

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: P398033

Luminaire Tested: **ARCH-S-PA1-80-722-U-T2U-HSS**

Issue Date: 5/19/2020

Test Information

Test Method: LM-79-08
Report Number: P398033
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-S-PA1-80-722-U-T2U-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2200K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5458 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

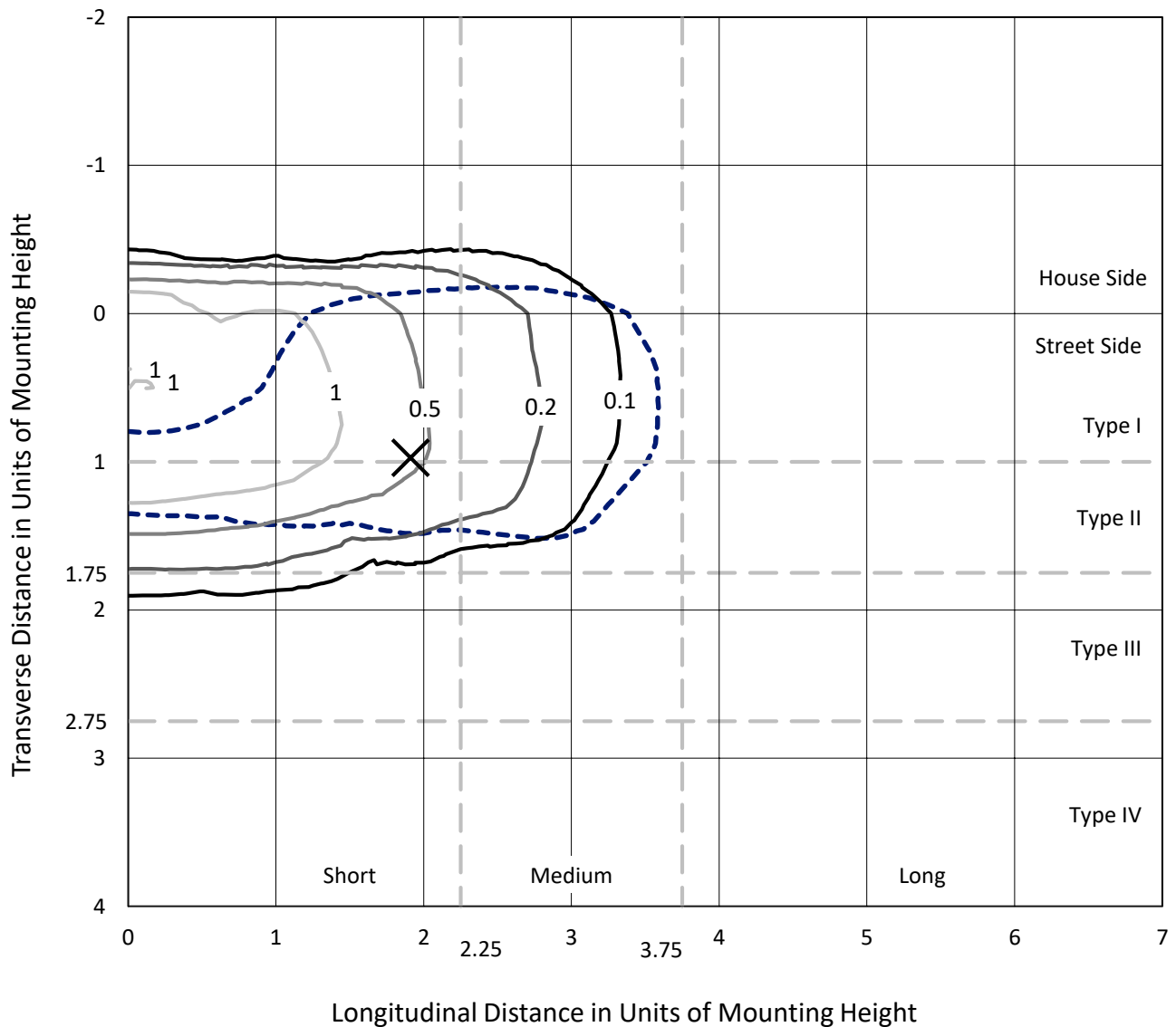
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

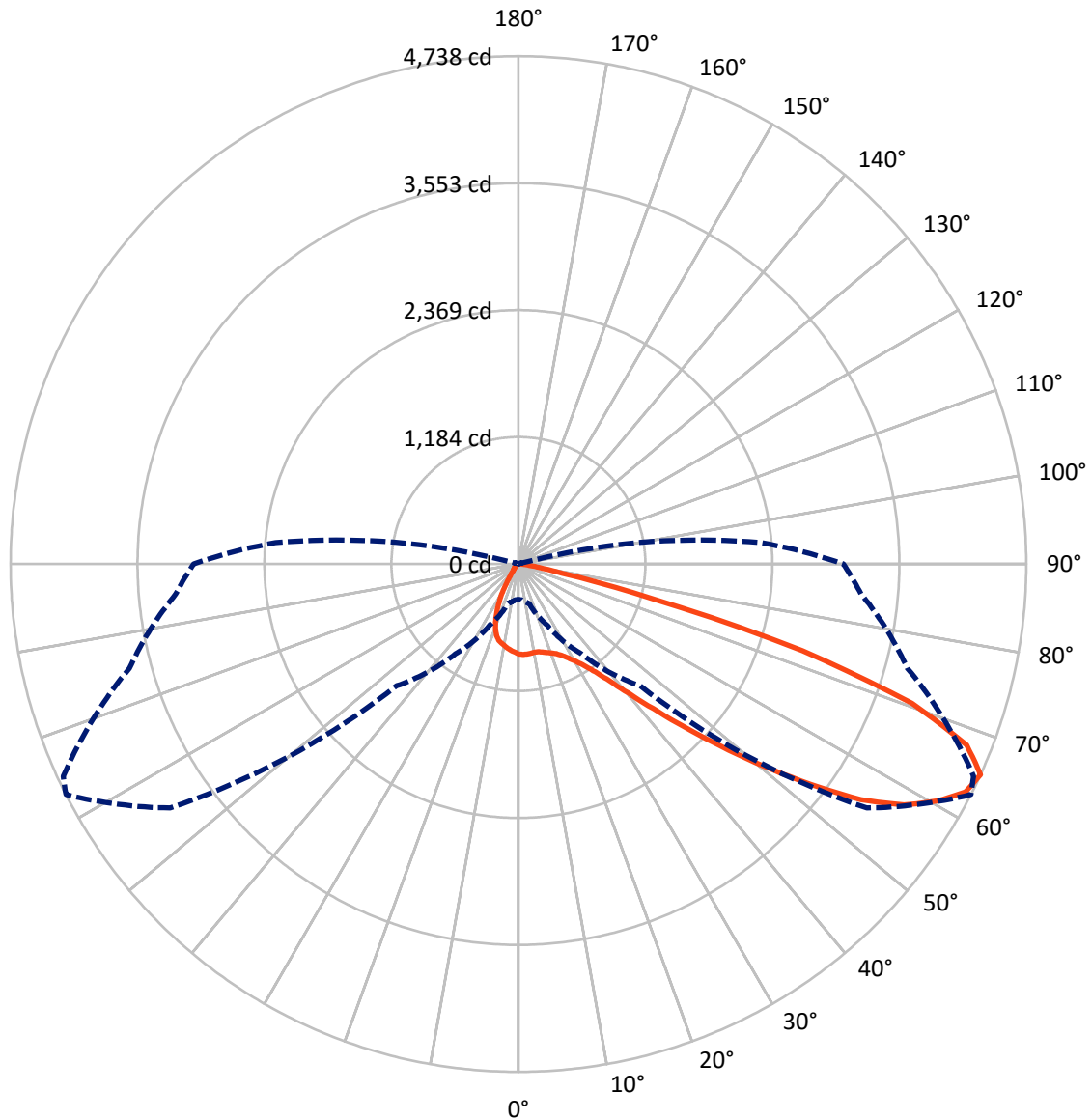
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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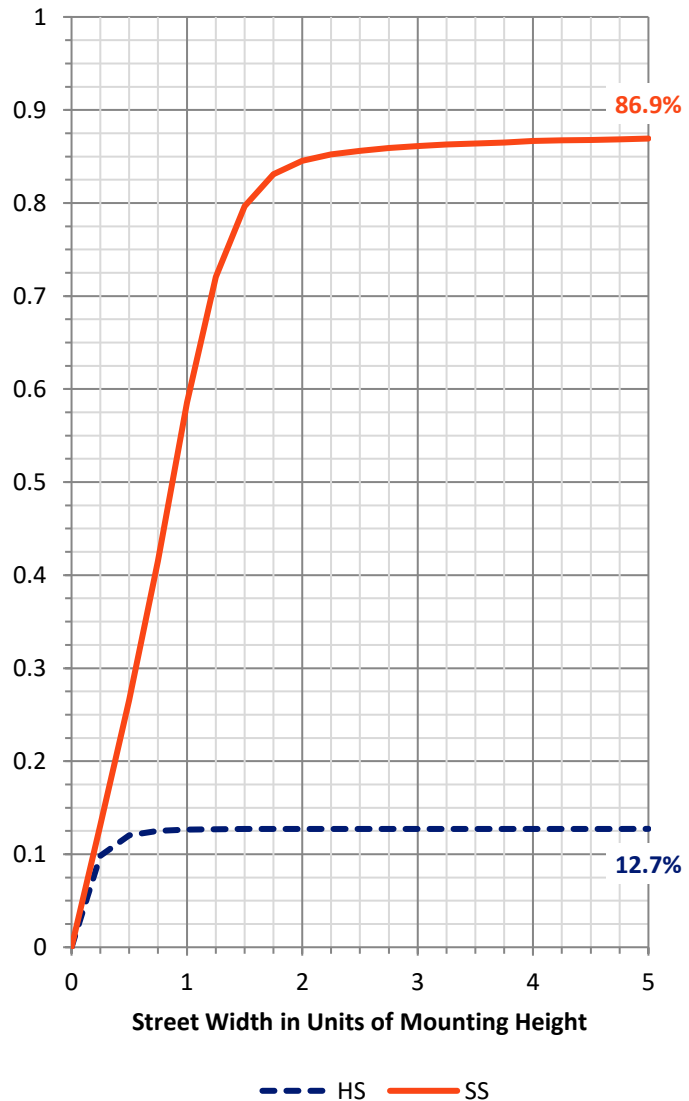
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 702.4 | 0.0 | 702.4 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| Street Side | Lumens | 4755.6 | 0.0 | 4755.6 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| Total | Lumens | 5458.0 | 0.0 | 5458.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 76.7 | 1.4 |
| 10°-20° | 189.3 | 3.5 |
| 20°-30° | 280.5 | 5.1 |
| 30°-40° | 520.9 | 9.5 |
| 40°-50° | 1103.4 | 20.2 |
| 50°-60° | 1525.7 | 28.0 |
| 60°-70° | 1221.4 | 22.4 |
| 70°-80° | 507.5 | 9.3 |
| 80°-90° | 32.6 | 0.6 |
