

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: P265935

Luminaire Tested: **ARCH-AF24-40-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265935
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-AF24-40-D-U-T2U-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3044.5 lumens
Efficiency: N/A
Efficacy: 76.1 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): 40
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

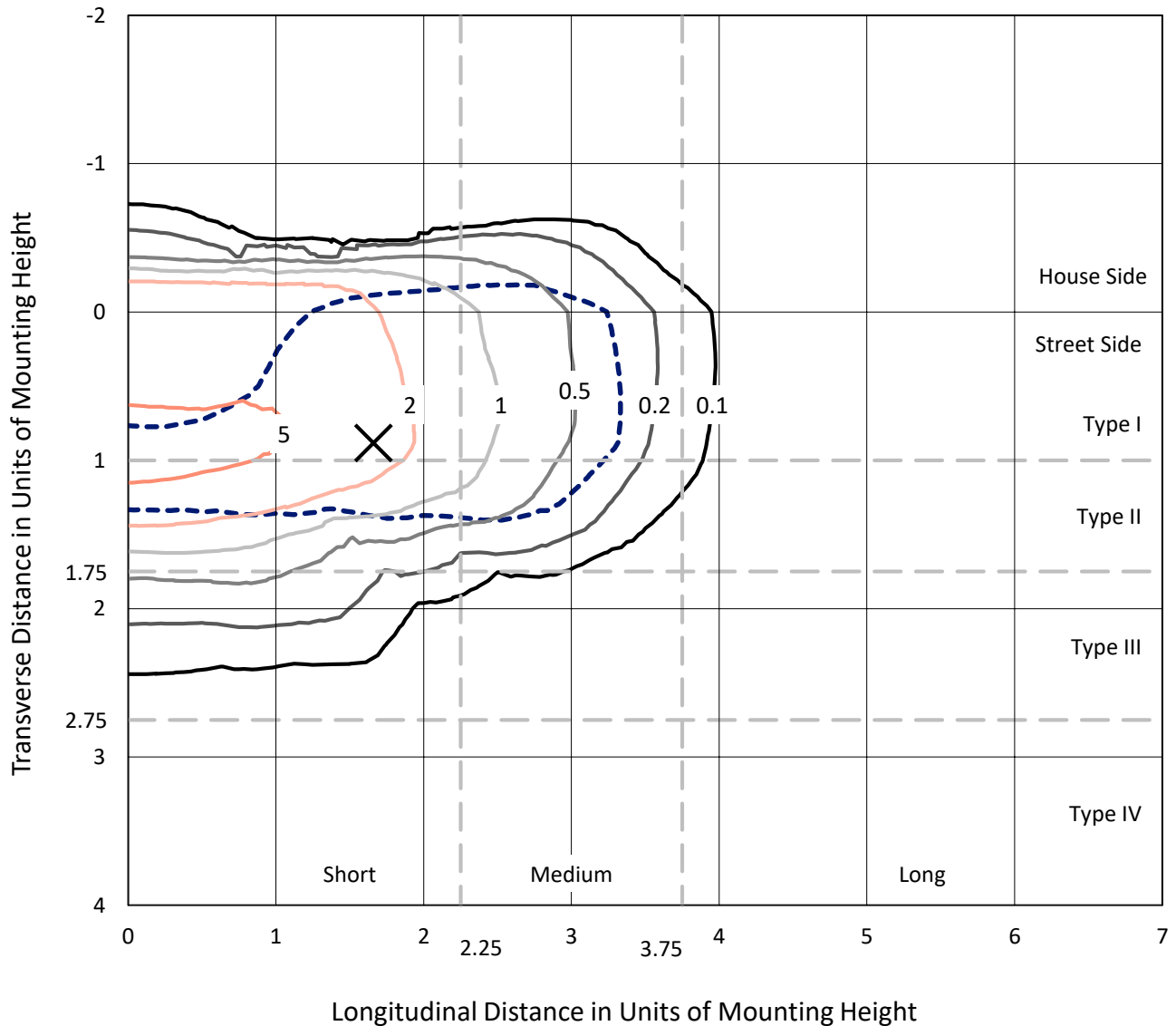


REPORT NUMBER: P265935

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7027-HSS

Iso-Footcandle Lines of Horizontal Illumination

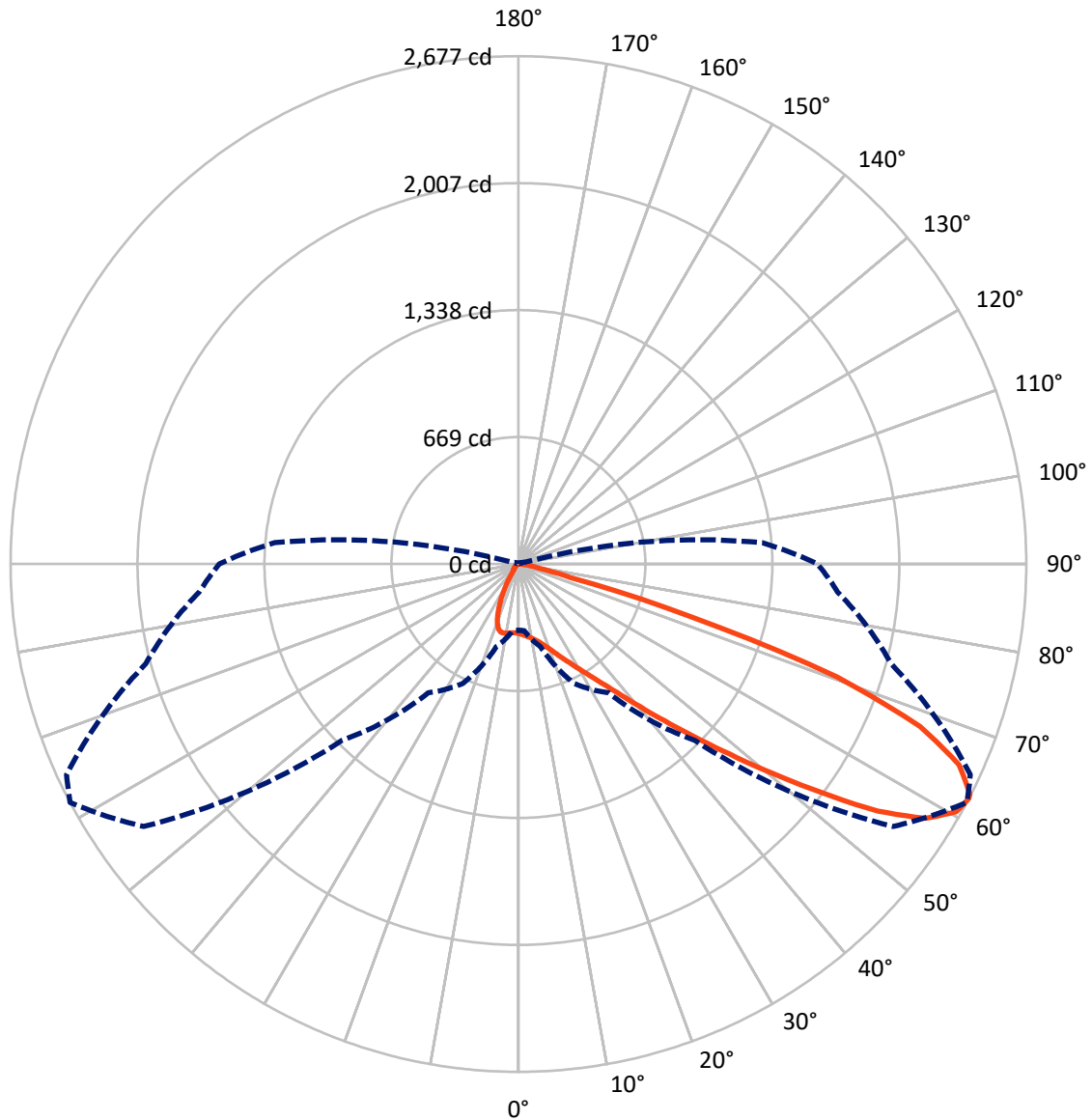
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P265935
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Luminous Intensity Polar Plot



