

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: P348569

Luminaire Tested: **ARCH-N-PA1-19-830-U-T2R**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P348569  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-N-PA1-19-830-U-T2R  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 370mA LIGHT ENGINE WITH 16 LEDS AND  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2417 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 19  
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

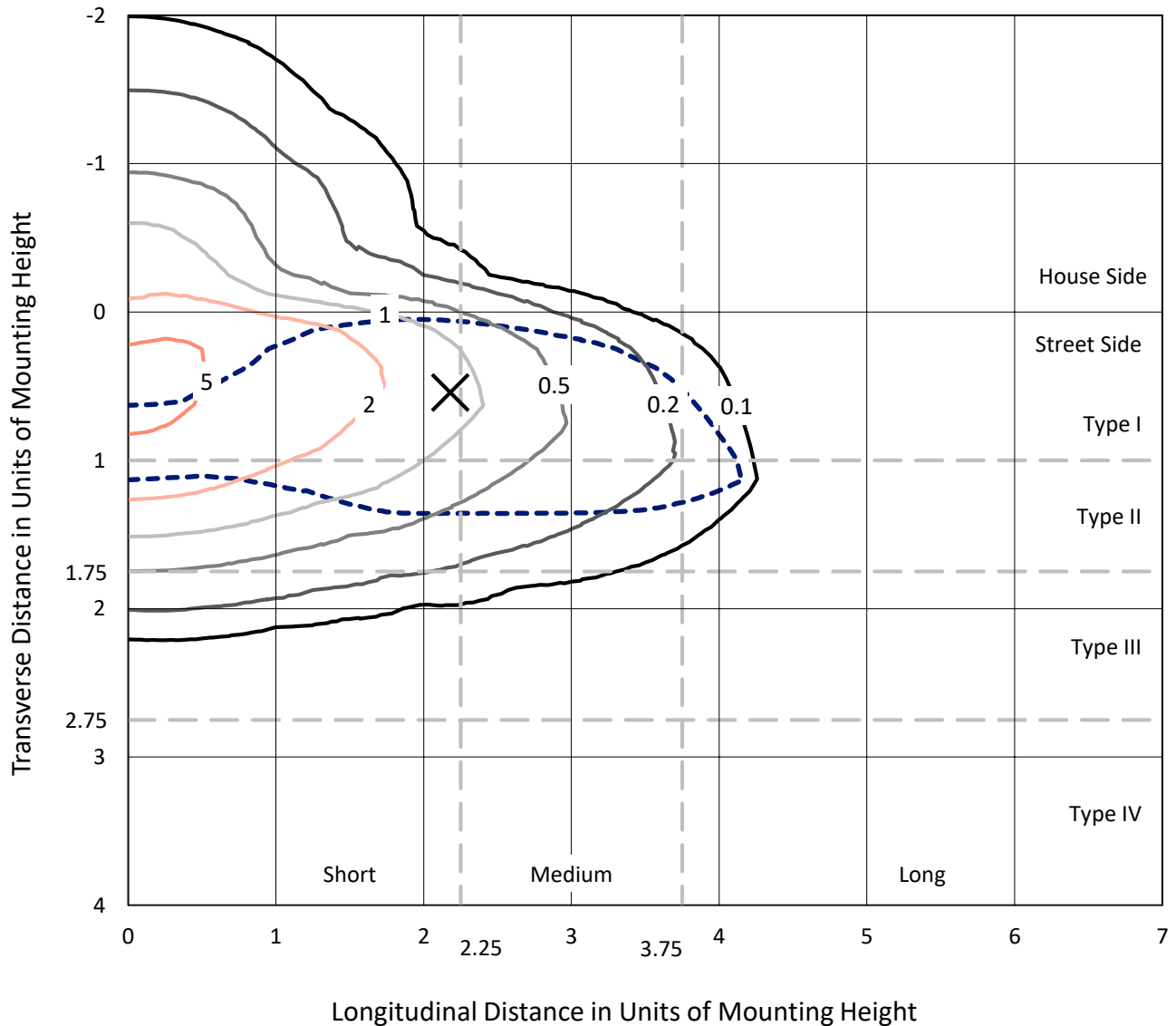


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### Iso-Footcandle Lines of Horizontal Illumination

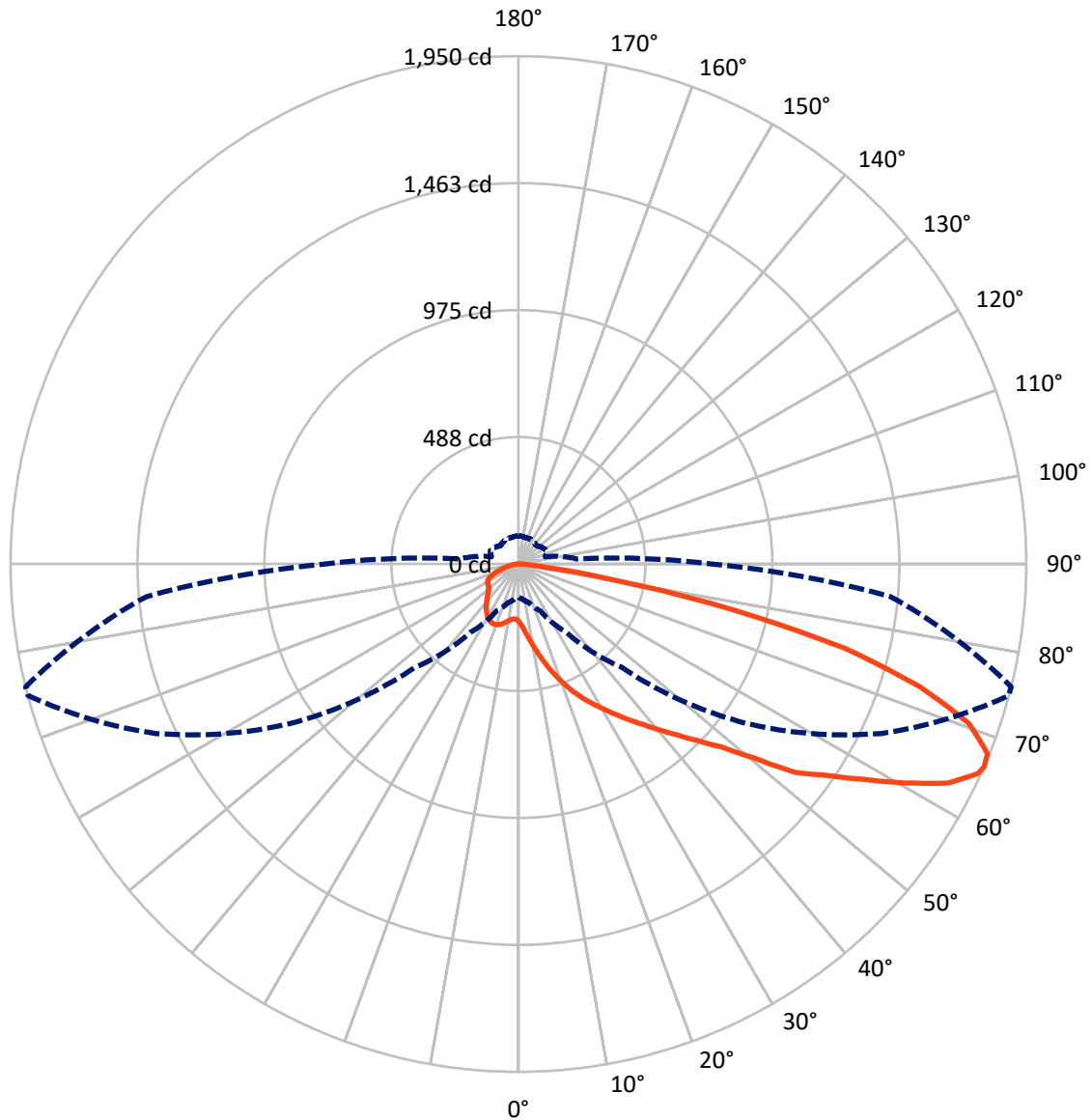
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.9 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral      - - - Horizontal Cone Through 66-Deg Vertical



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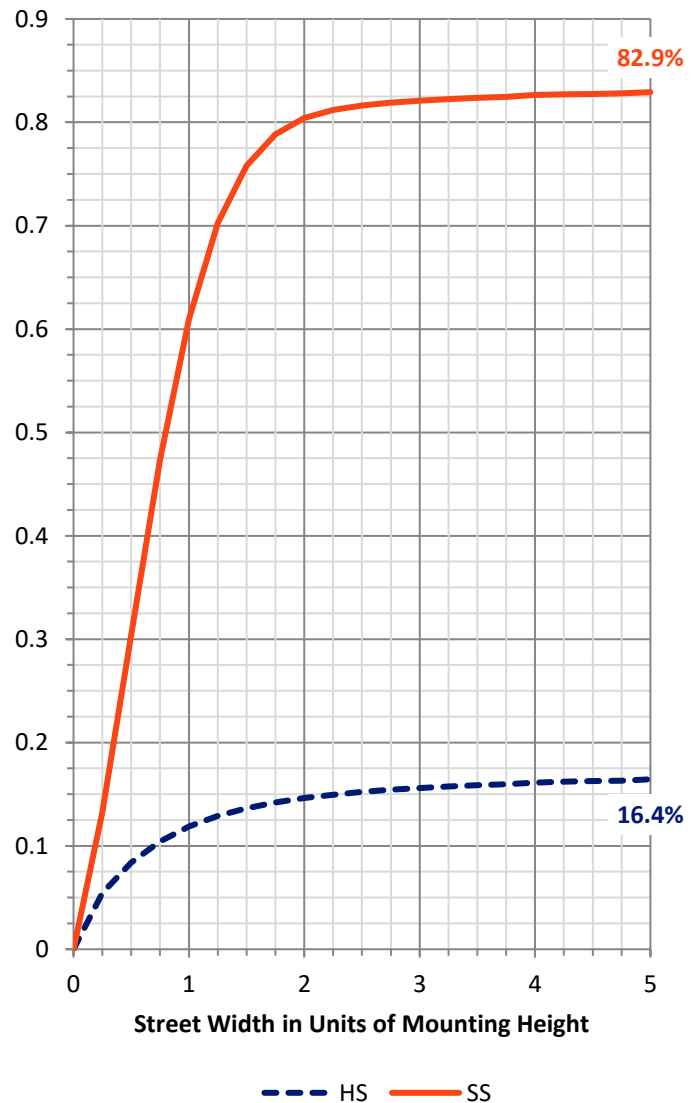
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 406.7    | 0.0    | 406.7  |
|                    | % Fixture | 16.8     | 0.0    | 16.8   |
| <b>Street Side</b> | Lumens    | 2010.3   | 0.0    | 2010.3 |
|                    | % Fixture | 83.2     | 0.0    | 83.2   |
| <b>Total</b>       | Lumens    | 2417.0   | 0.0    | 2417.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 26.7   | 1.1       |
| 10°-20°   | 105.4  | 4.4       |
| 20°-30°   | 204.8  | 8.5       |
| 30°-40°   | 334.3  | 13.8      |
| 40°-50°   | 456.8  | 18.9      |
