-SL2-7060-600-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P299718  
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: STREETWORKS  
Catalog Number: GAA-AF-04-LED-U-SL2-7060-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 11901 lumens  
Efficiency: N/A  
Efficacy: 92.3 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: 28.75 FT

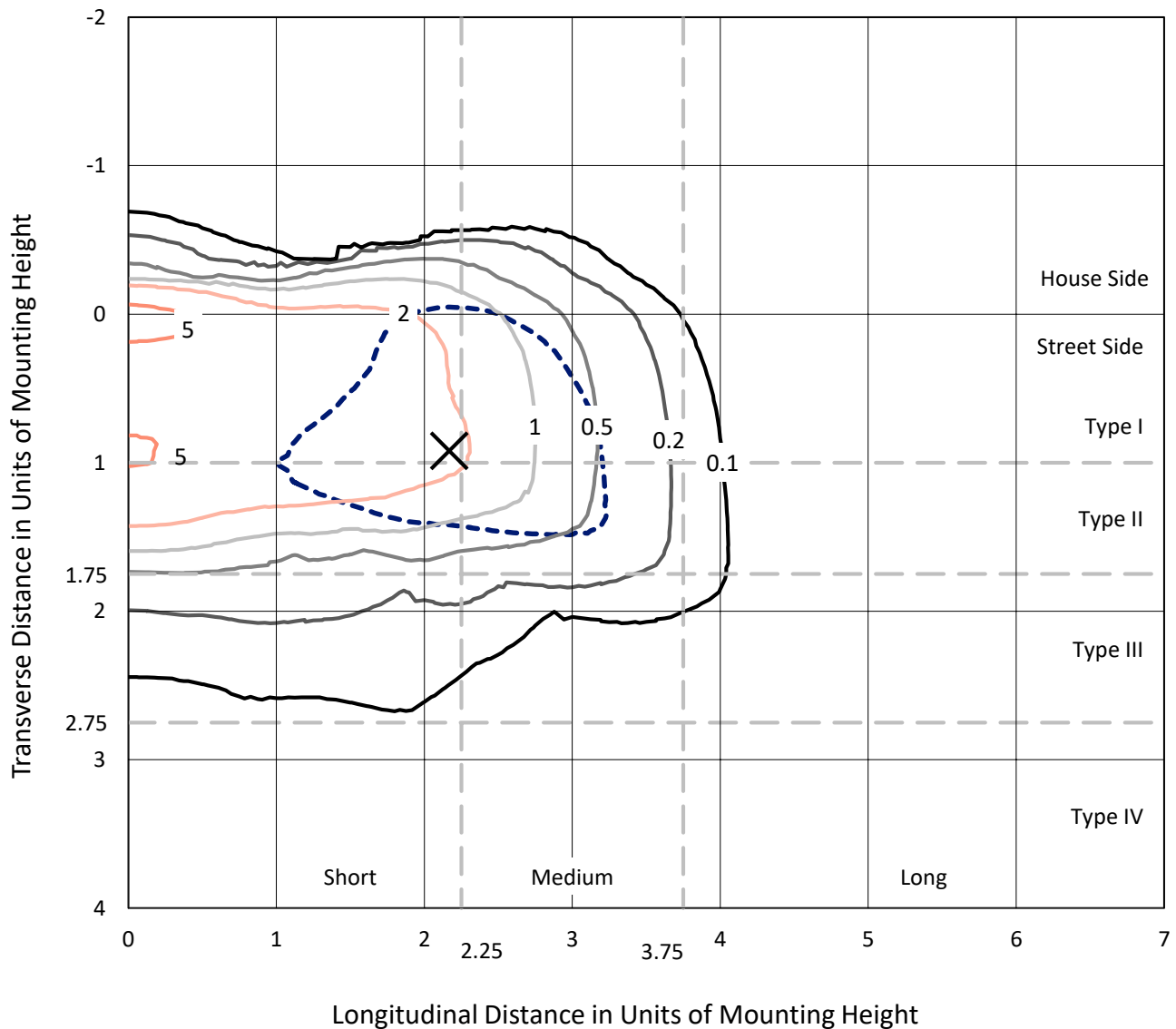


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

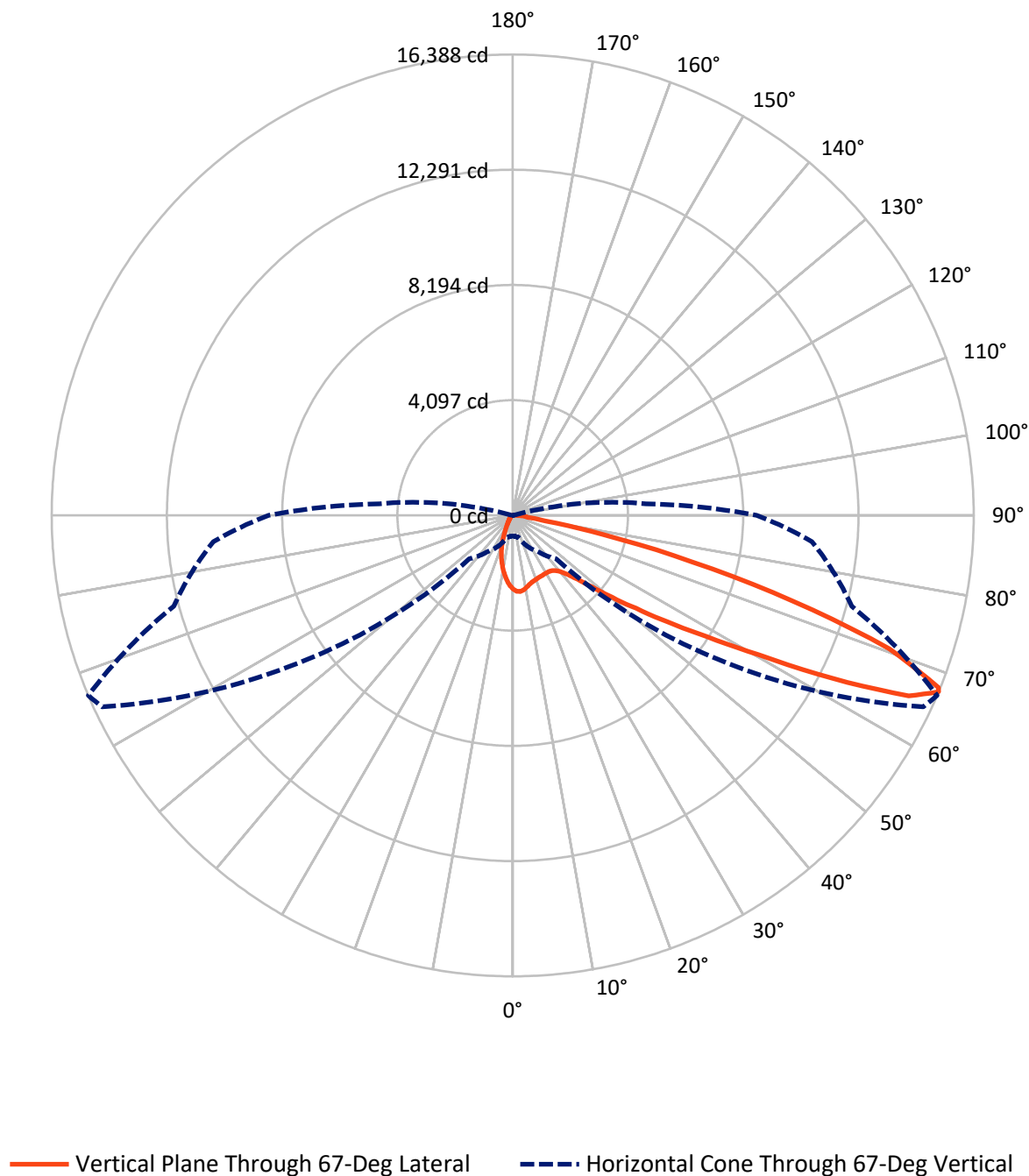


Based on 20 foot mounting height. Maximum calculated value = 6.6 fc  
Type II - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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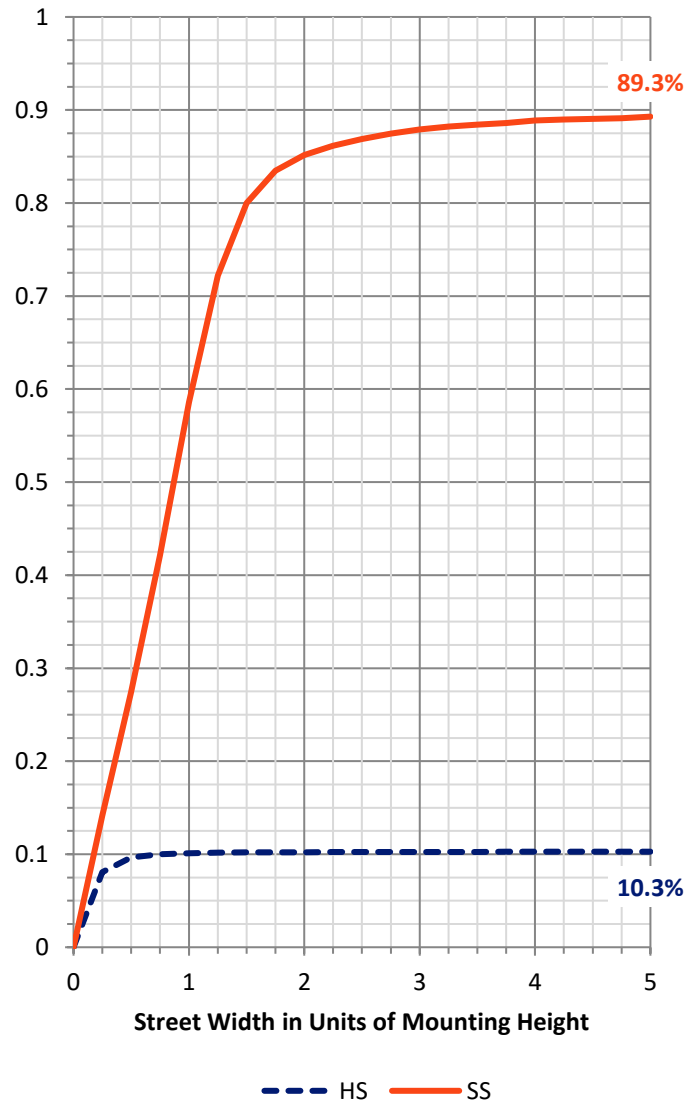
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1235.7   | 0.0    | 1235.7  |
|                    | % Fixture | 10.4     | 0.0    | 10.4    |
| <b>Street Side</b> | Lumens    | 10665.3  | 0.0    | 10665.3 |
|                    | % Fixture | 89.6     | 0.0    | 89.6    |
| <b>Total</b>       | Lumens    | 11901.0  | 0.0    | 11901.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 213.6   | 1.8       |
| 10°-20°   | 454.5   | 3.8       |
| 20°-30°   | 660.9   | 5.6       |
| 30°-40°   | 1031.0  | 8.7       |
| 40°-50°   | 1826.3  | 15.3      |
| 50°-60°   | 2889.9  | 24.3      |
| 60°-70°   | 3310.0  | 27.8      |
| 70°-80°   | 1373.0  | 11.5      |
| 80°-90°   | 141.8   | 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°    | 11901.0 | 100.0     |
| 0°-180°   | 11901.0 | 100.0     |

