

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: P214805

Luminaire Tested: **ARCH-AF24-100-D-U-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-100-D-U-T3-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7277.3 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

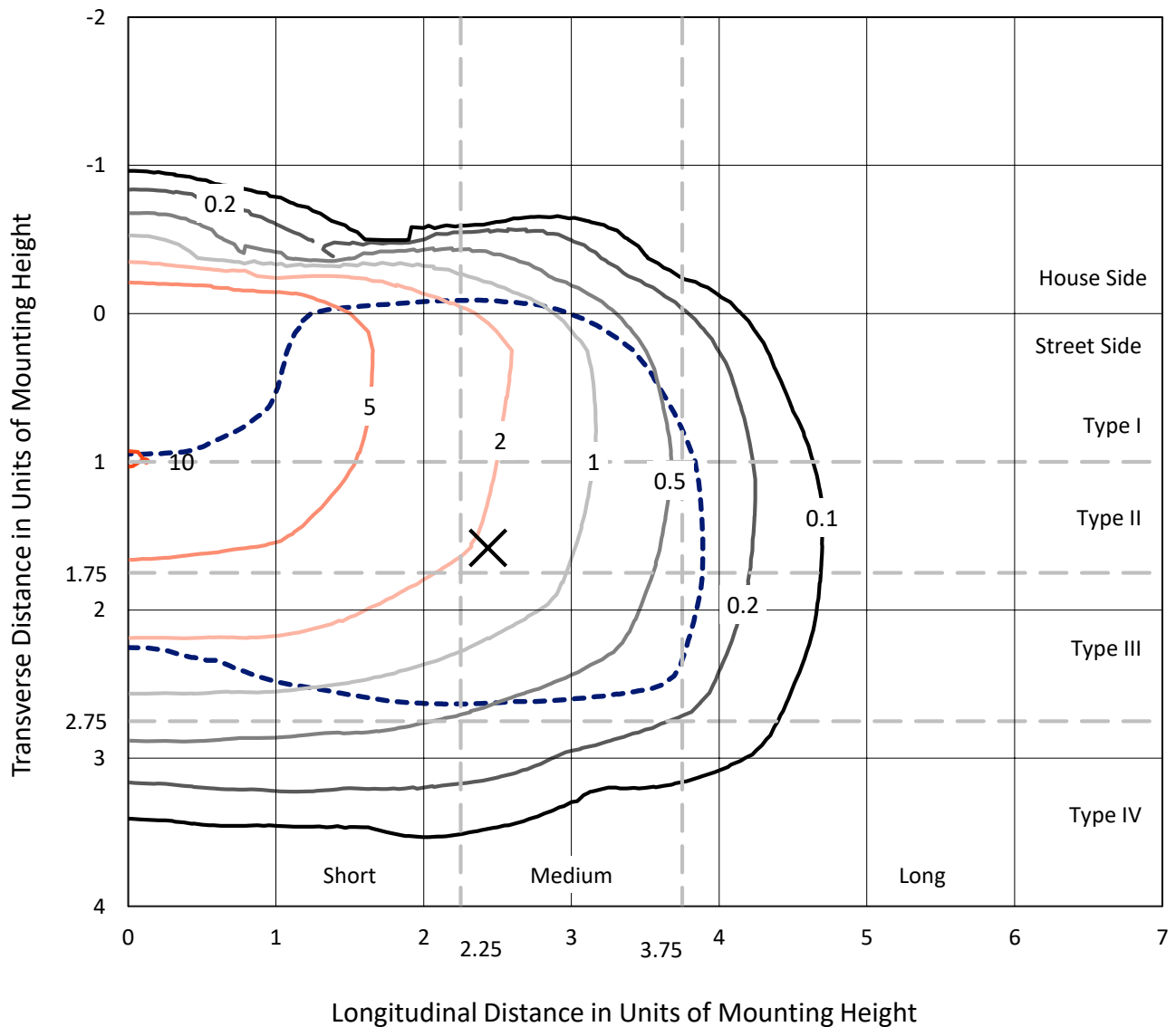
Input Watts (W): 96
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

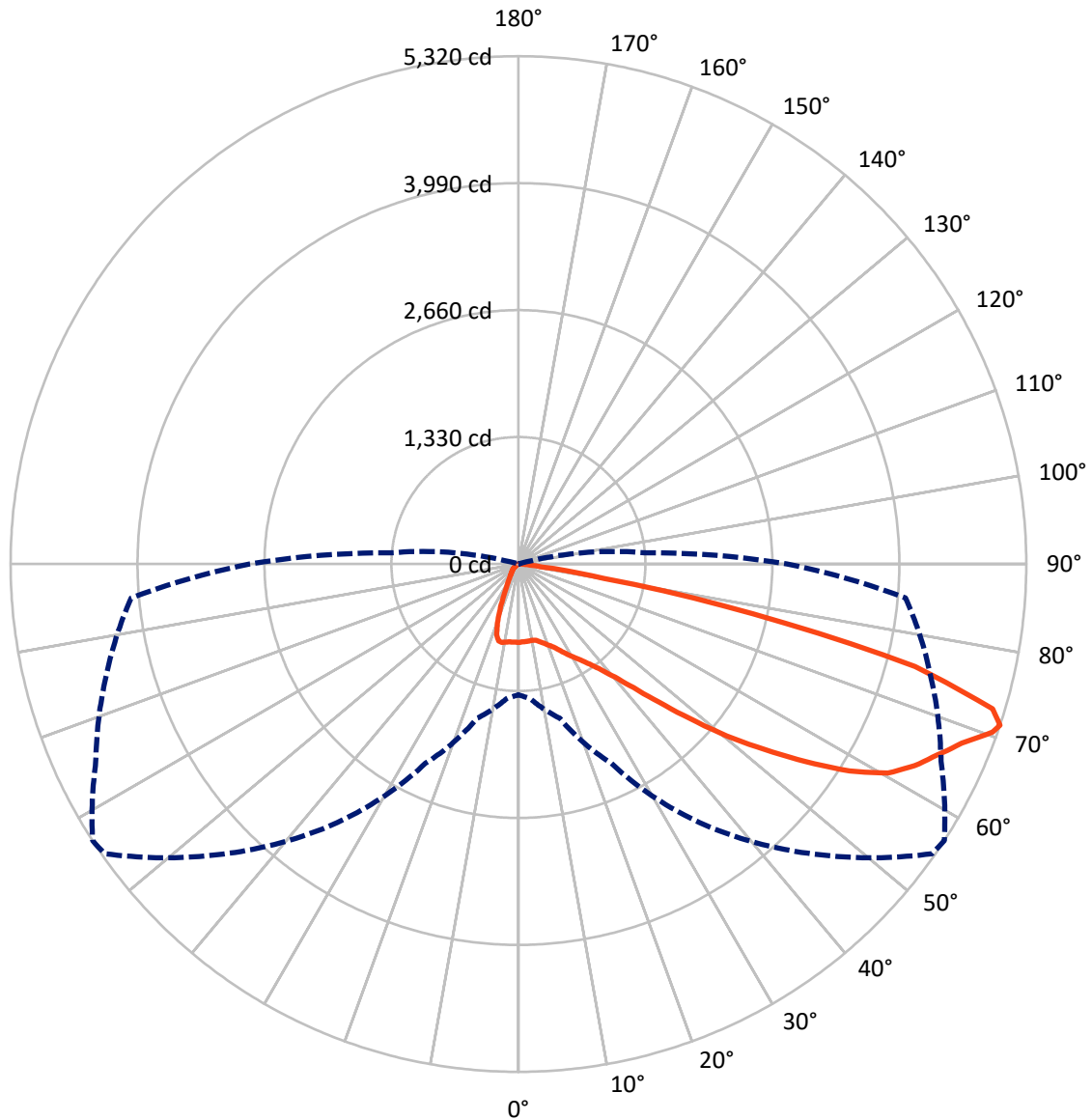
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.2 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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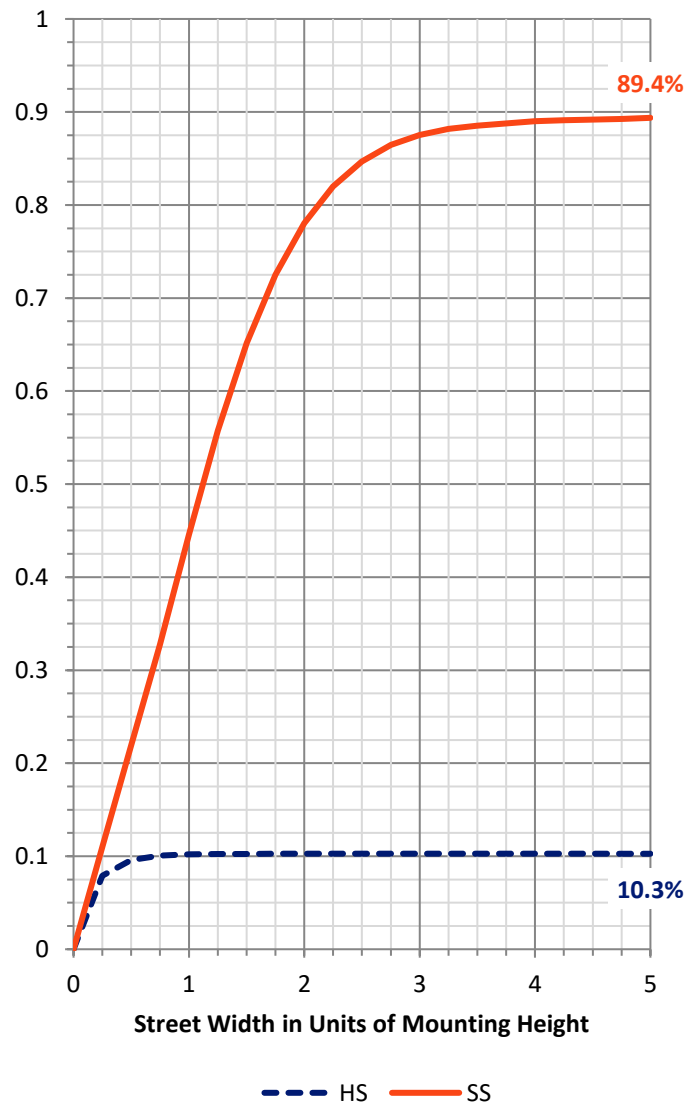
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 754.2 | 0.0 | 754.2 |
| | % Fixture | 10.4 | 0.0 | 10.4 |
| Street Side | Lumens | 6523.1 | 0.0 | 6523.1 |
| | % Fixture | 89.6 | 0.0 | 89.6 |
| Total | Lumens | 7277.3 | 0.0 | 7277.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 77.2 | 1.1 |
| 10°-20° | 206.5 | 2.8 |
| 20°-30° | 322.2 | 4.4 |
| 30°-40° | 544.5 | 7.5 |
| 40°-50° | 1057.6 | 14.5 |
| 50°-60° | 1776.0 | 24.4 |
| 60°-70° | 2119.5 | 29.1 |
| 70°-80° | 1117.0 | 15.3 |
| 80°-90° | 56.8 | 0.8 |
| 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° | 7277.3 | 100.0 |
| 0°-180° | 7277.3 | 100.0 |



