

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: P301197

Luminaire Tested: **GAA-AF-10-LED-U-T3R-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301197  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-10-LED-U-T3R-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

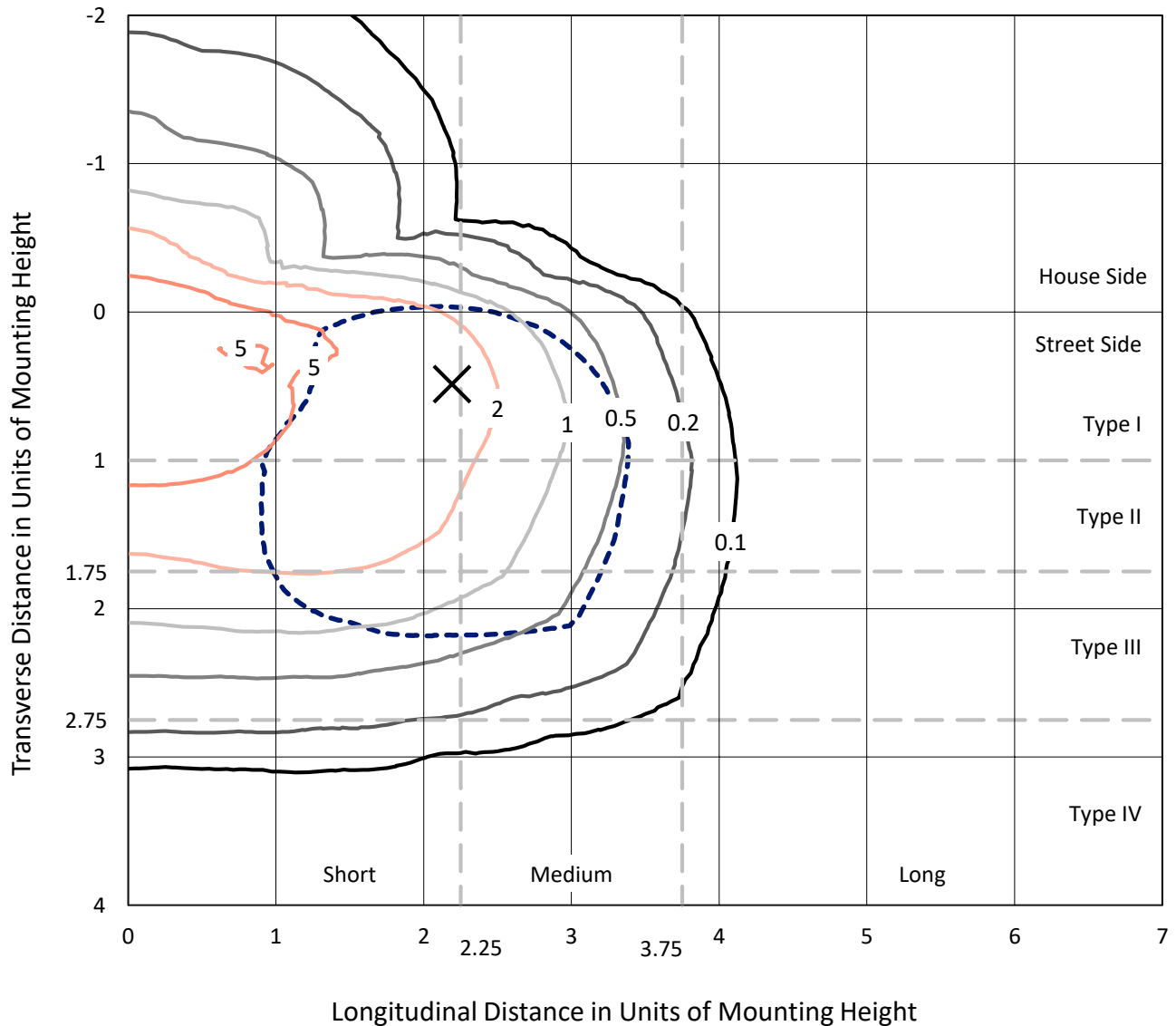
Lumens per Lamp: N/A  
Luminaire Lumens: 48495.3 lumens  
Efficiency: N/A  
Efficacy: 115.7 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 419  
Input Voltage (V): NR  
Input Current (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

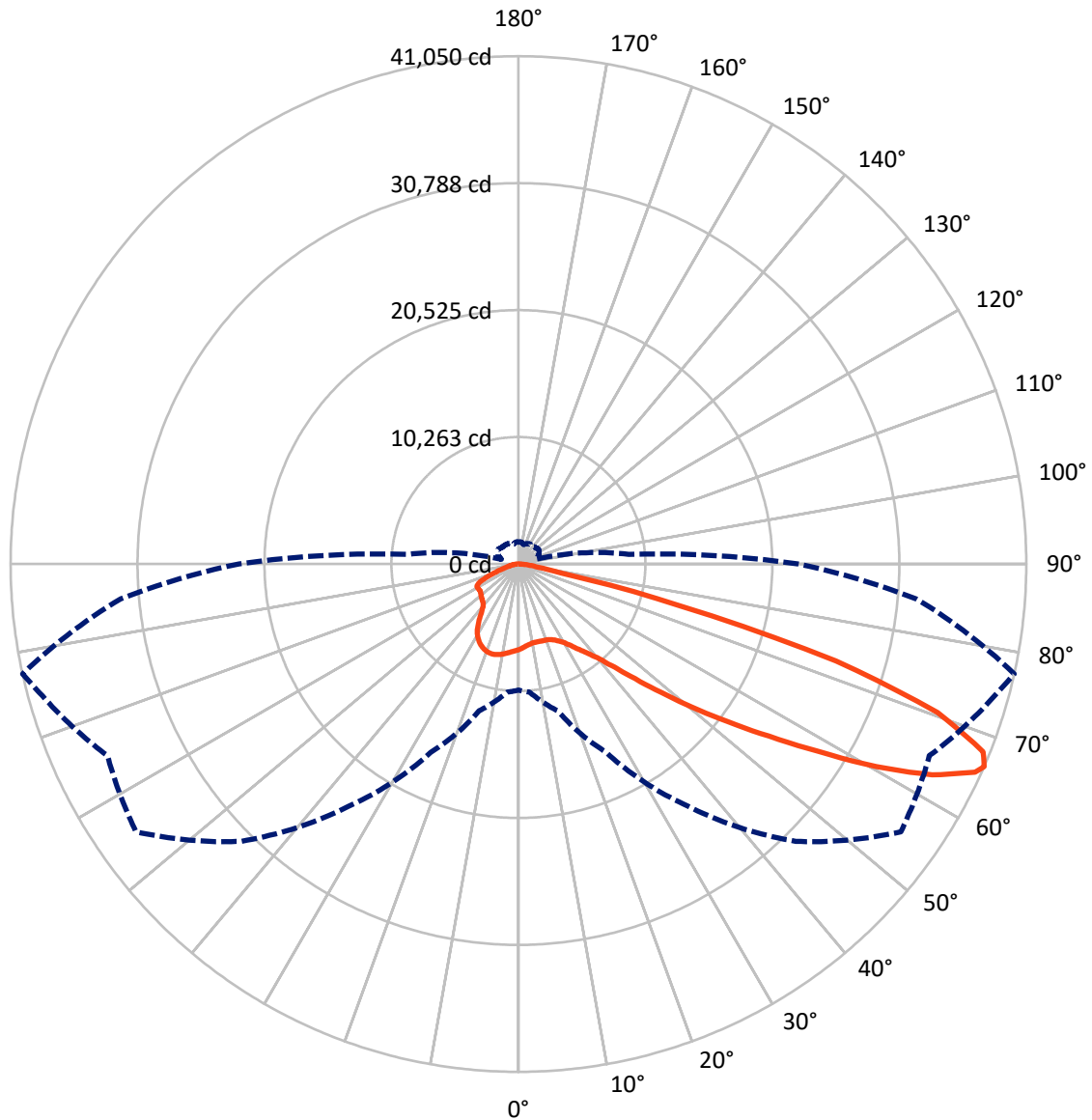
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.5 fc  
 Type III - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 8285.1   | 0.0    | 8285.1  |
|                    | % Fixture | 17.1     | 0.0    | 17.1    |
| <b>Street Side</b> | Lumens    | 40210.1  | 0.0    | 40210.1 |
|                    | % Fixture | 82.9     | 0.0    | 82.9    |
| <b>Total</b>       | Lumens    | 48495.3  | 0.0    | 48495.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 617.4   | 1.3       |
| 10°-20°   | 1741.9  | 3.6       |
| 20°-30°   | 2972.7  | 6.1       |
| 30°-40°   | 4758.8  | 9.8       |
| 40°-50°   | 7351.9  | 15.2      |
| 50°-60°   | 10427.6 | 21.5      |
| 60°-70°   | 13949.3 | 28.8      |
| 70°-80°   | 6057.9  | 12.5      |
| 80°-90°   | 617.7   | 1.3       |
| 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°    | 48495.3 | 100.0     |
| 0°-180°   | 48495.3 | 100.0     |



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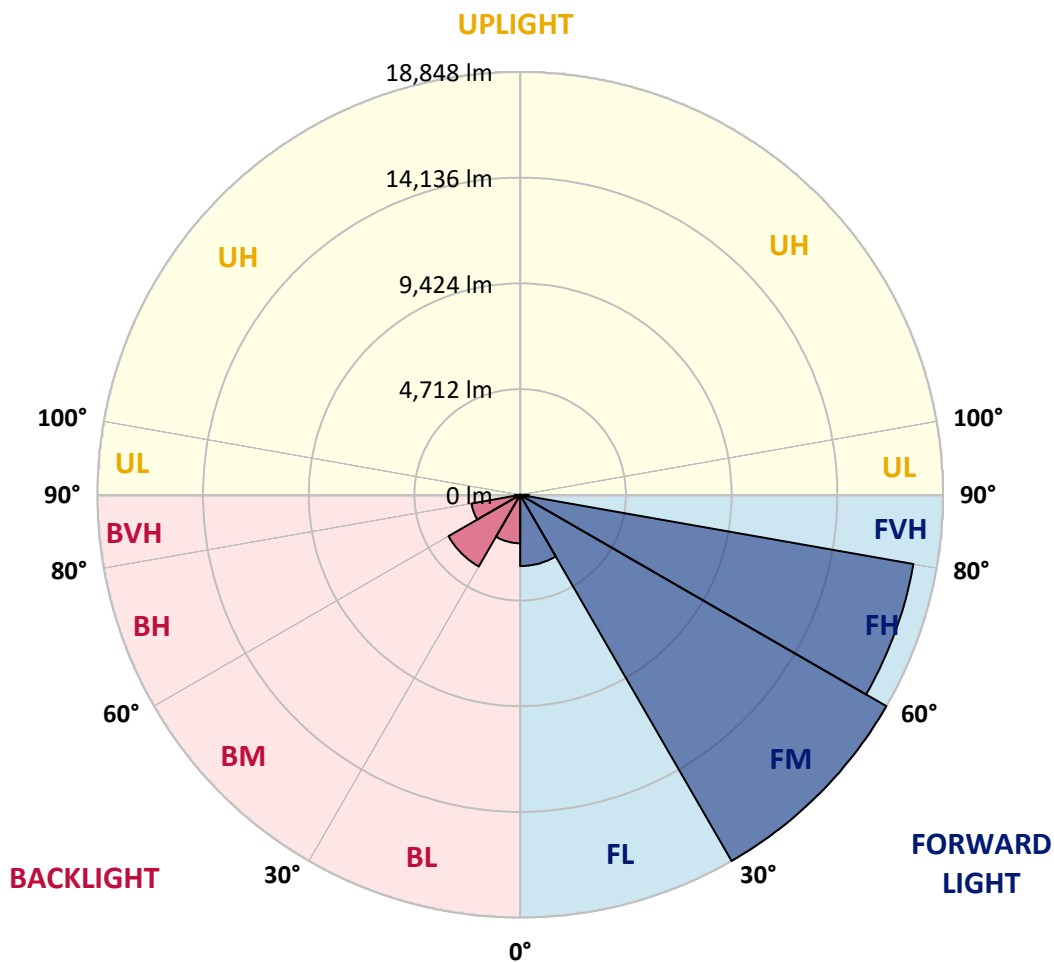