| 50°-60°   | 532.0  | 22.0      |
| 60°-70°   | 477.0  | 19.7      |
| 70°-80°   | 241.0  | 10.0      |
| 80°-90°   | 38.9   | 1.6       |
| 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°    | 2417.0 | 100.0     |
| 0°-180°   | 2417.0 | 100.0     |

**Coefficient of Utilization**



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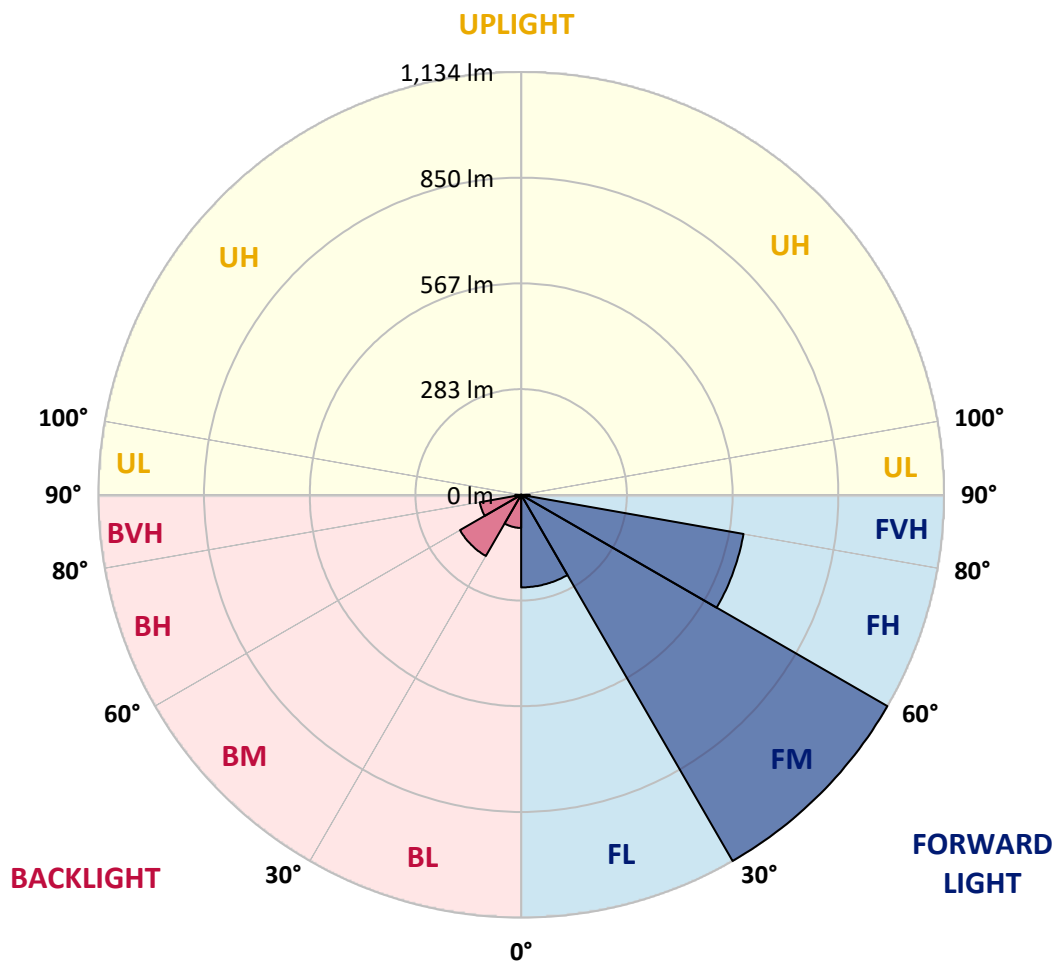
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |        |
|----------------|--------|-----------|-------------------------|------|--------|
|                |        |           | B                       | U    | G      |
| FL (0°-30°)    | 248.2  | 10.3      |                         |      |        |
| FM (30°-60°)   | 1133.7 | 46.9      |                         |      |        |
| FH (60°-80°)   | 605.4  | 25.0      |                         |      | G0/660 |
| FVH (80°-90°)  | 23.0   | 1.0       |                         |      | G1/100 |
| BL (0°-30°)    | 88.7   | 3.7       | B0/110                  |      |        |
| BM (30°-60°)   | 189.4  | 7.8       | B0/220                  |      |        |
| BH (60°-80°)   | 112.7  | 4.7       | B1/500                  |      | G1/500 |
| BVH (80°-90°)  | 15.9   | 0.7       |                         |      | G1/100 |
| 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°    | 65°    | 75°    | 76°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 220.7  | 220.7  | 220.7  | 220.7  | 220.7  | 220.7  | 220.7  | 220.7  | 220.7  | 220.7  | 220.7  |
