

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: P368191

Luminaire Tested: **PMM-SA4A-727-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: PMM-SA4A-727-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10723 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

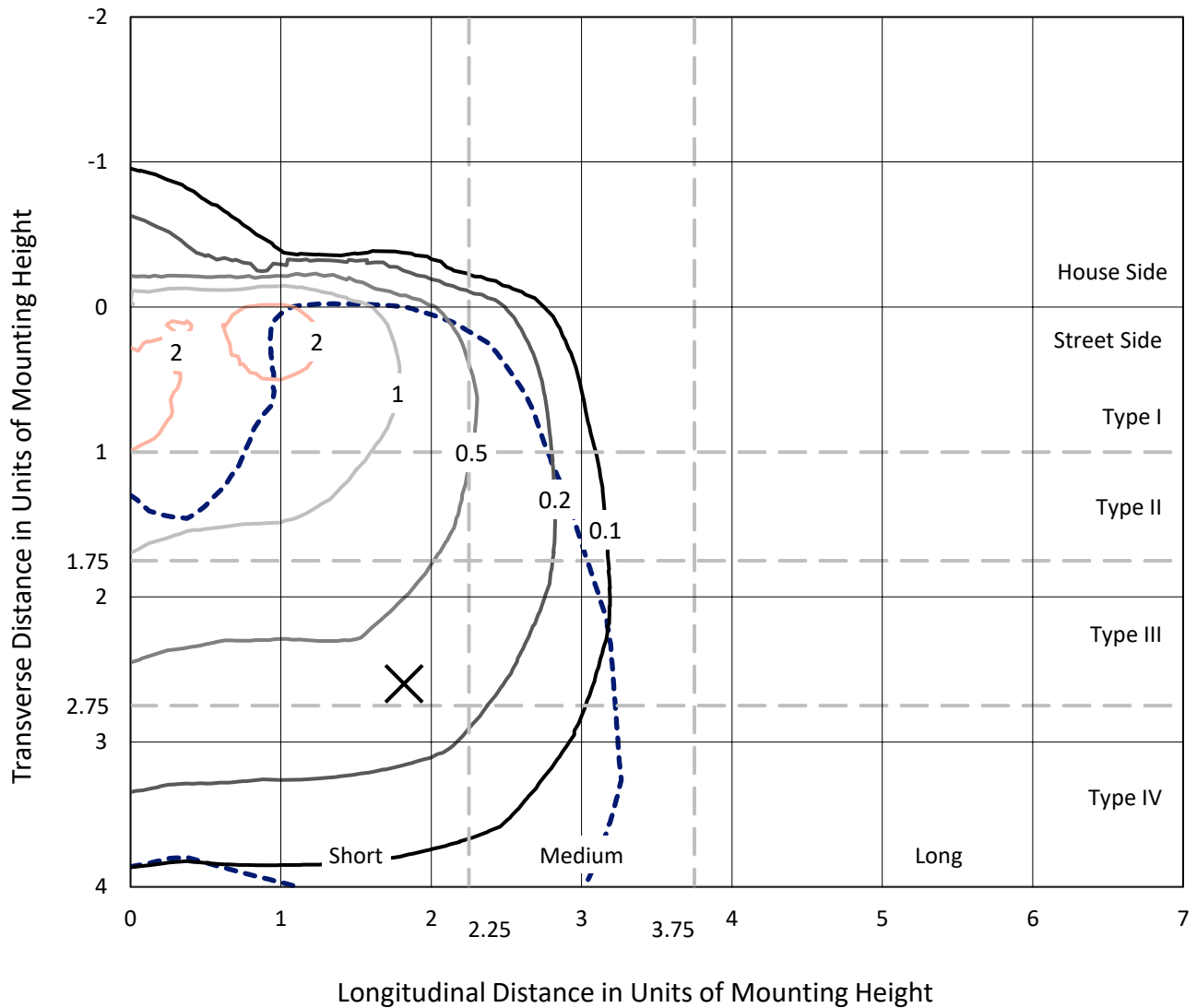
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

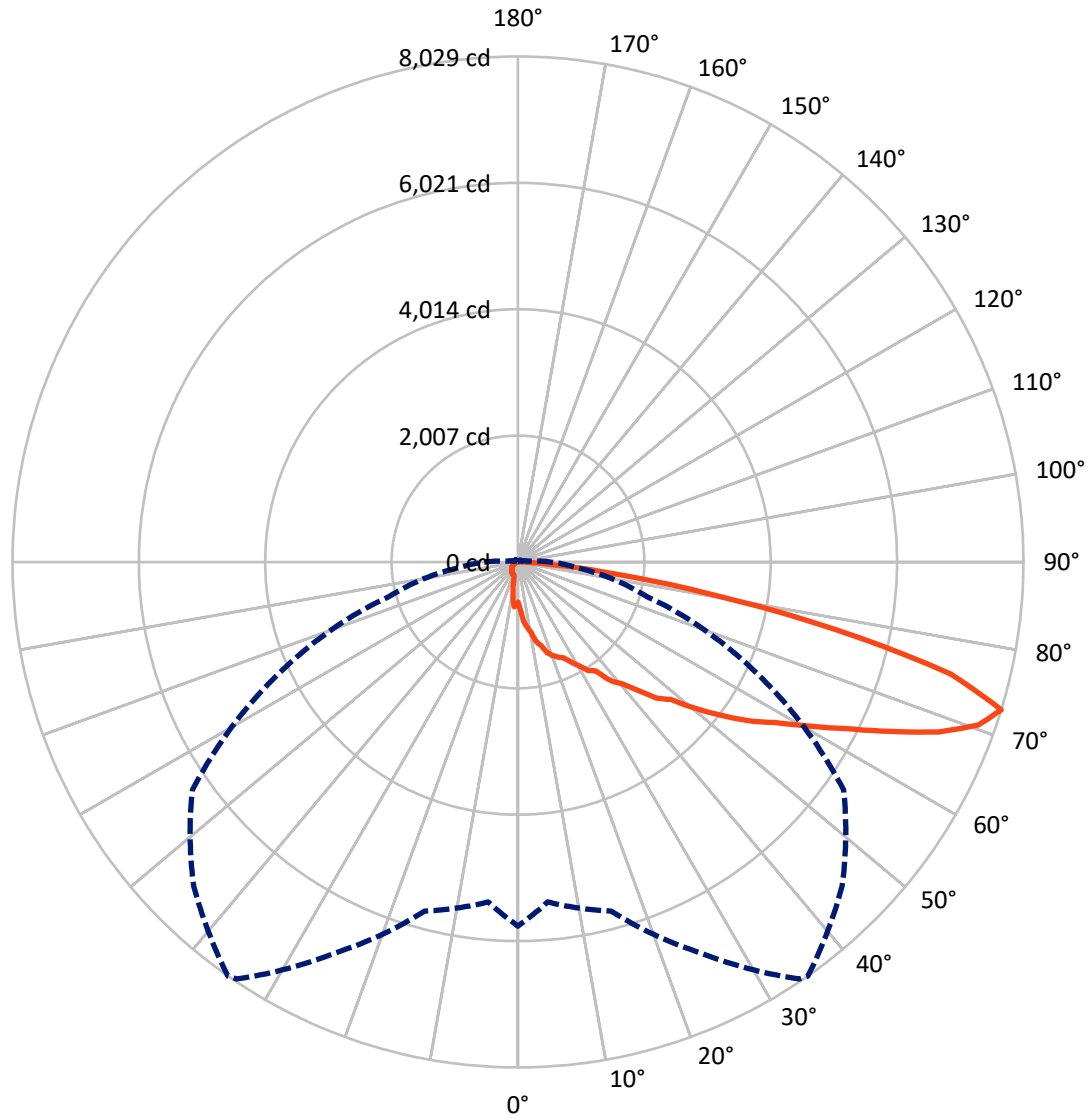
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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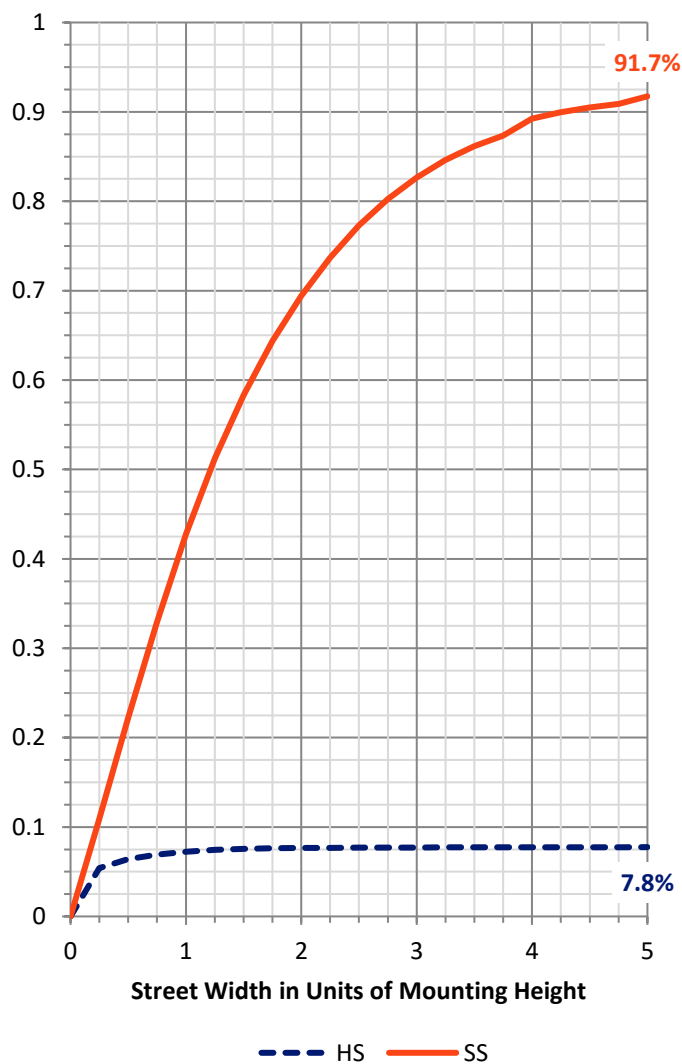
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 836.4 | 0.0 | 836.4 |
| | % Fixture | 7.8 | 0.0 | 7.8 |
| Street Side | Lumens | 9886.6 | 0.0 | 9886.6 |
| | % Fixture | 92.2 | 0.0 | 92.2 |
| Total | Lumens | 10723.0 | 0.0 | 10723.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 81.5 | 0.8 |
| 10°-20° | 274.4 | 2.6 |
| 20°-30° | 499.7 | 4.7 |
| 30°-40° | 862.0 | 8.0 |
| 40°-50° | 1532.3 | 14.3 |
| 50°-60° | 2286.6 | 21.3 |
| 60°-70° | 2921.4 | 27.2 |
| 70°-80° | 2032.5 | 19.0 |
| 80°-90° | 232.5 | 2.2 |
| 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° | 10723.0 | 100.0 |
| 0°-180° | 10723.0 | 100.0 |

Coefficient of Utilization

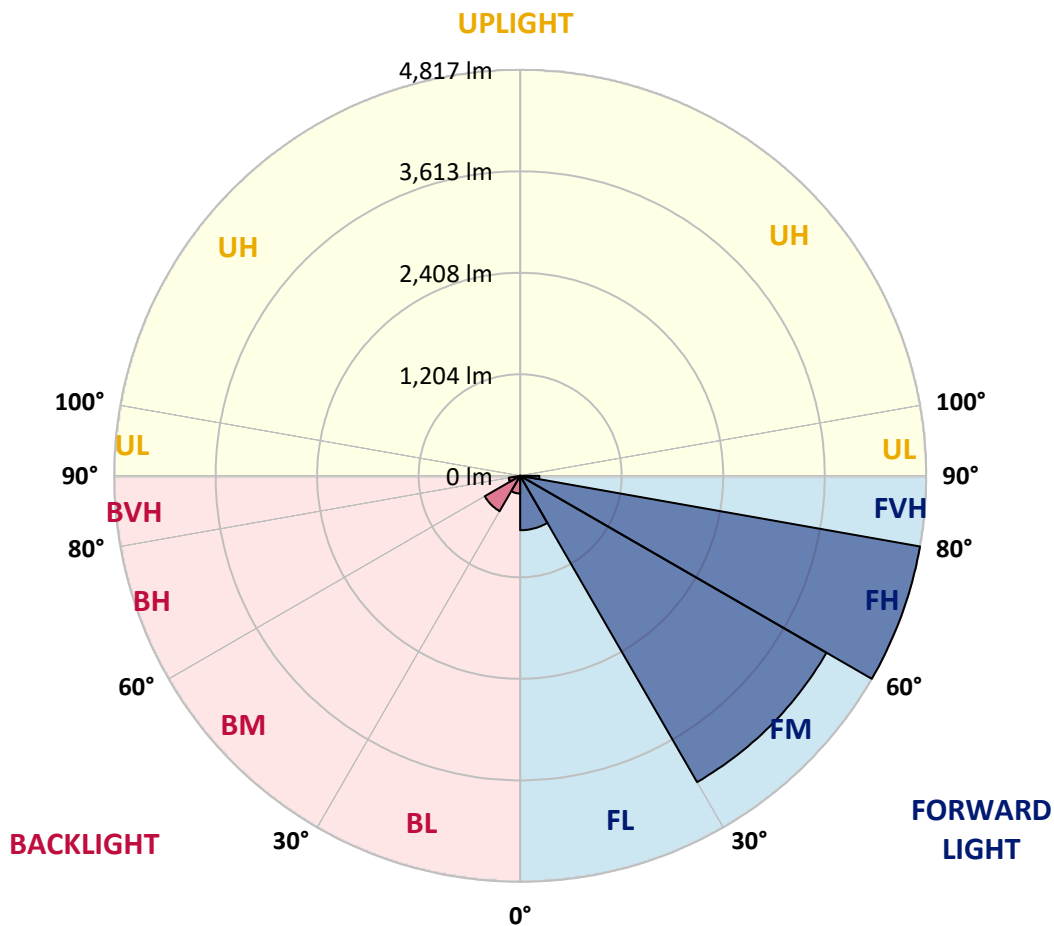


