

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: P398112

Luminaire Tested: **ARCH-S-PA1-90-727-U-T2R-HSS**

Issue Date: 5/19/2020

Test Information

Test Method: LM-79-08
Report Number: P398112
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-S-PA1-90-727-U-T2R-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7560 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G2

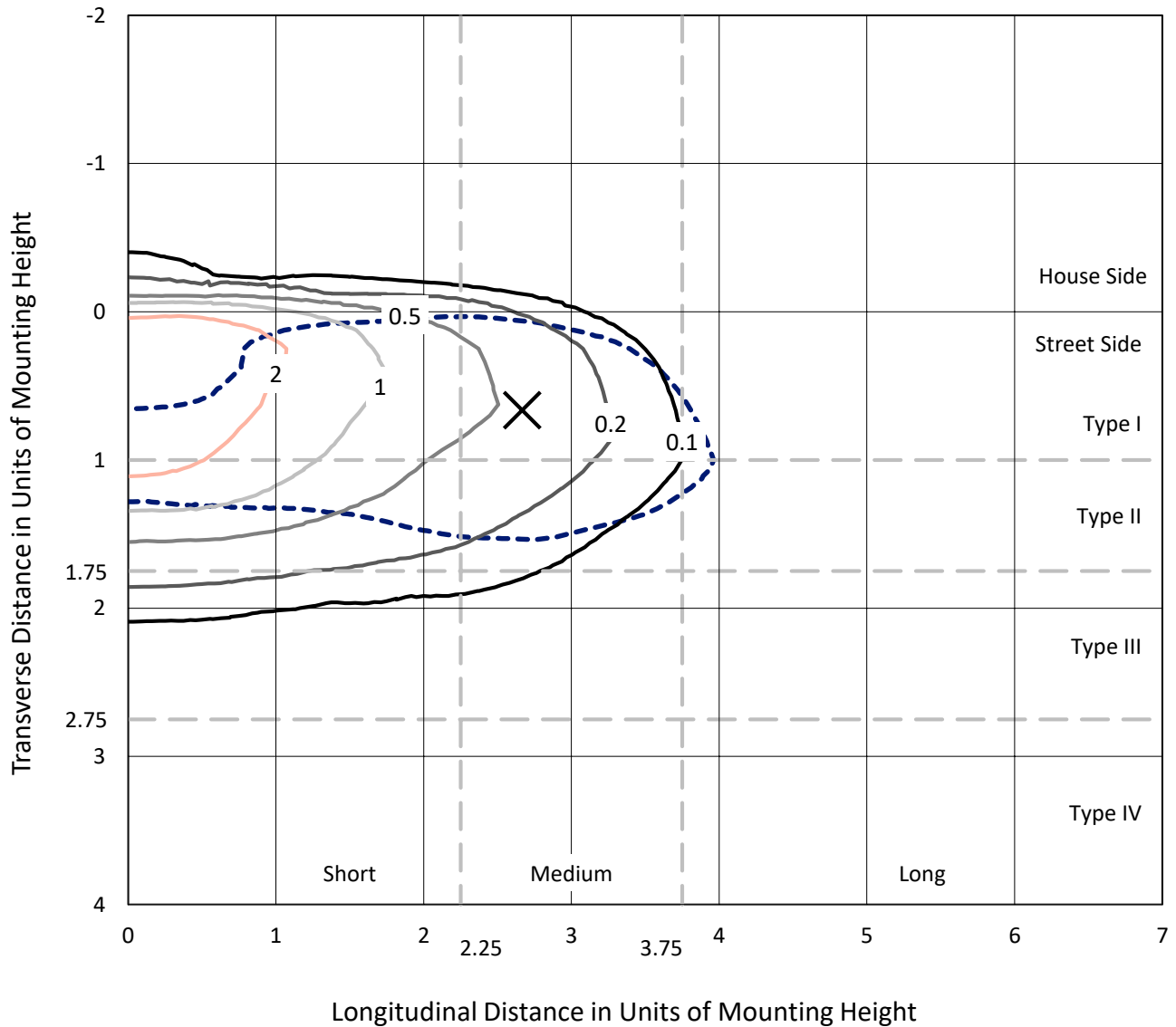
Input Watts (W): 94
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

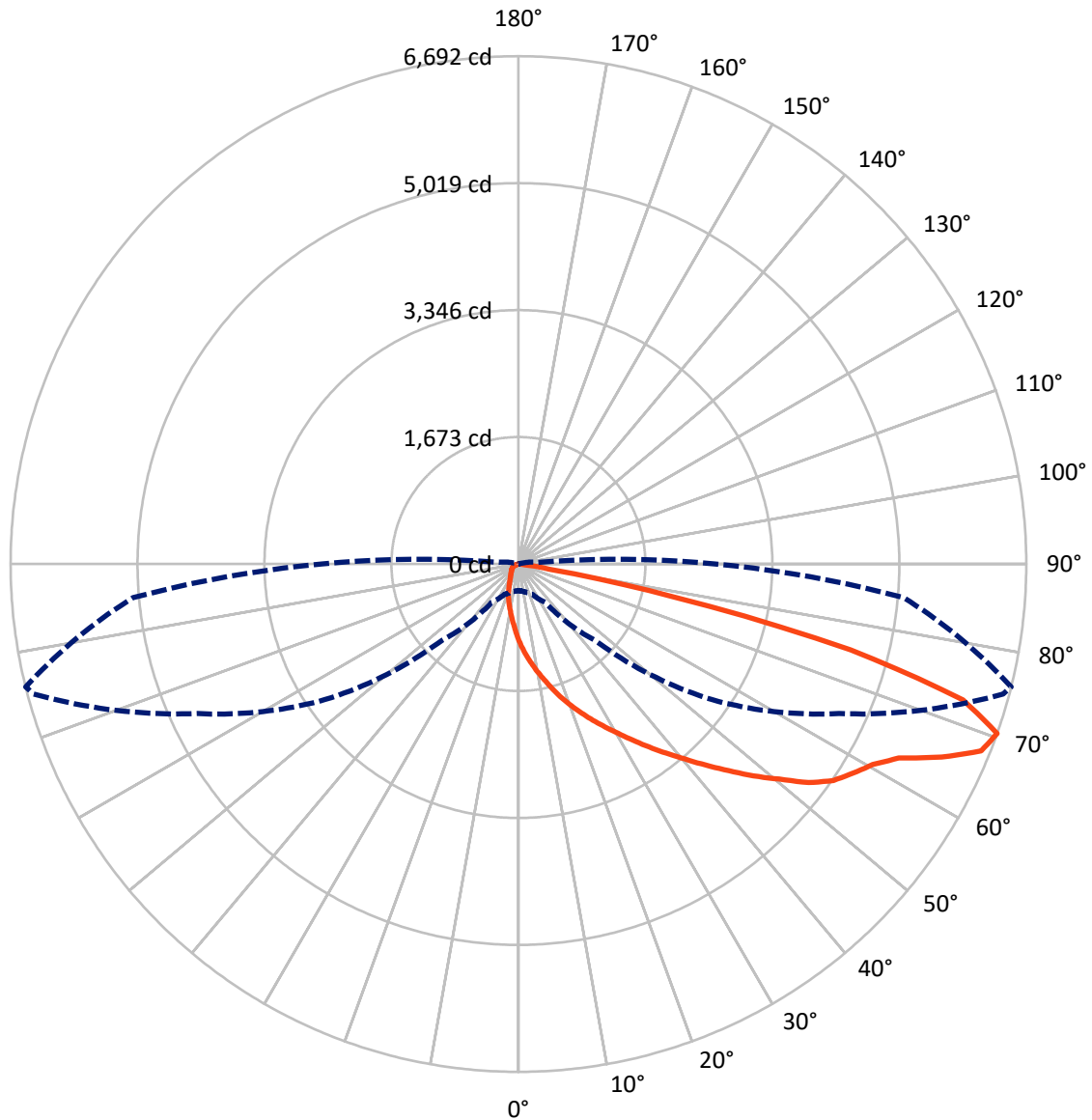
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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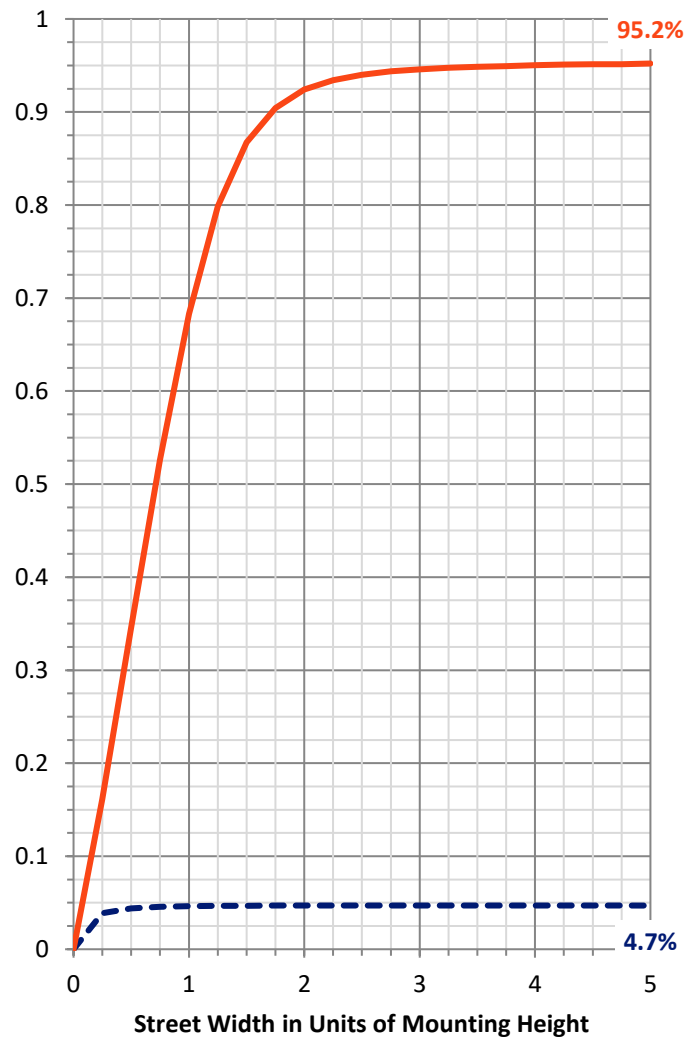
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 356.6 | 0.0 | 356.6 |
| | % Fixture | 4.7 | 0.0 | 4.7 |
| Street Side | Lumens | 7203.4 | 0.0 | 7203.4 |
| | % Fixture | 95.3 | 0.0 | 95.3 |
| Total | Lumens | 7560.0 | 0.0 | 7560.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 95.3 | 1.3 |
| 10°-20° | 307.7 | 4.1 |
| 20°-30° | 573.0 | 7.6 |
| 30°-40° | 1013.6 | 13.4 |
| 40°-50° | 1550.0 | 20.5 |
| 50°-60° | 1757.3 | 23.2 |
| 60°-70° | 1506.4 | 19.9 |
| 70°-80° | 729.6 | 9.7 |
| 80°-90° | 27.1 | 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° | 7560.0 | 100.0 |