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3174.2  | 6.5       |                         |      |         |
| FM   | (30°-60°)   | 18847.8 | 38.9      |                         |      |         |
| FH   | (60°-80°)   | 17800.7 | 36.7      |                         |      | G5      |
| FVH  | (80°-90°)   | 387.4   | 0.8       |                         |      | G3/500  |
| BL   | (0°-30°)    | 2157.8  | 4.4       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3690.5  | 7.6       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2206.5  | 4.5       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 230.3   | 0.5       |                         |      | G3/500  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G5**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 77.5°   | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6910.7  | 6910.7  | 6910.7  | 6910.7  | 6910.7  | 6910.7  | 6910.7  | 6910.7  | 6910.7  | 6910.7  | 6910.7  |
| 2.5°  | 6113.6  | 6154.5  | 6189.2  | 6221.1  | 6284.9  | 6390.4  | 6511.8  | 6610.3  | 6752.6  | 6780.3  | 6855.9  |
| 5°    | 5552.3  | 5552.3  | 5579.4  | 5627.9  | 5714.7  | 5872.8  | 6038.0  | 6257.9  | 6567.3  | 6640.2  | 6842.1  |
| 7.5°  | 5279.7  | 5281.7  | 5297.7  | 5338.6  | 5414.3  | 5558.6  | 5739.6  | 5999.1  | 6418.2  | 6539.6  | 6883.0  |
| 10°   | 5380.3  | 5357.4  | 5322.7  | 5302.6  | 5313.7  | 5398.3  | 5570.4  | 5859.0  | 6326.6  | 6482.0  | 6975.3  |
| 12.5° | 5943.6  | 5900.6  | 5781.3  | 5623.1  | 5471.8  | 5410.1  | 5510.7  | 5792.4  | 6287.7  | 6468.8  | 7096.7  |
