

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: P399669

Luminaire Tested: **ARCH-L-PA3-170-827-U-T2R-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P399669  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-PA3-170-827-U-T2R-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 80 CRI, 2700K, 750mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15324 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

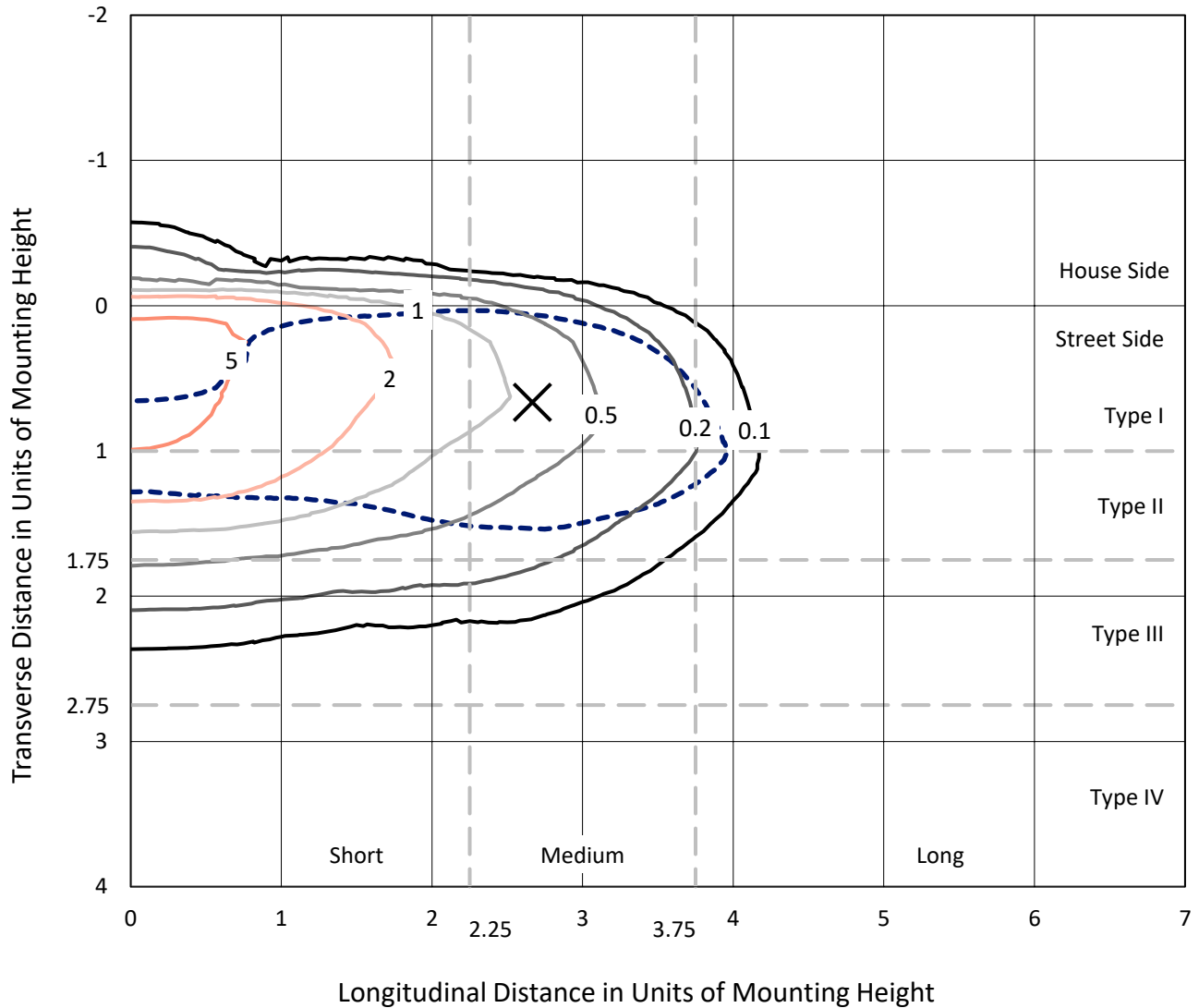
Input Watts (W): 173  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

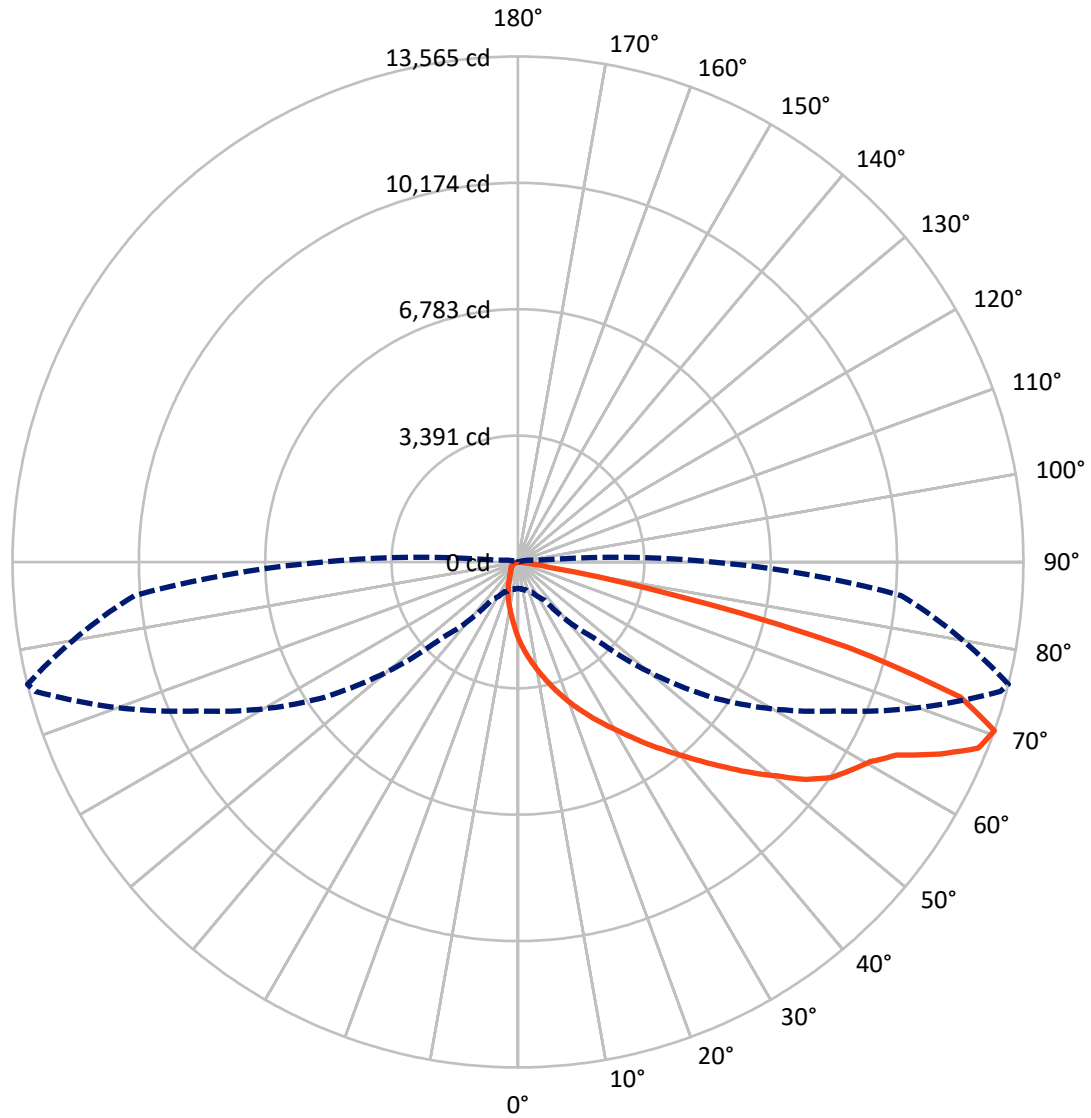
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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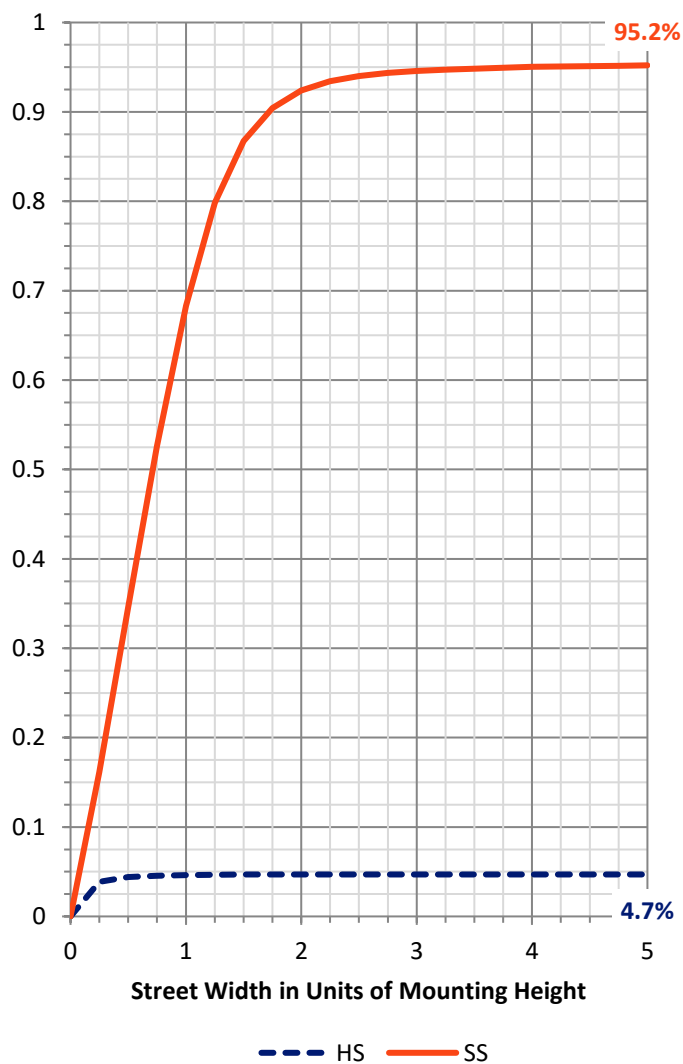
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 722.7    | 0.0    | 722.7   |
|                    | % Fixture | 4.7      | 0.0    | 4.7     |
| <b>Street Side</b> | Lumens    | 14601.3  | 0.0    | 14601.3 |
|                    | % Fixture | 95.3     | 0.0    | 95.3    |
| <b>Total</b>       | Lumens    | 15324.0  | 0.0    | 15324.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 193.2   | 1.3       |
| 10°-20°   | 623.7   | 4.1       |
| 20°-30°   | 1161.5  | 7.6       |
| 30°-40°   | 2054.5  | 13.4      |
| 40°-50°   | 3141.8  | 20.5      |
| 50°-60°   | 3562.0  | 23.2      |
| 60°-70°   | 3053.5  | 19.9      |
| 70°-80°   | 1479.0  | 9.7       |
| 80°-90°   | 54.9    | 0.4       |