**Coefficient of Utilization**



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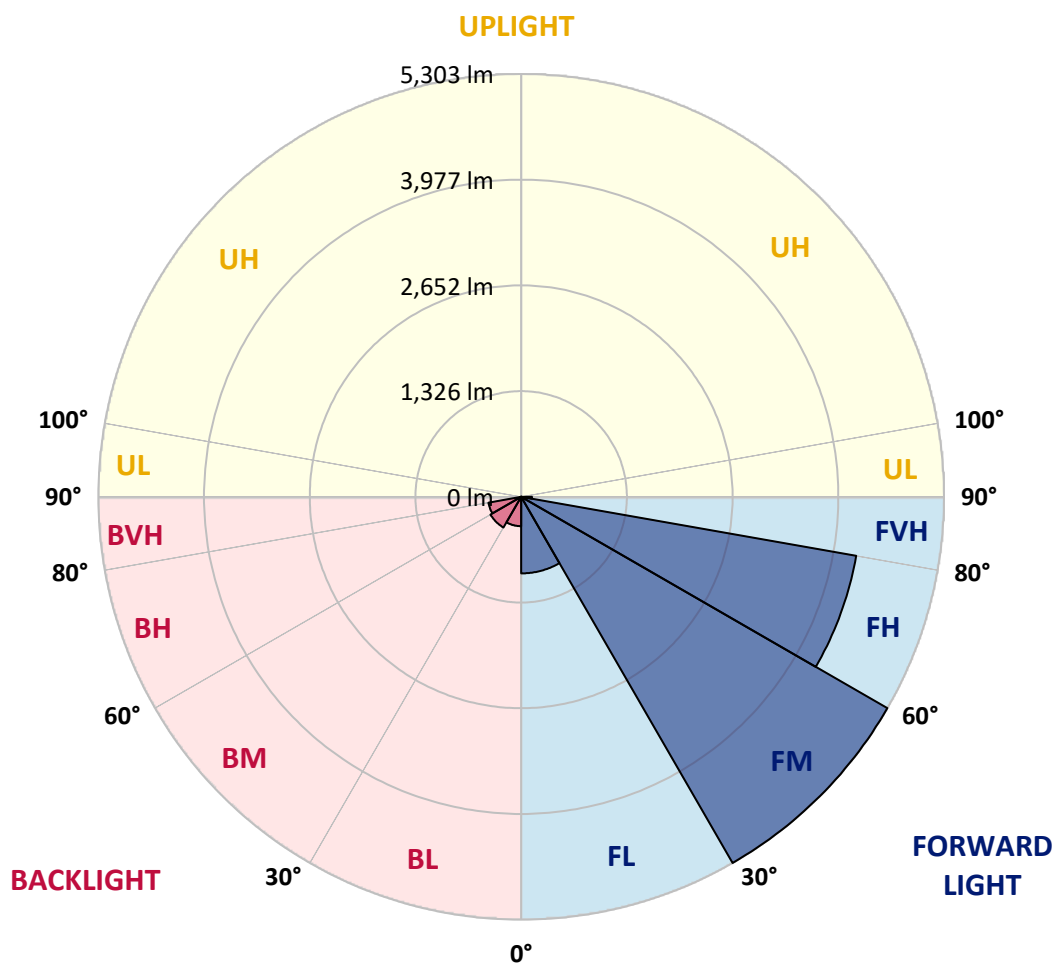
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 960.2  | 8.1       |                         |      |         |
| FM   | (30°-60°)   | 5303.1 | 44.6      |                         |      |         |
| FH   | (60°-80°)   | 4266.5 | 35.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 135.4  | 1.1       |                         |      | G2/225  |
| BL   | (0°-30°)    | 368.7  | 3.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 444.1  | 3.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 416.5  | 3.5       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 6.4    | 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°    | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6  | 2624.6  | 2624.6  | 2624.6  | 2624.6  |
| 2.5°  | 2713.5 | 2719.0 | 2718.3 | 2722.5 | 2732.2 | 2732.9 | 2723.2  | 2704.4  | 2700.3  | 2676.0  | 2633.6  |
| 5°    | 2502.4 | 2518.4 | 2528.1 | 2567.7 | 2612.1 | 2665.6 | 2705.8  | 2720.4  | 2718.3  | 2701.0  | 2637.1  |
| 7.5°  | 2261.6 | 2277.5 | 2288.6 | 2335.2 | 2394.2 | 2485.8 | 2590.6  | 2676.7  | 2684.3  | 2703.1  | 2634.3  |
| 10°   | 2101.2 | 2104.0 | 2119.3 | 2163.7 | 2225.5 | 2319.2 | 2444.1  | 2594.8  | 2617.7  | 2686.4  | 2627.4  |
| 12.5° | 1969.3 | 1971.4 | 1991.5 | 2039.4 | 2105.4 | 2199.8 | 2331.0  | 2505.2  | 2540.6  | 2665.6  | 2626.0  |
