

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: P573186

Luminaire Tested: **ARCH-S-PA2-40-827-U-T2U-HSS**

Issue Date: 10/13/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P573186  
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-PA2-40-827-U-T2U-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 420mA 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: 3383 lumens  
Efficiency: N/A  
Efficacy: 77.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

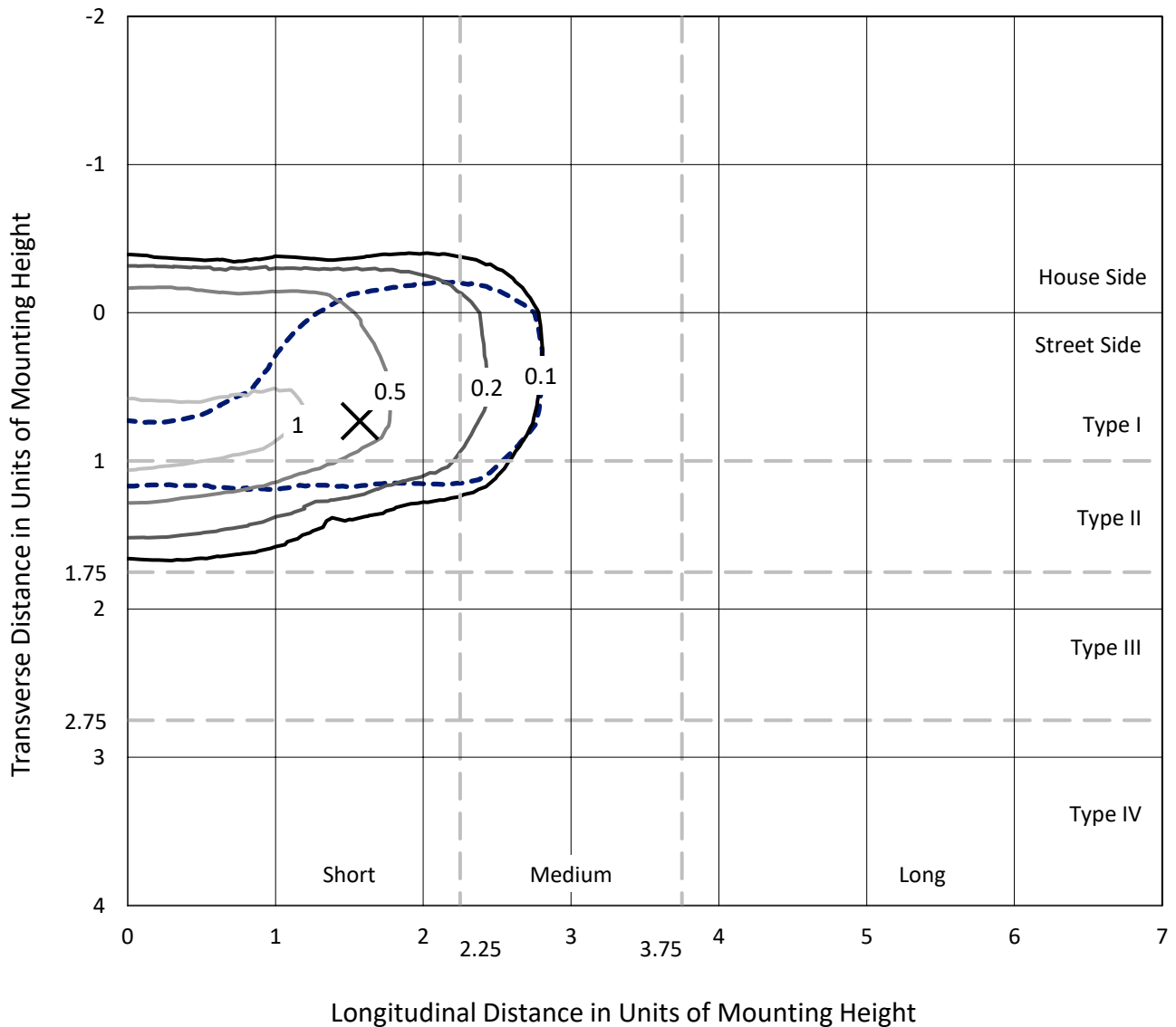
Input Watts (W): 43.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

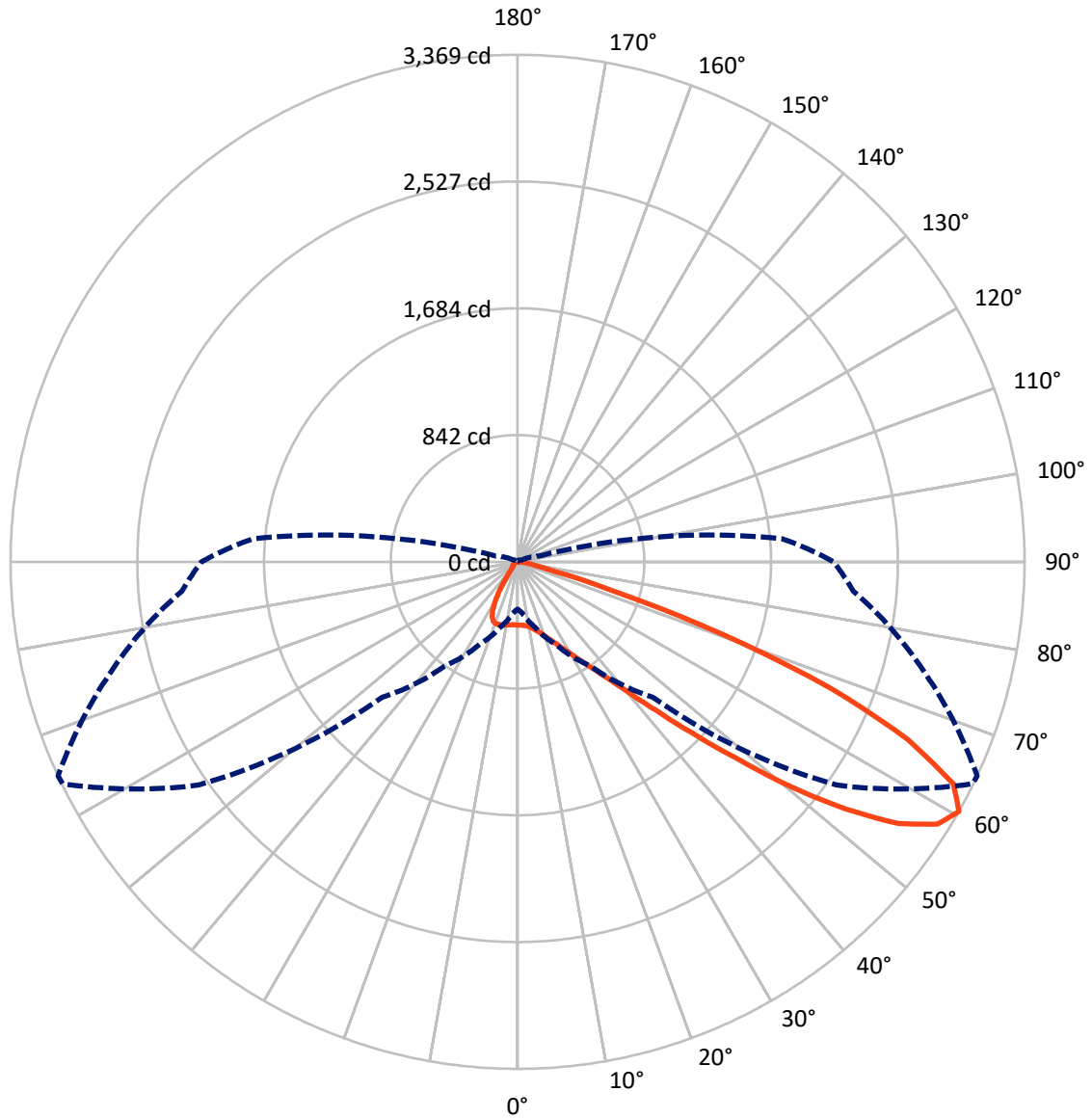
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 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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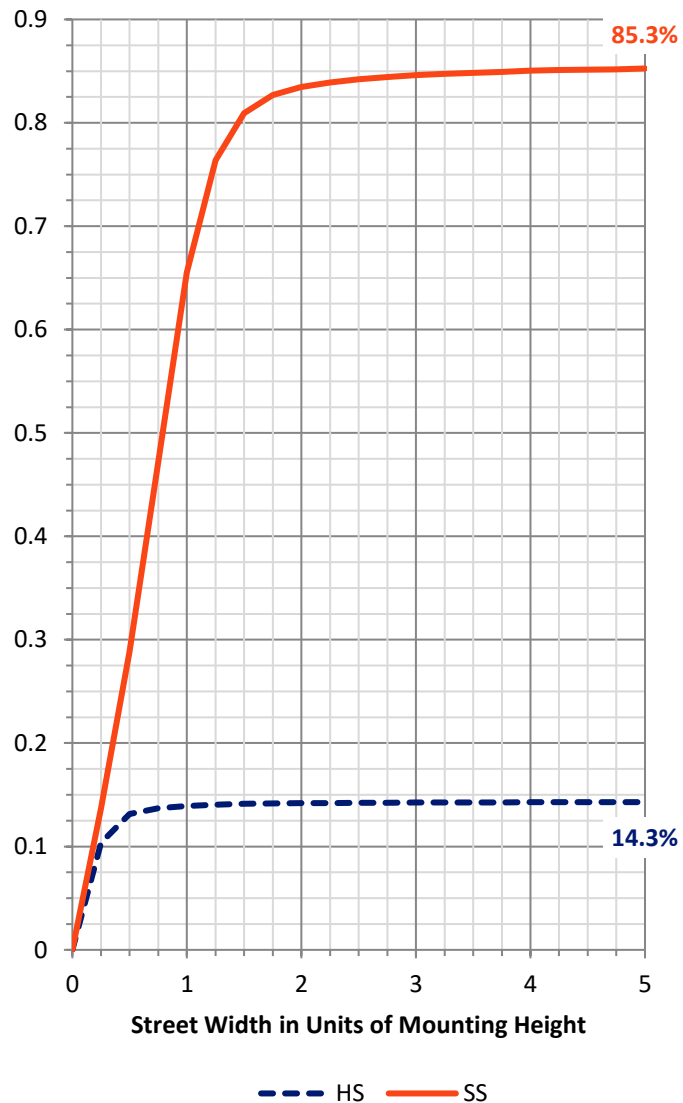
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 489.8    | 0.0    | 489.8  |
|                    | % Fixture | 14.5     | 0.0    | 14.5   |
| <b>Street Side</b> | Lumens    | 2893.2   | 0.0    | 2893.2 |
|                    | % Fixture | 85.5     | 0.0    | 85.5   |
| <b>Total</b>       | Lumens    | 3383.0   | 0.0    | 3383.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 39.8   | 1.2       |
| 10°-20°   | 113.0  | 3.3       |
| 20°-30°   | 192.0  | 5.7       |
| 30°-40°   | 396.1  | 11.7      |
| 40°-50°   | 796.6  | 23.5      |
| 50°-60°   | 974.8  | 28.8      |