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 645.3 | 6.0 | | | |
| FM (30°-60°) | 4196.0 | 39.1 | | | |
| FH (60°-80°) | 4816.8 | 44.9 | | | G2/5000 |
| FVH (80°-90°) | 228.6 | 2.1 | | | G3/500 |
| BL (0°-30°) | 210.4 | 2.0 | B1/500 | | |
| BM (30°-60°) | 485.0 | 4.5 | B1/1000 | | |
| BH (60°-80°) | 137.1 | 1.3 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.9 | 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-G3
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 |
| 2.5° | 812.9 | 781.1 | 729.3 | 733.1 | 756.3 | 761.1 | 768.1 | 749.8 | 733.6 | 705.1 | 760.6 |
| 5° | 1041.4 | 995.6 | 966.5 | 957.3 | 943.9 | 944.9 | 912.1 | 923.9 | 920.7 | 941.7 | 967.0 |
| 7.5° | 1170.3 | 1144.9 | 1108.3 | 1098.0 | 1048.4 | 1043.1 | 1002.6 | 1057.1 | 1062.5 | 1054.9 | 1096.4 |
| 10° | 1221.5 | 1188.1 | 1192.4 | 1154.1 | 1129.3 | 1135.8 | 1142.2 | 1146.5 | 1153.6 | 1160.6 | 1109.9 |
| 12.5° | 1251.7 | 1257.6 | 1316.3 | 1276.5 | 1301.3 | 1301.3 | 1344.9 | 1298.6 | 1300.2 | 1249.5 | 1258.1 |
| 15° | 1387.5 | 1420.4 | 1394.0 | 1393.4 | 1366.5 | 1373.5 | 1424.2 | 1387.5 | 1406.4 | 1391.3 | 1333.1 |
| 17.5° | 1557.8 | 1564.3 | 1514.2 | 1492.1 | 1516.3 | 1516.9 | 1495.3 | 1493.7 | 1427.9 | 1539.0 | 1468.4 |
| 20° | 1612.3 | 1648.9 | 1577.8 | 1491.5 | 1592.3 | 1587.5 | 1585.9 | 1560.5 | 1451.1 | 1605.3 | 1547.1 |