| 15°   | 1875.6 | 1883.3 | 1901.3 | 1951.3 | 2021.4 | 2115.1 | 2249.8  | 2439.3  | 2481.6  | 2657.9  | 2638.5  |
| 17.5° | 1844.4 | 1852.7 | 1858.3 | 1894.4 | 1958.2 | 2049.9 | 2188.0  | 2396.2  | 2444.1  | 2662.1  | 2662.8  |
| 20°   | 1877.0 | 1883.3 | 1870.8 | 1879.8 | 1919.4 | 2001.3 | 2135.9  | 2359.4  | 2416.4  | 2667.0  | 2694.0  |
| 22.5° | 1998.5 | 2001.3 | 1967.2 | 1927.7 | 1920.7 | 1965.9 | 2095.0  | 2330.3  | 2391.4  | 2680.1  | 2730.8  |
| 25°   | 2206.7 | 2201.9 | 2146.3 | 2061.0 | 1980.4 | 1959.6 | 2070.7  | 2312.2  | 2378.9  | 2694.0  | 2769.0  |
| 27.5° | 2458.0 | 2465.0 | 2388.6 | 2264.3 | 2110.9 | 2001.3 | 2067.2  | 2304.6  | 2373.3  | 2703.8  | 2802.3  |
| 30°   | 2763.4 | 2773.2 | 2685.7 | 2529.5 | 2309.5 | 2104.0 | 2099.1  | 2303.2  | 2369.9  | 2697.5  | 2805.1  |
| 32.5° | 3075.1 | 3086.9 | 3018.2 | 2857.2 | 2574.6 | 2276.1 | 2171.3  | 2318.5  | 2376.8  | 2676.0  | 2789.1  |
| 35°   | 3401.4 | 3418.0 | 3372.2 | 3234.1 | 2934.2 | 2524.7 | 2298.4  | 2365.0  | 2409.4  | 2673.9  | 2773.2  |
| 37.5° | 3851.9 | 3867.2 | 3781.1 | 3634.6 | 3369.5 | 2857.9 | 2502.4  | 2452.5  | 2486.5  | 2707.2  | 2777.3  |
| 40°   | 4524.5 | 4522.4 | 4300.3 | 4076.1 | 3847.7 | 3281.3 | 2789.1  | 2610.7  | 2628.1  | 2807.9  | 2828.7  |
| 42.5° | 5257.6 | 5254.1 | 4925.8 | 4584.9 | 4378.8 | 3802.6 | 3166.1  | 2884.2  | 2872.4  | 2993.2  | 2962.0  |
| 45°   | 5822.6 | 5821.9 | 5554.0 | 5170.1 | 5018.1 | 4401.0 | 3653.4  | 3264.6  | 3246.6  | 3294.5  | 3207.7  |
| 47.5° | 6063.5 | 6067.6 | 5933.0 | 5663.0 | 5726.8 | 5210.4 | 4267.7  | 3815.8  | 3788.7  | 3769.3  | 3637.4  |
