

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: P573537

Luminaire Tested: **ARCH-S-PA2-90-727-U-T2U-HSS**

Issue Date: 10/13/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P573537  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-332-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/13/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-S-PA2-90-727-U-T2U-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 910mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II U OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

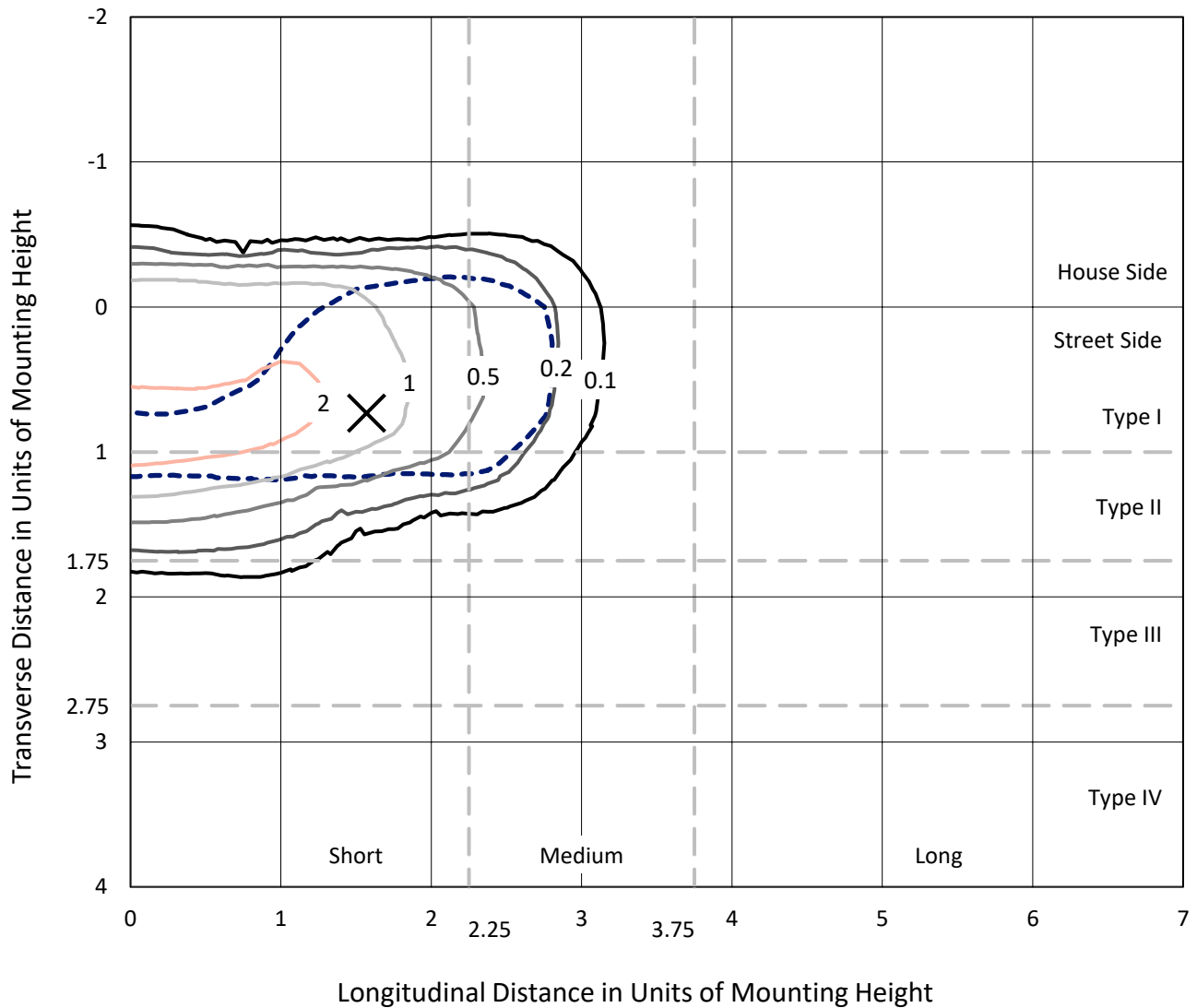
Lumens per Lamp: N/A  
Luminaire Lumens: 7376 lumens  
Efficiency: N/A  
Efficacy: 79.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 92.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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

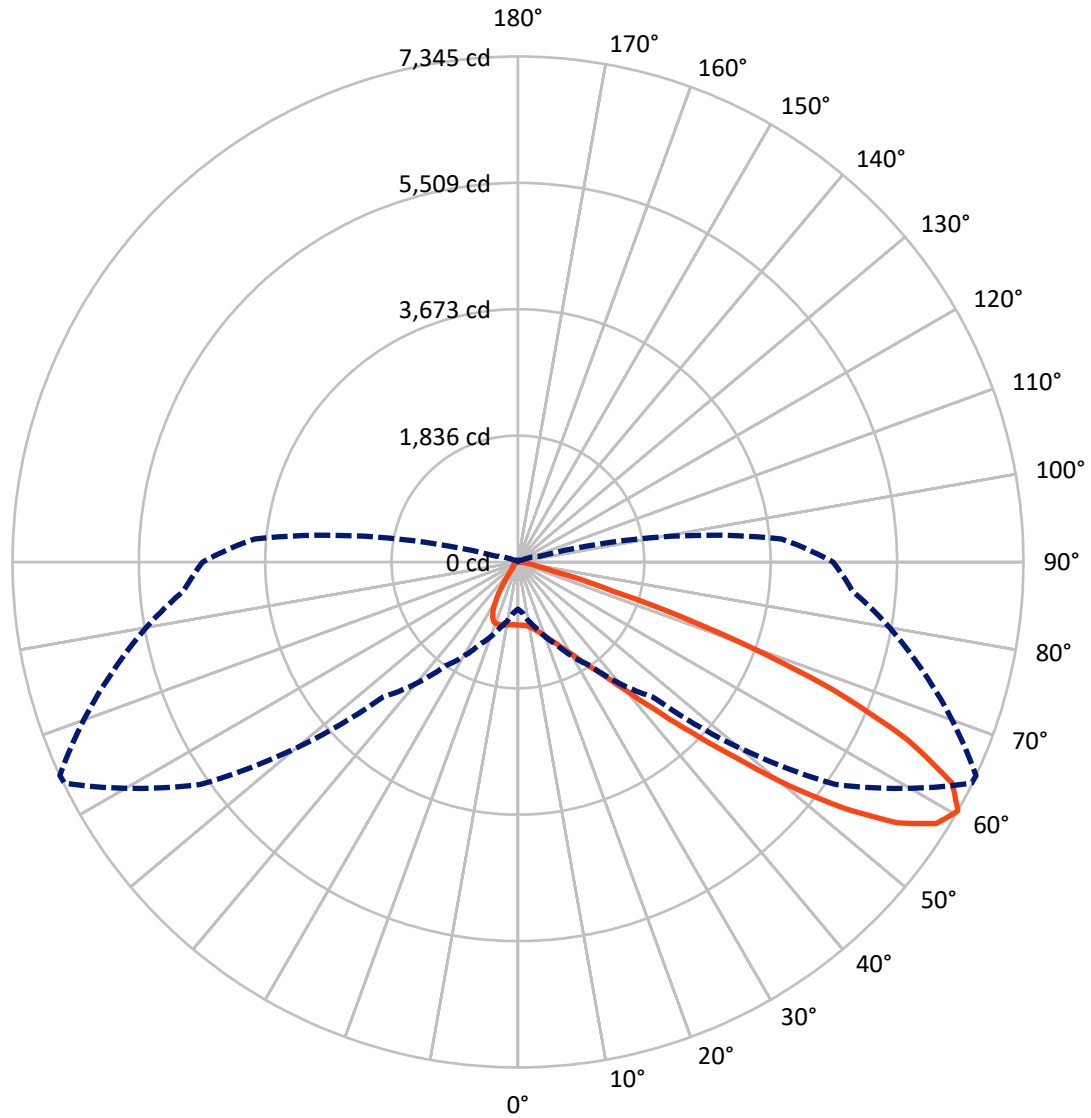
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral      - - - Horizontal Cone Through 60-Deg Vertical

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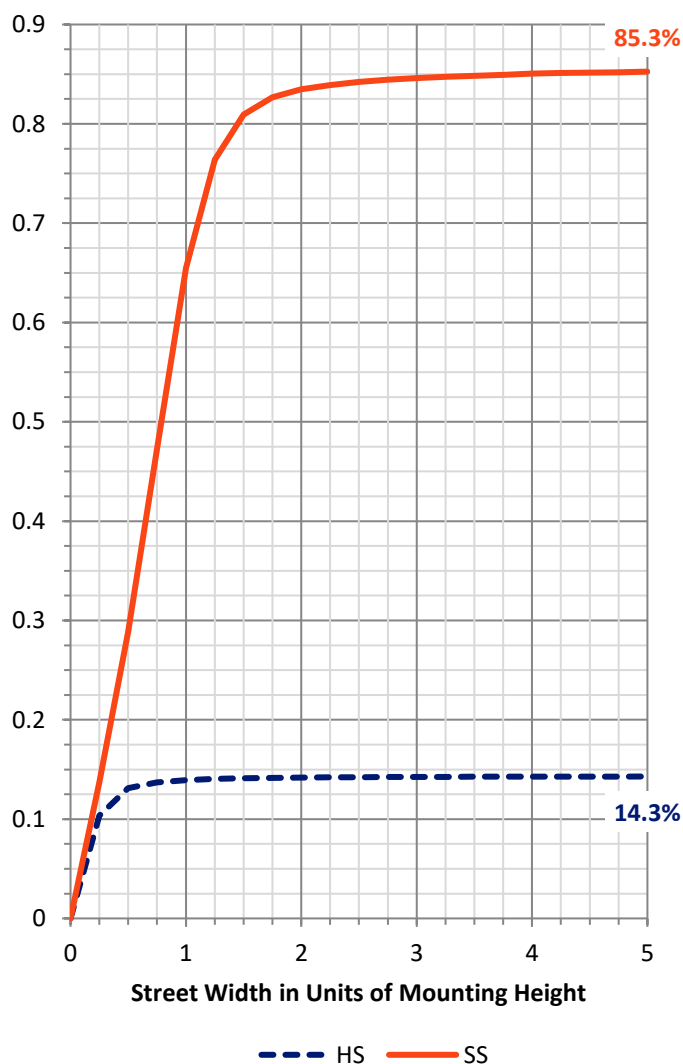
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1067.8   | 0.0    | 1067.8 |
|                    | % Fixture | 14.5     | 0.0    | 14.5   |
| <b>Street Side</b> | Lumens    | 6308.2   | 0.0    | 6308.2 |
|                    | % Fixture | 85.5     | 0.0    | 85.5   |
| <b>Total</b>       | Lumens    | 7376.0   | 0.0    | 7376.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 86.8   | 1.2       |