| 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°    | 15324.0 | 100.0     |
| 0°-180°   | 15324.0 | 100.0     |

**Coefficient of Utilization**

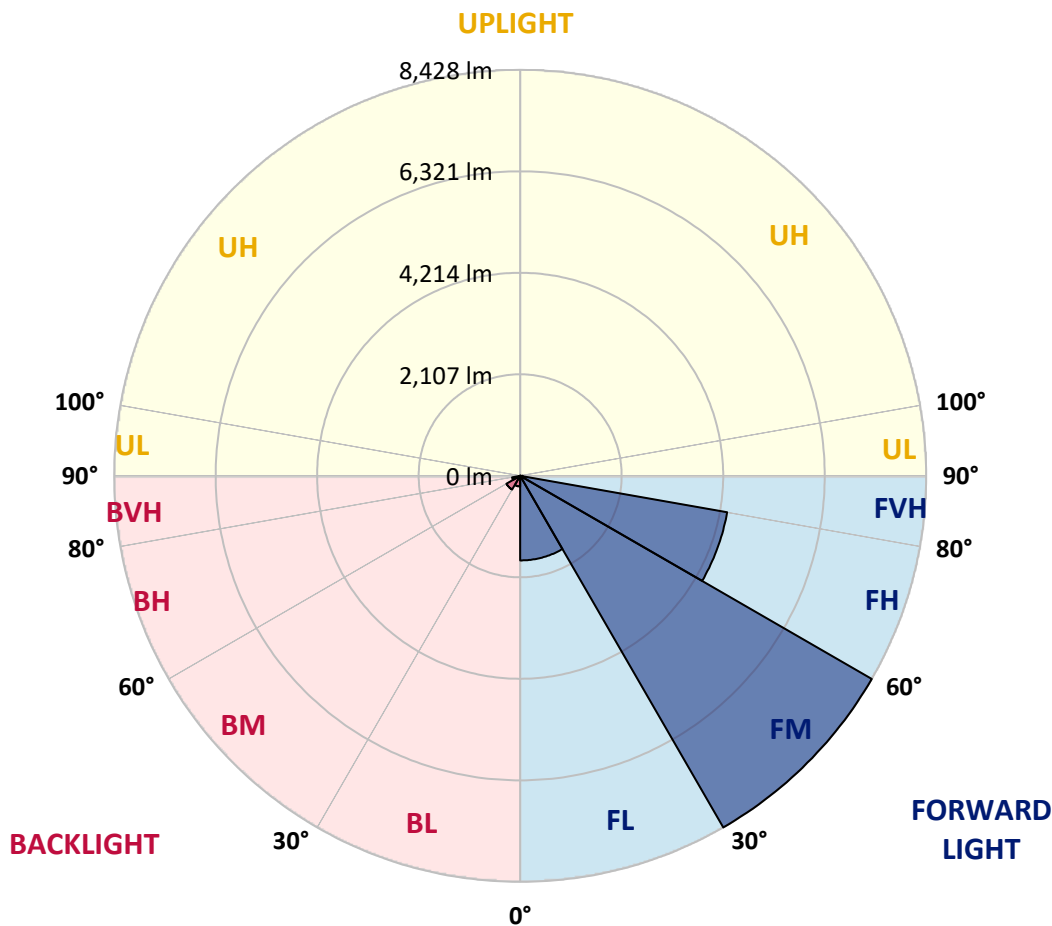


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1756.7 | 11.5      |                         |      |         |
| FM (30°-60°)   | 8428.3 | 55.0      |                         |      |         |
| FH (60°-80°)   | 4362.3 | 28.5      |                         |      | G2/5000 |
| FVH (80°-90°)  | 53.9   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 221.7  | 1.4       | B1/500                  |      |         |
| BM (30°-60°)   | 329.9  | 2.2       | B1/1000                 |      |         |
| BH (60°-80°)   | 170.2  | 1.1       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 0.9    | 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-G2**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°     | 76°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2  | 2051.2  | 2051.2  |
| 2.5°  | 2803.8 | 2788.5 | 2773.2 | 2714.5 | 2661.0 | 2612.5 | 2520.6 | 2400.7 | 2293.6  | 2270.6  | 2145.6  |
| 5°    | 3293.7 | 3275.8 | 3252.9 | 3194.2 | 3125.3 | 3043.7 | 2908.4 | 2724.7 | 2536.0  | 2495.1  | 2263.0  |
| 7.5°  | 3625.3 | 3610.0 | 3576.9 | 3548.8 | 3479.9 | 3400.8 | 3250.3 | 3036.0 | 2775.8  | 2724.7  | 2398.2  |
| 10°   | 3852.4 | 3842.2 | 3837.1 | 3814.1 | 3763.1 | 3699.3 | 3548.8 | 3324.3 | 3018.1  | 2959.5  | 2541.1  |