| 50°   | 5876.1 | 5884.4 | 5895.5 | 5842.7 | 6246.7 | 6298.1 | 5091.7  | 4592.6  | 4579.4  | 4492.6  | 4286.4  |
| 52.5° | 5263.8 | 5306.2 | 5436.7 | 5603.9 | 6427.2 | 7342.1 | 6383.5  | 5557.4  | 5486.6  | 5394.3  | 5167.3  |
| 55°   | 4232.3 | 4278.8 | 4526.6 | 4932.7 | 6158.6 | 8028.0 | 8193.9  | 6801.4  | 6683.4  | 6407.8  | 6080.1  |
| 57.5° | 2800.9 | 2873.1 | 3232.7 | 3749.2 | 5378.3 | 8138.3 | 10000.1 | 8527.7  | 8116.8  | 7362.3  | 6993.0  |
| 60°   | 1543.1 | 1612.5 | 2002.7 | 2470.5 | 3884.5 | 7592.7 | 11214.8 | 10775.4 | 10049.3 | 8429.2  | 8101.5  |
| 62.5° | 950.3  | 987.8  | 1275.9 | 1711.1 | 2329.6 | 5992.7 | 11466.1 | 13600.0 | 12759.3 | 9802.9  | 9440.6  |
| 65°   | 756.6  | 772.6  | 913.5  | 1398.7 | 1670.1 | 3564.5 | 10654.7 | 15753.3 | 15472.8 | 11466.1 | 10639.4 |
| 67°   | 734.4  | 740.7  | 807.3  | 1200.9 | 1574.4 | 2185.2 | 8926.2  | 16103.8 | 16388.4 | 12472.7 | 10676.9 |
| 67.5° | 739.3  | 746.2  | 809.4  | 1146.1 | 1571.6 | 2008.2 | 8330.6  | 15965.7 | 16325.2 | 12552.5 | 10511.0 |
| 70°   | 712.9  | 734.4  | 926.7  | 1145.4 | 1494.5 | 1668.8 | 4988.9  | 13833.2 | 14207.4 | 11663.3 | 8918.6  |
| 72.5° | 252.7  | 254.1  | 400.5  | 926.7  | 1625.0 | 1686.8 | 2505.2  | 10141.0 | 10417.9 | 8922.0  | 6430.0  |
| 75°   | 149.9  | 127.7  | 133.3  | 263.8  | 1552.8 | 1638.2 | 1445.2  | 6480.0  | 6583.4  | 5112.5  | 3256.3  |
| 77.5° | 103.4  | 90.2   | 93.0   | 116.6  | 591.4  | 1615.3 | 1148.1  | 3379.2  | 3268.8  | 1793.0  | 693.5   |
