

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: P265899

Luminaire Tested: **ARCH-AF16-50-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265899
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-50-D-U-T2U-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3534.3 lumens
Efficiency: N/A
Efficacy: 66.7 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): 53
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

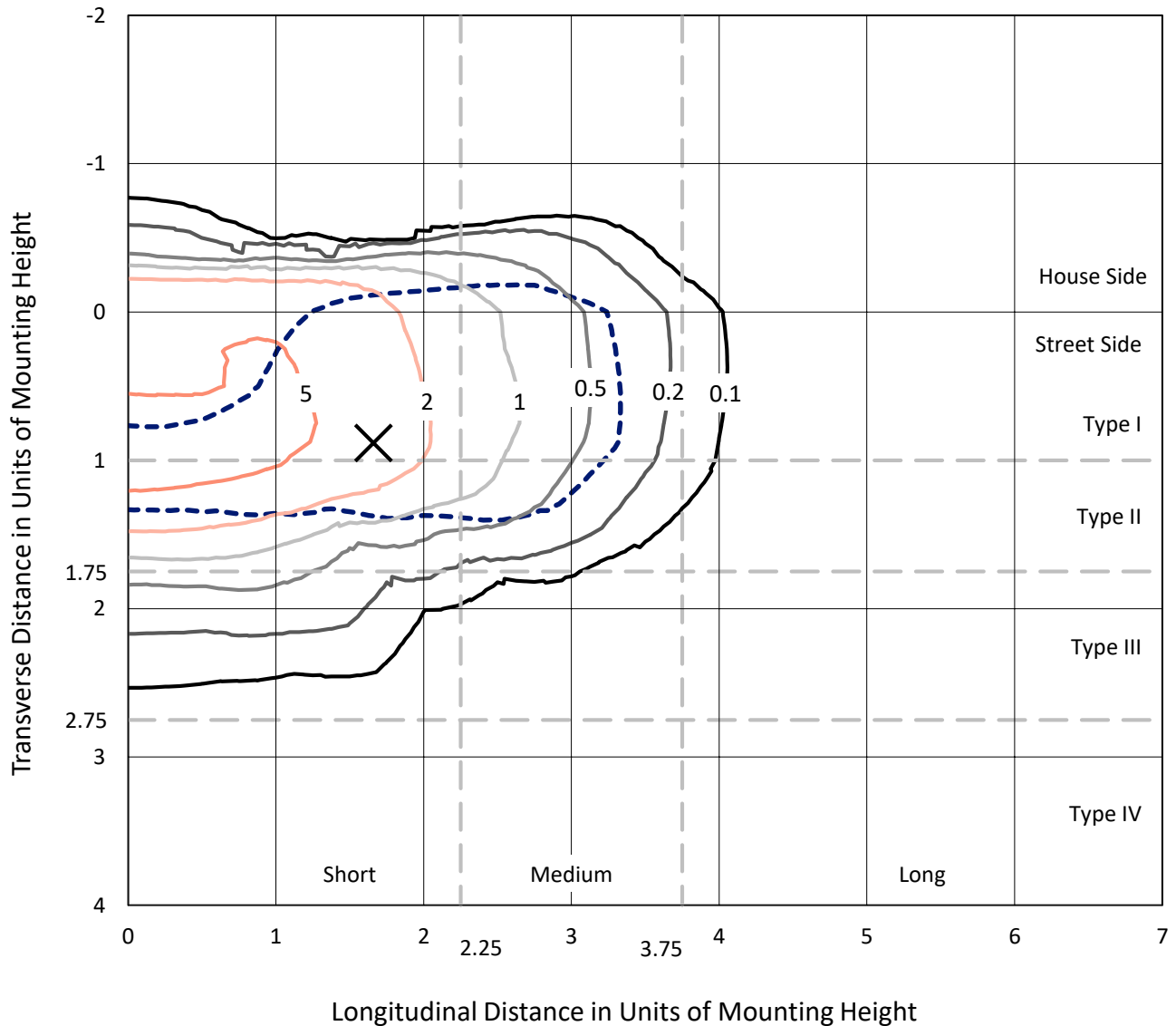


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

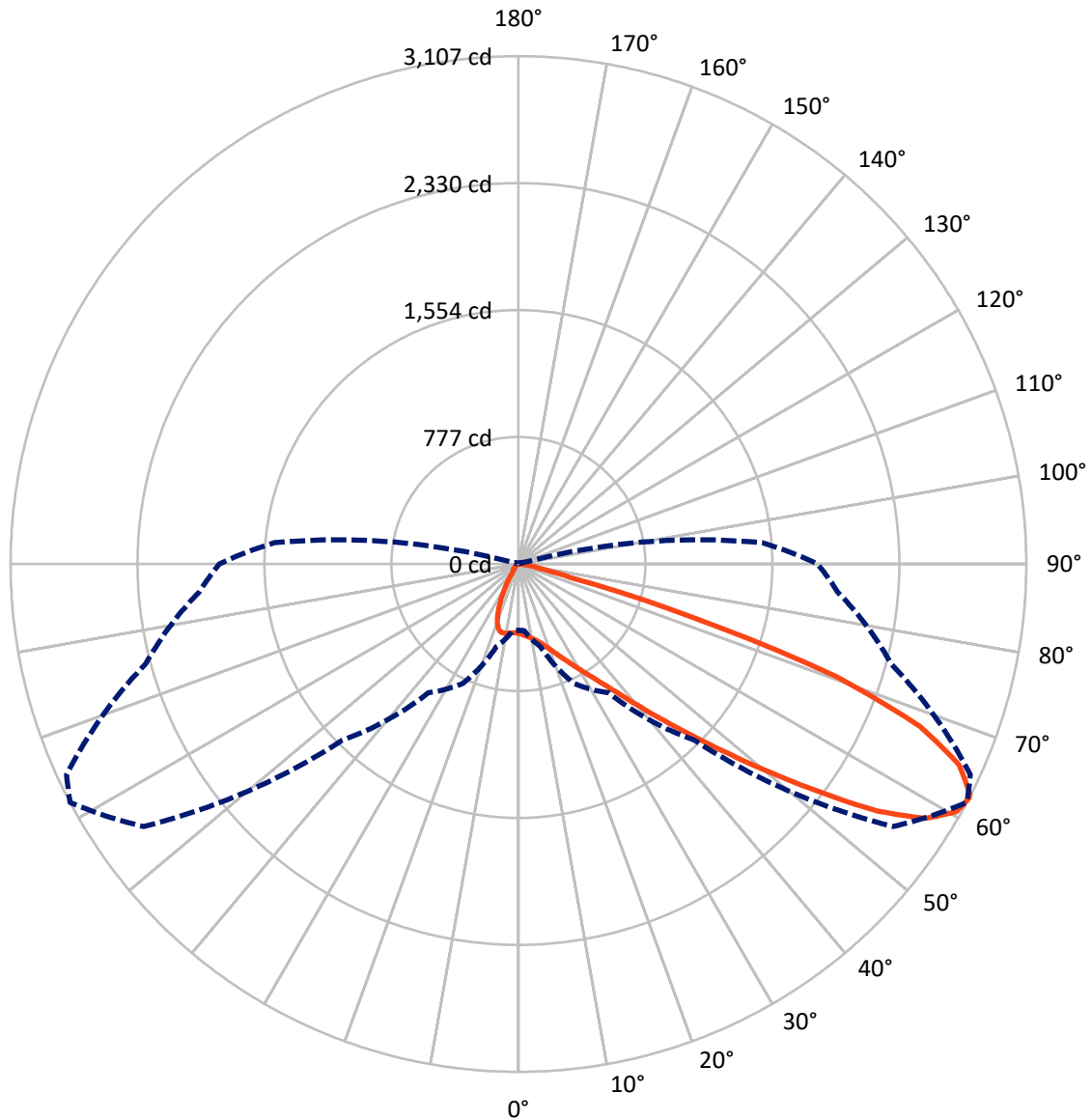


Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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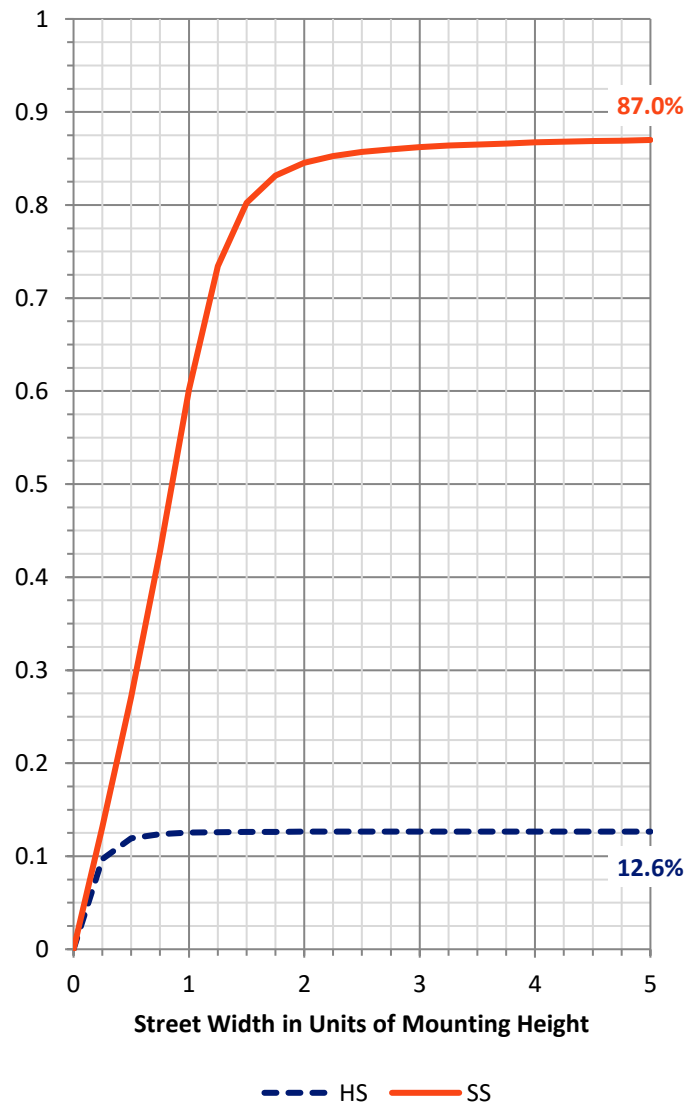
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 451.9 | 0.0 | 451.9 |
| | % Fixture | 12.8 | 0.0 | 12.8 |
| Street Side | Lumens | 3082.4 | 0.0 | 3082.4 |
| | % Fixture | 87.2 | 0.0 | 87.2 |
| Total | Lumens | 3534.3 | 0.0 | 3534.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 41.0 | 1.2 |
| 10°-20° | 114.4 | 3.2 |
| 20°-30° | 192.2 | 5.4 |
| 30°-40° | 368.4 | 10.4 |
| 40°-50° | 752.4 | 21.3 |
| 50°-60° | 995.6 | 28.2 |
| 60°-70° | 773.4 | 21.9 |
| 70°-80° | 279.2 | 7.9 |
| 80°-90° | 17.8 | 0.5 |