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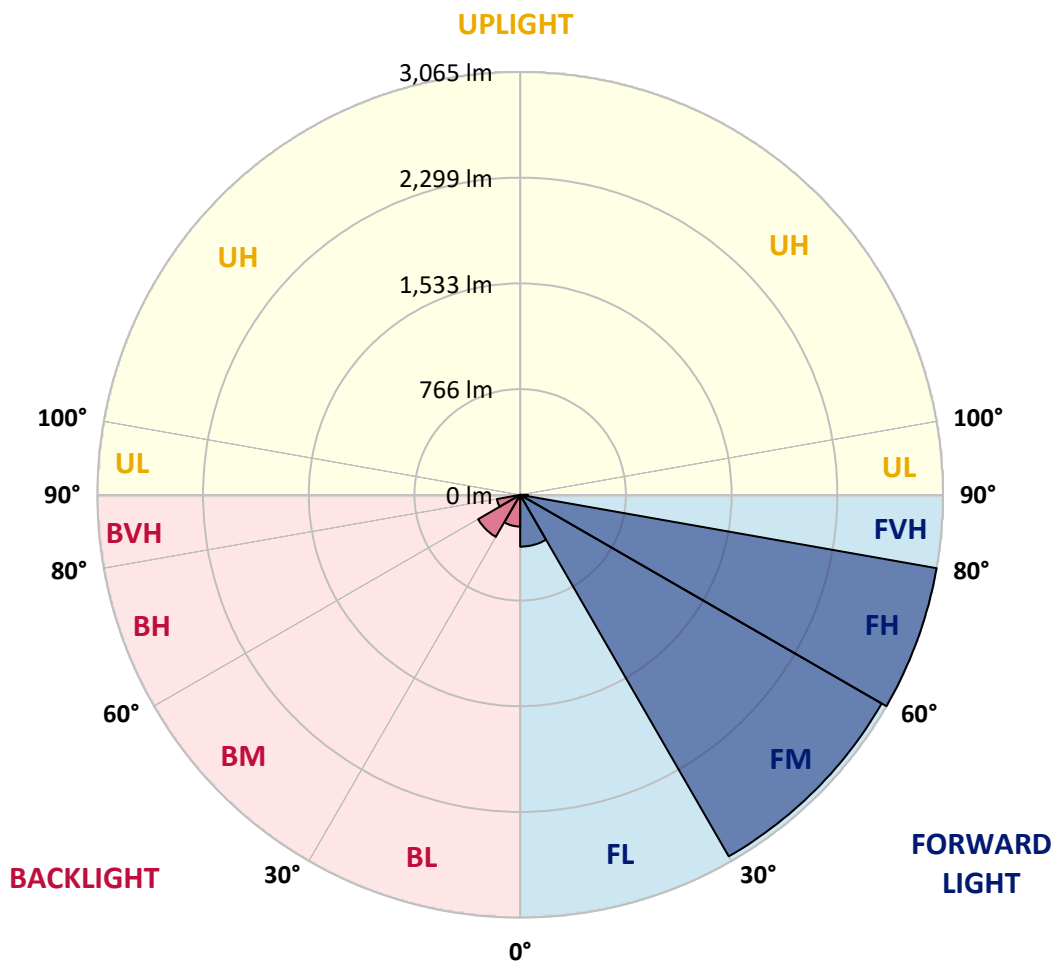
CATALOG NUMBER: ARCH-AF24-100-D-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 375.7 | 5.2 | | | |
| FM | (30°-60°) | 3026.0 | 41.6 | | | |
| FH | (60°-80°) | 3065.2 | 42.1 | | | G2/5000 |
| FVH | (80°-90°) | 56.2 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 230.2 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 352.1 | 4.8 | B1/1000 | | |
| BH | (60°-80°) | 171.3 | 2.4 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 0.5 | 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-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 |
| 2.5° | 810.6 | 810.6 | 810.6 | 812.2 | 814.0 | 814.0 | 817.3 | 815.7 | 815.7 | 815.7 | 819.1 |
| 5° | 788.5 | 790.2 | 792.0 | 795.3 | 802.1 | 807.2 | 815.7 | 815.7 | 817.3 | 820.7 | 822.5 |
| 7.5° | 758.0 | 759.7 | 764.8 | 771.6 | 785.1 | 797.0 | 810.6 | 814.0 | 819.1 | 827.6 | 830.9 |
| 10° | 739.4 | 742.8 | 749.5 | 758.0 | 773.2 | 788.5 | 805.5 | 810.6 | 825.8 | 841.1 | 849.6 |
| 12.5° | 734.3 | 735.9 | 742.8 | 756.3 | 775.0 | 793.6 | 815.7 | 820.7 | 842.8 | 866.5 | 880.1 |
| 15° | 742.8 | 744.4 | 747.9 | 763.1 | 785.1 | 808.8 | 837.7 | 844.4 | 871.7 | 898.8 | 915.7 |