| 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° | 5458.0 | 100.0 |
| 0°-180° | 5458.0 | 100.0 |

Coefficient of Utilization



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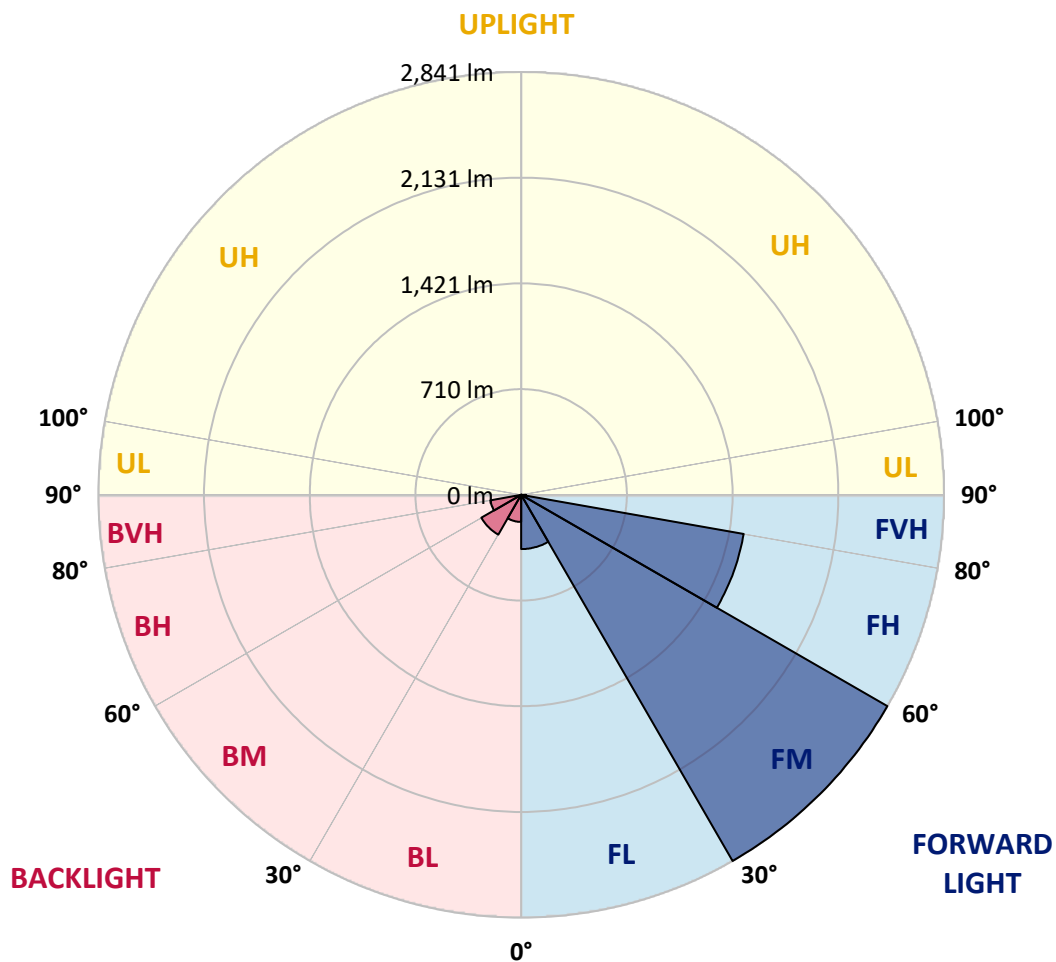
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 364.5 | 6.7 | | | |
| FM | (30°-60°) | 2841.5 | 52.1 | | | |
| FH | (60°-80°) | 1518.5 | 27.8 | | | G1/1800 |
| FVH | (80°-90°) | 31.1 | 0.6 | | | G1/100 |
| BL | (0°-30°) | 182.0 | 3.3 | B1/500 | | |
| BM | (30°-60°) | 308.6 | 5.7 | B1/1000 | | |
| BH | (60°-80°) | 210.3 | 3.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.5 | 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-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 63° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 |
| 2.5° | 855.2 | 853.2 | 851.1 | 850.1 | 850.1 | 849.1 | 844.9 | 844.9 | 841.8 | 839.8 | 837.7 |
| 5° | 847.0 | 843.9 | 842.9 | 843.9 | 844.9 | 847.0 | 844.9 | 844.9 | 842.9 | 840.8 | 836.7 |
| 7.5° | 826.4 | 824.3 | 825.4 | 828.4 | 829.5 | 836.7 | 837.7 | 840.8 | 840.8 | 838.7 | 835.7 |
| 10° | 801.7 | 800.6 | 800.6 | 805.8 | 810.9 | 821.2 | 828.4 | 836.7 | 837.7 | 837.7 | 832.6 |
| 12.5° | 783.1 | 782.1 | 785.2 | 791.3 | 801.7 | 815.0 | 827.4 | 839.8 | 841.8 | 842.9 | 834.6 |