| 15°   | 6864.9  | 6846.9  | 6624.2  | 6296.7  | 5930.4  | 5623.1  | 5554.4  | 5767.4  | 6291.9  | 6484.8  | 7241.0  |
| 17.5° | 8020.1  | 7994.4  | 7701.6  | 7225.0  | 6627.0  | 6028.9  | 5707.7  | 5788.2  | 6307.8  | 6511.8  | 7380.4  |
| 20°   | 9186.3  | 9107.9  | 8792.3  | 8224.1  | 7456.0  | 6580.5  | 5962.3  | 5840.9  | 6328.7  | 6541.6  | 7527.5  |
| 22.5° | 10057.0 | 9992.5  | 9708.7  | 9156.5  | 8271.9  | 7220.2  | 6303.7  | 5932.5  | 6395.3  | 6629.1  | 7707.9  |
| 25°   | 10822.3 | 10826.4 | 10544.8 | 10011.2 | 9096.8  | 7898.7  | 6743.5  | 6177.4  | 6564.5  | 6807.4  | 7955.6  |
| 27.5° | 11768.6 | 11713.8 | 11450.1 | 10920.8 | 9912.7  | 8583.4  | 7275.0  | 6514.6  | 6817.1  | 7062.0  | 8280.9  |
| 30°   | 12900.1 | 12861.3 | 12556.7 | 11956.6 | 10817.4 | 9318.8  | 7882.0  | 6905.9  | 7142.5  | 7396.4  | 8706.9  |
| 32.5° | 14231.5 | 14213.5 | 13897.1 | 13124.9 | 11862.2 | 10185.4 | 8595.2  | 7424.1  | 7628.1  | 7891.7  | 9318.8  |
| 35°   | 15794.6 | 15796.7 | 15423.4 | 14495.1 | 13005.6 | 11193.4 | 9403.5  | 8090.9  | 8219.2  | 8493.9  | 10048.0 |
| 37.5° | 16756.8 | 16873.4 | 16734.0 | 15787.6 | 14300.2 | 12320.8 | 10453.2 | 8975.4  | 8892.9  | 9170.4  | 10829.2 |
| 40°   | 16962.9 | 17105.1 | 17547.1 | 17066.3 | 15748.8 | 13562.7 | 11383.5 | 9825.3  | 9722.6  | 10061.2 | 11835.2 |
| 42.5° | 16674.3 | 16871.3 | 17806.5 | 18145.1 | 17286.2 | 15093.2 | 12634.4 | 11088.0 | 10957.5 | 11413.4 | 13086.1 |
| 45°   | 16502.2 | 16649.3 | 17730.9 | 18707.1 | 18619.6 | 16823.5 | 14227.3 | 12673.3 | 12625.4 | 13223.4 | 14529.8 |