| 10°-20°   | 246.4  | 3.3       |
| 20°-30°   | 418.5  | 5.7       |
| 30°-40°   | 863.6  | 11.7      |
| 40°-50°   | 1736.8 | 23.5      |
| 50°-60°   | 2125.3 | 28.8      |
| 60°-70°   | 1503.5 | 20.4      |
| 70°-80°   | 362.3  | 4.9       |
| 80°-90°   | 32.7   | 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°    | 7376.0 | 100.0     |
| 0°-180°   | 7376.0 | 100.0     |

**Coefficient of Utilization**

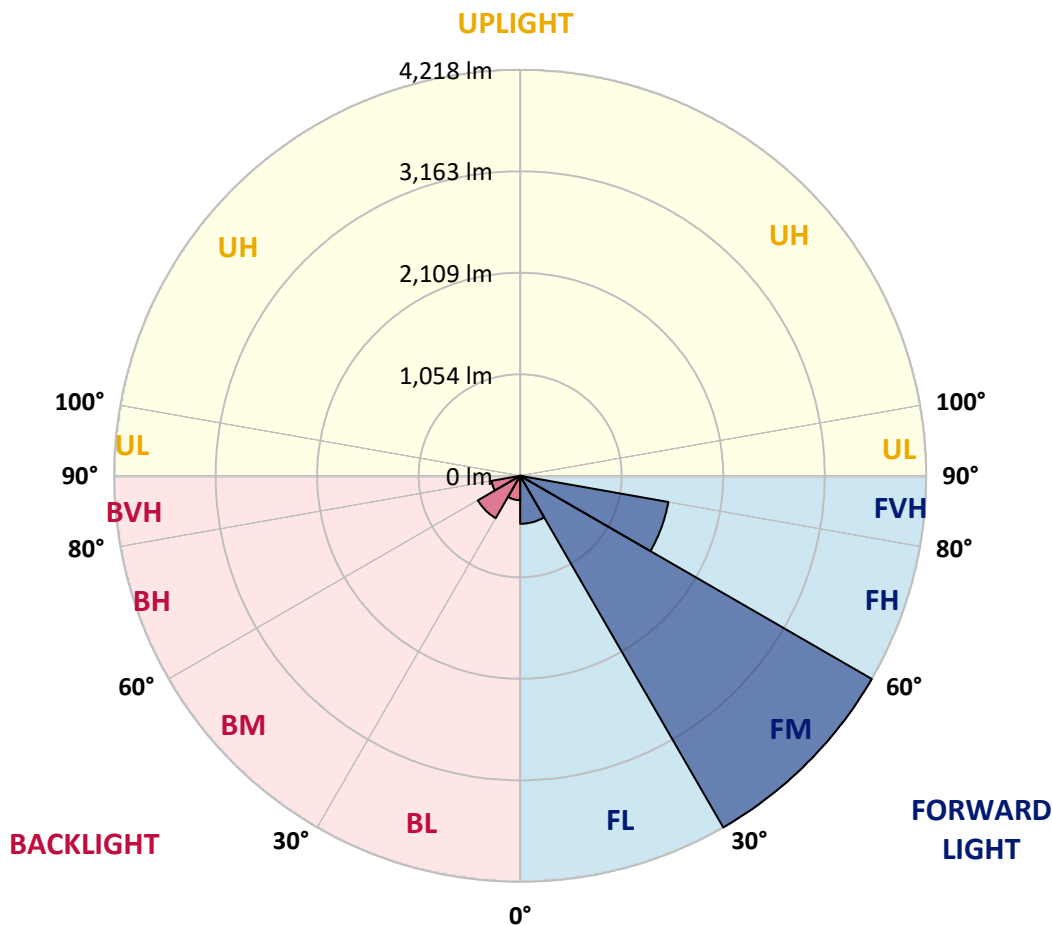


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 498.6  | 6.8       |                         |      |         |
| FM (30°-60°)   | 4217.9 | 57.2      |                         |      |         |
| FH (60°-80°)   | 1563.2 | 21.2      |                         |      | G1/1800 |
| FVH (80°-90°)  | 28.5   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 253.2  | 3.4       | B1/500                  |      |         |
| BM (30°-60°)   | 507.7  | 6.9       | B1/1000                 |      |         |
| BH (60°-80°)   | 302.7  | 4.1       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 4.2    | 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-G1**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 64°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 918.9  | 918.9  | 918.9  | 918.9  | 918.9  | 918.9  | 918.9  | 918.9  | 918.9  | 918.9  | 918.9  |
| 2.5°  | 921.8  | 918.9  | 918.9  | 918.9  | 921.8  | 921.8  | 924.7  | 918.9  | 918.9  | 918.9  | 918.9  |