| 15° | 771.8 | 771.8 | 775.9 | 788.3 | 802.7 | 821.2 | 835.7 | 852.1 | 854.2 | 853.2 | 841.8 |
| 17.5° | 761.5 | 762.5 | 770.7 | 791.3 | 807.8 | 832.6 | 850.1 | 868.6 | 869.7 | 868.6 | 850.1 |
| 20° | 757.3 | 759.4 | 771.8 | 798.6 | 817.1 | 844.9 | 867.6 | 886.1 | 887.2 | 883.1 | 858.3 |
| 22.5° | 768.7 | 769.7 | 785.2 | 814.0 | 831.5 | 862.4 | 891.3 | 908.8 | 909.8 | 903.7 | 870.7 |
| 25° | 807.8 | 807.8 | 821.2 | 846.0 | 861.4 | 892.3 | 923.2 | 943.8 | 943.8 | 936.6 | 898.5 |
| 27.5° | 899.5 | 891.3 | 888.2 | 895.4 | 900.6 | 933.5 | 966.5 | 992.3 | 991.2 | 980.9 | 934.6 |
| 30° | 1076.8 | 1056.2 | 1023.2 | 986.1 | 967.5 | 990.2 | 1021.1 | 1054.1 | 1053.1 | 1036.6 | 978.9 |
| 32.5° | 1374.6 | 1344.7 | 1266.4 | 1168.5 | 1089.1 | 1063.4 | 1092.2 | 1128.3 | 1129.3 | 1109.7 | 1050.0 |
| 35° | 1791.9 | 1744.5 | 1604.3 | 1468.3 | 1287.0 | 1189.1 | 1197.3 | 1236.5 | 1248.8 | 1238.5 | 1169.5 |
| 37.5° | 2193.7 | 2150.4 | 2016.5 | 1827.9 | 1581.7 | 1381.8 | 1346.7 | 1380.7 | 1395.2 | 1395.2 | 1322.0 |
| 40° | 2598.7 | 2548.2 | 2429.7 | 2240.1 | 1980.4 | 1682.6 | 1556.9 | 1584.8 | 1600.2 | 1603.3 | 1507.5 |
| 42.5° | 2923.2 | 2890.3 | 2799.6 | 2652.3 | 2409.1 | 2210.2 | 1859.9 | 1844.4 | 1858.8 | 1847.5 | 1722.8 |