| 80°   | 59.0   | 52.1   | 55.5   | 102.0  | 215.2  | 1507.0 | 1082.9  | 1370.3  | 1168.3  | 304.0   | 191.6   |
| 82.5° | 31.2   | 26.4   | 31.9   | 84.0   | 149.9  | 939.2  | 1085.0  | 662.2   | 524.8   | 102.7   | 130.5   |
| 85°   | 11.1   | 9.0    | 15.3   | 57.6   | 100.0  | 288.1  | 1005.8  | 556.7   | 437.3   | 50.0    | 99.3    |
| 87.5° | 2.1    | 2.1    | 6.2    | 23.6   | 40.3   | 88.2   | 594.9   | 330.4   | 221.4   | 29.8    | 68.0    |
| 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°    | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 | 2624.6 |
| 2.5°  | 2616.3 | 2586.4 | 2546.2 | 2496.9 | 2438.6 | 2387.2 | 2349.0 | 2309.5 | 2301.1 | 2287.3 | 2285.2 |
| 5°    | 2598.9 | 2547.6 | 2447.6 | 2333.1 | 2210.9 | 2100.5 | 2011.0 | 1931.2 | 1895.7 | 1865.2 | 1861.7 |
| 7.5°  | 2573.2 | 2496.2 | 2326.1 | 2141.5 | 1950.6 | 1777.0 | 1629.9 | 1525.8 | 1430.0 | 1384.2 | 1377.2 |
| 10°   | 2543.4 | 2433.0 | 2189.4 | 1933.2 | 1669.5 | 1424.4 | 1205.8 | 1022.5 | 911.4  | 845.5  | 837.2  |
| 12.5° | 2515.6 | 2371.2 | 2049.9 | 1717.4 | 1366.8 | 1039.2 | 758.0  | 583.1  | 466.5  | 419.3  | 413.7  |
| 15°   | 2502.4 | 2321.3 | 1919.4 | 1496.6 | 1050.3 | 661.5  | 414.4  | 320.7  | 282.5  | 271.4  | 270.7  |
| 17.5° | 2501.1 | 2278.9 | 1791.6 | 1268.2 | 735.8  | 384.6  | 270.0  | 246.4  | 238.8  | 236.0  | 236.0  |
| 20°   | 2500.4 | 2238.7 | 1663.9 | 1031.5 | 467.2  | 256.1  | 224.9  | 219.4  | 213.8  | 210.3  | 210.3  |
| 22.5° | 2508.0 | 2202.6 | 1530.6 | 790.0  | 294.3  | 207.6  | 197.8  | 192.3  | 185.3  | 180.5  | 179.8  |