| 47.5° | 16204.6 | 16337.8 | 17377.8 | 18837.5 | 19403.6 | 18408.7 | 16140.8 | 14612.4 | 14706.0 | 15490.0 | 16158.8 |
| 50°   | 16364.9 | 16419.7 | 16983.7 | 18505.2 | 19630.5 | 19570.8 | 18278.3 | 16857.4 | 17178.7 | 18156.9 | 18003.6 |
| 52.5° | 16342.0 | 16484.2 | 16937.9 | 17959.9 | 19660.3 | 20288.2 | 20383.9 | 19362.0 | 20038.4 | 21161.0 | 20049.5 |
| 55°   | 13212.3 | 13473.2 | 16399.6 | 17822.5 | 19765.1 | 20991.0 | 22258.5 | 22001.8 | 23261.7 | 24570.2 | 22359.1 |
| 57.5° | 12616.4 | 12781.5 | 14403.6 | 18111.1 | 20324.3 | 22334.1 | 24343.3 | 24907.4 | 27015.1 | 28534.4 | 25173.1 |
| 60°   | 12499.1 | 12703.1 | 14382.7 | 18464.2 | 21458.6 | 24522.3 | 27434.8 | 28424.8 | 31582.2 | 33245.9 | 28435.9 |
| 62.5° | 12134.9 | 12354.8 | 14247.5 | 18417.8 | 23069.5 | 27549.3 | 31392.1 | 32164.3 | 35912.8 | 37530.7 | 31165.3 |
| 65°   | 10980.4 | 11186.5 | 13145.7 | 17678.2 | 24156.0 | 30780.2 | 36075.1 | 35592.3 | 39331.7 | 40547.9 | 32525.8 |
| 66°   | 10189.5 | 10391.4 | 12277.1 | 16807.5 | 23903.5 | 31696.7 | 37734.7 | 36653.1 | 40097.0 | 41050.2 | 32260.0 |
| 67.5° | 8743.7  | 8901.9  | 10590.5 | 14857.3 | 22563.1 | 31953.4 | 39129.8 | 37450.2 | 40176.8 | 40513.9 | 30741.4 |
| 70°   | 5524.6  | 5570.4  | 6883.0  | 10256.1 | 17080.2 | 27711.6 | 37005.5 | 35470.9 | 36864.0 | 35951.6 | 25771.1 |
| 72.5° | 2397.0  | 2381.1  | 3304.5  | 5217.2  | 9669.9  | 18594.7 | 29934.5 | 29267.8 | 28917.4 | 26836.8 | 18040.3 |
| 75°   | 1333.4  | 1352.2  | 1716.4  | 2422.0  | 3929.6  | 9133.6  | 19581.9 | 18739.0 | 15821.6 | 13500.9 | 8180.4  |