| 17.5° | 758.0 | 758.0 | 761.4 | 775.0 | 798.7 | 825.8 | 863.2 | 873.3 | 903.9 | 934.4 | 953.0 |
| 20° | 768.1 | 768.1 | 773.2 | 786.9 | 814.0 | 849.6 | 893.6 | 907.3 | 941.1 | 975.1 | 992.1 |
| 22.5° | 778.4 | 780.0 | 785.1 | 800.4 | 830.9 | 880.1 | 931.0 | 944.5 | 983.6 | 1019.2 | 1036.1 |
| 25° | 807.2 | 805.5 | 807.2 | 820.7 | 856.3 | 917.4 | 981.8 | 998.8 | 1039.5 | 1078.5 | 1087.0 |
| 27.5° | 886.9 | 883.5 | 861.4 | 852.9 | 880.1 | 956.4 | 1046.3 | 1063.3 | 1110.7 | 1149.7 | 1149.7 |
| 30° | 1070.0 | 1063.3 | 1008.9 | 939.5 | 917.4 | 992.1 | 1107.3 | 1131.1 | 1192.1 | 1226.0 | 1215.9 |
| 32.5° | 1302.3 | 1287.1 | 1217.5 | 1098.9 | 1010.7 | 1039.5 | 1171.8 | 1198.9 | 1276.9 | 1305.7 | 1283.7 |
| 35° | 1556.7 | 1555.0 | 1468.5 | 1315.9 | 1190.4 | 1137.8 | 1254.9 | 1287.1 | 1385.4 | 1410.9 | 1375.3 |
| 37.5° | 1826.4 | 1833.1 | 1775.4 | 1565.2 | 1417.6 | 1298.9 | 1365.1 | 1402.4 | 1522.8 | 1553.4 | 1519.4 |
| 40° | 2126.5 | 2124.8 | 2102.8 | 1853.5 | 1690.6 | 1527.9 | 1524.5 | 1558.4 | 1704.2 | 1751.7 | 1704.2 |
| 42.5° | 2506.3 | 2503.0 | 2423.3 | 2199.4 | 2021.4 | 1826.4 | 1756.8 | 1768.7 | 1931.4 | 2009.5 | 1939.9 |
| 45° | 2893.0 | 2869.2 | 2777.6 | 2584.4 | 2426.6 | 2196.0 | 2063.7 | 2063.7 | 2202.8 | 2309.6 | 2201.1 |
| 47.5° | 3108.3 | 3084.6 | 3047.3 | 2940.5 | 2893.0 | 2635.2 | 2440.1 | 2416.4 | 2524.9 | 2633.5 | 2480.9 |