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

REPORT NUMBER: P265935

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7027-HSS

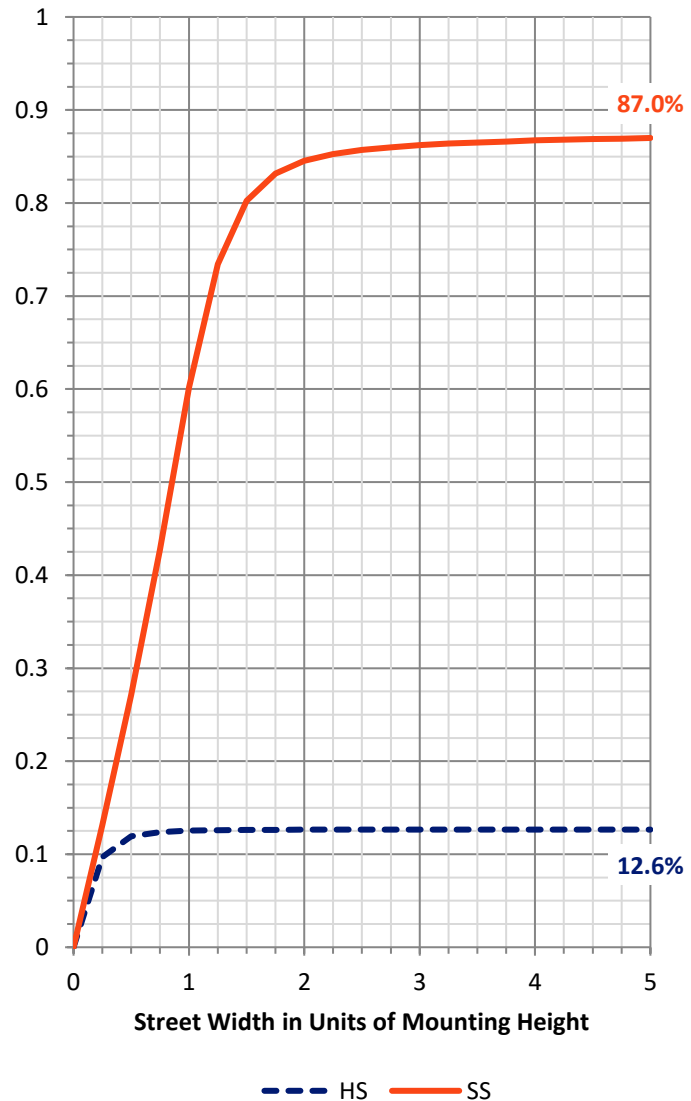
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 389.3 | 0.0 | 389.3 |
| | % Fixture | 12.8 | 0.0 | 12.8 |
| Street Side | Lumens | 2655.3 | 0.0 | 2655.3 |
| | % Fixture | 87.2 | 0.0 | 87.2 |
| Total | Lumens | 3044.5 | 0.0 | 3044.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 35.3 | 1.2 |
| 10°-20° | 98.6 | 3.2 |
| 20°-30° | 165.5 | 5.4 |
| 30°-40° | 317.3 | 10.4 |
| 40°-50° | 648.1 | 21.3 |
| 50°-60° | 857.7 | 28.2 |
| 60°-70° | 666.3 | 21.9 |
| 70°-80° | 240.5 | 7.9 |
| 80°-90° | 15.3 | 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° | 3044.5 | 100.0 |
| 0°-180° | 3044.5 | 100.0 |