| 77.5° | 1069.8  | 1095.5  | 1422.9  | 1718.5  | 1764.3  | 3185.1  | 9163.4  | 7456.0  | 4488.8  | 3602.1  | 2272.8  |
| 80°   | 845.7   | 891.5   | 1241.9  | 1338.3  | 1189.1  | 1312.6  | 2960.4  | 2367.2  | 1776.1  | 1629.0  | 1178.0  |
| 82.5° | 668.8   | 701.4   | 1065.6  | 1012.9  | 831.8   | 884.6   | 1418.1  | 1382.0  | 1155.1  | 1051.8  | 680.6   |
| 85°   | 481.5   | 540.5   | 875.5   | 763.2   | 545.3   | 596.0   | 941.5   | 902.6   | 661.9   | 540.5   | 300.4   |
| 87.5° | 197.0   | 256.7   | 618.9   | 506.5   | 304.6   | 277.5   | 469.7   | 441.9   | 313.6   | 228.9   | 149.2   |
| 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°    | 6910.7  | 6910.7  | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 |
| 2.5°  | 6903.8  | 6958.6  | 7030.1 | 7073.8 | 7096.7 | 7112.6 | 7137.6 | 7135.5 | 7142.5 | 7144.5 | 7153.6 |
| 5°    | 6949.6  | 7041.2  | 7144.5 | 7172.3 | 7172.3 | 7146.6 | 7121.6 | 7080.0 | 7064.1 | 7059.9 | 7064.1 |
| 7.5°  | 7068.9  | 7169.5  | 7259.0 | 7227.1 | 7158.4 | 7057.1 | 6926.7 | 6812.2 | 6750.5 | 6729.7 | 6725.5 |
| 10°   | 7220.2  | 7341.6  | 7378.3 | 7256.9 | 7055.0 | 6812.2 | 6553.4 | 6365.4 | 6257.9 | 6228.1 | 6219.0 |
| 12.5° | 7403.3  | 7517.8  | 7467.8 | 7211.1 | 6837.2 | 6445.9 | 6087.9 | 5788.2 | 5563.4 | 5492.7 | 5487.8 |
| 15°   | 7605.2  | 7694.7  | 7517.8 | 7068.9 | 6511.8 | 5934.6 | 5297.7 | 4780.1 | 4500.5 | 4411.0 | 4404.1 |
| 17.5° | 7793.2  | 7839.0  | 7488.0 | 6821.2 | 6033.1 | 5098.6 | 4252.9 | 3853.9 | 3758.2 | 3781.1 | 3785.3 |
| 20°   | 7953.5  | 7953.5  | 7387.4 | 6466.0 | 5279.7 | 3996.2 | 3462.0 | 3455.7 | 3524.4 | 3593.1 | 3607.0 |