| 50° | 3391.5 | 3391.5 | 3298.2 | 3257.6 | 3338.9 | 3157.5 | 2855.7 | 2831.9 | 2884.5 | 2971.0 | 2770.9 |
| 52.5° | 3615.3 | 3574.7 | 3508.5 | 3544.1 | 3776.4 | 3693.4 | 3271.1 | 3225.4 | 3266.1 | 3288.1 | 3023.5 |
| 55° | 3708.6 | 3669.6 | 3664.5 | 3795.1 | 4154.6 | 4039.3 | 3696.7 | 3656.0 | 3652.7 | 3544.1 | 3244.0 |
| 57.5° | 3727.2 | 3693.4 | 3757.8 | 3986.7 | 4522.6 | 4322.5 | 4120.7 | 4090.2 | 3995.2 | 3723.8 | 3469.5 |
| 60° | 3569.6 | 3586.6 | 3742.6 | 4091.9 | 4739.6 | 4568.4 | 4478.5 | 4446.3 | 4227.5 | 3876.5 | 3720.5 |
| 62.5° | 3245.7 | 3286.3 | 3578.1 | 4102.0 | 4660.0 | 4668.4 | 4676.9 | 4654.8 | 4407.3 | 4015.6 | 3973.1 |
| 65° | 2862.4 | 2874.3 | 3225.4 | 3961.3 | 4520.9 | 4637.9 | 4822.7 | 4821.1 | 4544.7 | 4171.6 | 4258.0 |
| 67.5° | 2358.8 | 2379.2 | 2682.7 | 3486.5 | 4242.8 | 4624.4 | 5014.4 | 5009.3 | 4700.7 | 4349.6 | 4427.6 |
| 70° | 1755.1 | 1780.5 | 2026.5 | 2711.5 | 3622.2 | 4454.7 | 5265.3 | 5268.7 | 4865.2 | 4485.2 | 4310.6 |
| 71° | 1368.5 | 1414.2 | 1672.0 | 2302.9 | 3305.1 | 4283.5 | 5289.1 | 5319.5 | 4883.8 | 4466.6 | 4069.8 |
| 72.5° | 671.6 | 725.8 | 1049.6 | 1621.2 | 2720.0 | 3900.2 | 5133.1 | 5192.4 | 4766.7 | 4234.3 | 3479.7 |
| 75° | 174.6 | 184.8 | 313.7 | 663.1 | 1458.3 | 2584.4 | 4139.4 | 4290.3 | 3896.8 | 3223.6 | 2126.5 |