| 5°    | 916.0  | 913.0  | 913.0  | 916.0  | 918.9  | 918.9  | 924.7  | 924.7  | 924.7  | 927.6  | 927.6  |
| 7.5°  | 927.6  | 921.8  | 921.8  | 924.7  | 927.6  | 927.6  | 933.4  | 936.3  | 936.3  | 942.1  | 945.0  |
| 10°   | 942.1  | 939.2  | 939.2  | 945.0  | 950.9  | 950.9  | 959.6  | 959.6  | 959.6  | 965.4  | 968.3  |
| 12.5° | 962.5  | 959.6  | 959.6  | 968.3  | 977.0  | 982.8  | 988.7  | 991.6  | 994.5  | 994.5  | 994.5  |
| 15°   | 991.6  | 988.7  | 988.7  | 997.4  | 1009.0 | 1023.5 | 1032.3 | 1032.3 | 1038.1 | 1035.2 | 1023.5 |
| 17.5° | 1032.3 | 1029.4 | 1032.3 | 1038.1 | 1052.6 | 1067.2 | 1084.6 | 1087.5 | 1084.6 | 1078.8 | 1061.3 |
| 20°   | 1099.1 | 1090.4 | 1096.2 | 1110.8 | 1110.8 | 1119.5 | 1142.8 | 1151.5 | 1154.4 | 1137.0 | 1105.0 |
| 22.5° | 1168.9 | 1168.9 | 1174.8 | 1192.2 | 1180.6 | 1192.2 | 1212.6 | 1227.1 | 1232.9 | 1218.4 | 1166.0 |
| 25°   | 1299.8 | 1305.6 | 1296.9 | 1291.1 | 1262.0 | 1267.8 | 1294.0 | 1323.0 | 1323.0 | 1311.4 | 1235.8 |
| 27.5° | 1587.7 | 1581.8 | 1520.8 | 1436.5 | 1360.9 | 1366.7 | 1392.8 | 1430.6 | 1433.5 | 1407.4 | 1305.6 |
| 30°   | 2000.6 | 2006.4 | 1887.2 | 1695.2 | 1529.5 | 1485.9 | 1515.0 | 1558.6 | 1564.4 | 1520.8 | 1395.7 |
| 32.5° | 2646.1 | 2596.7 | 2375.7 | 2119.8 | 1808.7 | 1651.6 | 1663.3 | 1709.8 | 1727.2 | 1689.4 | 1538.2 |
| 35°   | 3480.6 | 3364.3 | 3032.8 | 2715.9 | 2265.2 | 1948.2 | 1858.1 | 1907.5 | 1916.2 | 1895.9 | 1715.6 |
| 37.5° | 3977.9 | 3884.8 | 3669.6 | 3381.8 | 2852.6 | 2343.7 | 2114.0 | 2163.4 | 2154.7 | 2114.0 | 1893.0 |