| 60°-70°   | 689.6  | 20.4      |
| 70°-80°   | 166.2  | 4.9       |
| 80°-90°   | 15.0   | 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°    | 3383.0 | 100.0     |
| 0°-180°   | 3383.0 | 100.0     |

**Coefficient of Utilization**



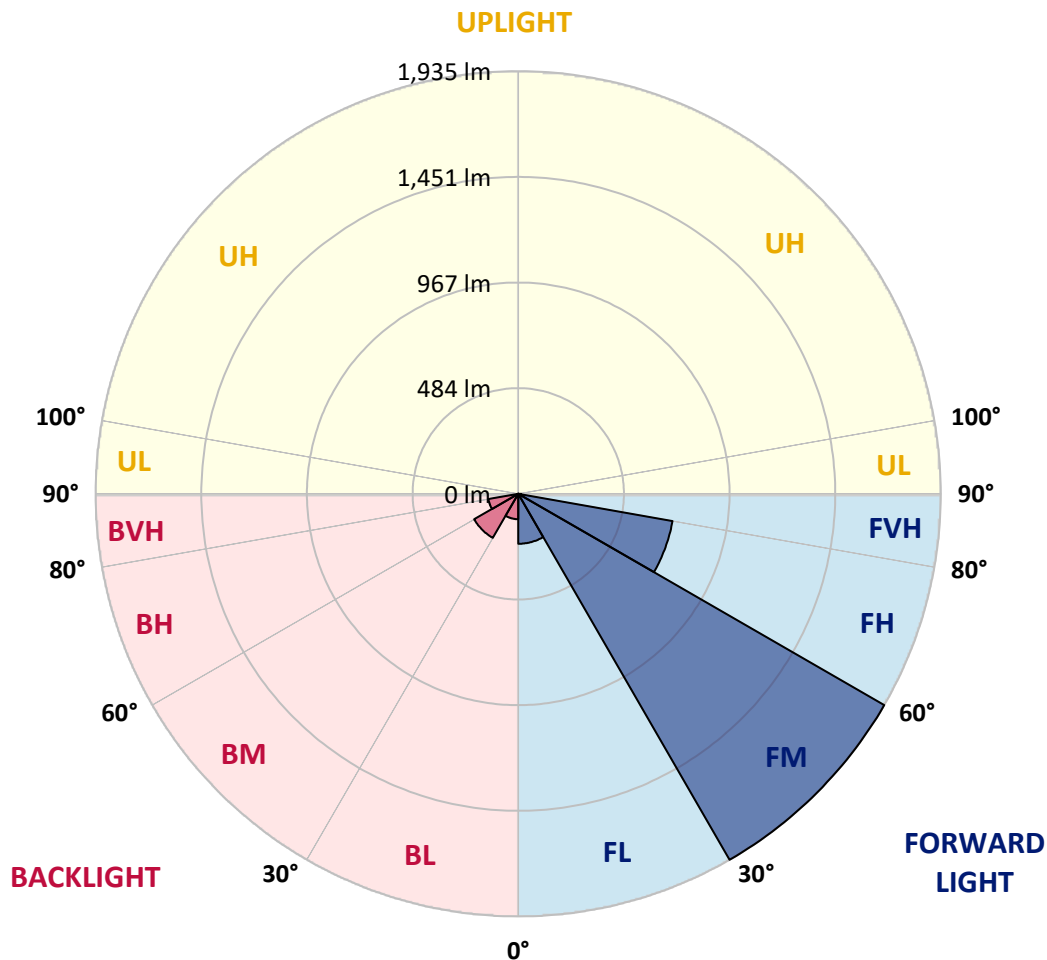
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 228.7  | 6.8       |                         |      |         |
| FM (30°-60°)   | 1934.5 | 57.2      |                         |      |         |
| FH (60°-80°)   | 716.9  | 21.2      |                         |      | G1/1800 |
| FVH (80°-90°)  | 13.1   | 0.4       |                         |      | G1/100  |
| BL (0°-30°)    | 116.1  | 3.4       | B1/500                  |      |         |
| BM (30°-60°)   | 232.9  | 6.9       | B1/1000                 |      |         |
| BH (60°-80°)   | 138.8  | 4.1       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 1.9    | 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°    | 421.4  | 421.4  | 421.4  | 421.4  | 421.4  | 421.4  | 421.4  | 421.4  | 421.4  | 421.4  | 421.4  |
| 2.5°  | 422.8  | 421.4  | 421.4  | 421.4  | 422.8  | 422.8  | 424.1  | 421.4  | 421.4  | 421.4  | 421.4  |
| 5°    | 420.1  | 418.8  | 418.8  | 420.1  | 421.4  | 421.4  | 424.1  | 424.1  | 424.1  | 425.4  | 425.4  |
| 7.5°  | 425.4  | 422.8  | 422.8  | 424.1  | 425.4  | 425.4  | 428.1  | 429.4  | 429.4  | 432.1  | 433.4  |
