

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: P397961

Luminaire Tested: **ARCH-S-PA1-70-722-U-T2U-HSS**

Issue Date: 5/19/2020

Test Information

Test Method: LM-79-08
Report Number: P397961
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-PA1-70-722-U-T2U-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2200K, 930mA 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: 5052 lumens
Efficiency: N/A
Efficacy: 68.3 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

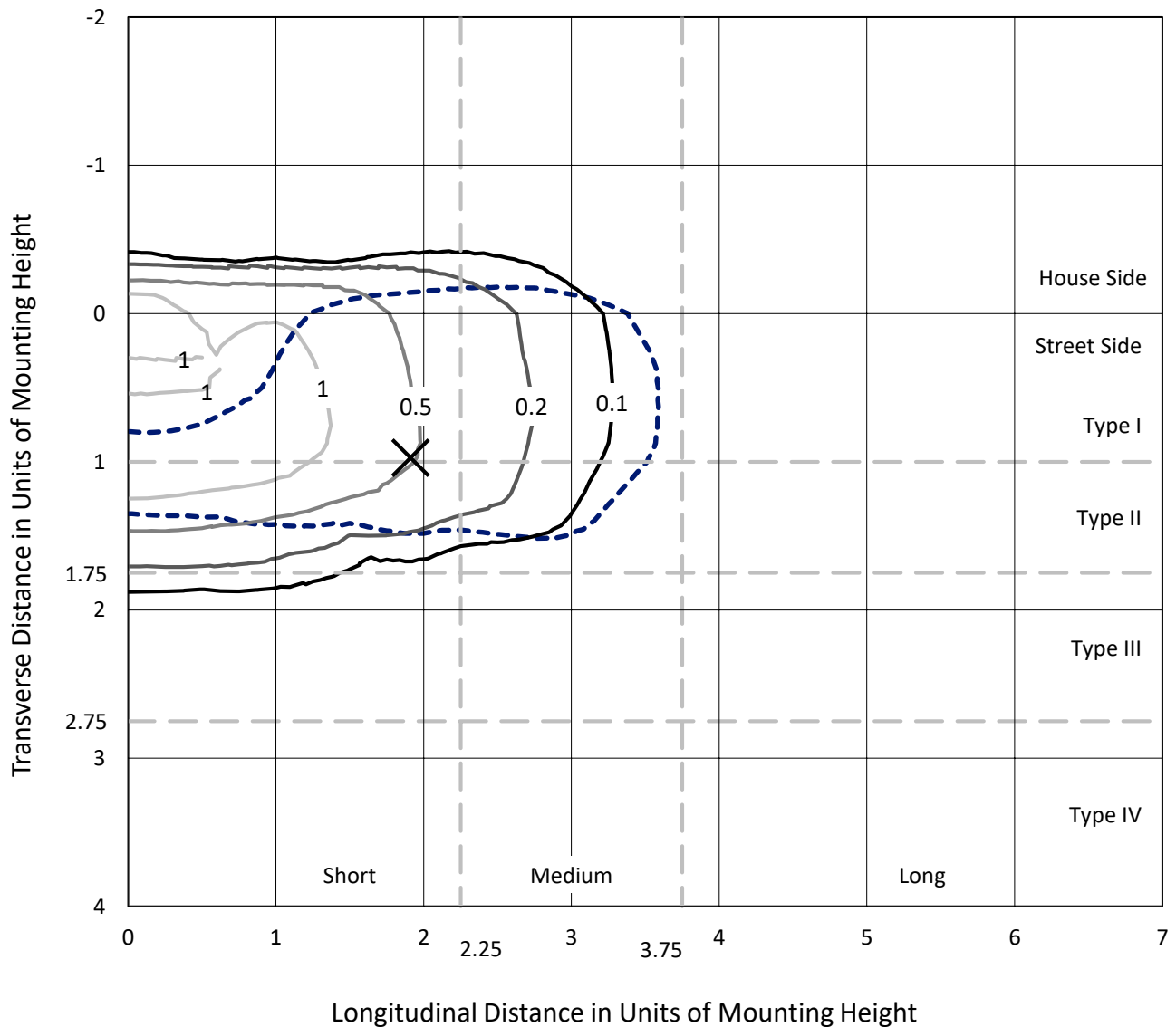
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

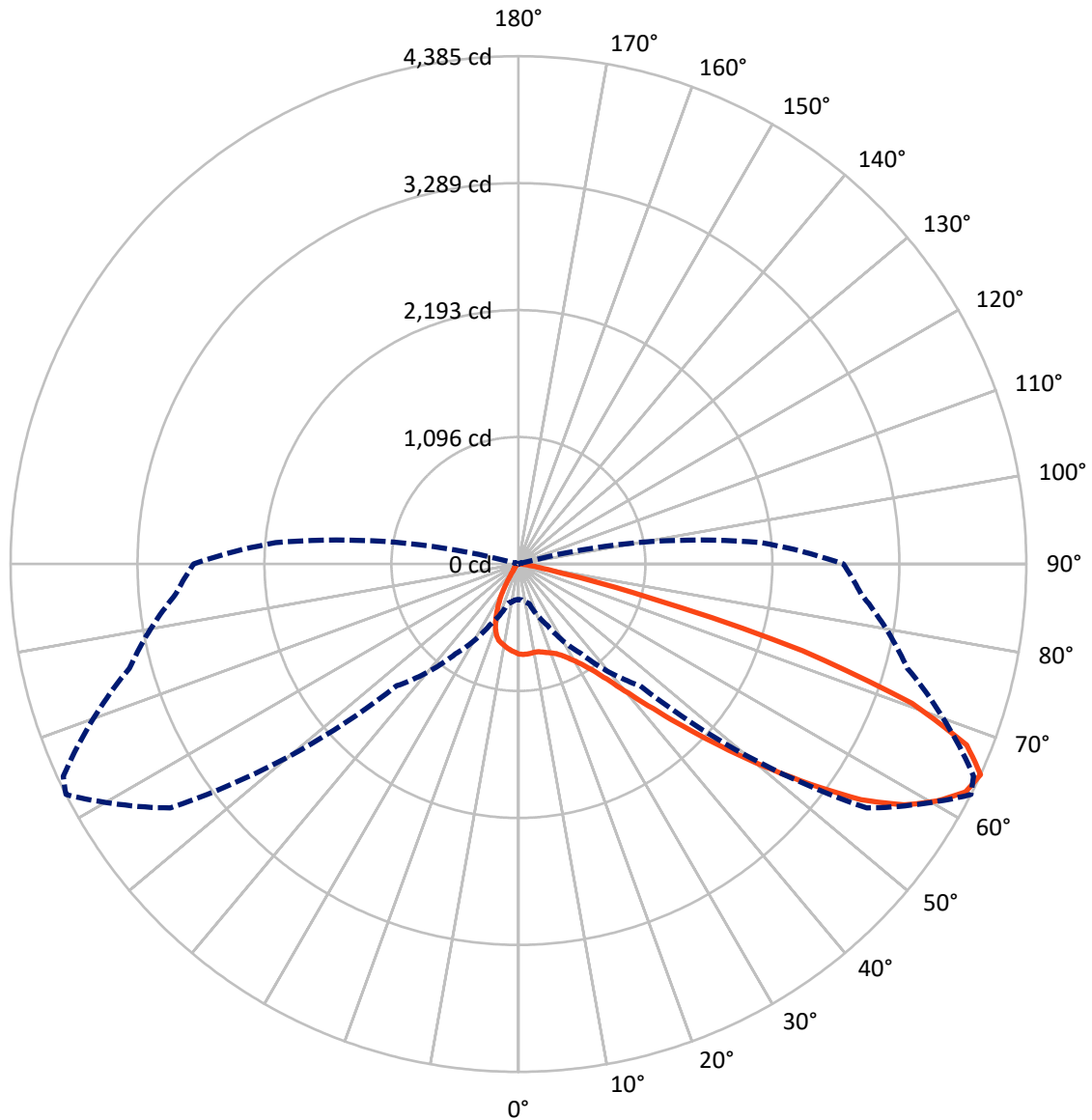
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 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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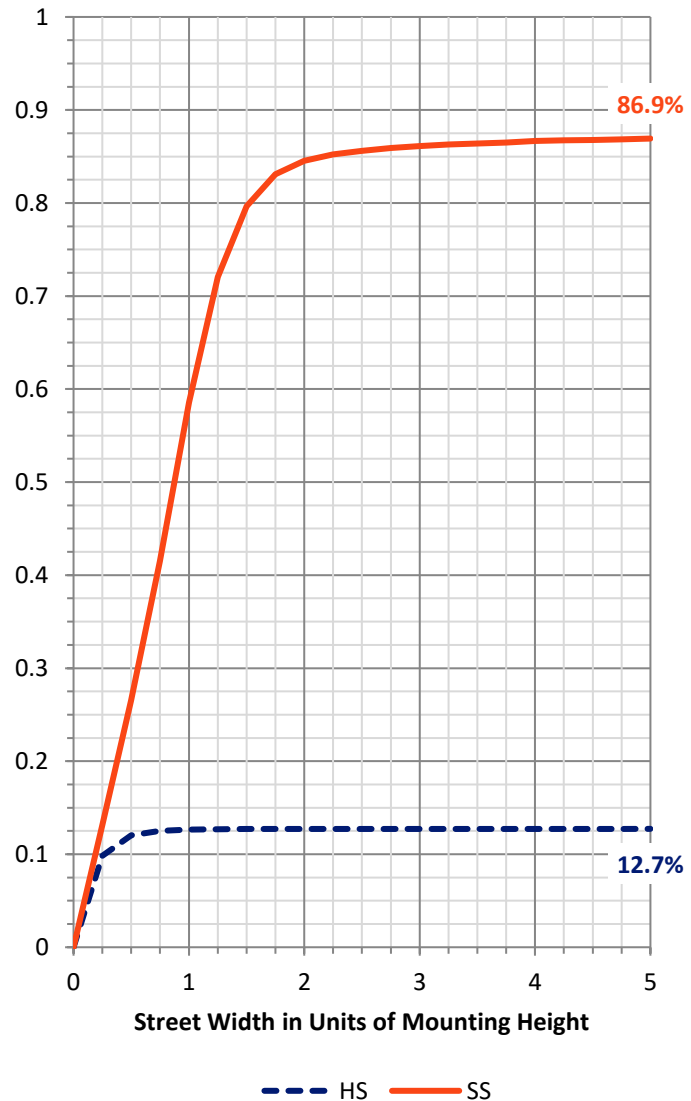
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 650.2 | 0.0 | 650.2 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| Street Side | Lumens | 4401.8 | 0.0 | 4401.8 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| Total | Lumens | 5052.0 | 0.0 | 5052.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 71.0 | 1.4 |
| 10°-20° | 175.2 | 3.5 |
| 20°-30° | 259.7 | 5.1 |
| 30°-40° | 482.1 | 9.5 |
| 40°-50° | 1021.3 | 20.2 |