| 77.5° | 110.3 | 113.6 | 147.5 | 257.8 | 546.1 | 981.8 | 2431.8 | 2506.3 | 2226.6 | 1633.0 | 749.5 |
| 80° | 78.1 | 79.7 | 93.3 | 166.2 | 318.8 | 286.6 | 875.0 | 907.3 | 805.5 | 432.4 | 134.0 |
| 82.5° | 47.5 | 47.5 | 67.8 | 106.8 | 196.7 | 156.0 | 230.6 | 245.9 | 217.1 | 120.4 | 44.1 |
| 85° | 27.1 | 28.8 | 42.4 | 72.9 | 93.3 | 76.3 | 86.4 | 91.6 | 93.3 | 79.7 | 18.6 |
| 87.5° | 22.1 | 23.7 | 37.3 | 61.1 | 50.8 | 37.3 | 37.3 | 39.0 | 40.7 | 47.5 | 8.5 |
| 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° | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 |
| 2.5° | 819.1 | 819.1 | 820.7 | 819.1 | 819.1 | 819.1 | 820.7 | 820.7 | 820.7 | 824.1 | 825.8 |
| 5° | 822.5 | 822.5 | 822.5 | 820.7 | 819.1 | 819.1 | 822.5 | 824.1 | 824.1 | 829.2 | 829.2 |
| 7.5° | 830.9 | 830.9 | 827.6 | 824.1 | 820.7 | 815.7 | 817.3 | 819.1 | 817.3 | 819.1 | 819.1 |
| 10° | 849.6 | 849.6 | 844.4 | 837.7 | 827.6 | 812.2 | 792.0 | 766.5 | 742.8 | 734.3 | 730.9 |
| 12.5° | 880.1 | 878.4 | 868.2 | 856.3 | 834.3 | 781.7 | 705.4 | 615.5 | 540.9 | 520.6 | 513.8 |
| 15° | 914.0 | 910.6 | 898.8 | 878.4 | 819.1 | 680.0 | 520.6 | 405.3 | 334.1 | 317.1 | 313.7 |
| 17.5° | 949.6 | 944.5 | 927.6 | 886.9 | 749.5 | 505.3 | 335.7 | 254.4 | 215.3 | 212.0 | 213.7 |