REPORT NUMBER: P265935

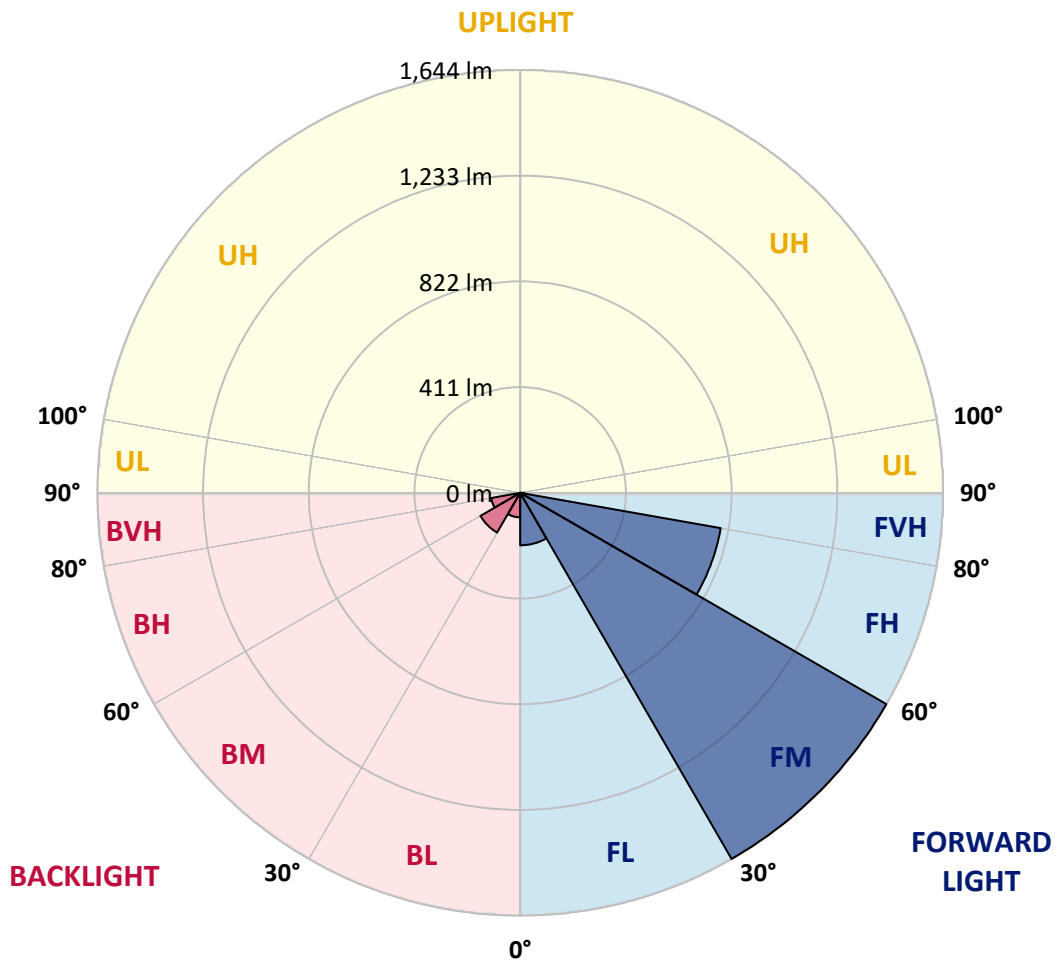
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 204.1 | 6.7 | | | |
| FM | (30°-60°) | 1644.4 | 54.0 | | | |
| FH | (60°-80°) | 792.1 | 26.0 | | | G1/1800 |
| FVH | (80°-90°) | 14.7 | 0.5 | | | G1/100 |
| BL | (0°-30°) | 95.3 | 3.1 | B0/110 | | |
| BM | (30°-60°) | 178.7 | 5.9 | B0/220 | | |
| BH | (60°-80°) | 114.6 | 3.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 0.7 | 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