| 22.5° | 1760.5 | 1708.2 | 1659.7 | 1603.1 | 1642.5 | 1642.5 | 1636.5 | 1581.0 | 1538.4 | 1599.3 | 1624.1 |
| 25° | 1806.9 | 1813.3 | 1750.3 | 1731.9 | 1733.0 | 1684.5 | 1680.2 | 1656.5 | 1615.5 | 1719.6 | 1670.0 |
| 27.5° | 1966.4 | 1963.7 | 1812.3 | 1863.5 | 1798.3 | 1798.8 | 1679.7 | 1733.0 | 1740.0 | 1725.5 | 1781.0 |
| 30° | 2123.3 | 2167.0 | 1938.4 | 2003.1 | 1934.6 | 1914.1 | 1797.7 | 1845.1 | 1857.5 | 1840.8 | 1910.9 |
| 32.5° | 2323.3 | 2387.4 | 2165.3 | 2101.7 | 1997.2 | 2055.4 | 1975.1 | 1862.9 | 1924.4 | 2073.7 | 2113.1 |
| 35° | 2535.1 | 2566.4 | 2329.8 | 2240.8 | 2122.8 | 2122.2 | 2119.5 | 2128.7 | 2196.6 | 2364.8 | 2398.2 |
| 37.5° | 2915.7 | 2841.8 | 2627.8 | 2424.1 | 2450.5 | 2391.7 | 2350.8 | 2393.9 | 2464.5 | 2741.6 | 2884.4 |
| 40° | 3128.1 | 3074.7 | 2773.4 | 2652.6 | 2521.6 | 2543.2 | 2654.3 | 2649.4 | 2837.5 | 3127.5 | 3341.5 |
| 42.5° | 3334.5 | 3283.9 | 2987.4 | 2889.8 | 2721.6 | 2780.4 | 2828.9 | 2890.4 | 3275.8 | 3743.7 | 3861.2 |
| 45° | 3518.3 | 3369.6 | 3160.4 | 3164.2 | 3076.9 | 3083.9 | 3169.6 | 3226.2 | 3783.6 | 4263.3 | 4345.8 |
| 47.5° | 3629.4 | 3507.0 | 3306.5 | 3302.7 | 3297.3 | 3264.5 | 3668.2 | 3719.9 | 4188.4 | 4758.1 | 4765.7 |