| 40°   | 4286.1 | 4233.8 | 4117.4 | 3983.7 | 3646.4 | 2966.0 | 2535.6 | 2494.9 | 2497.8 | 2439.6 | 2180.9 |
| 42.5° | 4460.6 | 4414.0 | 4370.4 | 4405.3 | 4306.5 | 4094.2 | 3146.2 | 2960.1 | 2942.7 | 2832.2 | 2515.2 |
| 45°   | 4469.3 | 4399.5 | 4451.8 | 4655.4 | 4812.4 | 5094.5 | 3943.0 | 3512.6 | 3521.3 | 3338.2 | 2931.1 |
| 47.5° | 4134.9 | 4079.6 | 4230.9 | 4629.2 | 5149.7 | 5748.7 | 4870.6 | 4268.7 | 4227.9 | 3867.4 | 3352.7 |
| 50°   | 3474.8 | 3471.9 | 3672.6 | 4236.7 | 5149.7 | 6086.0 | 5865.0 | 5155.5 | 5111.9 | 4419.9 | 3736.5 |
| 52.5° | 2750.8 | 2806.0 | 2942.7 | 3477.7 | 4675.7 | 6054.0 | 6597.8 | 6071.5 | 5949.4 | 4911.3 | 4056.4 |
| 55°   | 2140.1 | 2119.8 | 2285.5 | 2654.8 | 3707.4 | 5501.6 | 6836.2 | 6792.6 | 6690.9 | 5347.4 | 4338.4 |
| 57.5° | 1314.3 | 1389.9 | 1613.8 | 1942.4 | 2698.4 | 4326.8 | 6493.1 | 7231.7 | 7170.6 | 5754.5 | 4632.1 |
| 60°   | 683.3  | 741.5  | 982.8  | 1326.0 | 1843.5 | 2774.0 | 5635.3 | 7333.5 | 7345.1 | 6083.1 | 4882.2 |
| 62.5° | 430.4  | 427.4  | 537.9  | 930.5  | 1186.4 | 1558.6 | 4376.2 | 6972.9 | 7083.4 | 6336.1 | 5120.6 |
| 65°   | 322.8  | 325.7  | 369.3  | 616.5  | 805.5  | 814.2  | 2596.7 | 6030.8 | 6214.0 | 6403.0 | 5202.1 |
| 67.5° | 299.5  | 302.4  | 322.8  | 404.2  | 604.8  | 543.8  | 1142.8 | 4649.6 | 4905.5 | 5786.5 | 4888.0 |
| 70°   | 267.5  | 270.4  | 302.4  | 334.4  | 456.5  | 398.4  | 514.7  | 2800.2 | 3155.0 | 4198.9 | 3911.0 |