| 50°-60° | 1412.3 | 28.0 |
| 60°-70° | 1130.6 | 22.4 |
| 70°-80° | 469.7 | 9.3 |
| 80°-90° | 30.2 | 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° | 5052.0 | 100.0 |
| 0°-180° | 5052.0 | 100.0 |



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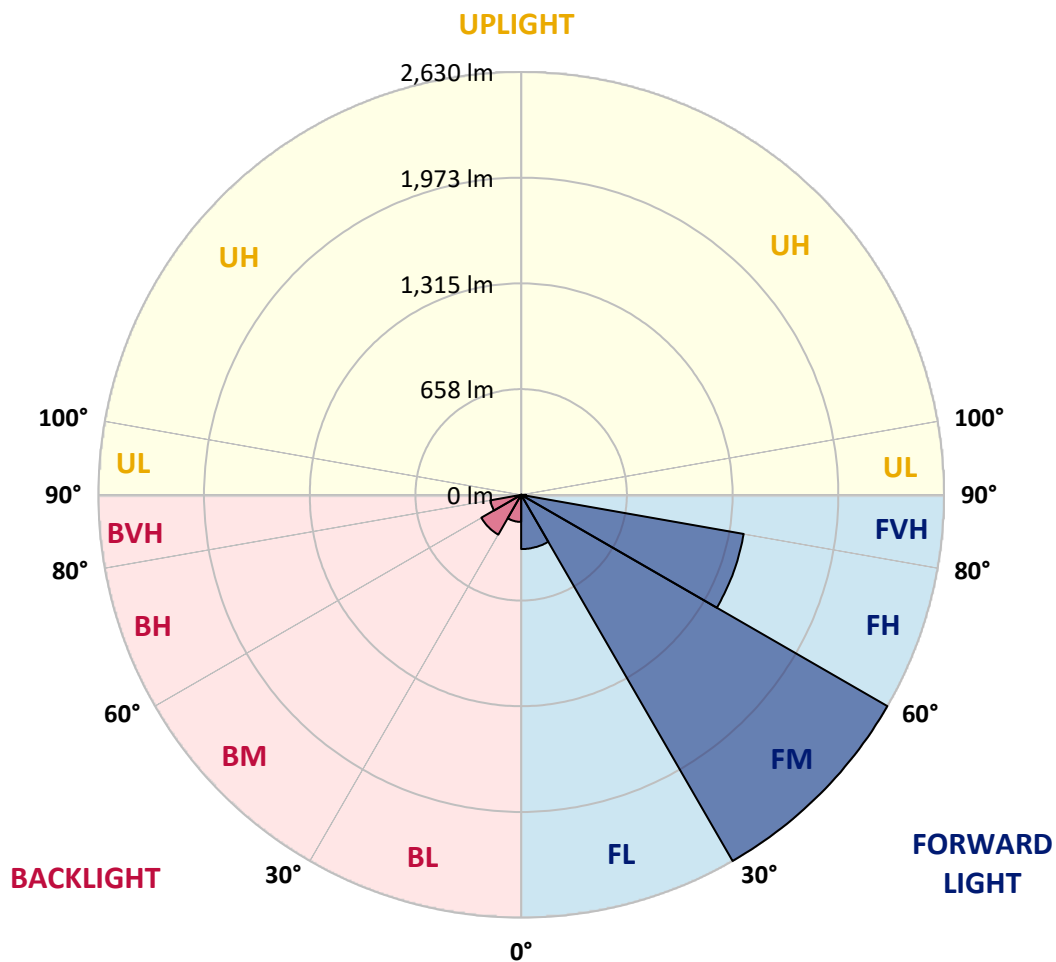
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 337.4 | 6.7 | | | |
| FM (30°-60°) | 2630.1 | 52.1 | | | |
| FH (60°-80°) | 1405.6 | 27.8 | | | G1/1800 |
| FVH (80°-90°) | 28.8 | 0.6 | | | G1/100 |
| BL (0°-30°) | 168.5 | 3.3 | B1/500 | | |
| BM (30°-60°) | 285.6 | 5.7 | B1/1000 | | |
| BH (60°-80°) | 194.7 | 3.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.4 | 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° | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 |
| 2.5° | 791.6 | 789.7 | 787.8 | 786.8 | 786.8 | 785.9 | 782.1 | 781.1 | 779.2 | 777.3 | 775.4 |
| 5° | 784.0 | 781.1 | 780.2 | 781.1 | 782.1 | 784.0 | 782.1 | 782.1 | 780.2 | 778.3 | 774.4 |
| 7.5° | 764.9 | 763.0 | 764.0 | 766.8 | 767.8 | 774.4 | 775.4 | 778.3 | 778.3 | 776.4 | 773.5 |
| 10° | 742.0 | 741.1 | 741.1 | 745.8 | 750.6 | 760.1 | 766.8 | 774.4 | 775.4 | 775.4 | 770.6 |
| 12.5° | 724.9 | 723.9 | 726.8 | 732.5 | 742.0 | 754.4 | 765.9 | 777.3 | 779.2 | 780.2 | 772.5 |