| 10°   | 432.1  | 430.8  | 430.8  | 433.4  | 436.1  | 436.1  | 440.1  | 440.1  | 440.1  | 442.8  | 444.1  |
| 12.5° | 441.4  | 440.1  | 440.1  | 444.1  | 448.1  | 450.8  | 453.4  | 454.8  | 456.1  | 456.1  | 456.1  |
| 15°   | 454.8  | 453.4  | 453.4  | 457.4  | 462.8  | 469.4  | 473.5  | 473.5  | 476.1  | 474.8  | 469.4  |
| 17.5° | 473.5  | 472.1  | 473.5  | 476.1  | 482.8  | 489.5  | 497.5  | 498.8  | 497.5  | 494.8  | 486.8  |
| 20°   | 504.1  | 500.1  | 502.8  | 509.5  | 509.5  | 513.5  | 524.1  | 528.1  | 529.5  | 521.5  | 506.8  |
| 22.5° | 536.1  | 536.1  | 538.8  | 546.8  | 541.5  | 546.8  | 556.1  | 562.8  | 565.5  | 558.8  | 534.8  |
| 25°   | 596.1  | 598.8  | 594.8  | 592.1  | 578.8  | 581.5  | 593.5  | 606.8  | 606.8  | 601.5  | 566.8  |
| 27.5° | 728.2  | 725.5  | 697.5  | 658.8  | 624.2  | 626.8  | 638.8  | 656.2  | 657.5  | 645.5  | 598.8  |
| 30°   | 917.6  | 920.2  | 865.5  | 777.5  | 701.5  | 681.5  | 694.8  | 714.8  | 717.5  | 697.5  | 640.2  |
| 32.5° | 1213.6 | 1191.0 | 1089.6 | 972.2  | 829.5  | 757.5  | 762.9  | 784.2  | 792.2  | 774.9  | 705.5  |
| 35°   | 1596.4 | 1543.0 | 1391.0 | 1245.6 | 1038.9 | 893.6  | 852.2  | 874.9  | 878.9  | 869.5  | 786.9  |
| 37.5° | 1824.4 | 1781.8 | 1683.1 | 1551.0 | 1308.3 | 1074.9 | 969.6  | 992.2  | 988.2  | 969.6  | 868.2  |
| 40°   | 1965.8 | 1941.8 | 1888.5 | 1827.1 | 1672.4 | 1360.3 | 1163.0 | 1144.3 | 1145.6 | 1118.9 | 1000.2 |