| 2.5°  | 293.0  | 288.6  | 288.2  | 281.7  | 280.2  | 267.8  | 258.7  | 249.2  | 238.4  | 236.2  | 227.7  |
| 5°    | 376.4  | 376.0  | 370.3  | 359.7  | 351.4  | 330.3  | 309.3  | 287.2  | 262.9  | 259.0  | 239.8  |
| 7.5°  | 451.4  | 450.7  | 446.4  | 435.0  | 423.0  | 397.0  | 367.1  | 333.1  | 293.8  | 287.9  | 256.1  |
| 10°   | 508.3  | 508.1  | 506.6  | 498.2  | 488.1  | 463.1  | 430.1  | 383.8  | 329.6  | 321.7  | 276.5  |
| 12.5° | 552.3  | 552.8  | 553.8  | 550.8  | 546.0  | 524.7  | 490.9  | 437.4  | 367.9  | 360.0  | 299.3  |
| 15°   | 582.1  | 583.6  | 588.7  | 592.8  | 595.4  | 582.3  | 549.6  | 492.3  | 410.7  | 401.2  | 324.4  |
| 17.5° | 597.1  | 598.8  | 607.5  | 620.2  | 631.8  | 630.5  | 604.5  | 544.7  | 451.8  | 442.7  | 351.5  |
| 20°   | 610.1  | 611.3  | 621.2  | 636.3  | 656.9  | 666.0  | 651.4  | 595.1  | 496.8  | 486.0  | 380.2  |
| 22.5° | 647.7  | 649.2  | 652.2  | 660.8  | 679.0  | 695.7  | 688.7  | 642.7  | 538.1  | 528.0  | 407.5  |
| 25°   | 720.2  | 722.1  | 715.7  | 708.4  | 711.8  | 723.5  | 724.8  | 686.2  | 580.0  | 568.6  | 436.8  |
| 27.5° | 807.6  | 810.3  | 799.4  | 780.6  | 764.2  | 759.7  | 758.1  | 721.8  | 619.9  | 606.7  | 465.7  |
| 30°   | 893.2  | 897.8  | 883.6  | 859.3  | 829.2  | 808.0  | 792.3  | 756.7  | 659.3  | 646.7  | 493.1  |
| 32.5° | 976.8  | 974.9  | 954.3  | 930.5  | 895.2  | 868.7  | 830.8  | 794.1  | 703.6  | 689.1  | 520.2  |
| 35°   | 1034.1 | 1034.7 | 1015.6 | 987.4  | 953.7  | 933.4  | 882.3  | 834.5  | 748.8  | 735.5  | 551.1  |