| 45° | 3147.9 | 3122.1 | 3059.3 | 3003.6 | 2885.1 | 2785.2 | 2264.8 | 2160.8 | 2170.0 | 2130.9 | 1965.0 |
| 47.5° | 3194.2 | 3165.4 | 3152.0 | 3229.3 | 3313.8 | 3338.5 | 2762.5 | 2536.8 | 2527.6 | 2441.0 | 2216.4 |
| 50° | 2992.3 | 2995.4 | 3044.8 | 3265.3 | 3617.7 | 3840.3 | 3339.5 | 2961.4 | 2927.4 | 2734.7 | 2450.3 |
| 52.5° | 2556.4 | 2605.9 | 2730.6 | 3088.1 | 3710.5 | 4205.1 | 3916.6 | 3411.7 | 3359.1 | 3020.1 | 2625.5 |
| 55° | 2000.0 | 2063.9 | 2268.9 | 2680.1 | 3516.8 | 4367.9 | 4402.9 | 3879.5 | 3759.9 | 3234.4 | 2761.5 |
| 57.5° | 1486.9 | 1506.4 | 1745.5 | 2120.6 | 3058.2 | 4208.2 | 4652.3 | 4240.1 | 4086.6 | 3405.5 | 2896.5 |
| 60° | 926.3 | 938.7 | 1191.1 | 1614.6 | 2316.3 | 3617.7 | 4652.3 | 4488.4 | 4342.1 | 3559.0 | 3020.1 |
| 62.5° | 576.0 | 580.1 | 674.9 | 1106.7 | 1574.5 | 2683.2 | 4459.6 | 4681.1 | 4563.6 | 3669.3 | 3126.2 |
| 65° | 331.8 | 335.9 | 380.2 | 625.5 | 1024.2 | 1606.4 | 3967.0 | 4737.8 | 4685.2 | 3756.8 | 3208.7 |
| 67.5° | 242.1 | 244.2 | 261.7 | 351.4 | 669.8 | 825.4 | 2979.9 | 4510.1 | 4576.0 | 3800.1 | 3206.6 |
| 70° | 210.2 | 213.3 | 236.0 | 274.1 | 483.3 | 507.0 | 1516.8 | 3894.9 | 4079.4 | 3738.3 | 3110.8 |
| 72.5° | 161.8 | 165.9 | 199.9 | 257.6 | 354.5 | 364.8 | 549.2 | 2771.8 | 3051.0 | 3351.9 | 2848.0 |