| 22.5° | 8129.7  | 8024.3  | 7211.1 | 5964.4 | 4211.2 | 3269.8 | 3192.1 | 3255.9 | 3333.6 | 3409.2 | 3421.0 |
| 25°   | 8347.6  | 8081.8  | 6965.5 | 5204.0 | 3310.7 | 2969.4 | 2999.2 | 3051.9 | 3090.8 | 3139.4 | 3146.3 |
| 27.5° | 8590.4  | 8154.7  | 6642.9 | 4156.4 | 2873.6 | 2782.1 | 2804.9 | 2823.0 | 2818.1 | 2836.9 | 2841.0 |
| 30°   | 8881.1  | 8240.0  | 6200.3 | 3249.0 | 2692.6 | 2621.1 | 2580.2 | 2564.2 | 2564.2 | 2594.0 | 2605.1 |
| 32.5° | 9271.0  | 8365.6  | 5565.5 | 2784.1 | 2605.1 | 2506.6 | 2374.1 | 2314.4 | 2337.3 | 2437.9 | 2460.8 |
| 35°   | 9699.7  | 8500.9  | 4706.6 | 2626.0 | 2587.1 | 2453.9 | 2247.8 | 2137.5 | 2140.3 | 2234.0 | 2263.8 |
| 37.5° | 10166.6 | 8672.9  | 3764.4 | 2596.1 | 2628.0 | 2456.7 | 2181.2 | 2030.0 | 1968.3 | 1968.3 | 1980.0 |
| 40°   | 10764.7 | 8849.2  | 3047.8 | 2616.9 | 2715.5 | 2483.7 | 2147.2 | 1945.4 | 1771.2 | 1776.1 | 1785.1 |
| 42.5° | 11543.8 | 9000.4  | 2662.7 | 2659.9 | 2820.9 | 2520.5 | 2144.5 | 1833.0 | 1681.7 | 1785.1 | 1878.8 |
| 45°   | 12410.3 | 9076.0  | 2492.7 | 2699.5 | 2905.5 | 2543.4 | 2108.4 | 1814.9 | 1693.5 | 2000.2 | 2179.2 |
| 47.5° | 13406.6 | 9032.3  | 2399.1 | 2712.7 | 2926.4 | 2543.4 | 2066.8 | 1858.6 | 1773.3 | 2316.5 | 2525.4 |
| 50°   | 14500.0 | 8906.7  | 2307.5 | 2685.6 | 2919.4 | 2538.5 | 2105.6 | 1901.6 | 1803.1 | 2371.3 | 2515.6 |
| 52.5° | 15785.6 | 8801.3  | 2211.1 | 2626.0 | 2870.9 | 2513.6 | 2151.4 | 1883.6 | 1709.5 | 2156.3 | 2256.9 |
| 55°   | 17251.5 | 8831.1  | 2103.5 | 2541.3 | 2795.2 | 2465.7 | 2135.5 | 1810.1 | 1611.0 | 1899.6 | 1961.3 |