| 15° | 714.4 | 714.4 | 718.2 | 729.6 | 743.0 | 760.1 | 773.5 | 788.8 | 790.7 | 789.7 | 779.2 |
| 17.5° | 704.8 | 705.8 | 713.4 | 732.5 | 747.7 | 770.6 | 786.8 | 804.0 | 805.0 | 804.0 | 786.8 |
| 20° | 701.0 | 702.9 | 714.4 | 739.2 | 756.3 | 782.1 | 803.1 | 820.2 | 821.2 | 817.4 | 794.5 |
| 22.5° | 711.5 | 712.5 | 726.8 | 753.5 | 769.7 | 798.3 | 825.0 | 841.2 | 842.2 | 836.4 | 805.9 |
| 25° | 747.7 | 747.7 | 760.1 | 783.0 | 797.3 | 826.0 | 854.6 | 873.6 | 873.6 | 867.0 | 831.7 |
| 27.5° | 832.6 | 825.0 | 822.1 | 828.8 | 833.6 | 864.1 | 894.6 | 918.5 | 917.5 | 908.0 | 865.1 |
| 30° | 996.7 | 977.6 | 947.1 | 912.7 | 895.6 | 916.6 | 945.2 | 975.7 | 974.7 | 959.5 | 906.1 |
| 32.5° | 1272.3 | 1244.6 | 1172.2 | 1081.6 | 1008.1 | 984.3 | 1011.0 | 1044.4 | 1045.3 | 1027.2 | 971.9 |
| 35° | 1658.6 | 1614.7 | 1485.0 | 1359.1 | 1191.2 | 1100.6 | 1108.3 | 1144.5 | 1155.9 | 1146.4 | 1082.5 |
| 37.5° | 2030.5 | 1990.5 | 1866.5 | 1692.0 | 1464.0 | 1279.0 | 1246.6 | 1278.0 | 1291.4 | 1291.4 | 1223.7 |
| 40° | 2405.4 | 2358.6 | 2249.0 | 2073.5 | 1833.1 | 1557.5 | 1441.1 | 1466.9 | 1481.2 | 1484.0 | 1395.3 |
| 42.5° | 2705.8 | 2675.3 | 2591.3 | 2455.0 | 2229.9 | 2045.8 | 1721.5 | 1707.2 | 1720.6 | 1710.1 | 1594.7 |