| 20° | 986.9 | 980.2 | 956.4 | 869.9 | 605.4 | 337.5 | 217.1 | 196.7 | 193.3 | 193.3 | 195.0 |
| 22.5° | 1029.3 | 1020.8 | 988.6 | 808.8 | 440.9 | 223.8 | 186.5 | 184.8 | 183.1 | 181.5 | 181.5 |
| 25° | 1078.5 | 1068.4 | 1019.2 | 698.7 | 303.5 | 183.1 | 178.1 | 173.0 | 169.6 | 166.2 | 164.5 |
| 27.5° | 1137.8 | 1124.3 | 1042.9 | 563.0 | 208.6 | 171.2 | 167.9 | 159.4 | 152.6 | 145.9 | 145.9 |
| 30° | 1197.2 | 1180.3 | 1036.1 | 423.9 | 169.6 | 159.4 | 152.6 | 142.4 | 132.3 | 125.5 | 123.8 |
| 32.5° | 1260.0 | 1243.0 | 992.1 | 284.9 | 154.4 | 145.9 | 137.4 | 122.1 | 110.3 | 101.8 | 100.0 |
| 35° | 1353.3 | 1339.7 | 905.5 | 188.2 | 139.0 | 128.9 | 117.0 | 101.8 | 86.4 | 78.1 | 76.3 |
| 37.5° | 1492.3 | 1475.3 | 798.7 | 144.1 | 122.1 | 106.8 | 96.7 | 79.7 | 64.4 | 56.0 | 54.2 |
| 40° | 1678.8 | 1627.9 | 671.6 | 127.2 | 106.8 | 88.2 | 74.6 | 57.7 | 45.8 | 40.7 | 40.7 |
| 42.5° | 1895.8 | 1775.4 | 534.2 | 115.3 | 94.9 | 72.9 | 54.2 | 39.0 | 32.2 | 30.5 | 30.5 |
| 45° | 2126.5 | 1912.8 | 396.8 | 106.8 | 83.1 | 57.7 | 39.0 | 27.1 | 23.7 | 22.1 | 22.1 |
| 47.5° | 2363.8 | 2024.7 | 276.4 | 96.7 | 69.6 | 44.1 | 27.1 | 20.4 | 17.0 | 15.2 | 15.2 |
| 50° | 2586.0 | 2097.7 | 195.0 | 86.4 | 59.3 | 32.2 | 20.4 | 15.2 | 11.9 | 11.9 | 11.9 |