| 42.5° | 2045.8 | 2024.5 | 2004.5 | 2020.5 | 1975.2 | 1877.8 | 1443.0 | 1357.7 | 1349.7 | 1299.0 | 1153.6 |
| 45°   | 2049.8 | 2017.8 | 2041.8 | 2135.2 | 2207.2 | 2336.6 | 1808.4 | 1611.1 | 1615.1 | 1531.0 | 1344.3 |
| 47.5° | 1896.5 | 1871.1 | 1940.5 | 2123.2 | 2361.9 | 2636.7 | 2233.9 | 1957.8 | 1939.1 | 1773.8 | 1537.7 |
| 50°   | 1593.7 | 1592.4 | 1684.4 | 1943.1 | 2361.9 | 2791.4 | 2690.0 | 2364.6 | 2344.6 | 2027.2 | 1713.8 |
| 52.5° | 1261.6 | 1287.0 | 1349.7 | 1595.1 | 2144.5 | 2776.7 | 3026.1 | 2784.7 | 2728.7 | 2252.6 | 1860.5 |
| 55°   | 981.6  | 972.2  | 1048.3 | 1217.6 | 1700.4 | 2523.3 | 3135.4 | 3115.4 | 3068.8 | 2452.6 | 1989.8 |
| 57.5° | 602.8  | 637.5  | 740.2  | 890.9  | 1237.6 | 1984.5 | 2978.1 | 3316.8 | 3288.8 | 2639.3 | 2124.5 |
| 60°   | 313.4  | 340.1  | 450.8  | 608.1  | 845.5  | 1272.3 | 2584.6 | 3363.5 | 3368.8 | 2790.0 | 2239.2 |
| 62.5° | 197.4  | 196.0  | 246.7  | 426.8  | 544.1  | 714.8  | 2007.2 | 3198.1 | 3248.8 | 2906.1 | 2348.6 |
| 65°   | 148.0  | 149.4  | 169.4  | 282.7  | 369.4  | 373.4  | 1191.0 | 2766.0 | 2850.0 | 2936.7 | 2385.9 |
| 67.5° | 137.4  | 138.7  | 148.0  | 185.4  | 277.4  | 249.4  | 524.1  | 2132.5 | 2249.9 | 2654.0 | 2241.9 |
| 70°   | 122.7  | 124.0  | 138.7  | 153.4  | 209.4  | 182.7  | 236.1  | 1284.3 | 1447.0 | 1925.8 | 1793.8 |
| 72.5° | 96.0   | 98.7   | 116.0  | 145.4  | 156.0  | 138.7  | 164.0  | 568.1  | 662.8  | 1058.9 | 1026.9 |