| 12.5° | 3934.0 | 3934.0 | 3959.6 | 3997.8 | 4005.5 | 3985.1 | 3847.3 | 3622.8 | 3273.3  | 3212.0  | 2709.4  |
| 15°   | 3824.3 | 3837.1 | 3893.2 | 4015.7 | 4143.3 | 4227.4 | 4140.7 | 3931.5 | 3553.9  | 3487.6  | 2908.4  |
| 17.5° | 3793.7 | 3806.5 | 3844.8 | 3951.9 | 4122.8 | 4347.4 | 4390.7 | 4230.0 | 3819.2  | 3763.1  | 3112.5  |
| 20°   | 3880.5 | 3893.2 | 3926.4 | 4018.2 | 4148.4 | 4375.4 | 4556.6 | 4518.3 | 4099.9  | 4041.2  | 3319.2  |
| 22.5° | 4087.1 | 4094.8 | 4094.8 | 4166.2 | 4281.0 | 4449.4 | 4661.2 | 4791.3 | 4388.2  | 4324.4  | 3523.3  |
| 25°   | 4531.0 | 4515.7 | 4454.5 | 4418.8 | 4492.8 | 4630.5 | 4793.8 | 5031.1 | 4709.6  | 4622.9  | 3742.7  |
| 27.5° | 5112.7 | 5163.8 | 5015.8 | 4844.8 | 4788.7 | 4867.8 | 4980.1 | 5242.8 | 5020.9  | 4929.0  | 3941.7  |
| 30°   | 5901.1 | 5880.7 | 5686.8 | 5441.8 | 5199.5 | 5171.4 | 5209.7 | 5424.0 | 5332.1  | 5245.4  | 4163.7  |
| 32.5° | 6549.1 | 6587.4 | 6383.3 | 6084.8 | 5722.5 | 5551.5 | 5510.7 | 5640.8 | 5663.8  | 5607.7  | 4426.4  |
| 35°   | 7215.0 | 7255.8 | 7056.8 | 6725.1 | 6294.0 | 6008.2 | 5890.9 | 5908.7 | 6074.6  | 6003.1  | 4702.0  |
| 37.5° | 7812.0 | 7847.7 | 7651.2 | 7311.9 | 6880.8 | 6531.2 | 6362.9 | 6225.1 | 6472.6  | 6408.8  | 4992.8  |
| 40°   | 8266.1 | 8271.2 | 8138.5 | 7834.9 | 7426.7 | 7064.4 | 6873.1 | 6602.7 | 6893.5  | 6850.1  | 5296.4  |
| 42.5° | 8587.6 | 8597.8 | 8500.8 | 8240.6 | 7863.0 | 7526.2 | 7370.6 | 7049.1 | 7378.3  | 7340.0  | 5648.5  |