REPORT NUMBER: P265935

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7027-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 |
| 2.5° | 376.5 | 375.8 | 375.0 | 374.2 | 374.2 | 373.4 | 372.7 | 371.3 | 369.7 | 368.2 | 367.4 |
| 5° | 383.2 | 382.5 | 381.7 | 382.5 | 381.7 | 381.7 | 381.1 | 379.4 | 377.9 | 375.8 | 373.4 |
| 7.5° | 388.4 | 387.7 | 387.0 | 387.7 | 388.4 | 389.2 | 390.0 | 388.4 | 387.7 | 384.7 | 382.5 |
| 10° | 395.3 | 394.4 | 393.6 | 395.3 | 395.3 | 398.9 | 399.7 | 398.9 | 398.2 | 396.0 | 392.2 |
| 12.5° | 405.0 | 405.7 | 405.7 | 407.2 | 408.6 | 413.2 | 414.7 | 412.4 | 412.4 | 409.4 | 405.0 |
| 15° | 422.9 | 422.9 | 422.9 | 424.4 | 425.2 | 431.1 | 432.7 | 430.4 | 431.8 | 426.6 | 422.2 |
| 17.5° | 440.1 | 440.9 | 442.3 | 445.3 | 445.3 | 450.6 | 453.6 | 453.6 | 456.6 | 449.8 | 443.9 |
| 20° | 457.3 | 458.0 | 460.3 | 467.1 | 467.1 | 473.8 | 479.1 | 481.3 | 484.2 | 477.4 | 467.1 |
| 22.5° | 476.0 | 476.0 | 479.8 | 490.3 | 488.0 | 501.4 | 511.2 | 515.0 | 518.0 | 509.0 | 492.5 |
| 25° | 504.5 | 501.4 | 504.5 | 514.2 | 512.8 | 531.3 | 549.5 | 553.1 | 556.9 | 546.3 | 521.6 |
| 27.5° | 558.3 | 553.9 | 543.5 | 544.2 | 544.2 | 565.8 | 591.4 | 596.6 | 598.8 | 589.7 | 559.1 |
| 30° | 666.2 | 666.2 | 627.2 | 601.1 | 583.8 | 603.3 | 639.2 | 648.1 | 651.2 | 637.6 | 597.4 |
| 32.5° | 854.0 | 854.0 | 782.2 | 715.6 | 650.5 | 650.5 | 691.5 | 708.0 | 711.1 | 695.4 | 648.1 |
| 35° | 1093.5 | 1092.0 | 984.3 | 892.9 | 765.6 | 717.7 | 753.0 | 780.6 | 789.6 | 768.7 | 714.1 |
| 37.5° | 1348.0 | 1338.3 | 1222.2 | 1117.5 | 943.1 | 825.6 | 836.1 | 872.8 | 881.0 | 863.7 | 799.4 |
| 40° | 1554.5 | 1543.4 | 1449.9 | 1362.2 | 1172.1 | 997.7 | 955.7 | 989.6 | 999.3 | 975.3 | 901.2 |
| 42.5° | 1741.8 | 1714.1 | 1649.6 | 1586.8 | 1435.6 | 1295.6 | 1115.2 | 1128.7 | 1139.2 | 1113.8 | 1015.8 |
| 45° | 1877.2 | 1834.5 | 1801.6 | 1782.1 | 1702.1 | 1622.7 | 1321.9 | 1294.8 | 1298.6 | 1267.1 | 1140.7 |
| 47.5° | 1881.0 | 1851.0 | 1854.0 | 1904.9 | 1937.9 | 1934.8 | 1590.4 | 1494.7 | 1480.4 | 1428.0 | 1273.9 |
| 50° | 1701.3 | 1718.5 | 1773.2 | 1918.4 | 2096.6 | 2204.4 | 1910.2 | 1731.3 | 1688.5 | 1594.2 | 1406.3 |
| 52.5° | 1402.0 | 1428.8 | 1531.4 | 1776.2 | 2119.7 | 2381.6 | 2241.7 | 2001.5 | 1925.1 | 1758.9 | 1508.2 |
| 55° | 1098.0 | 1099.5 | 1207.3 | 1456.5 | 1964.8 | 2413.8 | 2506.7 | 2298.7 | 2181.9 | 1883.9 | 1575.5 |