| 45° | 2913.7 | 2889.9 | 2831.7 | 2780.2 | 2670.5 | 2578.0 | 2096.4 | 2000.0 | 2008.6 | 1972.4 | 1818.8 |
| 47.5° | 2956.6 | 2929.9 | 2917.5 | 2989.1 | 3067.3 | 3090.2 | 2557.0 | 2348.1 | 2339.6 | 2259.4 | 2051.5 |
| 50° | 2769.7 | 2772.6 | 2818.3 | 3022.4 | 3348.6 | 3554.6 | 3091.1 | 2741.1 | 2709.6 | 2531.3 | 2268.0 |
| 52.5° | 2366.3 | 2412.0 | 2527.4 | 2858.4 | 3434.5 | 3892.3 | 3625.2 | 3157.9 | 3109.2 | 2795.5 | 2430.2 |
| 55° | 1851.2 | 1910.4 | 2100.2 | 2480.7 | 3255.2 | 4043.0 | 4075.4 | 3590.9 | 3480.2 | 2993.8 | 2556.1 |
| 57.5° | 1376.3 | 1394.4 | 1615.7 | 1962.8 | 2830.7 | 3895.1 | 4306.2 | 3924.7 | 3782.6 | 3152.2 | 2681.0 |
| 60° | 857.4 | 868.9 | 1102.5 | 1494.5 | 2144.0 | 3348.6 | 4306.2 | 4154.6 | 4019.1 | 3294.3 | 2795.5 |
| 62.5° | 533.1 | 537.0 | 624.7 | 1024.3 | 1457.3 | 2483.6 | 4127.8 | 4332.9 | 4224.2 | 3396.3 | 2893.7 |
| 65° | 307.1 | 310.9 | 351.9 | 578.9 | 948.0 | 1486.9 | 3672.0 | 4385.4 | 4336.7 | 3477.4 | 2970.0 |
| 67.5° | 224.1 | 226.0 | 242.3 | 325.2 | 619.9 | 764.0 | 2758.3 | 4174.6 | 4235.6 | 3517.4 | 2968.1 |
| 70° | 194.6 | 197.4 | 218.4 | 253.7 | 447.3 | 469.2 | 1403.9 | 3605.2 | 3775.9 | 3460.2 | 2879.4 |
| 72.5° | 149.7 | 153.6 | 185.0 | 238.4 | 328.1 | 337.6 | 508.4 | 2565.6 | 2824.1 | 3102.6 | 2636.2 |