| 37.5° | 1082.8 | 1079.8 | 1058.1 | 1031.8 | 1002.8 | 994.1  | 942.6  | 879.0  | 797.8  | 783.2  | 583.9  |
| 40°   | 1099.0 | 1095.5 | 1081.3 | 1062.4 | 1039.1 | 1038.4 | 1009.2 | 929.3  | 853.2  | 838.8  | 620.9  |
| 42.5° | 1089.2 | 1084.7 | 1078.9 | 1073.7 | 1066.5 | 1069.8 | 1071.7 | 988.4  | 914.1  | 897.9  | 663.7  |
| 45°   | 1052.8 | 1046.0 | 1050.1 | 1061.4 | 1076.9 | 1095.4 | 1128.2 | 1053.8 | 982.3  | 968.7  | 714.0  |
| 47.5° | 997.0  | 990.8  | 1003.6 | 1027.7 | 1069.8 | 1116.8 | 1181.6 | 1126.0 | 1063.7 | 1050.2 | 785.7  |
| 50°   | 918.4  | 920.2  | 938.5  | 982.2  | 1045.9 | 1126.6 | 1247.4 | 1221.6 | 1182.0 | 1169.4 | 883.4  |
| 52.5° | 789.4  | 789.7  | 841.2  | 913.0  | 1003.6 | 1121.5 | 1283.9 | 1343.8 | 1343.6 | 1328.4 | 976.4  |
| 55°   | 669.6  | 676.9  | 717.6  | 813.1  | 935.0  | 1101.2 | 1309.4 | 1403.2 | 1449.7 | 1431.9 | 1063.2 |
| 57.5° | 552.6  | 556.8  | 595.5  | 691.3  | 837.1  | 1046.9 | 1335.6 | 1474.5 | 1571.9 | 1560.7 | 1171.0 |
| 60°   | 419.5  | 426.0  | 466.0  | 554.5  | 711.9  | 950.7  | 1338.1 | 1548.9 | 1718.1 | 1706.7 | 1291.4 |
| 62.5° | 272.3  | 283.6  | 321.0  | 404.0  | 560.4  | 812.3  | 1281.0 | 1597.6 | 1856.6 | 1852.5 | 1398.2 |
| 65°   | 156.5  | 165.0  | 191.0  | 255.0  | 386.6  | 638.5  | 1145.2 | 1578.9 | 1941.8 | 1939.5 | 1438.2 |
| 66°   | 127.8  | 133.2  | 153.1  | 199.3  | 319.0  | 560.7  | 1066.2 | 1539.4 | 1950.3 | 1950.4 | 1433.6 |
| 67.5° | 102.2  | 104.6  | 113.6  | 142.7  | 235.4  | 444.4  | 925.2  | 1452.4 | 1939.8 | 1942.6 | 1404.0 |
