

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: P214579

Luminaire Tested: **ARCH-AF24-80-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214579
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-80-D-U-T2R-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8152 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

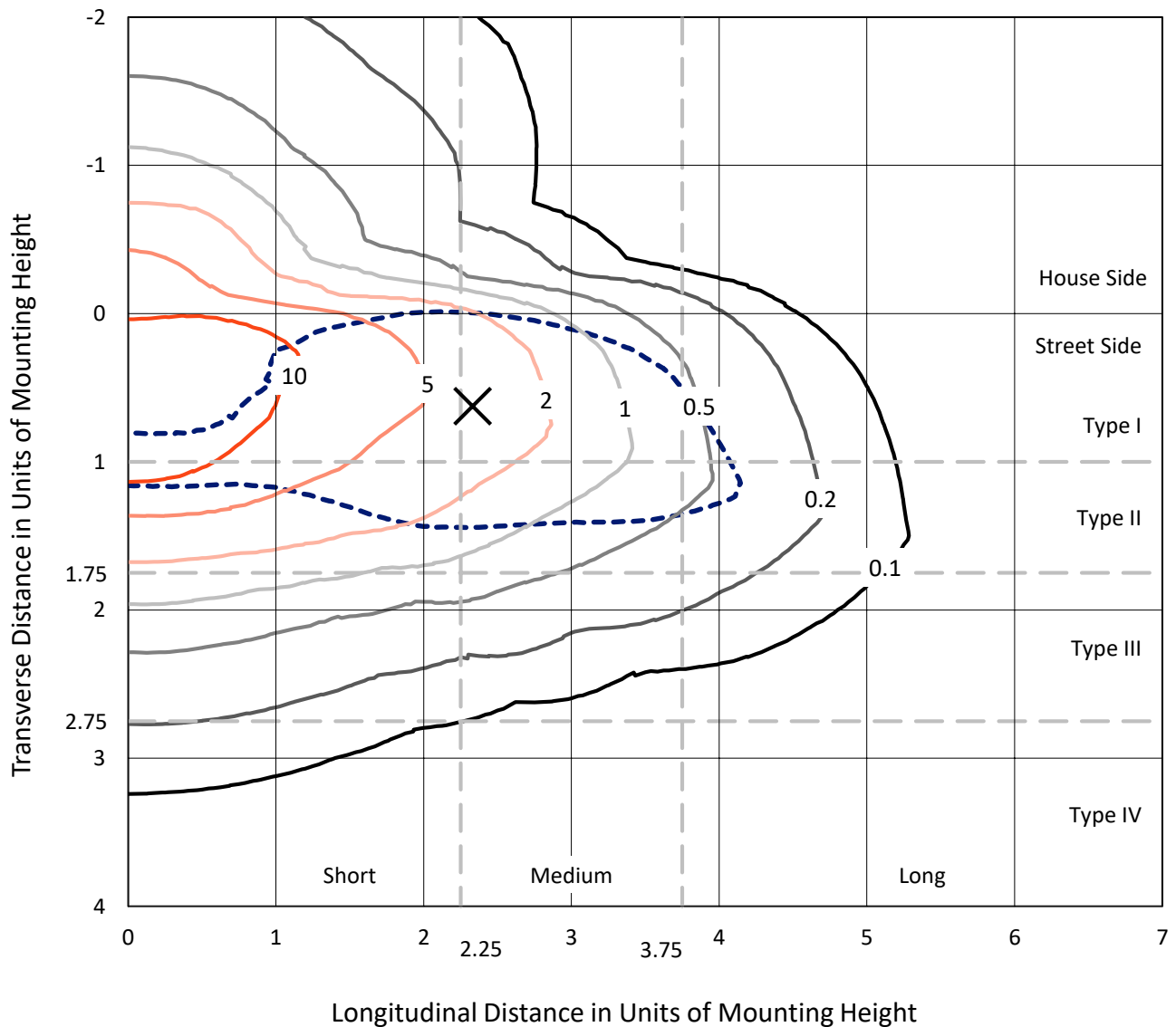
Input Watts (W): 83
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

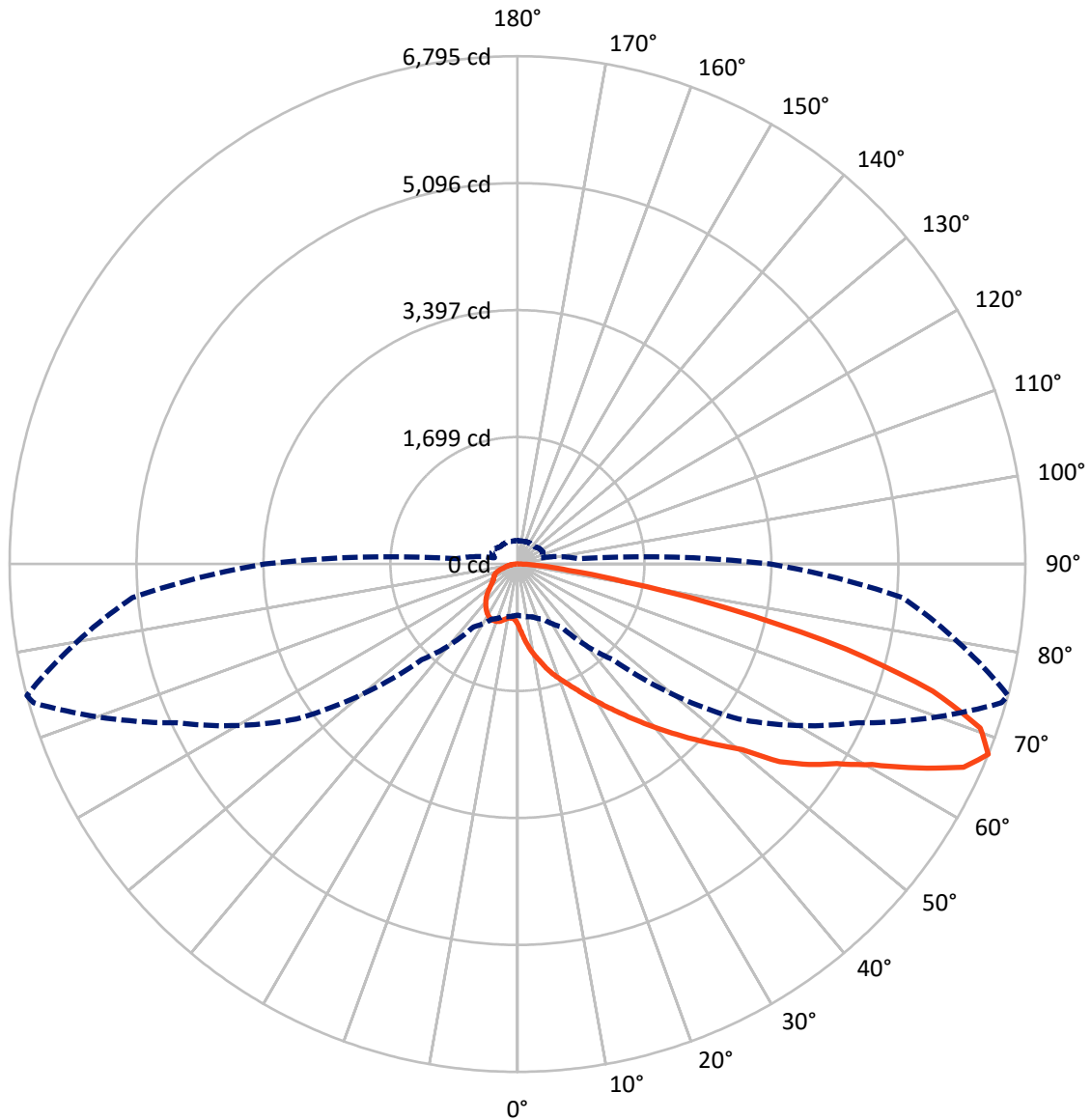
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.9 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1392.1 | 0.0 | 1392.1 |
| | % Fixture | 17.1 | 0.0 | 17.1 |
| Street Side | Lumens | 6759.9 | 0.0 | 6759.9 |
| | % Fixture | 82.9 | 0.0 | 82.9 |
| Total | Lumens | 8152.0 | 0.0 | 8152.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 94.9 | 1.2 |
| 10°-20° | 342.9 | 4.2 |
| 20°-30° | 625.5 | 7.7 |
| 30°-40° | 1026.7 | 12.6 |
| 40°-50° | 1484.8 | 18.2 |
| 50°-60° | 1749.8 | 21.5 |
| 60°-70° | 1700.4 | 20.9 |
| 70°-80° | 945.2 | 11.6 |
| 80°-90° | 181.7 | 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° | 8152.0 | 100.0 |
| 0°-180° | 8152.0 | 100.0 |



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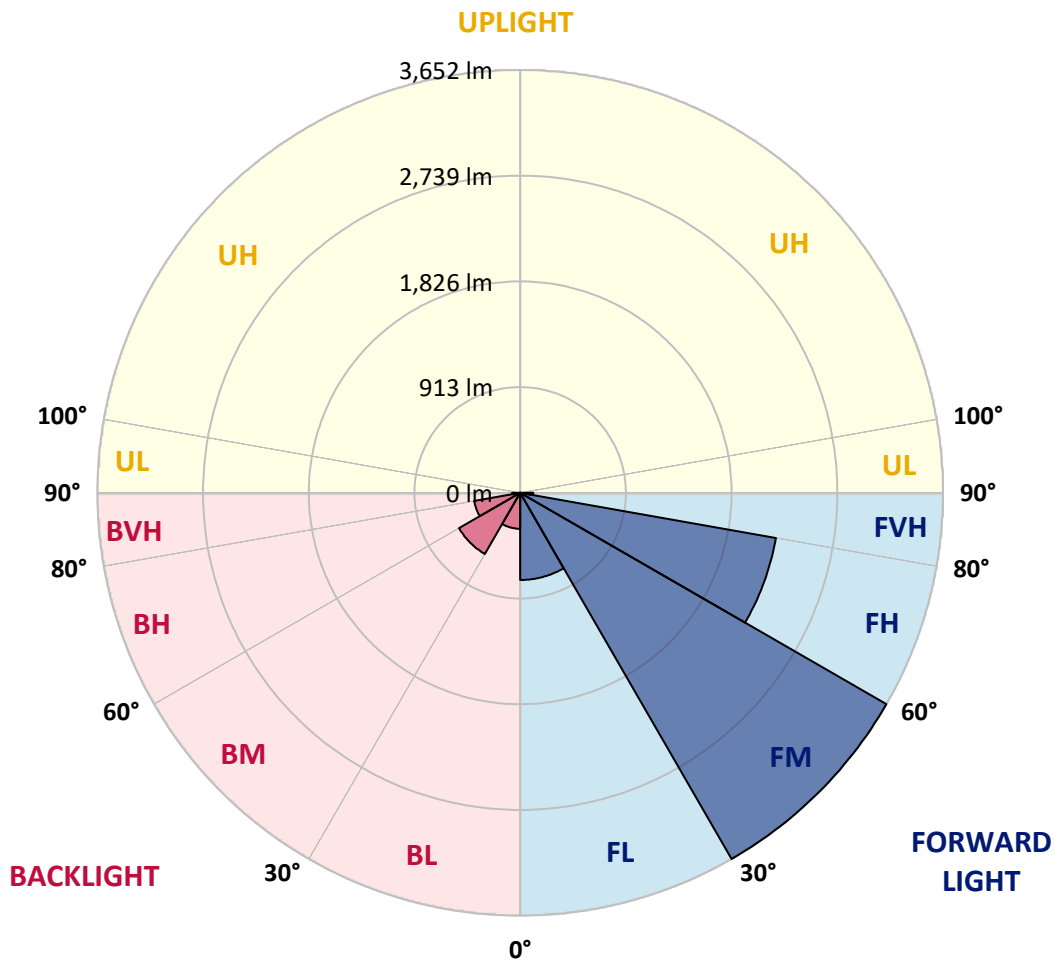
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 752.6 | 9.2 | | | |
| FM | (30°-60°) | 3651.7 | 44.8 | | | |
| FH | (60°-80°) | 2242.5 | 27.5 | | | G2/5000 |
| FVH | (80°-90°) | 113.1 | 1.4 | | | G2/225 |
| BL | (0°-30°) | 310.7 | 3.8 | B1/500 | | |