| 75° | 103.0 | 106.8 | 138.3 | 196.5 | 270.9 | 252.7 | 279.4 | 1180.7 | 1489.8 | 2081.1 | 2006.7 |
| 77.5° | 65.8 | 66.8 | 86.8 | 143.1 | 233.7 | 179.3 | 191.7 | 385.3 | 540.8 | 941.4 | 947.1 |
| 80° | 43.9 | 44.8 | 53.4 | 92.5 | 160.2 | 166.0 | 118.3 | 178.4 | 195.5 | 274.7 | 190.8 |
| 82.5° | 26.7 | 26.7 | 36.2 | 58.2 | 97.3 | 137.3 | 77.3 | 93.5 | 100.1 | 105.9 | 49.6 |
| 85° | 10.5 | 10.5 | 21.9 | 38.2 | 61.0 | 63.9 | 48.6 | 54.4 | 57.2 | 62.0 | 22.9 |
| 87.5° | 2.9 | 2.9 | 12.4 | 21.0 | 26.7 | 29.6 | 29.6 | 26.7 | 28.6 | 35.3 | 11.4 |
| 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° | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 |
| 2.5° | 774.4 | 771.6 | 767.8 | 764.0 | 760.1 | 757.3 | 754.4 | 754.4 | 752.5 | 749.7 | 747.7 |
| 5° | 772.5 | 767.8 | 759.2 | 752.5 | 742.0 | 734.4 | 728.7 | 723.9 | 721.0 | 714.4 | 713.4 |
| 7.5° | 769.7 | 764.0 | 751.6 | 738.2 | 721.0 | 707.7 | 694.3 | 684.8 | 675.3 | 667.6 | 665.7 |
| 10° | 764.9 | 758.2 | 740.1 | 721.0 | 697.2 | 672.4 | 640.9 | 604.7 | 571.3 | 552.2 | 546.5 |
| 12.5° | 764.9 | 756.3 | 732.5 | 706.7 | 672.4 | 611.4 | 531.2 | 451.1 | 389.1 | 361.5 | 353.8 |
| 15° | 769.7 | 758.2 | 726.8 | 691.5 | 627.6 | 503.6 | 373.9 | 268.0 | 200.3 | 179.3 | 174.5 |