| 0°-180° | 7560.0 | 100.0 |

Coefficient of Utilization



--- HS — SS

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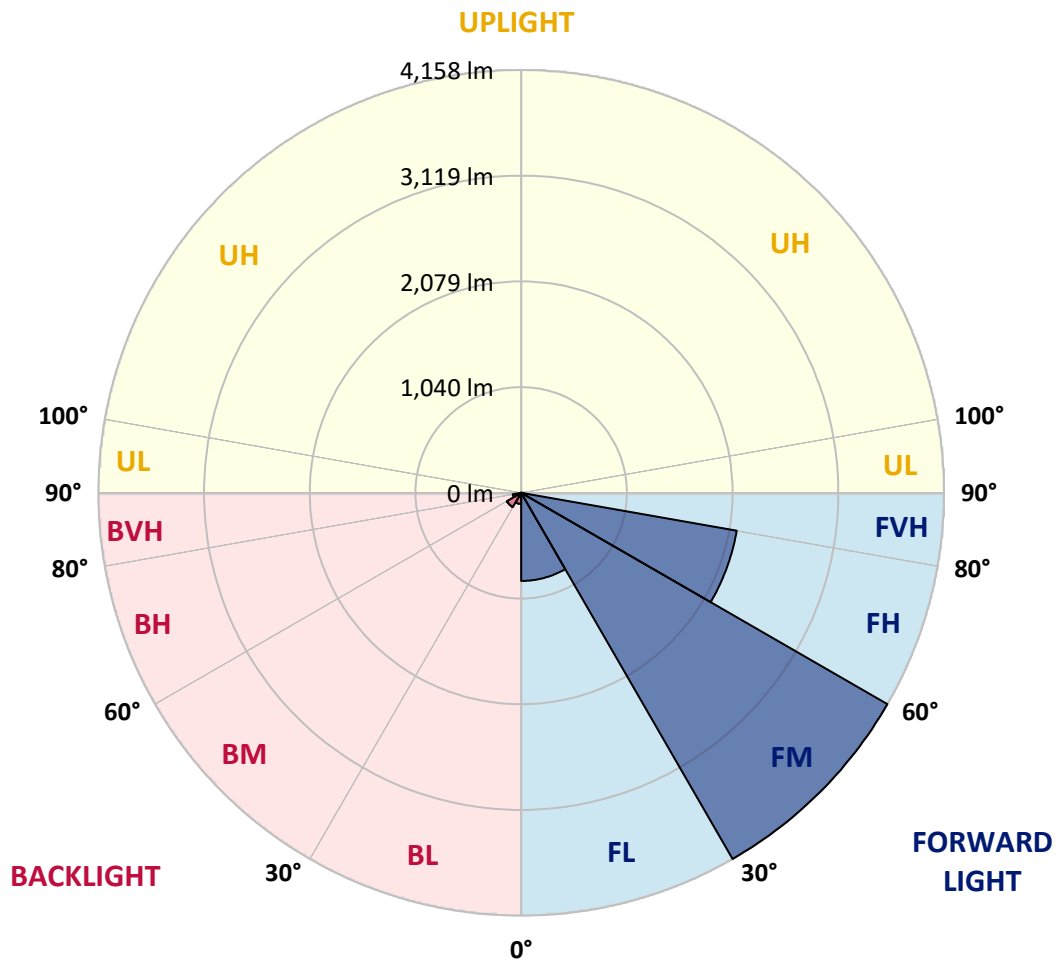
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 866.7 | 11.5 | | | |
| FM | (30°-60°) | 4158.1 | 55.0 | | | |
| FH | (60°-80°) | 2152.1 | 28.5 | | | G2/5000 |
| FVH | (80°-90°) | 26.6 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 109.4 | 1.4 | B0/110 | | |
| BM | (30°-60°) | 162.8 | 2.2 | B0/220 | | |
| BH | (60°-80°) | 84.0 | 1.1 | B0/110 | | G0/110 |
| 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: B0-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 |
| 2.5° | 1383.3 | 1375.7 | 1368.2 | 1339.2 | 1312.8 | 1288.9 | 1243.5 | 1184.4 | 1131.5 | 1120.2 | 1058.5 |
| 5° | 1624.9 | 1616.1 | 1604.8 | 1575.8 | 1541.8 | 1501.6 | 1434.9 | 1344.2 | 1251.1 | 1231.0 | 1116.4 |
| 7.5° | 1788.5 | 1781.0 | 1764.6 | 1750.8 | 1716.8 | 1677.8 | 1603.5 | 1497.8 | 1369.4 | 1344.2 | 1183.1 |
| 10° | 1900.6 | 1895.5 | 1893.0 | 1881.7 | 1856.5 | 1825.0 | 1750.8 | 1640.0 | 1489.0 | 1460.0 | 1253.6 |
| 12.5° | 1940.8 | 1940.8 | 1953.4 | 1972.3 | 1976.1 | 1966.0 | 1898.0 | 1787.3 | 1614.8 | 1584.6 | 1336.7 |