| 25°   | 2515.6 | 2174.8 | 1394.6 | 562.3  | 213.1  | 180.5  | 170.8  | 163.1  | 153.4  | 147.2  | 146.5  |
| 27.5° | 2517.0 | 2140.1 | 1248.8 | 376.2  | 178.4  | 157.6  | 145.1  | 133.3  | 122.2  | 115.9  | 115.2  |
| 30°   | 2496.2 | 2081.8 | 1087.1 | 254.1  | 157.6  | 136.7  | 120.1  | 107.6  | 97.2   | 92.3   | 92.3   |
| 32.5° | 2455.2 | 2009.6 | 909.3  | 191.6  | 140.2  | 117.3  | 99.3   | 87.5   | 80.5   | 78.4   | 77.7   |
| 35°   | 2418.5 | 1931.8 | 726.8  | 162.4  | 125.6  | 99.3   | 81.2   | 73.6   | 69.4   | 68.7   | 68.0   |
| 37.5° | 2396.9 | 1869.4 | 555.3  | 147.2  | 111.8  | 83.3   | 68.7   | 63.2   | 61.1   | 59.7   | 60.4   |
| 40°   | 2413.6 | 1817.3 | 410.2  | 134.7  | 97.9   | 69.4   | 58.3   | 55.5   | 53.5   | 52.8   | 52.8   |
| 42.5° | 2486.5 | 1808.3 | 304.7  | 123.6  | 84.7   | 57.6   | 50.7   | 48.6   | 47.2   | 46.5   | 47.2   |
| 45°   | 2678.1 | 1863.8 | 236.7  | 113.1  | 71.5   | 48.6   | 43.0   | 42.3   | 41.6   | 41.6   | 41.6   |
| 47.5° | 2966.1 | 1978.4 | 197.1  | 101.3  | 59.7   | 41.6   | 37.5   | 36.8   | 36.1   | 36.8   | 36.8   |
| 50°   | 3454.1 | 2188.0 | 176.3  | 89.5   | 49.3   | 35.4   | 31.9   | 31.9   | 31.9   | 31.9   | 32.6   |
| 52.5° | 4196.2 | 2600.3 | 162.4  | 77.7   | 40.3   | 29.8   | 27.1   | 27.1   | 27.8   | 27.8   | 28.5   |
| 55°   | 5022.9 | 3147.3 | 149.9  | 65.9   | 34.0   | 25.0   | 22.2   | 22.9   | 23.6   | 24.3   | 24.3   |
| 57.5° | 5919.8 | 3753.3 | 139.5  | 54.1   | 29.2   | 20.1   | 18.7   | 19.4   | 20.1   | 21.5   | 21.5   |