| 17.5° | 774.4 | 758.2 | 718.2 | 670.5 | 545.5 | 365.3 | 212.7 | 141.2 | 119.2 | 114.5 | 114.5 |
| 20° | 776.4 | 756.3 | 706.7 | 631.4 | 435.9 | 227.0 | 126.8 | 105.9 | 97.3 | 94.4 | 94.4 |
| 22.5° | 784.0 | 757.3 | 698.1 | 575.1 | 316.6 | 133.5 | 100.1 | 88.7 | 80.1 | 77.3 | 77.3 |
| 25° | 803.1 | 768.7 | 700.1 | 503.6 | 203.1 | 101.1 | 84.9 | 73.4 | 64.9 | 61.0 | 61.0 |
| 27.5° | 833.6 | 794.5 | 710.5 | 420.6 | 127.8 | 86.8 | 71.5 | 59.1 | 52.5 | 48.6 | 48.6 |
| 30° | 867.9 | 823.1 | 715.3 | 325.2 | 95.4 | 73.4 | 58.2 | 46.7 | 42.0 | 39.1 | 38.2 |
| 32.5° | 928.0 | 872.7 | 711.5 | 223.2 | 78.2 | 62.0 | 46.7 | 37.2 | 33.4 | 32.4 | 32.4 |
| 35° | 1024.3 | 959.5 | 703.9 | 140.2 | 64.9 | 49.6 | 37.2 | 30.5 | 27.7 | 26.7 | 25.8 |
| 37.5° | 1155.0 | 1086.3 | 681.0 | 92.5 | 53.4 | 39.1 | 30.5 | 25.8 | 22.9 | 21.9 | 21.9 |
| 40° | 1314.3 | 1231.3 | 637.1 | 70.6 | 45.8 | 31.5 | 25.8 | 21.9 | 20.0 | 19.1 | 19.1 |
| 42.5° | 1496.4 | 1392.5 | 567.5 | 61.0 | 38.2 | 26.7 | 21.9 | 18.1 | 17.2 | 16.2 | 16.2 |
| 45° | 1695.8 | 1561.3 | 471.2 | 54.4 | 32.4 | 21.9 | 18.1 | 16.2 | 14.3 | 14.3 | 13.4 |
| 47.5° | 1907.5 | 1731.1 | 362.4 | 47.7 | 27.7 | 19.1 | 16.2 | 13.4 | 12.4 | 11.4 | 11.4 |
| 50° | 2111.6 | 1882.7 | 254.7 | 41.0 | 22.9 | 16.2 | 13.4 | 11.4 | 10.5 | 9.5 | 9.5 |