| 45°   | 8738.1 | 8755.9 | 8745.7 | 8505.9 | 8192.1 | 7901.3 | 7850.2 | 7523.7 | 7908.9  | 7873.2  | 6054.1  |
| 47.5° | 8595.2 | 8595.2 | 8725.3 | 8692.2 | 8403.9 | 8210.0 | 8268.6 | 8018.6 | 8485.5  | 8452.3  | 6467.5  |
| 50°   | 8000.8 | 8008.4 | 8273.7 | 8653.9 | 8485.5 | 8442.1 | 8625.8 | 8503.4 | 9008.5  | 9028.9  | 6962.4  |
| 52.5° | 6439.4 | 6426.6 | 7322.1 | 8051.8 | 8429.4 | 8546.7 | 8954.9 | 8998.3 | 9636.1  | 9697.4  | 7454.8  |
| 55°   | 4811.7 | 4804.0 | 5661.3 | 6985.4 | 8036.5 | 8493.2 | 9138.6 | 9439.7 | 10171.9 | 10210.2 | 7822.2  |
| 57.5° | 3809.0 | 3788.6 | 4260.6 | 5630.6 | 7148.6 | 8253.3 | 9146.3 | 9523.9 | 10470.4 | 10536.7 | 8179.4  |
| 60°   | 2928.9 | 2911.0 | 3263.1 | 4189.2 | 5890.9 | 7615.5 | 8926.9 | 9529.0 | 10758.7 | 10876.0 | 8659.0  |
| 62.5° | 2094.6 | 2115.0 | 2385.4 | 3005.4 | 4531.0 | 6714.9 | 8641.1 | 9600.4 | 11271.5 | 11404.1 | 9340.2  |
| 65°   | 1413.4 | 1403.2 | 1627.7 | 2046.1 | 3222.2 | 5503.1 | 8202.3 | 9750.9 | 12195.0 | 12427.2 | 10156.6 |
| 67.5° | 982.2  | 989.9  | 1091.9 | 1331.8 | 2046.1 | 4224.9 | 7472.7 | 9835.1 | 13149.2 | 13330.4 | 10728.1 |
| 70°   | 709.3  | 719.5  | 775.6  | 895.5  | 1250.1 | 2865.1 | 6316.9 | 9449.9 | 13406.9 | 13565.1 | 10330.1 |
| 72.5° | 466.9  | 487.3  | 571.5  | 635.3  | 798.5  | 1793.5 | 4653.5 | 8141.1 | 12297.1 | 12414.4 | 8666.6  |
| 75°   | 252.6  | 257.7  | 367.4  | 474.5  | 568.9  | 1117.5 | 2775.8 | 5490.3 | 9199.9  | 9161.6  | 5714.8  |