| BM | (30°-60°) | 609.6 | 7.5 | B1/1000 | | |
| BH | (60°-80°) | 403.1 | 4.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 68.6 | 0.8 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 74° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 |
| 2.5° | 1145.2 | 1148.6 | 1141.8 | 1126.5 | 1104.3 | 1063.4 | 1027.6 | 964.6 | 908.3 | 901.5 | 841.9 |
| 5° | 1346.3 | 1349.7 | 1341.2 | 1322.4 | 1298.6 | 1254.3 | 1204.9 | 1123.1 | 1032.7 | 1015.7 | 889.6 |
| 7.5° | 1484.3 | 1486.0 | 1475.8 | 1457.1 | 1438.3 | 1394.0 | 1344.6 | 1252.6 | 1141.8 | 1128.2 | 950.9 |
| 10° | 1601.9 | 1605.3 | 1591.7 | 1579.8 | 1559.3 | 1515.0 | 1463.9 | 1366.8 | 1252.6 | 1233.8 | 1014.0 |
| 12.5° | 1711.0 | 1714.4 | 1705.9 | 1695.7 | 1688.8 | 1647.9 | 1591.7 | 1475.8 | 1353.1 | 1332.7 | 1089.0 |
| 15° | 1784.3 | 1787.7 | 1789.4 | 1803.0 | 1811.5 | 1782.6 | 1726.3 | 1600.2 | 1462.2 | 1443.4 | 1177.6 |
| 17.5° | 1763.8 | 1772.4 | 1797.9 | 1847.3 | 1900.2 | 1901.9 | 1855.9 | 1722.9 | 1569.6 | 1549.1 | 1267.9 |
| 20° | 1704.2 | 1711.0 | 1741.7 | 1816.7 | 1920.6 | 1980.3 | 1976.9 | 1847.3 | 1670.1 | 1647.9 | 1351.4 |
| 22.5° | 1753.6 | 1762.1 | 1762.1 | 1808.1 | 1910.4 | 2021.2 | 2065.5 | 1970.0 | 1770.6 | 1750.2 | 1434.9 |
| 25° | 1964.9 | 1970.0 | 1934.2 | 1915.5 | 1953.0 | 2055.2 | 2138.8 | 2103.0 | 1893.3 | 1869.5 | 1525.2 |
| 27.5° | 2259.7 | 2251.2 | 2206.9 | 2131.9 | 2091.0 | 2118.3 | 2203.5 | 2229.1 | 2034.8 | 2005.8 | 1619.0 |
| 30° | 2552.9 | 2547.8 | 2496.6 | 2396.1 | 2304.1 | 2246.1 | 2275.1 | 2341.5 | 2188.2 | 2154.1 | 1709.3 |