| 75° | 111.3 | 115.4 | 149.4 | 212.3 | 292.6 | 273.1 | 301.9 | 1275.6 | 1609.5 | 2248.3 | 2168.0 |
| 77.5° | 71.1 | 72.1 | 93.8 | 154.6 | 252.4 | 193.7 | 207.1 | 416.3 | 584.2 | 1017.0 | 1023.2 |
| 80° | 47.4 | 48.4 | 57.7 | 99.9 | 173.1 | 179.3 | 127.8 | 192.7 | 211.2 | 296.8 | 206.1 |
| 82.5° | 28.9 | 28.9 | 39.2 | 62.9 | 105.1 | 148.4 | 83.5 | 101.0 | 108.2 | 114.4 | 53.6 |
| 85° | 11.3 | 11.3 | 23.7 | 41.2 | 65.9 | 69.0 | 52.6 | 58.7 | 61.8 | 67.0 | 24.7 |
| 87.5° | 3.1 | 3.1 | 13.4 | 22.7 | 28.9 | 31.9 | 31.9 | 28.9 | 30.9 | 38.1 | 12.4 |
| 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° | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 | 840.8 |
| 2.5° | 836.7 | 833.6 | 829.5 | 825.4 | 821.2 | 818.1 | 815.0 | 815.0 | 813.0 | 809.9 | 807.8 |
| 5° | 834.6 | 829.5 | 820.2 | 813.0 | 801.7 | 793.4 | 787.2 | 782.1 | 779.0 | 771.8 | 770.7 |
| 7.5° | 831.5 | 825.4 | 812.0 | 797.5 | 779.0 | 764.6 | 750.1 | 739.8 | 729.5 | 721.3 | 719.2 |
| 10° | 826.4 | 819.2 | 799.6 | 779.0 | 753.2 | 726.4 | 692.4 | 653.3 | 617.2 | 596.6 | 590.4 |
| 12.5° | 826.4 | 817.1 | 791.3 | 763.5 | 726.4 | 660.5 | 573.9 | 487.4 | 420.4 | 390.5 | 382.3 |
| 15° | 831.5 | 819.2 | 785.2 | 747.0 | 678.0 | 544.1 | 403.9 | 289.5 | 216.4 | 193.7 | 188.6 |