| 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° | 3534.3 | 100.0 |
| 0°-180° | 3534.3 | 100.0 |



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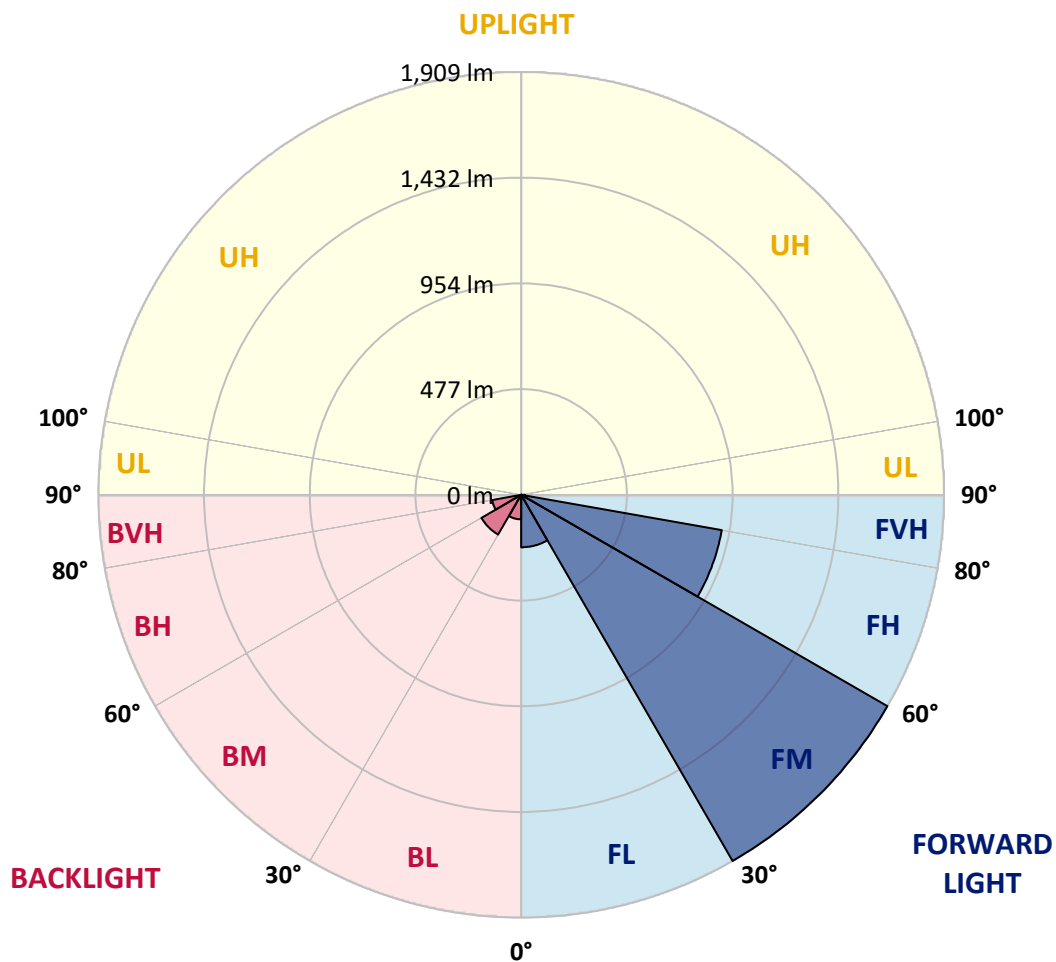
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 236.9 | 6.7 | | | |
| FM (30°-60°) | 1908.9 | 54.0 | | | |
| FH (60°-80°) | 919.6 | 26.0 | | | G1/1800 |
| FVH (80°-90°) | 17.0 | 0.5 | | | G1/100 |
| BL (0°-30°) | 110.6 | 3.1 | B1/500 | | |
| BM (30°-60°) | 207.4 | 5.9 | B0/220 | | |
| BH (60°-80°) | 133.1 | 3.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.8 | 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° | 62° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 |
| 2.5° | 437.0 | 436.1 | 435.3 | 434.4 | 434.4 | 433.6 | 432.8 | 430.9 | 429.2 | 427.6 | 426.6 |
| 5° | 444.9 | 444.0 | 443.1 | 444.0 | 443.1 | 443.1 | 442.2 | 440.4 | 438.8 | 436.1 | 433.6 |
| 7.5° | 450.9 | 450.1 | 449.2 | 450.1 | 450.9 | 451.8 | 452.7 | 450.9 | 450.1 | 446.5 | 444.0 |
| 10° | 458.8 | 457.9 | 457.1 | 458.8 | 458.8 | 463.2 | 464.0 | 463.2 | 462.3 | 459.7 | 455.4 |
| 12.5° | 470.1 | 470.9 | 470.9 | 472.7 | 474.5 | 479.6 | 481.3 | 478.7 | 478.7 | 475.3 | 470.1 |
| 15° | 491.0 | 491.0 | 491.0 | 492.7 | 493.4 | 500.4 | 502.2 | 499.5 | 501.3 | 495.2 | 490.0 |