| 70°   | 84.6   | 85.8   | 88.6   | 95.7   | 128.5  | 268.0  | 656.7  | 1226.1 | 1834.3 | 1836.5 | 1288.3 |
| 72.5° | 75.9   | 76.6   | 77.7   | 78.7   | 90.7   | 149.7  | 401.1  | 980.9  | 1608.3 | 1611.1 | 1112.2 |
| 75°   | 68.8   | 69.2   | 69.0   | 69.1   | 76.1   | 95.4   | 207.3  | 732.3  | 1300.4 | 1294.7 | 852.0  |
| 77.5° | 60.4   | 60.8   | 60.0   | 60.1   | 67.3   | 73.4   | 103.1  | 512.7  | 877.6  | 837.0  | 480.0  |
| 80°   | 51.0   | 51.4   | 51.0   | 51.6   | 58.6   | 55.4   | 60.0   | 288.4  | 388.0  | 367.0  | 170.7  |
| 82.5° | 38.6   | 40.0   | 40.9   | 43.2   | 48.2   | 39.4   | 40.1   | 112.3  | 118.2  | 112.5  | 52.4   |
| 85°   | 16.9   | 20.6   | 30.9   | 33.1   | 36.3   | 23.6   | 26.3   | 45.8   | 48.1   | 46.6   | 19.0   |
| 87.5° | 4.4    | 4.8    | 15.3   | 19.2   | 20.1   | 10.7   | 13.7   | 20.8   | 22.0   | 20.8   | 6.3    |
| 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°    | 220.7 | 220.7 | 220.7 | 220.7 | 220.7 | 220.7 | 220.7 | 220.7 | 220.7 | 220.7 | 220.7 |
| 2.5°  | 223.2 | 219.2 | 211.9 | 205.5 | 200.7 | 197.4 | 194.1 | 192.5 | 191.5 | 190.5 | 190.7 |
| 5°    | 230.3 | 222.2 | 209.8 | 201.0 | 196.1 | 193.0 | 191.4 | 190.7 | 190.3 | 189.3 | 189.3 |
| 7.5°  | 241.1 | 229.6 | 212.5 | 203.5 | 199.6 | 197.3 | 196.3 | 195.9 | 195.5 | 194.3 | 194.5 |
| 10°   | 254.6 | 238.5 | 218.2 | 209.4 | 205.9 | 203.2 | 201.9 | 201.4 | 200.5 | 199.1 | 199.3 |
| 12.5° | 270.5 | 249.6 | 225.6 | 216.5 | 212.2 | 208.7 | 206.4 | 205.0 | 203.4 | 201.7 | 201.8 |