| 17.5° | 836.7 | 819.2 | 775.9 | 724.4 | 589.4 | 394.6 | 229.8 | 152.5 | 128.8 | 123.6 | 123.6 |
| 20° | 838.7 | 817.1 | 763.5 | 682.1 | 470.9 | 245.2 | 137.0 | 114.4 | 105.1 | 102.0 | 102.0 |
| 22.5° | 847.0 | 818.1 | 754.3 | 621.3 | 342.1 | 144.3 | 108.2 | 95.8 | 86.6 | 83.5 | 83.5 |
| 25° | 867.6 | 830.5 | 756.3 | 544.1 | 219.5 | 109.2 | 91.7 | 79.3 | 70.1 | 65.9 | 65.9 |
| 27.5° | 900.6 | 858.3 | 767.6 | 454.4 | 138.1 | 93.8 | 77.3 | 63.9 | 56.7 | 52.6 | 52.6 |
| 30° | 937.7 | 889.2 | 772.8 | 351.4 | 103.0 | 79.3 | 62.9 | 50.5 | 45.3 | 42.2 | 41.2 |
| 32.5° | 1002.6 | 942.8 | 768.7 | 241.1 | 84.5 | 67.0 | 50.5 | 40.2 | 36.1 | 35.0 | 35.0 |
| 35° | 1106.7 | 1036.6 | 760.4 | 151.5 | 70.1 | 53.6 | 40.2 | 33.0 | 29.9 | 28.9 | 27.8 |
| 37.5° | 1247.8 | 1173.6 | 735.7 | 99.9 | 57.7 | 42.2 | 33.0 | 27.8 | 24.7 | 23.7 | 23.7 |
| 40° | 1419.9 | 1330.2 | 688.3 | 76.2 | 49.5 | 34.0 | 27.8 | 23.7 | 21.6 | 20.6 | 20.6 |
| 42.5° | 1616.7 | 1504.4 | 613.1 | 65.9 | 41.2 | 28.9 | 23.7 | 19.6 | 18.5 | 17.5 | 17.5 |
| 45° | 1832.1 | 1686.8 | 509.0 | 58.7 | 35.0 | 23.7 | 19.6 | 17.5 | 15.5 | 15.5 | 14.4 |
| 47.5° | 2060.8 | 1870.2 | 391.6 | 51.5 | 29.9 | 20.6 | 17.5 | 14.4 | 13.4 | 12.4 | 12.4 |
| 50° | 2281.3 | 2034.0 | 275.1 | 44.3 | 24.7 | 17.5 | 14.4 | 12.4 | 11.3 | 10.3 | 10.3 |