| 57.5° | 19126.1 | 9186.3  | 1975.2 | 2433.8 | 2692.6 | 2385.2 | 2078.6 | 1776.1 | 1581.1 | 1723.3 | 1760.1 |
| 60°   | 21217.9 | 9804.5  | 1814.9 | 2325.5 | 2564.2 | 2256.9 | 2034.9 | 1792.0 | 1595.0 | 1709.5 | 1727.5 |
| 62.5° | 22753.2 | 10164.6 | 1677.6 | 2167.4 | 2390.1 | 2114.6 | 1980.0 | 1812.2 | 1631.8 | 1757.3 | 1753.2 |
| 65°   | 23170.1 | 9573.5  | 1505.5 | 1936.3 | 2154.2 | 1966.2 | 1910.7 | 1835.0 | 1647.7 | 1796.2 | 1776.1 |
| 66°   | 22586.0 | 8936.6  | 1429.9 | 1828.8 | 2034.9 | 1892.6 | 1876.7 | 1833.0 | 1640.8 | 1801.1 | 1766.4 |
| 67.5° | 21167.9 | 7630.2  | 1299.4 | 1670.6 | 1844.8 | 1783.0 | 1821.9 | 1812.2 | 1622.1 | 1796.2 | 1748.3 |
| 70°   | 17263.3 | 5206.1  | 1111.4 | 1391.0 | 1535.3 | 1569.3 | 1716.4 | 1739.3 | 1562.4 | 1716.4 | 1611.0 |
| 72.5° | 12062.0 | 3171.3  | 983.1  | 1079.5 | 1241.9 | 1338.3 | 1572.1 | 1638.0 | 1482.6 | 1498.6 | 1398.0 |
| 75°   | 5829.1  | 1684.5  | 891.5  | 836.7  | 964.4  | 1118.4 | 1398.0 | 1500.6 | 1356.3 | 1253.7 | 1216.9 |
| 77.5° | 1817.0  | 1028.9  | 756.2  | 673.7  | 756.2  | 902.6  | 1168.3 | 1315.4 | 1207.9 | 1049.7 | 1035.8 |
| 80°   | 976.1   | 756.2   | 582.1  | 540.5  | 598.0  | 708.3  | 918.6  | 1097.6 | 1037.9 | 941.5  | 840.9  |
| 82.5° | 643.8   | 490.5   | 430.8  | 419.0  | 455.8  | 540.5  | 682.7  | 909.5  | 909.5  | 806.9  | 586.9  |
| 85°   | 332.3   | 300.4   | 295.5  | 295.5  | 318.4  | 360.1  | 464.8  | 701.4  | 747.2  | 426.0  | 353.1  |
| 87.5° | 165.1   | 172.1   | 160.3  | 167.2  | 179.0  | 176.2  | 222.0  | 353.1  | 421.8  | 258.8  | 215.1  |
| 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)