| 72.5° | 209.4  | 215.2  | 253.0  | 317.0  | 340.2  | 302.4  | 357.7  | 1238.7 | 1445.2 | 2308.8 | 2239.0 |
| 75°   | 154.1  | 157.0  | 191.9  | 244.3  | 299.5  | 215.2  | 276.2  | 491.4  | 537.9  | 866.5  | 738.6  |
| 77.5° | 107.6  | 107.6  | 133.8  | 183.2  | 250.1  | 151.2  | 197.7  | 264.6  | 270.4  | 322.8  | 212.3  |
| 80°   | 66.9   | 69.8   | 84.3   | 125.0  | 154.1  | 145.4  | 122.1  | 177.4  | 177.4  | 168.7  | 87.2   |
| 82.5° | 37.8   | 40.7   | 58.2   | 84.3   | 104.7  | 98.9   | 78.5   | 101.8  | 104.7  | 107.6  | 49.4   |
| 85°   | 17.4   | 20.4   | 34.9   | 52.3   | 61.1   | 46.5   | 46.5   | 52.3   | 52.3   | 69.8   | 29.1   |
| 87.5° | 2.9    | 2.9    | 17.4   | 23.3   | 20.4   | 23.3   | 23.3   | 29.1   | 29.1   | 34.9   | 14.5   |
| 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°    | 918.9  | 918.9  | 918.9  | 918.9 | 918.9 | 918.9 | 918.9 | 918.9 | 918.9 | 918.9 | 918.9 |
| 2.5°  | 916.0  | 916.0  | 916.0  | 913.0 | 913.0 | 910.1 | 904.3 | 904.3 | 904.3 | 904.3 | 907.2 |
| 5°    | 927.6  | 924.7  | 921.8  | 913.0 | 907.2 | 895.6 | 884.0 | 881.1 | 872.3 | 872.3 | 875.2 |
| 7.5°  | 942.1  | 942.1  | 933.4  | 918.9 | 904.3 | 884.0 | 863.6 | 849.1 | 834.5 | 831.6 | 828.7 |
| 10°   | 968.3  | 962.5  | 953.8  | 927.6 | 904.3 | 872.3 | 840.4 | 802.6 | 773.5 | 758.9 | 753.1 |
| 12.5° | 988.7  | 985.7  | 968.3  | 939.2 | 901.4 | 852.0 | 779.3 | 692.1 | 622.3 | 584.5 | 584.5 |
| 15°   | 1017.7 | 1011.9 | 985.7  | 945.0 | 892.7 | 776.4 | 628.1 | 494.3 | 418.7 | 378.0 | 372.2 |