| 50° | 3785.7 | 3632.6 | 3456.9 | 3460.1 | 3584.6 | 3654.2 | 4136.1 | 4130.7 | 4579.2 | 5171.1 | 4996.9 |
| 52.5° | 3980.3 | 3793.3 | 3599.7 | 3743.7 | 3936.1 | 4049.3 | 4440.6 | 4600.2 | 4999.1 | 5430.3 | 5087.5 |
| 55° | 4229.3 | 3995.4 | 3808.9 | 3993.2 | 4413.2 | 4456.8 | 4738.7 | 5075.6 | 5456.7 | 5695.0 | 5116.6 |
| 57.5° | 4521.5 | 4242.3 | 4091.3 | 4388.4 | 4807.2 | 4808.3 | 5172.7 | 5582.3 | 5737.6 | 5802.8 | 5083.7 |
| 60° | 4836.3 | 4510.7 | 4358.7 | 4626.1 | 5241.7 | 5285.9 | 5655.1 | 5862.1 | 6022.7 | 5857.3 | 5025.0 |
| 62.5° | 5113.4 | 4753.8 | 4635.8 | 4950.0 | 5718.2 | 5822.8 | 6075.6 | 6045.9 | 6228.7 | 5925.7 | 4875.7 |
| 65° | 5443.3 | 5068.6 | 4991.0 | 5455.1 | 6340.2 | 6484.2 | 6547.8 | 6372.0 | 6297.7 | 5872.9 | 4487.0 |
| 67.5° | 5769.9 | 5419.6 | 5417.4 | 6015.2 | 7155.8 | 7205.4 | 7138.6 | 6831.8 | 6217.3 | 5407.2 | 3774.9 |
| 70° | 6000.1 | 5623.9 | 5765.6 | 6628.6 | 7897.0 | 7757.9 | 7476.5 | 7049.1 | 5637.3 | 4144.2 | 2466.1 |
| 72.5° | 5783.9 | 5421.2 | 5740.8 | 6846.9 | 7988.6 | 8028.5 | 7280.9 | 6314.4 | 4188.4 | 2119.5 | 892.7 |
| 75° | 4395.4 | 4173.3 | 4984.5 | 6074.5 | 7092.7 | 7101.9 | 6077.2 | 4453.6 | 2062.4 | 575.7 | 246.9 |
| 77.5° | 2213.9 | 2143.2 | 3155.0 | 4312.4 | 5174.8 | 5159.7 | 4175.4 | 2385.8 | 663.6 | 191.4 | 124.5 |
