

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: P237102

Luminaire Tested: **ARCH-L-AF72-90-D-U-T3-7050**

Issue Date: 2/14/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P237102  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 2/14/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-90-D-U-T3-7050  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5000K, 400mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13075 lumens  
Efficiency: N/A  
Efficacy: 140.6 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G2

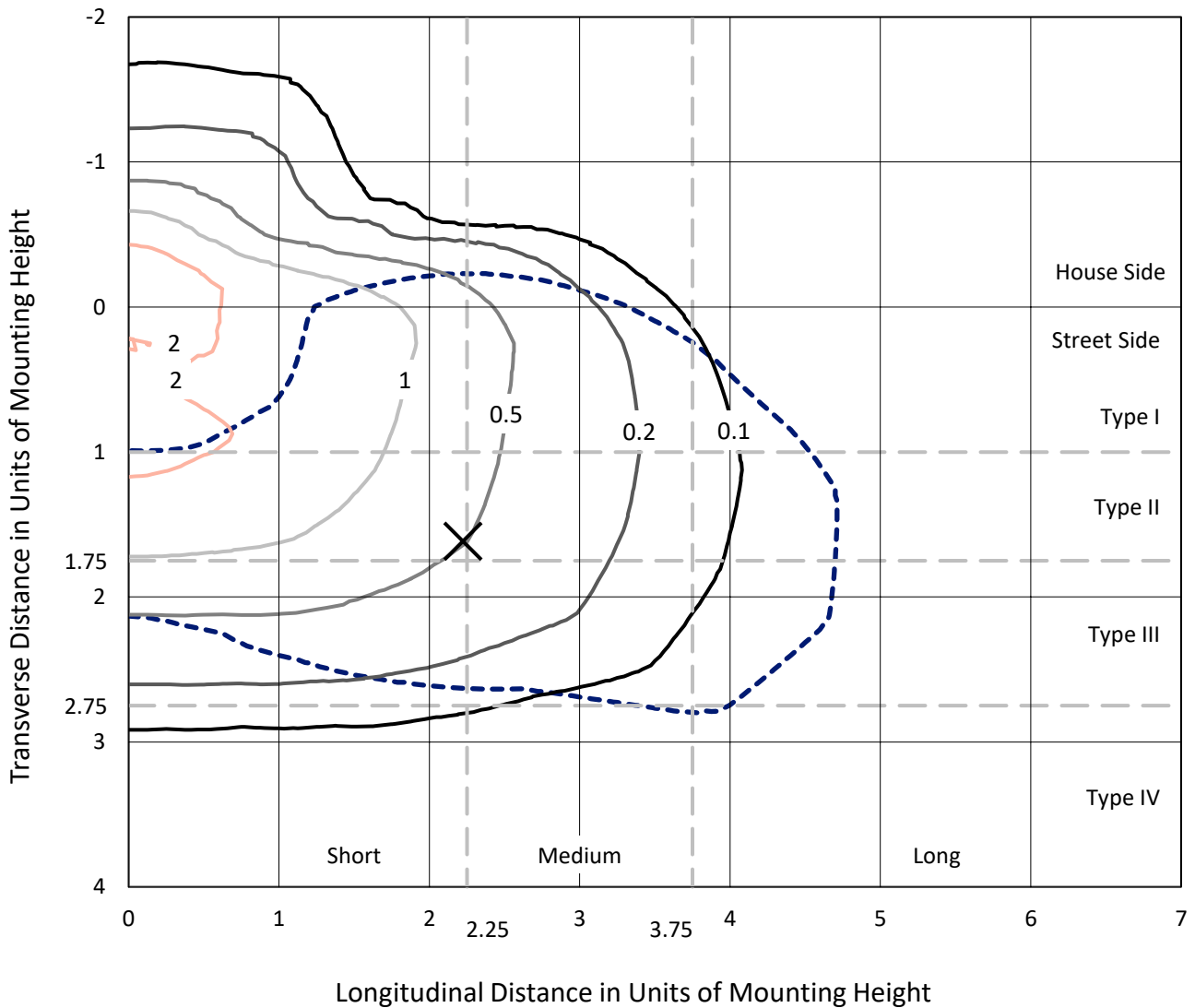
Input Watts (W): 93  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