| 17.5° | 510.9 | 511.8 | 513.6 | 517.0 | 517.0 | 523.1 | 526.5 | 526.5 | 530.0 | 522.3 | 515.3 |
| 20° | 530.9 | 531.7 | 534.3 | 542.1 | 542.1 | 550.0 | 556.1 | 558.7 | 562.2 | 554.3 | 542.1 |
| 22.5° | 552.5 | 552.5 | 556.9 | 569.2 | 566.6 | 582.1 | 593.4 | 597.8 | 601.2 | 590.8 | 571.7 |
| 25° | 585.6 | 582.1 | 585.6 | 597.0 | 595.1 | 616.9 | 637.7 | 642.1 | 646.4 | 634.4 | 605.5 |
| 27.5° | 648.1 | 642.9 | 630.8 | 631.7 | 631.7 | 656.9 | 686.5 | 692.6 | 695.1 | 684.7 | 649.0 |
| 30° | 773.4 | 773.4 | 728.2 | 697.8 | 677.7 | 700.3 | 742.0 | 752.5 | 756.0 | 740.4 | 693.4 |
| 32.5° | 991.4 | 991.4 | 907.9 | 830.7 | 755.0 | 755.0 | 802.8 | 821.9 | 825.5 | 807.1 | 752.5 |
| 35° | 1269.5 | 1267.7 | 1142.6 | 1036.6 | 888.9 | 833.3 | 874.1 | 906.2 | 916.7 | 892.3 | 829.0 |
| 37.5° | 1564.8 | 1553.6 | 1419.0 | 1297.2 | 1094.9 | 958.4 | 970.6 | 1013.1 | 1022.7 | 1002.7 | 927.9 |
| 40° | 1804.7 | 1791.6 | 1683.1 | 1581.3 | 1360.7 | 1158.3 | 1109.5 | 1148.7 | 1159.9 | 1132.1 | 1046.2 |
| 42.5° | 2021.8 | 1989.7 | 1915.0 | 1842.1 | 1666.5 | 1504.0 | 1294.6 | 1310.3 | 1322.5 | 1292.9 | 1179.0 |
| 45° | 2179.2 | 2129.6 | 2091.4 | 2068.8 | 1975.8 | 1883.7 | 1534.5 | 1503.1 | 1507.5 | 1471.1 | 1324.2 |
| 47.5° | 2183.5 | 2148.7 | 2152.2 | 2211.3 | 2249.5 | 2246.0 | 1846.3 | 1735.2 | 1718.6 | 1657.8 | 1478.8 |