| 80° | 1120.7 | 1064.1 | 1342.8 | 2326.5 | 3073.1 | 3095.7 | 2384.2 | 1068.4 | 334.7 | 104.0 | 86.2 |
| 82.5° | 688.4 | 653.3 | 734.7 | 1052.8 | 1491.5 | 1527.7 | 904.5 | 676.5 | 207.5 | 61.5 | 78.7 |
| 85° | 133.1 | 140.2 | 422.1 | 527.2 | 595.6 | 581.6 | 267.9 | 556.8 | 62.5 | 36.7 | 57.1 |
| 87.5° | 0.0 | 2.2 | 97.6 | 172.0 | 172.5 | 153.1 | 60.9 | 123.4 | 8.6 | 10.2 | 7.0 |
| 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° | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 | 638.8 |
| 2.5° | 769.8 | 761.7 | 694.3 | 686.7 | 688.4 | 677.0 | 673.3 | 649.5 | 643.6 | 680.3 | 686.7 |
| 5° | 956.3 | 902.4 | 839.8 | 817.2 | 782.2 | 722.9 | 714.2 | 699.1 | 682.4 | 688.9 | 684.0 |
| 7.5° | 1070.5 | 998.8 | 932.0 | 812.9 | 714.2 | 628.0 | 614.0 | 588.1 | 562.2 | 562.8 | 579.5 |
| 10° | 1088.9 | 1028.5 | 936.3 | 791.3 | 678.7 | 570.8 | 477.1 | 409.1 | 378.4 | 350.9 | 359.0 |
| 12.5° | 1195.1 | 1139.0 | 969.2 | 784.8 | 626.9 | 458.7 | 335.8 | 269.5 | 240.4 | 230.7 | 229.6 |
| 15° | 1280.2 | 1236.0 | 1025.3 | 764.9 | 512.1 | 322.9 | 240.4 | 221.0 | 215.6 | 224.8 | 222.1 |
| 17.5° | 1406.9 | 1327.1 | 1019.3 | 682.4 | 390.3 | 245.3 | 221.5 | 218.9 | 225.3 | 230.7 | 232.3 |
| 20° | 1462.4 | 1347.6 | 978.9 | 553.1 | 292.2 | 224.8 | 216.2 | 210.8 | 222.6 | 238.8 | 235.6 |