| 15° | 1886.7 | 1893.0 | 1920.7 | 1981.1 | 2044.0 | 2085.6 | 2042.8 | 1939.6 | 1753.3 | 1720.6 | 1434.9 |
| 17.5° | 1871.6 | 1877.9 | 1896.8 | 1949.6 | 2034.0 | 2144.7 | 2166.1 | 2086.8 | 1884.2 | 1856.5 | 1535.6 |
| 20° | 1914.4 | 1920.7 | 1937.1 | 1982.4 | 2046.6 | 2158.6 | 2247.9 | 2229.1 | 2022.7 | 1993.7 | 1637.5 |
| 22.5° | 2016.4 | 2020.1 | 2020.1 | 2055.4 | 2112.0 | 2195.1 | 2299.6 | 2363.7 | 2164.9 | 2133.4 | 1738.2 |
| 25° | 2235.4 | 2227.8 | 2197.6 | 2180.0 | 2216.5 | 2284.4 | 2365.0 | 2482.1 | 2323.5 | 2280.7 | 1846.4 |
| 27.5° | 2522.3 | 2547.5 | 2474.5 | 2390.2 | 2362.5 | 2401.5 | 2456.9 | 2586.5 | 2477.0 | 2431.7 | 1944.6 |
| 30° | 2911.3 | 2901.2 | 2805.5 | 2684.7 | 2565.1 | 2551.3 | 2570.2 | 2675.9 | 2630.6 | 2587.8 | 2054.1 |
| 32.5° | 3231.0 | 3249.8 | 3149.1 | 3001.9 | 2823.2 | 2738.8 | 2718.7 | 2782.9 | 2794.2 | 2766.5 | 2183.8 |
| 35° | 3559.5 | 3579.6 | 3481.4 | 3317.8 | 3105.1 | 2964.1 | 2906.2 | 2915.0 | 2996.8 | 2961.6 | 2319.7 |
| 37.5° | 3854.0 | 3871.6 | 3774.7 | 3607.3 | 3394.6 | 3222.1 | 3139.1 | 3071.1 | 3193.2 | 3161.7 | 2463.2 |
| 40° | 4078.0 | 4080.5 | 4015.1 | 3865.3 | 3663.9 | 3485.2 | 3390.8 | 3257.4 | 3400.9 | 3379.5 | 2613.0 |
| 42.5° | 4236.6 | 4241.7 | 4193.8 | 4065.4 | 3879.2 | 3713.0 | 3636.2 | 3477.6 | 3640.0 | 3621.1 | 2786.7 |