| 50° | 1975.0 | 1995.0 | 2058.3 | 2227.0 | 2433.8 | 2558.9 | 2217.3 | 2009.8 | 1960.2 | 1850.7 | 1632.6 |
| 52.5° | 1627.4 | 1658.7 | 1777.7 | 2061.9 | 2460.6 | 2764.9 | 2602.3 | 2323.3 | 2234.8 | 2041.8 | 1750.7 |
| 55° | 1274.7 | 1276.4 | 1401.5 | 1690.9 | 2280.8 | 2802.2 | 2909.9 | 2668.3 | 2532.9 | 2187.1 | 1828.9 |
| 57.5° | 876.7 | 924.4 | 1083.4 | 1278.1 | 1875.0 | 2616.3 | 3025.4 | 2936.0 | 2761.3 | 2276.5 | 1883.7 |
| 60° | 574.3 | 576.9 | 762.0 | 987.1 | 1276.4 | 2128.8 | 2955.1 | 3077.7 | 2946.4 | 2329.5 | 1921.1 |
| 62° | 404.9 | 409.3 | 523.9 | 806.3 | 961.8 | 1525.9 | 2799.6 | 3107.1 | 3050.6 | 2360.7 | 1960.2 |
| 62.5° | 375.3 | 378.8 | 475.3 | 761.1 | 903.7 | 1368.5 | 2744.0 | 3100.2 | 3066.4 | 2371.2 | 1974.1 |
| 65° | 275.4 | 275.4 | 311.1 | 523.1 | 662.1 | 739.5 | 2325.2 | 2962.0 | 3045.4 | 2454.6 | 2026.2 |
| 67.5° | 212.9 | 214.7 | 226.8 | 322.3 | 499.5 | 448.3 | 1484.1 | 2651.0 | 2828.3 | 2578.0 | 2055.9 |
| 70° | 183.3 | 182.4 | 191.2 | 213.7 | 360.6 | 298.1 | 653.3 | 2068.8 | 2368.7 | 2546.8 | 2028.8 |
| 72.5° | 135.6 | 136.5 | 156.5 | 187.7 | 251.0 | 193.8 | 295.5 | 1098.3 | 1536.2 | 1993.2 | 1738.6 |
| 75° | 86.9 | 87.8 | 110.3 | 147.7 | 180.6 | 126.9 | 170.3 | 327.6 | 629.1 | 1105.3 | 1063.6 |