| 22.5° | 1518.5 | 1382.6 | 931.5 | 452.8 | 235.0 | 215.1 | 210.2 | 205.9 | 215.1 | 230.7 | 234.5 |
| 25° | 1543.8 | 1438.7 | 878.6 | 353.6 | 218.3 | 203.8 | 200.5 | 202.1 | 209.7 | 223.7 | 222.1 |
| 27.5° | 1671.6 | 1445.2 | 777.8 | 279.2 | 211.3 | 195.7 | 195.7 | 199.4 | 199.4 | 218.3 | 216.7 |
| 30° | 1751.4 | 1554.6 | 695.9 | 235.0 | 203.2 | 184.4 | 190.8 | 192.4 | 189.7 | 210.2 | 211.8 |
| 32.5° | 1891.5 | 1584.8 | 616.1 | 215.6 | 190.3 | 182.7 | 181.7 | 182.7 | 184.9 | 204.8 | 205.4 |
| 35° | 2107.1 | 1733.6 | 507.2 | 208.1 | 183.8 | 174.7 | 167.1 | 173.0 | 178.4 | 193.0 | 195.7 |
| 37.5° | 2528.7 | 1886.1 | 413.4 | 202.1 | 180.6 | 167.1 | 164.4 | 163.3 | 173.0 | 189.7 | 195.1 |
| 40° | 2869.9 | 2156.2 | 336.4 | 197.3 | 174.1 | 162.8 | 155.8 | 156.3 | 164.9 | 177.3 | 185.4 |
| 42.5° | 3352.9 | 2351.3 | 285.2 | 189.7 | 164.9 | 153.6 | 145.5 | 150.4 | 154.2 | 167.1 | 172.5 |
| 45° | 3756.1 | 2502.8 | 251.2 | 184.9 | 155.8 | 145.0 | 138.5 | 143.9 | 140.2 | 146.6 | 154.2 |
| 47.5° | 4076.8 | 2634.8 | 225.9 | 173.0 | 149.9 | 140.2 | 132.1 | 130.4 | 124.0 | 125.6 | 132.6 |
| 50° | 4253.1 | 2612.7 | 204.8 | 161.2 | 142.3 | 135.3 | 124.0 | 112.7 | 104.0 | 103.5 | 107.8 |
| 52.5° | 4315.6 | 2494.7 | 187.6 | 150.9 | 133.1 | 124.5 | 111.6 | 95.9 | 87.3 | 84.6 | 88.4 |