| 45° | 4310.9 | 4319.7 | 4314.7 | 4196.3 | 4041.5 | 3898.0 | 3872.9 | 3711.8 | 3901.8 | 3884.2 | 2986.8 |
| 47.5° | 4240.4 | 4240.4 | 4304.6 | 4288.2 | 4146.0 | 4050.3 | 4079.3 | 3955.9 | 4186.3 | 4169.9 | 3190.7 |
| 50° | 3947.1 | 3950.9 | 4081.8 | 4269.3 | 4186.3 | 4164.9 | 4255.5 | 4195.1 | 4444.3 | 4454.4 | 3434.9 |
| 52.5° | 3176.8 | 3170.5 | 3612.3 | 3972.3 | 4158.6 | 4216.5 | 4417.9 | 4439.3 | 4753.9 | 4784.1 | 3677.8 |
| 55° | 2373.8 | 2370.0 | 2792.9 | 3446.2 | 3964.7 | 4190.0 | 4508.5 | 4657.0 | 5018.2 | 5037.1 | 3859.0 |
| 57.5° | 1879.2 | 1869.1 | 2101.9 | 2777.8 | 3526.7 | 4071.7 | 4512.3 | 4698.5 | 5165.5 | 5198.2 | 4035.2 |
| 60° | 1444.9 | 1436.1 | 1609.8 | 2066.7 | 2906.2 | 3757.1 | 4404.0 | 4701.1 | 5307.7 | 5365.6 | 4271.9 |
| 62.5° | 1033.4 | 1043.4 | 1176.8 | 1482.7 | 2235.4 | 3312.8 | 4263.0 | 4736.3 | 5560.7 | 5626.2 | 4607.9 |
| 65° | 697.3 | 692.3 | 803.0 | 1009.4 | 1589.7 | 2714.9 | 4046.6 | 4810.6 | 6016.3 | 6130.9 | 5010.7 |
| 67.5° | 484.6 | 488.4 | 538.7 | 657.0 | 1009.4 | 2084.3 | 3686.6 | 4852.1 | 6487.1 | 6576.4 | 5292.6 |
| 70° | 349.9 | 354.9 | 382.6 | 441.8 | 616.7 | 1413.5 | 3116.4 | 4662.0 | 6614.2 | 6692.2 | 5096.3 |
| 72.5° | 230.3 | 240.4 | 281.9 | 313.4 | 394.0 | 884.8 | 2295.8 | 4016.4 | 6066.7 | 6124.6 | 4275.6 |