| 15°   | 287.9 | 261.7 | 233.7 | 222.8 | 217.0 | 212.0 | 208.3 | 206.0 | 203.5 | 201.4 | 201.3 |
| 17.5° | 305.6 | 273.3 | 239.8 | 226.2 | 218.3 | 211.9 | 206.9 | 203.2 | 200.1 | 197.5 | 197.3 |
| 20°   | 324.6 | 283.8 | 243.3 | 225.9 | 215.7 | 208.0 | 201.4 | 196.8 | 193.4 | 190.8 | 190.4 |
| 22.5° | 344.0 | 293.7 | 243.9 | 222.5 | 209.9 | 200.5 | 193.5 | 188.4 | 185.0 | 182.2 | 181.3 |
| 25°   | 361.7 | 301.3 | 241.5 | 216.0 | 201.8 | 191.6 | 184.8 | 179.6 | 176.8 | 173.6 | 172.6 |
| 27.5° | 377.9 | 306.6 | 236.7 | 207.8 | 192.7 | 182.7 | 176.3 | 171.8 | 168.8 | 166.3 | 165.5 |
| 30°   | 392.4 | 309.5 | 228.9 | 197.9 | 183.3 | 174.2 | 168.8 | 165.8 | 163.1 | 160.0 | 159.4 |
| 32.5° | 406.2 | 309.5 | 218.9 | 187.2 | 174.0 | 166.7 | 163.5 | 161.6 | 158.7 | 155.7 | 154.8 |
| 35°   | 420.0 | 307.6 | 207.1 | 175.9 | 165.5 | 161.4 | 161.2 | 159.0 | 154.5 | 150.4 | 149.3 |
| 37.5° | 434.5 | 303.8 | 193.8 | 165.4 | 158.5 | 159.0 | 160.4 | 155.5 | 149.1 | 143.3 | 141.7 |
| 40°   | 450.9 | 298.4 | 180.0 | 156.3 | 152.7 | 158.0 | 158.2 | 150.4 | 137.9 | 132.6 | 131.2 |
| 42.5° | 470.2 | 293.1 | 167.2 | 148.3 | 148.1 | 154.8 | 154.0 | 139.4 | 131.9 | 129.2 | 128.5 |
| 45°   | 495.5 | 290.1 | 155.1 | 140.6 | 144.5 | 149.6 | 146.9 | 133.3 | 130.2 | 128.7 | 128.0 |
| 47.5° | 535.5 | 291.6 | 143.9 | 134.6 | 140.9 | 144.4 | 133.6 | 130.9 | 128.7 | 126.8 | 126.1 |
| 50°   | 585.5 | 290.7 | 134.9 | 130.4 | 136.8 | 139.0 | 127.6 | 127.7 | 126.5 | 124.4 | 123.4 |
| 52.5° | 623.2 | 283.7 | 129.1 | 128.0 | 133.2 | 129.4 | 123.8 | 124.6 | 124.0 | 120.9 | 119.8 |