| 52.5° | 2255.6 | 1974.3 | 180.3 | 35.3 | 19.1 | 14.3 | 10.5 | 8.6 | 7.6 | 7.6 | 7.6 |
| 55° | 2371.0 | 2031.5 | 125.9 | 29.6 | 16.2 | 12.4 | 8.6 | 6.7 | 6.7 | 5.7 | 5.7 |
| 57.5° | 2479.8 | 2068.7 | 92.5 | 24.8 | 13.4 | 9.5 | 6.7 | 4.8 | 4.8 | 3.8 | 3.8 |
| 60° | 2592.3 | 2088.7 | 70.6 | 20.0 | 11.4 | 7.6 | 4.8 | 3.8 | 2.9 | 2.9 | 2.9 |
| 62.5° | 2705.8 | 2101.1 | 54.4 | 16.2 | 9.5 | 5.7 | 3.8 | 2.9 | 1.9 | 1.0 | 1.0 |
| 65° | 2805.0 | 2104.9 | 42.0 | 12.4 | 7.6 | 3.8 | 2.9 | 1.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 2834.6 | 2061.1 | 32.4 | 9.5 | 5.7 | 2.9 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 2754.4 | 1944.7 | 24.8 | 7.6 | 4.8 | 1.9 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2444.5 | 1630.9 | 19.1 | 4.8 | 3.8 | 1.9 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1749.2 | 869.8 | 13.4 | 3.8 | 2.9 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 805.0 | 336.7 | 9.5 | 2.9 | 1.9 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 157.4 | 83.9 | 3.8 | 1.9 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 36.2 | 14.3 | 1.9 | 1.9 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 12.4 | 4.8 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 4.8 | 1.9 | 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)