| 75° | 124.6 | 127.1 | 181.2 | 234.1 | 280.7 | 551.3 | 1369.4 | 2708.6 | 4538.7 | 4519.8 | 2819.4 |
| 77.5° | 96.9 | 100.7 | 112.0 | 167.4 | 188.8 | 303.3 | 541.2 | 1223.4 | 2149.8 | 2091.9 | 961.6 |
| 80° | 59.2 | 61.7 | 78.0 | 99.4 | 132.2 | 176.2 | 158.6 | 332.3 | 436.8 | 409.1 | 141.0 |
| 82.5° | 35.2 | 37.8 | 46.6 | 83.1 | 104.5 | 83.1 | 55.4 | 80.6 | 81.8 | 80.6 | 35.2 |
| 85° | 6.3 | 6.3 | 32.7 | 57.9 | 55.4 | 23.9 | 32.7 | 26.4 | 23.9 | 25.2 | 7.6 |
| 87.5° | 0.0 | 0.0 | 12.6 | 17.6 | 25.2 | 8.8 | 12.6 | 6.3 | 6.3 | 6.3 | 3.8 |
| 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° | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 | 1012.0 |
| 2.5° | 1020.8 | 978.0 | 889.9 | 813.1 | 736.3 | 679.7 | 636.9 | 592.8 | 577.7 | 558.8 | 548.8 |
| 5° | 1038.4 | 954.1 | 779.1 | 639.4 | 521.1 | 430.5 | 372.6 | 337.3 | 314.7 | 298.3 | 294.5 |
| 7.5° | 1064.8 | 935.2 | 689.7 | 500.9 | 371.3 | 280.7 | 232.9 | 208.9 | 196.3 | 188.8 | 186.3 |
| 10° | 1096.3 | 918.8 | 601.6 | 390.2 | 261.8 | 197.6 | 171.2 | 161.1 | 156.1 | 153.6 | 152.3 |
| 12.5° | 1140.3 | 912.5 | 527.4 | 300.8 | 197.6 | 162.4 | 148.5 | 142.2 | 138.5 | 134.7 | 133.4 |
| 15° | 1198.2 | 915.0 | 459.4 | 232.9 | 163.6 | 144.7 | 133.4 | 127.1 | 122.1 | 118.3 | 118.3 |