| 17.5° | 1046.8 | 1035.2 | 1003.2 | 947.9 | 854.9 | 639.7 | 439.1 | 317.0 | 264.6 | 244.3 | 238.4 |
| 20°   | 1081.7 | 1061.3 | 1014.8 | 950.9 | 761.8 | 465.2 | 285.0 | 212.3 | 191.9 | 183.2 | 186.1 |
| 22.5° | 1128.2 | 1093.3 | 1026.5 | 933.4 | 622.3 | 302.4 | 200.6 | 171.6 | 159.9 | 151.2 | 151.2 |
| 25°   | 1186.4 | 1137.0 | 1046.8 | 884.0 | 450.7 | 203.5 | 159.9 | 142.5 | 130.9 | 125.0 | 122.1 |
| 27.5° | 1238.7 | 1177.7 | 1067.2 | 796.7 | 287.9 | 159.9 | 133.8 | 119.2 | 107.6 | 104.7 | 101.8 |
| 30°   | 1308.5 | 1224.2 | 1087.5 | 657.2 | 189.0 | 130.9 | 113.4 | 98.9  | 90.1  | 87.2  | 87.2  |
| 32.5° | 1427.7 | 1314.3 | 1125.3 | 500.1 | 142.5 | 113.4 | 96.0  | 84.3  | 78.5  | 75.6  | 75.6  |
| 35°   | 1567.3 | 1424.8 | 1157.3 | 348.9 | 122.1 | 96.0  | 81.4  | 72.7  | 69.8  | 66.9  | 66.9  |
| 37.5° | 1712.7 | 1555.7 | 1163.1 | 221.0 | 107.6 | 84.3  | 72.7  | 66.9  | 61.1  | 61.1  | 61.1  |
| 40°   | 1974.4 | 1785.4 | 1137.0 | 148.3 | 93.0  | 75.6  | 64.0  | 61.1  | 55.2  | 55.2  | 55.2  |
| 42.5° | 2279.7 | 2064.5 | 1070.1 | 119.2 | 84.3  | 66.9  | 61.1  | 55.2  | 49.4  | 49.4  | 46.5  |
| 45°   | 2675.2 | 2381.5 | 956.7  | 104.7 | 75.6  | 61.1  | 55.2  | 49.4  | 46.5  | 43.6  | 43.6  |
| 47.5° | 3047.4 | 2742.1 | 849.1  | 93.0  | 69.8  | 58.2  | 49.4  | 43.6  | 40.7  | 40.7  | 40.7  |
| 50°   | 3402.1 | 3018.3 | 724.0  | 87.2  | 64.0  | 55.2  | 46.5  | 40.7  | 37.8  | 34.9  | 34.9  |
| 52.5° | 3658.0 | 3236.4 | 607.7  | 78.5  | 58.2  | 49.4  | 43.6  | 37.8  | 32.0  | 29.1  | 29.1  |