| 75°   | 70.7   | 72.0   | 88.0   | 112.0  | 137.4  | 98.7   | 126.7  | 225.4  | 246.7  | 397.4  | 338.8  |
| 77.5° | 49.3   | 49.3   | 61.3   | 84.0   | 114.7  | 69.4   | 90.7   | 121.4  | 124.0  | 148.0  | 97.4   |
| 80°   | 30.7   | 32.0   | 38.7   | 57.3   | 70.7   | 66.7   | 56.0   | 81.4   | 81.4   | 77.4   | 40.0   |
| 82.5° | 17.3   | 18.7   | 26.7   | 38.7   | 48.0   | 45.3   | 36.0   | 46.7   | 48.0   | 49.3   | 22.7   |
| 85°   | 8.0    | 9.3    | 16.0   | 24.0   | 28.0   | 21.3   | 21.3   | 24.0   | 24.0   | 32.0   | 13.3   |
| 87.5° | 1.3    | 1.3    | 8.0    | 10.7   | 9.3    | 10.7   | 10.7   | 13.3   | 13.3   | 16.0   | 6.7    |
| 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°    | 421.4  | 421.4  | 421.4 | 421.4 | 421.4 | 421.4 | 421.4 | 421.4 | 421.4 | 421.4 | 421.4 |
| 2.5°  | 420.1  | 420.1  | 420.1 | 418.8 | 418.8 | 417.4 | 414.8 | 414.8 | 414.8 | 414.8 | 416.1 |
| 5°    | 425.4  | 424.1  | 422.8 | 418.8 | 416.1 | 410.8 | 405.4 | 404.1 | 400.1 | 400.1 | 401.4 |
| 7.5°  | 432.1  | 432.1  | 428.1 | 421.4 | 414.8 | 405.4 | 396.1 | 389.4 | 382.8 | 381.4 | 380.1 |
| 10°   | 444.1  | 441.4  | 437.4 | 425.4 | 414.8 | 400.1 | 385.4 | 368.1 | 354.8 | 348.1 | 345.4 |
| 12.5° | 453.4  | 452.1  | 444.1 | 430.8 | 413.4 | 390.8 | 357.4 | 317.4 | 285.4 | 268.1 | 268.1 |
| 15°   | 466.8  | 464.1  | 452.1 | 433.4 | 409.4 | 356.1 | 288.1 | 226.7 | 192.0 | 173.4 | 170.7 |
| 17.5° | 480.1  | 474.8  | 460.1 | 434.8 | 392.1 | 293.4 | 201.4 | 145.4 | 121.4 | 112.0 | 109.4 |