| 32.5° | 2827.2 | 2818.7 | 2762.5 | 2644.9 | 2540.9 | 2433.6 | 2377.3 | 2443.8 | 2351.8 | 2312.6 | 1809.8 |
| 35° | 3079.5 | 3057.3 | 3001.1 | 2878.4 | 2771.0 | 2668.8 | 2530.7 | 2540.9 | 2529.0 | 2488.1 | 1920.6 |
| 37.5° | 3284.0 | 3266.9 | 3205.6 | 3091.4 | 2977.2 | 2880.1 | 2735.2 | 2651.7 | 2719.9 | 2680.7 | 2048.4 |
| 40° | 3464.6 | 3445.9 | 3382.8 | 3268.6 | 3163.0 | 3070.9 | 2956.8 | 2786.3 | 2934.6 | 2890.3 | 2191.6 |
| 42.5° | 3600.9 | 3587.3 | 3536.2 | 3423.7 | 3321.5 | 3237.9 | 3181.7 | 2956.8 | 3157.9 | 3115.2 | 2348.4 |
| 45° | 3674.2 | 3660.6 | 3633.3 | 3543.0 | 3449.3 | 3384.5 | 3389.6 | 3159.6 | 3391.3 | 3355.5 | 2534.1 |
| 47.5° | 3583.9 | 3594.1 | 3618.0 | 3600.9 | 3543.0 | 3512.3 | 3575.4 | 3369.2 | 3652.1 | 3618.0 | 2735.2 |
| 50° | 3341.9 | 3352.1 | 3447.6 | 3565.2 | 3585.6 | 3623.1 | 3742.4 | 3611.2 | 3928.1 | 3900.9 | 2984.0 |
| 52.5° | 2747.1 | 2803.4 | 3067.5 | 3348.7 | 3541.3 | 3696.4 | 3928.1 | 3970.7 | 4393.4 | 4393.4 | 3423.7 |
| 55° | 2075.7 | 2125.1 | 2426.8 | 2917.6 | 3369.2 | 3703.2 | 4064.5 | 4214.4 | 4729.1 | 4735.9 | 3653.8 |
| 57.5° | 1682.0 | 1712.7 | 1861.0 | 2363.7 | 3007.9 | 3618.0 | 4226.4 | 4424.1 | 5008.6 | 5039.3 | 3950.3 |
| 60° | 1365.1 | 1382.1 | 1479.2 | 1828.6 | 2508.6 | 3387.9 | 4342.3 | 4724.0 | 5407.4 | 5450.0 | 4328.6 |
| 62.5° | 1097.5 | 1114.5 | 1179.3 | 1388.9 | 1968.3 | 2956.8 | 4321.8 | 5035.9 | 5939.1 | 6009.0 | 4824.5 |
| 65° | 876.0 | 894.7 | 937.3 | 1066.8 | 1458.8 | 2421.6 | 4112.2 | 5196.1 | 6489.5 | 6557.7 | 5153.5 |