| 77.5° | 196.4  | 204.1  | 227.1  | 339.3  | 382.7  | 614.9  | 1097.0 | 2479.8 | 4357.6  | 4240.2  | 1949.2  |
| 80°   | 119.9  | 125.0  | 158.2  | 201.5  | 267.9  | 357.2  | 321.5  | 673.5  | 885.3   | 829.2   | 285.7   |
| 82.5° | 71.4   | 76.5   | 94.4   | 168.4  | 211.8  | 168.4  | 112.3  | 163.3  | 165.8   | 163.3   | 71.4    |
| 85°   | 12.8   | 12.8   | 66.3   | 117.4  | 112.3  | 48.5   | 66.3   | 53.6   | 48.5    | 51.0    | 15.3    |
| 87.5° | 0.0    | 0.0    | 25.5   | 35.7   | 51.0   | 17.9   | 25.5   | 12.8   | 12.8    | 12.8    | 7.7     |
| 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°    | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 | 2051.2 |
| 2.5°  | 2069.1 | 1982.3 | 1803.7 | 1648.1 | 1492.5 | 1377.7 | 1290.9 | 1201.6 | 1171.0 | 1132.8 | 1112.4 |
| 5°    | 2104.8 | 1933.9 | 1579.2 | 1296.0 | 1056.2 | 872.5  | 755.2  | 683.7  | 637.8  | 604.6  | 597.0  |
| 7.5°  | 2158.4 | 1895.6 | 1398.1 | 1015.4 | 752.6  | 568.9  | 472.0  | 423.5  | 398.0  | 382.7  | 377.6  |
| 10°   | 2222.2 | 1862.4 | 1219.5 | 790.9  | 530.7  | 400.5  | 347.0  | 326.6  | 316.4  | 311.3  | 308.7  |
| 12.5° | 2311.4 | 1849.7 | 1069.0 | 609.8  | 400.5  | 329.1  | 301.0  | 288.3  | 280.6  | 273.0  | 270.4  |
| 15°   | 2428.8 | 1854.8 | 931.2  | 472.0  | 331.7  | 293.4  | 270.4  | 257.7  | 247.5  | 239.8  | 239.8  |
| 17.5° | 2551.3 | 1862.4 | 796.0  | 382.7  | 301.0  | 267.9  | 242.4  | 224.5  | 216.9  | 209.2  | 206.7  |