| 57.5° | 755.2 | 796.3 | 933.3 | 1101.1 | 1615.2 | 2253.7 | 2606.3 | 2529.1 | 2378.7 | 1961.0 | 1622.7 |
| 60° | 494.7 | 497.0 | 656.4 | 850.2 | 1099.5 | 1833.8 | 2545.5 | 2651.1 | 2538.2 | 2006.6 | 1654.9 |
| 62° | 348.8 | 352.6 | 451.4 | 694.6 | 828.5 | 1314.3 | 2411.6 | 2676.6 | 2627.9 | 2033.7 | 1688.5 |
| 62.5° | 323.3 | 326.4 | 409.4 | 655.7 | 778.4 | 1178.8 | 2363.7 | 2670.7 | 2641.3 | 2042.6 | 1700.5 |
| 65° | 237.2 | 237.2 | 268.0 | 450.6 | 570.3 | 637.0 | 2003.0 | 2551.5 | 2623.4 | 2114.5 | 1745.4 |
| 67.5° | 183.3 | 185.0 | 195.3 | 277.7 | 430.4 | 386.2 | 1278.4 | 2283.6 | 2436.4 | 2220.7 | 1770.9 |
| 70° | 157.9 | 157.2 | 164.7 | 184.2 | 310.6 | 256.7 | 562.9 | 1782.1 | 2040.4 | 2193.8 | 1747.7 |
| 72.5° | 116.8 | 117.5 | 134.7 | 161.7 | 216.3 | 166.9 | 254.5 | 946.0 | 1323.4 | 1717.0 | 1497.7 |
| 75° | 74.9 | 75.5 | 95.1 | 127.2 | 155.6 | 109.2 | 146.8 | 282.2 | 541.9 | 952.1 | 916.1 |
| 77.5° | 50.1 | 51.7 | 62.2 | 89.0 | 136.3 | 68.1 | 92.0 | 118.2 | 163.1 | 357.0 | 328.6 |
| 80° | 33.6 | 33.6 | 39.6 | 59.8 | 86.1 | 57.0 | 49.3 | 78.6 | 84.6 | 110.9 | 55.3 |
| 82.5° | 22.5 | 22.5 | 26.2 | 39.6 | 56.1 | 50.9 | 30.0 | 42.7 | 49.3 | 55.3 | 19.5 |
| 85° | 13.5 | 13.5 | 18.0 | 24.8 | 36.7 | 28.4 | 19.5 | 24.0 | 25.4 | 35.2 | 10.5 |
| 87.5° | 8.3 | 7.5 | 11.9 | 17.2 | 19.5 | 17.2 | 12.8 | 12.8 | 13.5 | 19.5 | 5.2 |
| 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° | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 | 366.8 |
| 2.5° | 366.0 | 365.3 | 364.5 | 363.1 | 360.8 | 359.3 | 357.7 | 356.3 | 354.8 | 354.8 | 357.0 |
| 5° | 372.7 | 370.6 | 367.4 | 364.5 | 360.0 | 357.0 | 354.8 | 351.7 | 350.2 | 350.2 | 351.1 |
| 7.5° | 381.1 | 378.7 | 373.4 | 368.2 | 361.5 | 356.3 | 351.1 | 344.3 | 339.1 | 336.9 | 339.1 |
| 10° | 390.0 | 387.0 | 379.4 | 371.3 | 363.8 | 350.2 | 333.1 | 312.2 | 294.1 | 285.9 | 289.7 |
| 12.5° | 401.3 | 397.4 | 388.4 | 377.3 | 360.0 | 327.2 | 284.5 | 235.7 | 205.2 | 190.9 | 193.9 |
| 15° | 417.6 | 412.4 | 399.7 | 382.5 | 344.3 | 273.3 | 203.6 | 147.4 | 119.0 | 107.1 | 108.5 |
| 17.5° | 437.1 | 430.4 | 413.2 | 381.1 | 303.8 | 196.9 | 121.2 | 86.1 | 74.1 | 71.1 | 71.1 |
| 20° | 458.0 | 449.2 | 426.6 | 369.7 | 242.5 | 123.4 | 75.5 | 65.8 | 61.4 | 59.1 | 59.1 |
| 22.5° | 479.8 | 467.7 | 437.8 | 343.5 | 173.0 | 77.1 | 62.2 | 55.3 | 50.1 | 47.9 | 47.9 |