| 67.5° | 683.4 | 700.4 | 729.4 | 814.6 | 1027.6 | 1811.5 | 3616.3 | 5027.3 | 6736.6 | 6794.6 | 5170.5 |
| 70° | 516.4 | 524.9 | 548.7 | 603.3 | 734.5 | 1203.2 | 2830.6 | 4461.6 | 6515.1 | 6567.9 | 4829.7 |
| 72.5° | 400.5 | 398.8 | 412.4 | 439.7 | 513.0 | 828.2 | 1876.3 | 3628.2 | 5760.1 | 5814.7 | 4120.7 |
| 75° | 327.2 | 325.5 | 334.0 | 342.5 | 371.5 | 555.6 | 1107.7 | 2731.8 | 4649.0 | 4545.1 | 3091.4 |
| 77.5° | 276.1 | 274.4 | 282.9 | 284.6 | 296.5 | 383.4 | 630.5 | 1797.9 | 3101.6 | 2922.7 | 1741.7 |
| 80° | 233.5 | 231.8 | 242.0 | 245.4 | 253.9 | 281.2 | 363.0 | 973.1 | 1557.6 | 1475.8 | 831.6 |
| 82.5° | 175.5 | 182.3 | 201.1 | 209.6 | 219.8 | 207.9 | 225.0 | 429.5 | 722.6 | 690.2 | 361.3 |
| 85° | 85.2 | 100.5 | 151.7 | 168.7 | 180.6 | 131.2 | 153.4 | 202.8 | 325.5 | 310.2 | 146.6 |
| 87.5° | 29.0 | 25.6 | 90.3 | 107.4 | 117.6 | 59.6 | 85.2 | 112.5 | 134.6 | 122.7 | 46.0 |
| 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° | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 | 807.8 |
| 2.5° | 816.3 | 790.7 | 753.2 | 724.3 | 705.5 | 690.2 | 683.4 | 681.7 | 678.3 | 676.6 | 676.6 |
| 5° | 833.3 | 787.3 | 729.4 | 698.7 | 690.2 | 683.4 | 686.8 | 688.5 | 688.5 | 688.5 | 688.5 |
| 7.5° | 858.9 | 794.1 | 724.3 | 703.8 | 702.1 | 702.1 | 712.3 | 717.5 | 720.9 | 720.9 | 720.9 |
| 10° | 893.0 | 806.1 | 732.8 | 715.8 | 720.9 | 724.3 | 736.2 | 743.0 | 746.4 | 748.1 | 749.8 |
| 12.5° | 939.0 | 831.6 | 749.8 | 736.2 | 743.0 | 744.7 | 753.2 | 756.7 | 760.1 | 761.8 | 761.8 |