| 77.5° | 58.2 | 59.9 | 72.1 | 103.3 | 158.1 | 79.1 | 106.9 | 137.4 | 189.5 | 414.5 | 381.4 |
| 80° | 39.0 | 39.0 | 46.1 | 69.4 | 99.9 | 66.0 | 57.3 | 91.3 | 98.2 | 128.5 | 64.3 |
| 82.5° | 26.1 | 26.1 | 30.5 | 46.1 | 65.1 | 59.1 | 34.8 | 49.5 | 57.3 | 64.3 | 22.5 |
| 85° | 15.6 | 15.6 | 20.8 | 28.7 | 42.6 | 33.0 | 22.5 | 27.8 | 29.6 | 40.9 | 12.1 |
| 87.5° | 9.5 | 8.8 | 14.0 | 20.0 | 22.5 | 20.0 | 14.7 | 14.7 | 15.6 | 22.5 | 6.1 |
| 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° | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 | 425.7 |
| 2.5° | 424.9 | 424.0 | 423.1 | 421.5 | 418.8 | 417.1 | 415.3 | 413.6 | 411.9 | 411.9 | 414.5 |
| 5° | 432.8 | 430.1 | 426.6 | 423.1 | 417.9 | 414.5 | 411.9 | 408.4 | 406.7 | 406.7 | 407.6 |
| 7.5° | 442.2 | 439.7 | 433.6 | 427.6 | 419.7 | 413.6 | 407.6 | 399.7 | 393.5 | 391.0 | 393.5 |
| 10° | 452.7 | 449.2 | 440.4 | 430.9 | 422.3 | 406.7 | 386.6 | 362.3 | 341.4 | 332.0 | 336.2 |
| 12.5° | 465.7 | 461.4 | 450.9 | 438.0 | 417.9 | 379.8 | 330.1 | 273.8 | 238.1 | 221.5 | 225.0 |
| 15° | 484.8 | 478.7 | 464.0 | 444.0 | 399.7 | 317.1 | 236.3 | 171.1 | 138.2 | 124.2 | 126.0 |
| 17.5° | 507.5 | 499.5 | 479.6 | 442.2 | 352.8 | 228.4 | 140.8 | 99.9 | 86.0 | 82.6 | 82.6 |