| 55°   | 659.6 | 277.6 | 126.1 | 127.1 | 130.5 | 117.4 | 119.4 | 121.2 | 120.6 | 117.6 | 117.1 |
| 57.5° | 704.8 | 276.4 | 124.3 | 127.3 | 128.3 | 111.4 | 115.1 | 117.5 | 117.1 | 115.8 | 115.5 |
| 60°   | 760.2 | 276.8 | 122.7 | 127.8 | 125.9 | 107.0 | 111.1 | 114.1 | 114.4 | 114.1 | 114.0 |
| 62.5° | 790.6 | 267.8 | 118.6 | 126.6 | 121.5 | 103.1 | 106.9 | 111.3 | 111.4 | 111.9 | 111.8 |
| 65°   | 764.7 | 241.1 | 110.9 | 122.6 | 114.2 | 99.9  | 103.3 | 108.1 | 106.9 | 109.1 | 109.1 |
| 66°   | 739.6 | 225.6 | 107.2 | 120.0 | 111.1 | 98.7  | 102.2 | 106.5 | 104.9 | 108.0 | 108.0 |
| 67.5° | 688.4 | 199.6 | 100.4 | 114.4 | 106.7 | 97.0  | 100.8 | 103.8 | 101.7 | 106.2 | 105.9 |
| 70°   | 594.6 | 154.4 | 86.6  | 101.7 | 99.4  | 94.4  | 99.0  | 98.4  | 95.3  | 102.2 | 100.8 |
| 72.5° | 501.4 | 117.3 | 69.6  | 85.2  | 88.3  | 91.2  | 96.5  | 91.5  | 87.6  | 92.4  | 89.5  |
| 75°   | 389.0 | 88.2  | 55.0  | 66.2  | 74.6  | 86.2  | 93.5  | 83.5  | 77.9  | 77.4  | 75.8  |
| 77.5° | 210.3 | 60.6  | 43.6  | 50.5  | 59.2  | 80.0  | 91.4  | 75.0  | 66.5  | 64.5  | 63.3  |
| 80°   | 83.3  | 39.4  | 31.7  | 38.3  | 41.4  | 71.0  | 86.5  | 65.1  | 54.8  | 52.8  | 51.0  |
| 82.5° | 34.4  | 23.3  | 20.4  | 25.7  | 27.0  | 60.7  | 77.6  | 53.3  | 42.3  | 58.6  | 62.2  |
| 85°   | 14.8  | 12.8  | 12.1  | 13.3  | 15.3  | 42.6  | 61.8  | 40.7  | 45.7  | 40.8  | 32.4  |
| 87.5° | 4.4   | 5.4   | 5.2   | 5.1   | 5.6   | 10.2  | 32.9  | 22.6  | 33.6  | 12.7  | 9.5   |
| 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)