| 15° | 1000.4 | 869.1 | 777.1 | 760.1 | 761.8 | 760.1 | 760.1 | 756.7 | 755.0 | 755.0 | 758.4 |
| 17.5° | 1063.4 | 904.9 | 801.0 | 777.1 | 770.3 | 756.7 | 746.4 | 737.9 | 732.8 | 729.4 | 731.1 |
| 20° | 1126.5 | 937.3 | 814.6 | 780.5 | 761.8 | 739.6 | 720.9 | 708.9 | 702.1 | 695.3 | 698.7 |
| 22.5° | 1189.5 | 968.0 | 819.7 | 770.3 | 743.0 | 710.6 | 690.2 | 671.4 | 656.1 | 645.9 | 647.6 |
| 25° | 1259.4 | 1002.1 | 819.7 | 758.4 | 717.5 | 683.4 | 657.8 | 627.1 | 605.0 | 596.5 | 599.9 |
| 27.5° | 1329.3 | 1031.0 | 811.2 | 736.2 | 688.5 | 654.4 | 616.9 | 581.1 | 567.5 | 562.4 | 564.1 |
| 30° | 1399.1 | 1053.2 | 792.4 | 708.9 | 657.8 | 620.3 | 570.9 | 547.0 | 530.0 | 516.4 | 518.1 |
| 32.5° | 1469.0 | 1068.5 | 766.9 | 674.9 | 625.4 | 577.7 | 536.8 | 509.6 | 478.9 | 461.8 | 463.5 |
| 35° | 1549.1 | 1080.5 | 736.2 | 640.8 | 589.6 | 540.2 | 509.6 | 465.2 | 432.9 | 419.2 | 415.8 |
| 37.5° | 1632.6 | 1089.0 | 703.8 | 603.3 | 553.9 | 513.0 | 482.3 | 427.8 | 397.1 | 378.3 | 376.6 |
| 40° | 1722.9 | 1092.4 | 664.6 | 564.1 | 519.8 | 495.9 | 446.5 | 405.6 | 352.8 | 340.8 | 340.8 |
| 42.5° | 1830.3 | 1090.7 | 625.4 | 524.9 | 482.3 | 456.7 | 420.9 | 402.2 | 356.2 | 344.2 | 337.4 |
| 45° | 1953.0 | 1090.7 | 582.8 | 478.9 | 444.8 | 407.3 | 392.0 | 380.0 | 349.4 | 354.5 | 357.9 |
| 47.5° | 2092.7 | 1087.3 | 531.7 | 441.4 | 414.1 | 381.7 | 373.2 | 347.7 | 335.7 | 339.1 | 342.5 |
| 50° | 2285.3 | 1092.4 | 485.7 | 410.7 | 392.0 | 364.7 | 354.5 | 340.8 | 335.7 | 337.4 | 335.7 |