| 20°   | 2666.1 | 1859.9 | 665.9  | 326.6  | 273.0  | 239.8  | 214.3  | 196.4  | 183.7  | 176.0  | 176.0  |
| 22.5° | 2775.8 | 1844.6 | 543.4  | 293.4  | 250.0  | 211.8  | 183.7  | 165.8  | 155.6  | 148.0  | 148.0  |
| 25°   | 2893.1 | 1813.9 | 443.9  | 267.9  | 222.0  | 186.2  | 158.2  | 140.3  | 132.7  | 125.0  | 125.0  |
| 27.5° | 2985.0 | 1762.9 | 362.3  | 244.9  | 196.4  | 160.7  | 135.2  | 119.9  | 112.3  | 107.2  | 107.2  |
| 30°   | 3084.5 | 1688.9 | 301.0  | 219.4  | 170.9  | 137.8  | 114.8  | 102.1  | 94.4   | 91.8   | 91.8   |
| 32.5° | 3194.2 | 1607.3 | 257.7  | 193.9  | 145.4  | 117.4  | 96.9   | 89.3   | 81.6   | 79.1   | 79.1   |
| 35°   | 3321.7 | 1535.9 | 232.2  | 168.4  | 127.6  | 99.5   | 84.2   | 76.5   | 71.4   | 71.4   | 71.4   |
| 37.5° | 3467.2 | 1461.9 | 209.2  | 148.0  | 109.7  | 84.2   | 71.4   | 68.9   | 66.3   | 63.8   | 63.8   |
| 40°   | 3625.3 | 1382.8 | 188.8  | 130.1  | 94.4   | 71.4   | 61.2   | 61.2   | 58.7   | 58.7   | 58.7   |
| 42.5° | 3803.9 | 1313.9 | 170.9  | 114.8  | 81.6   | 61.2   | 53.6   | 53.6   | 51.0   | 51.0   | 51.0   |
| 45°   | 3997.8 | 1250.1 | 155.6  | 102.1  | 71.4   | 53.6   | 48.5   | 45.9   | 43.4   | 43.4   | 43.4   |
| 47.5° | 4227.4 | 1214.4 | 142.9  | 89.3   | 61.2   | 45.9   | 40.8   | 38.3   | 35.7   | 33.2   | 33.2   |
| 50°   | 4520.8 | 1229.7 | 130.1  | 74.0   | 53.6   | 38.3   | 33.2   | 30.6   | 28.1   | 25.5   | 25.5   |