| 60°   | 7002.0 | 4409.3 | 124.3  | 42.3   | 24.3   | 16.0   | 14.6   | 16.0   | 18.0   | 19.4   | 20.1   |
| 62.5° | 8190.4 | 5043.8 | 104.8  | 33.3   | 20.1   | 12.5   | 11.8   | 14.6   | 17.4   | 18.7   | 19.4   |
| 65°   | 9002.6 | 5243.0 | 80.5   | 27.1   | 15.3   | 9.0    | 9.7    | 13.2   | 16.7   | 18.7   | 18.7   |
| 67°   | 8673.5 | 4753.6 | 65.9   | 22.9   | 12.5   | 6.9    | 9.0    | 13.2   | 16.7   | 18.0   | 18.7   |
| 67.5° | 8445.1 | 4562.0 | 63.2   | 22.2   | 11.8   | 6.9    | 9.0    | 13.2   | 16.7   | 18.7   | 18.7   |
| 70°   | 6871.5 | 3427.1 | 52.8   | 16.7   | 9.7    | 6.2    | 7.6    | 12.5   | 16.0   | 18.0   | 18.0   |
| 72.5° | 4774.4 | 2113.0 | 47.2   | 11.8   | 8.3    | 5.6    | 6.9    | 11.8   | 15.3   | 17.4   | 18.0   |
| 75°   | 2269.9 | 765.0  | 40.3   | 9.0    | 7.6    | 4.9    | 6.2    | 11.8   | 15.3   | 17.4   | 17.4   |
| 77.5° | 463.0  | 177.7  | 32.6   | 7.6    | 6.2    | 4.9    | 5.6    | 11.1   | 14.6   | 16.7   | 16.7   |
| 80°   | 152.0  | 68.7   | 24.3   | 6.9    | 6.2    | 4.9    | 5.6    | 10.4   | 14.6   | 16.0   | 16.7   |
| 82.5° | 109.7  | 34.7   | 16.0   | 6.9    | 6.2    | 4.9    | 4.9    | 10.4   | 13.9   | 16.0   | 16.0   |
| 85°   | 84.0   | 24.3   | 10.4   | 6.9    | 6.2    | 4.9    | 4.9    | 9.7    | 13.2   | 15.3   | 15.3   |
| 87.5° | 55.5   | 9.7    | 8.3    | 6.9    | 6.2    | 4.9    | 4.9    | 9.7    | 12.5   | 14.6   | 15.3   |
| 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)