| 20° | 531.7 | 521.3 | 495.2 | 429.2 | 281.4 | 143.4 | 87.8 | 76.4 | 71.2 | 68.6 | 68.6 |
| 22.5° | 556.9 | 543.0 | 508.4 | 398.8 | 200.7 | 89.6 | 72.1 | 64.3 | 58.2 | 55.7 | 55.7 |
| 25° | 587.3 | 569.2 | 521.3 | 345.8 | 127.6 | 72.1 | 61.8 | 53.9 | 47.8 | 44.2 | 45.2 |
| 27.5° | 623.0 | 599.4 | 532.6 | 279.8 | 82.6 | 62.5 | 51.3 | 43.5 | 38.3 | 36.6 | 36.6 |
| 30° | 660.3 | 632.5 | 535.2 | 209.5 | 67.0 | 53.9 | 42.6 | 35.7 | 32.2 | 30.5 | 30.5 |
| 32.5° | 711.5 | 675.2 | 527.5 | 139.0 | 56.5 | 45.2 | 35.7 | 29.6 | 26.9 | 26.1 | 26.1 |
| 35° | 779.4 | 730.7 | 509.2 | 86.0 | 47.8 | 37.4 | 29.6 | 26.1 | 23.4 | 22.5 | 22.5 |
| 37.5° | 865.3 | 808.0 | 477.0 | 59.1 | 40.9 | 30.5 | 25.2 | 22.5 | 20.8 | 20.0 | 20.0 |
| 40° | 980.1 | 901.9 | 435.3 | 51.3 | 34.8 | 26.1 | 21.6 | 20.0 | 18.2 | 18.2 | 18.2 |
| 42.5° | 1101.7 | 1015.8 | 381.4 | 45.2 | 29.6 | 22.5 | 19.1 | 17.3 | 16.4 | 15.6 | 15.6 |
| 45° | 1234.7 | 1132.1 | 314.5 | 40.0 | 25.2 | 20.0 | 17.3 | 14.7 | 14.0 | 14.0 | 14.0 |
| 47.5° | 1366.7 | 1252.1 | 241.6 | 34.8 | 21.6 | 17.3 | 14.7 | 13.0 | 12.1 | 11.3 | 11.3 |
| 50° | 1502.2 | 1360.7 | 177.2 | 30.5 | 19.1 | 15.6 | 13.0 | 11.3 | 9.5 | 8.8 | 8.8 |
| 52.5° | 1600.5 | 1425.8 | 129.4 | 26.1 | 16.4 | 13.0 | 10.4 | 8.8 | 6.9 | 6.1 | 6.1 |