| 55°   | 3943.0 | 3457.4 | 503.0  | 69.8  | 55.2  | 46.5  | 37.8  | 32.0  | 26.2  | 23.3  | 23.3  |
| 57.5° | 4262.8 | 3672.6 | 407.1  | 64.0  | 52.3  | 40.7  | 32.0  | 26.2  | 20.4  | 17.4  | 17.4  |
| 60°   | 4579.8 | 3844.1 | 325.7  | 58.2  | 46.5  | 37.8  | 29.1  | 20.4  | 14.5  | 11.6  | 11.6  |
| 62.5° | 4896.7 | 3960.4 | 250.1  | 52.3  | 43.6  | 32.0  | 23.3  | 14.5  | 8.7   | 5.8   | 5.8   |
| 65°   | 5027.6 | 3928.4 | 186.1  | 46.5  | 37.8  | 26.2  | 20.4  | 14.5  | 8.7   | 5.8   | 5.8   |
| 67.5° | 4664.1 | 3533.0 | 130.9  | 46.5  | 34.9  | 26.2  | 17.4  | 11.6  | 5.8   | 2.9   | 2.9   |
| 70°   | 3640.6 | 2727.5 | 96.0   | 46.5  | 34.9  | 26.2  | 17.4  | 11.6  | 5.8   | 2.9   | 2.9   |
| 72.5° | 2064.5 | 1517.9 | 72.7   | 40.7  | 32.0  | 23.3  | 17.4  | 11.6  | 5.8   | 2.9   | 2.9   |
| 75°   | 735.7  | 488.5  | 55.2   | 37.8  | 29.1  | 20.4  | 17.4  | 11.6  | 5.8   | 2.9   | 2.9   |
| 77.5° | 177.4  | 125.0  | 43.6   | 32.0  | 26.2  | 20.4  | 14.5  | 11.6  | 8.7   | 2.9   | 2.9   |
| 80°   | 72.7   | 52.3   | 34.9   | 26.2  | 20.4  | 17.4  | 14.5  | 11.6  | 5.8   | 2.9   | 2.9   |
| 82.5° | 32.0   | 26.2   | 14.5   | 14.5  | 11.6  | 11.6  | 11.6  | 11.6  | 5.8   | 2.9   | 2.9   |
| 85°   | 14.5   | 11.6   | 5.8    | 5.8   | 2.9   | 2.9   | 2.9   | 5.8   | 5.8   | 2.9   | 2.9   |
| 87.5° | 8.7    | 5.8    | 5.8    | 5.8   | 2.9   | 2.9   | 2.9   | 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)