| 52.5° | 2552.9 | 1075.3 | 441.4 | 392.0 | 374.9 | 339.1 | 339.1 | 337.4 | 339.1 | 337.4 | 337.4 |
| 55° | 2699.4 | 1037.8 | 409.0 | 381.7 | 363.0 | 327.2 | 334.0 | 337.4 | 340.8 | 339.1 | 339.1 |
| 57.5° | 2907.3 | 1012.3 | 383.4 | 374.9 | 356.2 | 323.8 | 330.6 | 337.4 | 339.1 | 337.4 | 337.4 |
| 60° | 3152.7 | 995.2 | 366.4 | 376.6 | 351.1 | 323.8 | 332.3 | 337.4 | 335.7 | 334.0 | 334.0 |
| 62.5° | 3437.3 | 988.4 | 354.5 | 381.7 | 345.9 | 325.5 | 332.3 | 337.4 | 330.6 | 328.9 | 328.9 |
| 65° | 3544.7 | 927.1 | 339.1 | 385.1 | 349.4 | 325.5 | 330.6 | 332.3 | 323.8 | 322.1 | 320.4 |
| 67.5° | 3379.4 | 821.4 | 317.0 | 378.3 | 359.6 | 325.5 | 325.5 | 323.8 | 313.6 | 311.9 | 308.5 |
| 70° | 3009.6 | 681.7 | 282.9 | 356.2 | 366.4 | 327.2 | 318.7 | 310.2 | 299.9 | 299.9 | 293.1 |
| 72.5° | 2464.3 | 536.8 | 238.6 | 317.0 | 361.3 | 332.3 | 305.0 | 293.1 | 281.2 | 281.2 | 274.4 |
| 75° | 1775.8 | 400.5 | 190.9 | 264.1 | 339.1 | 330.6 | 288.0 | 272.7 | 259.0 | 257.3 | 248.8 |
| 77.5° | 1012.3 | 281.2 | 155.1 | 206.2 | 301.6 | 322.1 | 272.7 | 248.8 | 233.5 | 228.4 | 223.2 |
| 80° | 519.8 | 189.2 | 126.1 | 161.9 | 250.5 | 298.2 | 260.7 | 221.5 | 204.5 | 196.0 | 187.5 |
| 82.5° | 247.1 | 126.1 | 97.1 | 119.3 | 189.2 | 260.7 | 245.4 | 190.9 | 172.1 | 161.9 | 151.7 |
| 85° | 110.8 | 75.0 | 64.8 | 76.7 | 134.6 | 202.8 | 216.4 | 156.8 | 134.6 | 168.7 | 124.4 |
| 87.5° | 35.8 | 34.1 | 34.1 | 35.8 | 64.8 | 88.6 | 158.5 | 115.9 | 107.4 | 88.6 | 75.0 |
| 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)