| 17.5° | 1258.6 | 918.8 | 392.7 | 188.8 | 148.5 | 132.2 | 119.6 | 110.8 | 107.0 | 103.2 | 102.0 |
| 20° | 1315.3 | 917.6 | 328.5 | 161.1 | 134.7 | 118.3 | 105.7 | 96.9 | 90.6 | 86.8 | 86.8 |
| 22.5° | 1369.4 | 910.0 | 268.1 | 144.7 | 123.3 | 104.5 | 90.6 | 81.8 | 76.8 | 73.0 | 73.0 |
| 25° | 1427.3 | 894.9 | 219.0 | 132.2 | 109.5 | 91.9 | 78.0 | 69.2 | 65.4 | 61.7 | 61.7 |
| 27.5° | 1472.6 | 869.7 | 178.7 | 120.8 | 96.9 | 79.3 | 66.7 | 59.2 | 55.4 | 52.9 | 52.9 |
| 30° | 1521.7 | 833.2 | 148.5 | 108.2 | 84.3 | 68.0 | 56.6 | 50.3 | 46.6 | 45.3 | 45.3 |
| 32.5° | 1575.8 | 792.9 | 127.1 | 95.7 | 71.7 | 57.9 | 47.8 | 44.1 | 40.3 | 39.0 | 39.0 |
| 35° | 1638.8 | 757.7 | 114.5 | 83.1 | 62.9 | 49.1 | 41.5 | 37.8 | 35.2 | 35.2 | 35.2 |
| 37.5° | 1710.5 | 721.2 | 103.2 | 73.0 | 54.1 | 41.5 | 35.2 | 34.0 | 32.7 | 31.5 | 31.5 |
| 40° | 1788.5 | 682.2 | 93.1 | 64.2 | 46.6 | 35.2 | 30.2 | 30.2 | 28.9 | 28.9 | 28.9 |
| 42.5° | 1876.6 | 648.2 | 84.3 | 56.6 | 40.3 | 30.2 | 26.4 | 26.4 | 25.2 | 25.2 | 25.2 |
| 45° | 1972.3 | 616.7 | 76.8 | 50.3 | 35.2 | 26.4 | 23.9 | 22.7 | 21.4 | 21.4 | 21.4 |
| 47.5° | 2085.6 | 599.1 | 70.5 | 44.1 | 30.2 | 22.7 | 20.1 | 18.9 | 17.6 | 16.4 | 16.4 |
| 50° | 2230.3 | 606.7 | 64.2 | 36.5 | 26.4 | 18.9 | 16.4 | 15.1 | 13.8 | 12.6 | 12.6 |