| 20°   | 496.1  | 486.8  | 465.4 | 436.1 | 349.4 | 213.4 | 130.7 | 97.4  | 88.0  | 84.0  | 85.4  |
| 22.5° | 517.5  | 501.5  | 470.8 | 428.1 | 285.4 | 138.7 | 92.0  | 78.7  | 73.4  | 69.4  | 69.4  |
| 25°   | 544.1  | 521.5  | 480.1 | 405.4 | 206.7 | 93.4  | 73.4  | 65.3  | 60.0  | 57.3  | 56.0  |
| 27.5° | 568.1  | 540.1  | 489.5 | 365.4 | 132.0 | 73.4  | 61.3  | 54.7  | 49.3  | 48.0  | 46.7  |
| 30°   | 600.1  | 561.5  | 498.8 | 301.4 | 86.7  | 60.0  | 52.0  | 45.3  | 41.3  | 40.0  | 40.0  |
| 32.5° | 654.8  | 602.8  | 516.1 | 229.4 | 65.3  | 52.0  | 44.0  | 38.7  | 36.0  | 34.7  | 34.7  |
| 35°   | 718.8  | 653.5  | 530.8 | 160.0 | 56.0  | 44.0  | 37.3  | 33.3  | 32.0  | 30.7  | 30.7  |
| 37.5° | 785.5  | 713.5  | 533.5 | 101.4 | 49.3  | 38.7  | 33.3  | 30.7  | 28.0  | 28.0  | 28.0  |
| 40°   | 905.6  | 818.9  | 521.5 | 68.0  | 42.7  | 34.7  | 29.3  | 28.0  | 25.3  | 25.3  | 25.3  |
| 42.5° | 1045.6 | 946.9  | 490.8 | 54.7  | 38.7  | 30.7  | 28.0  | 25.3  | 22.7  | 22.7  | 21.3  |
| 45°   | 1227.0 | 1092.3 | 438.8 | 48.0  | 34.7  | 28.0  | 25.3  | 22.7  | 21.3  | 20.0  | 20.0  |
| 47.5° | 1397.7 | 1257.6 | 389.4 | 42.7  | 32.0  | 26.7  | 22.7  | 20.0  | 18.7  | 18.7  | 18.7  |
| 50°   | 1560.4 | 1384.3 | 332.1 | 40.0  | 29.3  | 25.3  | 21.3  | 18.7  | 17.3  | 16.0  | 16.0  |
| 52.5° | 1677.7 | 1484.4 | 278.7 | 36.0  | 26.7  | 22.7  | 20.0  | 17.3  | 14.7  | 13.3  | 13.3  |