| 52.5° | 2436.9 | 2132.9 | 194.7 | 38.1 | 20.6 | 15.5 | 11.3 | 9.3 | 8.2 | 8.2 | 8.2 |
| 55° | 2561.6 | 2194.8 | 136.0 | 31.9 | 17.5 | 13.4 | 9.3 | 7.2 | 7.2 | 6.2 | 6.2 |
| 57.5° | 2679.0 | 2234.9 | 99.9 | 26.8 | 14.4 | 10.3 | 7.2 | 5.2 | 5.2 | 4.1 | 4.1 |
| 60° | 2800.6 | 2256.6 | 76.2 | 21.6 | 12.4 | 8.2 | 5.2 | 4.1 | 3.1 | 3.1 | 3.1 |
| 62.5° | 2923.2 | 2270.0 | 58.7 | 17.5 | 10.3 | 6.2 | 4.1 | 3.1 | 2.1 | 1.0 | 1.0 |
| 65° | 3030.4 | 2274.1 | 45.3 | 13.4 | 8.2 | 4.1 | 3.1 | 1.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 3062.4 | 2226.7 | 35.0 | 10.3 | 6.2 | 3.1 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 2975.8 | 2101.0 | 26.8 | 8.2 | 5.2 | 2.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2640.9 | 1762.0 | 20.6 | 5.2 | 4.1 | 2.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1889.8 | 939.7 | 14.4 | 4.1 | 3.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 869.7 | 363.7 | 10.3 | 3.1 | 2.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 170.0 | 90.7 | 4.1 | 2.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 39.2 | 15.5 | 2.1 | 2.1 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 13.4 | 5.2 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.2 | 2.1 | 1.0 | 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)