| 55° | 1672.6 | 1465.9 | 94.7 | 21.6 | 14.7 | 11.3 | 8.8 | 6.9 | 5.2 | 5.2 | 4.3 |
| 57.5° | 1729.1 | 1484.9 | 71.2 | 19.1 | 13.0 | 9.5 | 6.9 | 5.2 | 4.3 | 3.5 | 3.5 |
| 60° | 1772.5 | 1485.7 | 53.0 | 15.6 | 11.3 | 7.8 | 5.2 | 3.5 | 2.6 | 2.6 | 2.6 |
| 62° | 1829.8 | 1497.0 | 43.5 | 13.0 | 10.4 | 6.9 | 4.3 | 2.6 | 1.7 | 0.9 | 0.9 |
| 62.5° | 1846.3 | 1501.4 | 41.7 | 13.0 | 9.5 | 6.1 | 3.5 | 2.6 | 1.7 | 0.9 | 0.9 |
| 65° | 1922.8 | 1509.2 | 32.2 | 10.4 | 7.8 | 5.2 | 2.6 | 1.7 | 0.0 | 0.0 | 0.0 |
| 67.5° | 1992.4 | 1497.0 | 23.4 | 7.8 | 6.1 | 3.5 | 2.6 | 0.9 | 0.0 | 0.0 | 0.0 |
| 70° | 1985.4 | 1413.8 | 16.4 | 5.2 | 4.3 | 2.6 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 1636.2 | 1058.4 | 11.3 | 4.3 | 2.6 | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 988.0 | 463.2 | 7.8 | 2.6 | 2.6 | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 324.1 | 167.8 | 5.2 | 1.7 | 1.7 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 53.0 | 27.8 | 2.6 | 1.7 | 1.7 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 16.4 | 6.9 | 1.7 | 1.7 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 6.1 | 2.6 | 1.7 | 1.7 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.6 | 1.7 | 1.7 | 1.7 | 0.9 | 0.9 | 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)