| 52.5° | 2740.4 | 2090.9 | 140.8 | 74.6 | 45.8 | 22.1 | 13.6 | 10.1 | 10.1 | 10.1 | 10.1 |
| 55° | 2876.0 | 2065.4 | 110.3 | 64.4 | 35.6 | 15.2 | 10.1 | 8.5 | 8.5 | 6.8 | 6.8 |
| 57.5° | 2991.3 | 2024.7 | 93.3 | 52.6 | 25.5 | 11.9 | 6.8 | 6.8 | 5.1 | 5.1 | 5.1 |
| 60° | 3089.6 | 1973.9 | 78.1 | 44.1 | 17.0 | 8.5 | 5.1 | 3.4 | 3.4 | 1.7 | 3.4 |
| 62.5° | 3223.6 | 1941.7 | 67.8 | 34.0 | 11.9 | 5.1 | 3.4 | 1.7 | 1.7 | 0.0 | 0.0 |
| 65° | 3322.0 | 1880.6 | 57.7 | 23.7 | 6.8 | 3.4 | 1.7 | 1.7 | 0.0 | 0.0 | 0.0 |
| 67.5° | 3325.4 | 1770.4 | 42.4 | 13.6 | 5.1 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 3057.5 | 1509.3 | 27.1 | 6.8 | 3.4 | 1.7 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 71° | 2811.6 | 1336.3 | 22.1 | 5.1 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2316.4 | 981.8 | 17.0 | 5.1 | 1.7 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1276.9 | 356.1 | 8.5 | 3.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 408.7 | 108.5 | 5.1 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 69.6 | 17.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 23.7 | 6.8 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 6.8 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 3.4 | 1.7 | 0.0 | 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)