| 55° | 4332.8 | 2324.9 | 172.0 | 139.6 | 124.5 | 111.0 | 97.6 | 80.9 | 71.7 | 67.4 | 71.2 |
| 57.5° | 4276.8 | 2063.5 | 156.9 | 128.8 | 114.3 | 98.1 | 83.6 | 66.3 | 57.7 | 52.3 | 55.5 |
| 60° | 4138.2 | 1731.4 | 143.4 | 115.4 | 103.5 | 86.8 | 70.6 | 53.4 | 44.2 | 39.4 | 41.0 |
| 62.5° | 3831.5 | 1357.3 | 128.8 | 103.0 | 92.2 | 76.0 | 59.3 | 42.0 | 33.4 | 29.1 | 29.6 |
| 65° | 3364.7 | 1011.8 | 112.1 | 91.1 | 81.9 | 65.8 | 47.4 | 32.3 | 25.3 | 21.6 | 21.0 |
| 67.5° | 2680.7 | 685.7 | 95.4 | 78.7 | 72.8 | 55.5 | 37.7 | 25.3 | 19.9 | 17.2 | 16.2 |
| 70° | 1575.6 | 345.5 | 79.2 | 67.9 | 62.5 | 46.4 | 29.6 | 20.5 | 18.3 | 16.2 | 15.1 |
| 72.5° | 519.6 | 149.3 | 62.0 | 56.1 | 51.7 | 37.2 | 23.2 | 18.9 | 17.8 | 15.6 | 14.6 |
| 75° | 181.1 | 86.2 | 45.8 | 43.1 | 41.0 | 28.0 | 19.4 | 17.2 | 17.2 | 15.1 | 13.5 |
| 77.5° | 118.6 | 66.8 | 34.0 | 31.3 | 30.7 | 20.5 | 16.7 | 16.2 | 15.1 | 12.4 | 10.2 |
| 80° | 98.6 | 37.7 | 23.7 | 22.1 | 21.6 | 12.9 | 13.5 | 11.9 | 9.2 | 5.4 | 2.2 |
| 82.5° | 91.1 | 22.6 | 12.4 | 13.5 | 12.4 | 4.9 | 7.5 | 6.5 | 4.9 | 2.2 | 0.0 |
| 85° | 53.4 | 10.2 | 7.0 | 7.0 | 5.4 | 1.1 | 3.8 | 3.8 | 2.2 | 0.5 | 0.0 |
| 87.5° | 5.9 | 4.9 | 3.8 | 3.8 | 2.7 | 0.0 | 1.6 | 1.1 | 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)