| 52.5° | 2344.9 | 602.9 | 55.4 | 31.5 | 21.4 | 15.1 | 12.6 | 11.3 | 10.1 | 8.8 | 8.8 |
| 55° | 2427.9 | 587.8 | 47.8 | 26.4 | 16.4 | 12.6 | 10.1 | 7.6 | 6.3 | 6.3 | 6.3 |
| 57.5° | 2509.7 | 572.7 | 40.3 | 21.4 | 12.6 | 8.8 | 6.3 | 5.0 | 5.0 | 5.0 | 5.0 |
| 60° | 2636.9 | 551.3 | 35.2 | 17.6 | 10.1 | 6.3 | 3.8 | 3.8 | 2.5 | 2.5 | 2.5 |
| 62.5° | 2791.7 | 524.9 | 28.9 | 15.1 | 7.6 | 5.0 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 |
| 65° | 2961.6 | 478.3 | 23.9 | 11.3 | 6.3 | 3.8 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 2922.6 | 383.9 | 20.1 | 7.6 | 5.0 | 2.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 2585.3 | 259.3 | 16.4 | 6.3 | 3.8 | 2.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2025.2 | 153.6 | 11.3 | 5.0 | 2.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1296.4 | 76.8 | 7.6 | 3.8 | 2.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 434.2 | 37.8 | 5.0 | 2.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 61.7 | 12.6 | 2.5 | 1.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 13.8 | 5.0 | 1.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 5.0 | 2.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.5 | 1.3 | 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)