| 55°   | 1808.4 | 1585.7 | 230.7 | 32.0  | 25.3  | 21.3  | 17.3  | 14.7  | 12.0  | 10.7  | 10.7  |
| 57.5° | 1955.1 | 1684.4 | 186.7 | 29.3  | 24.0  | 18.7  | 14.7  | 12.0  | 9.3   | 8.0   | 8.0   |
| 60°   | 2100.5 | 1763.1 | 149.4 | 26.7  | 21.3  | 17.3  | 13.3  | 9.3   | 6.7   | 5.3   | 5.3   |
| 62.5° | 2245.9 | 1816.4 | 114.7 | 24.0  | 20.0  | 14.7  | 10.7  | 6.7   | 4.0   | 2.7   | 2.7   |
| 65°   | 2305.9 | 1801.8 | 85.4  | 21.3  | 17.3  | 12.0  | 9.3   | 6.7   | 4.0   | 2.7   | 2.7   |
| 67.5° | 2139.2 | 1620.4 | 60.0  | 21.3  | 16.0  | 12.0  | 8.0   | 5.3   | 2.7   | 1.3   | 1.3   |
| 70°   | 1669.7 | 1251.0 | 44.0  | 21.3  | 16.0  | 12.0  | 8.0   | 5.3   | 2.7   | 1.3   | 1.3   |
| 72.5° | 946.9  | 696.2  | 33.3  | 18.7  | 14.7  | 10.7  | 8.0   | 5.3   | 2.7   | 1.3   | 1.3   |
| 75°   | 337.4  | 224.1  | 25.3  | 17.3  | 13.3  | 9.3   | 8.0   | 5.3   | 2.7   | 1.3   | 1.3   |
| 77.5° | 81.4   | 57.3   | 20.0  | 14.7  | 12.0  | 9.3   | 6.7   | 5.3   | 4.0   | 1.3   | 1.3   |
| 80°   | 33.3   | 24.0   | 16.0  | 12.0  | 9.3   | 8.0   | 6.7   | 5.3   | 2.7   | 1.3   | 1.3   |
| 82.5° | 14.7   | 12.0   | 6.7   | 6.7   | 5.3   | 5.3   | 5.3   | 5.3   | 2.7   | 1.3   | 1.3   |
| 85°   | 6.7    | 5.3    | 2.7   | 2.7   | 1.3   | 1.3   | 1.3   | 2.7   | 2.7   | 1.3   | 1.3   |
| 87.5° | 4.0    | 2.7    | 2.7   | 2.7   | 1.3   | 1.3   | 1.3   | 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)