| 25° | 505.9 | 490.3 | 449.2 | 297.9 | 110.0 | 62.2 | 53.1 | 46.4 | 41.1 | 38.2 | 38.9 |
| 27.5° | 536.6 | 516.4 | 458.9 | 241.0 | 71.1 | 53.9 | 44.1 | 37.4 | 33.0 | 31.4 | 31.4 |
| 30° | 568.8 | 544.9 | 461.1 | 180.4 | 57.6 | 46.4 | 36.7 | 30.7 | 27.7 | 26.2 | 26.2 |
| 32.5° | 613.1 | 581.6 | 454.4 | 119.7 | 48.7 | 38.9 | 30.7 | 25.4 | 23.1 | 22.5 | 22.5 |
| 35° | 671.5 | 629.5 | 438.6 | 74.1 | 41.1 | 32.2 | 25.4 | 22.5 | 20.2 | 19.5 | 19.5 |
| 37.5° | 745.6 | 696.0 | 411.0 | 50.9 | 35.2 | 26.2 | 21.6 | 19.5 | 18.0 | 17.2 | 17.2 |
| 40° | 844.2 | 776.9 | 375.0 | 44.1 | 30.0 | 22.5 | 18.8 | 17.2 | 15.7 | 15.7 | 15.7 |
| 42.5° | 949.1 | 874.9 | 328.6 | 38.9 | 25.4 | 19.5 | 16.4 | 15.0 | 14.3 | 13.5 | 13.5 |
| 45° | 1063.7 | 975.3 | 271.0 | 34.5 | 21.6 | 17.2 | 15.0 | 12.8 | 11.9 | 11.9 | 11.9 |
| 47.5° | 1177.4 | 1078.5 | 208.0 | 30.0 | 18.8 | 15.0 | 12.8 | 11.1 | 10.5 | 9.7 | 9.7 |
| 50° | 1294.1 | 1172.1 | 152.7 | 26.2 | 16.4 | 13.5 | 11.1 | 9.7 | 8.3 | 7.5 | 7.5 |
| 52.5° | 1378.7 | 1228.3 | 111.5 | 22.5 | 14.3 | 11.1 | 9.1 | 7.5 | 6.0 | 5.2 | 5.2 |
| 55° | 1440.8 | 1262.7 | 81.6 | 18.8 | 12.8 | 9.7 | 7.5 | 6.0 | 4.5 | 4.5 | 3.8 |
| 57.5° | 1489.5 | 1279.1 | 61.4 | 16.4 | 11.1 | 8.3 | 6.0 | 4.5 | 3.8 | 3.1 | 3.1 |
| 60° | 1526.8 | 1279.9 | 45.6 | 13.5 | 9.7 | 6.7 | 4.5 | 3.1 | 2.2 | 2.2 | 2.2 |
| 62° | 1576.3 | 1289.6 | 37.4 | 11.1 | 9.1 | 6.0 | 3.8 | 2.2 | 1.4 | 0.8 | 0.8 |
| 62.5° | 1590.4 | 1293.4 | 35.9 | 11.1 | 8.3 | 5.2 | 3.1 | 2.2 | 1.4 | 0.8 | 0.8 |
| 65° | 1656.4 | 1300.0 | 27.7 | 9.1 | 6.7 | 4.5 | 2.2 | 1.4 | 0.0 | 0.0 | 0.0 |
| 67.5° | 1716.3 | 1289.6 | 20.2 | 6.7 | 5.2 | 3.1 | 2.2 | 0.8 | 0.0 | 0.0 | 0.0 |
| 70° | 1710.4 | 1217.8 | 14.3 | 4.5 | 3.8 | 2.2 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 1409.4 | 911.7 | 9.7 | 3.8 | 2.2 | 1.4 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 851.1 | 398.9 | 6.7 | 2.2 | 2.2 | 1.4 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 279.3 | 144.4 | 4.5 | 1.4 | 1.4 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 45.6 | 24.0 | 2.2 | 1.4 | 1.4 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 14.3 | 6.0 | 1.4 | 1.4 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 5.2 | 2.2 | 1.4 | 1.4 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.2 | 1.4 | 1.4 | 1.4 | 0.8 | 0.8 | 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)