| 52.5° | 4753.0 | 1222.1 | 112.3  | 63.8   | 43.4   | 30.6   | 25.5   | 23.0   | 20.4   | 17.9   | 17.9   |
| 55°   | 4921.4 | 1191.4 | 96.9   | 53.6   | 33.2   | 25.5   | 20.4   | 15.3   | 12.8   | 12.8   | 12.8   |
| 57.5° | 5087.2 | 1160.8 | 81.6   | 43.4   | 25.5   | 17.9   | 12.8   | 10.2   | 10.2   | 10.2   | 10.2   |
| 60°   | 5344.9 | 1117.5 | 71.4   | 35.7   | 20.4   | 12.8   | 7.7    | 7.7    | 5.1    | 5.1    | 5.1    |
| 62.5° | 5658.7 | 1063.9 | 58.7   | 30.6   | 15.3   | 10.2   | 5.1    | 5.1    | 0.0    | 0.0    | 0.0    |
| 65°   | 6003.1 | 969.5  | 48.5   | 23.0   | 12.8   | 7.7    | 5.1    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 5924.0 | 778.1  | 40.8   | 15.3   | 10.2   | 5.1    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 5240.3 | 525.6  | 33.2   | 12.8   | 7.7    | 5.1    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 4105.0 | 311.3  | 23.0   | 10.2   | 5.1    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 2627.8 | 155.6  | 15.3   | 7.7    | 5.1    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 880.2  | 76.5   | 10.2   | 5.1    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 125.0  | 25.5   | 5.1    | 2.6    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 28.1   | 10.2   | 2.6    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 10.2   | 5.1    | 2.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 5.1    | 2.6    | 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)