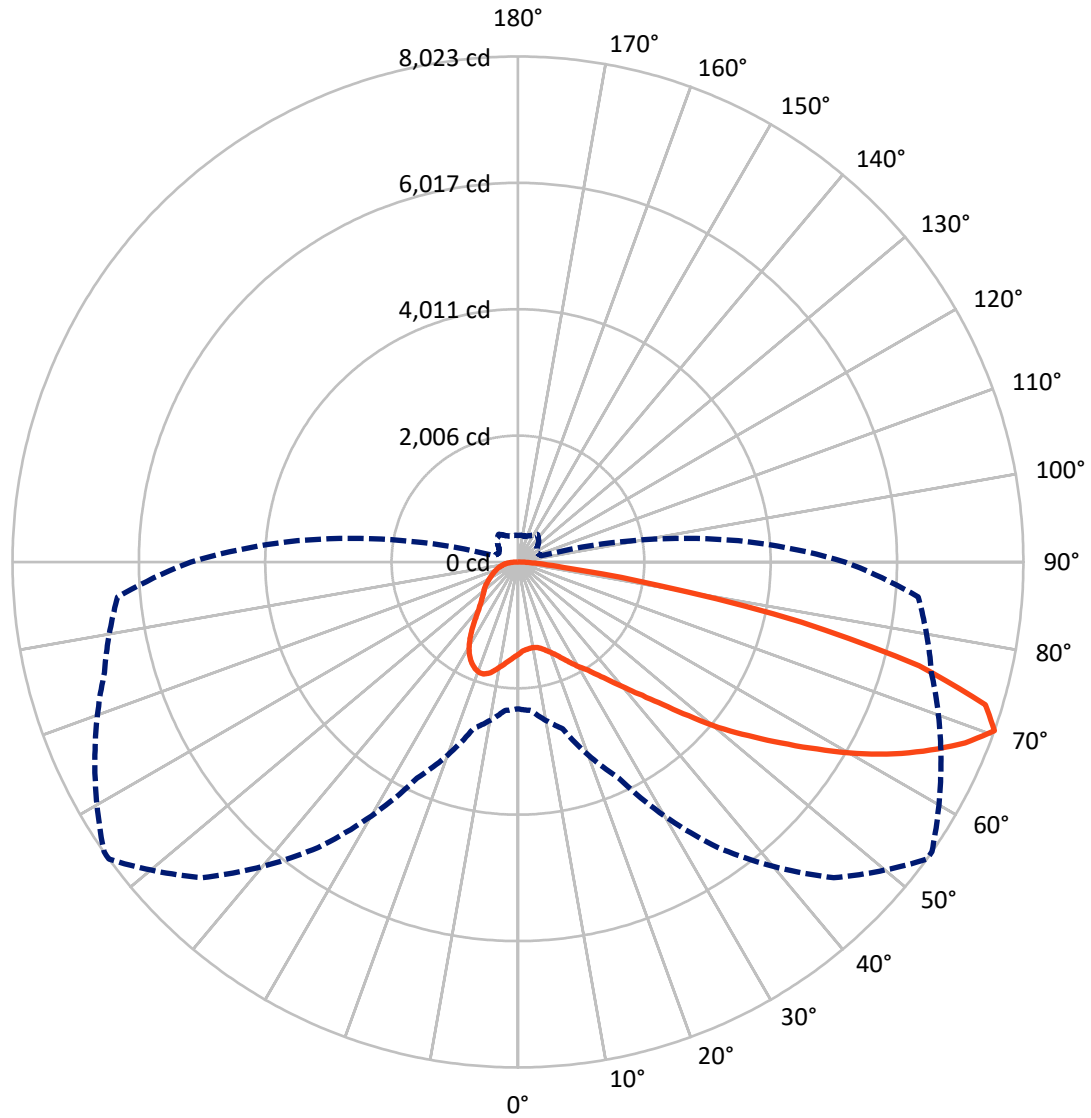
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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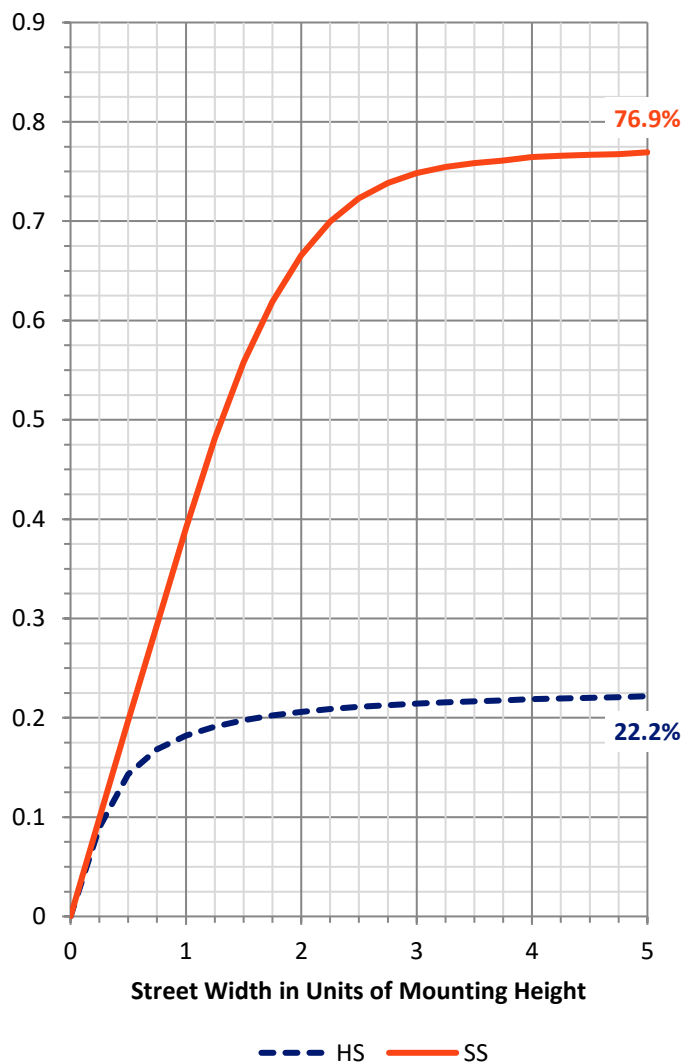
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2965.4   | 0.0    | 2965.4  |
|                    | % Fixture | 22.7     | 0.0    | 22.7    |
| <b>Street Side</b> | Lumens    | 10109.6  | 0.0    | 10109.6 |
|                    | % Fixture | 77.3     | 0.0    | 77.3    |
| <b>Total</b>       | Lumens    | 13075.0  | 0.0    | 13075.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 143.6   | 1.1       |
| 10°-20°   | 458.7   | 3.5       |
| 20°-30°   | 796.9   | 6.1       |
| 30°-40°   | 1164.6  | 8.9       |
| 40°-50°   | 1827.8  | 14.0      |
| 50°-60°   | 2810.8  | 21.5      |
| 60°-70°   | 3434.1  | 26.3      |
| 70°-80°   | 2129.1  | 16.3      |
| 80°-90°   | 309.3   | 2.4       |
| 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°    | 13075.0 | 100.0     |
| 0°-180°   | 13075.0 | 100.0     |



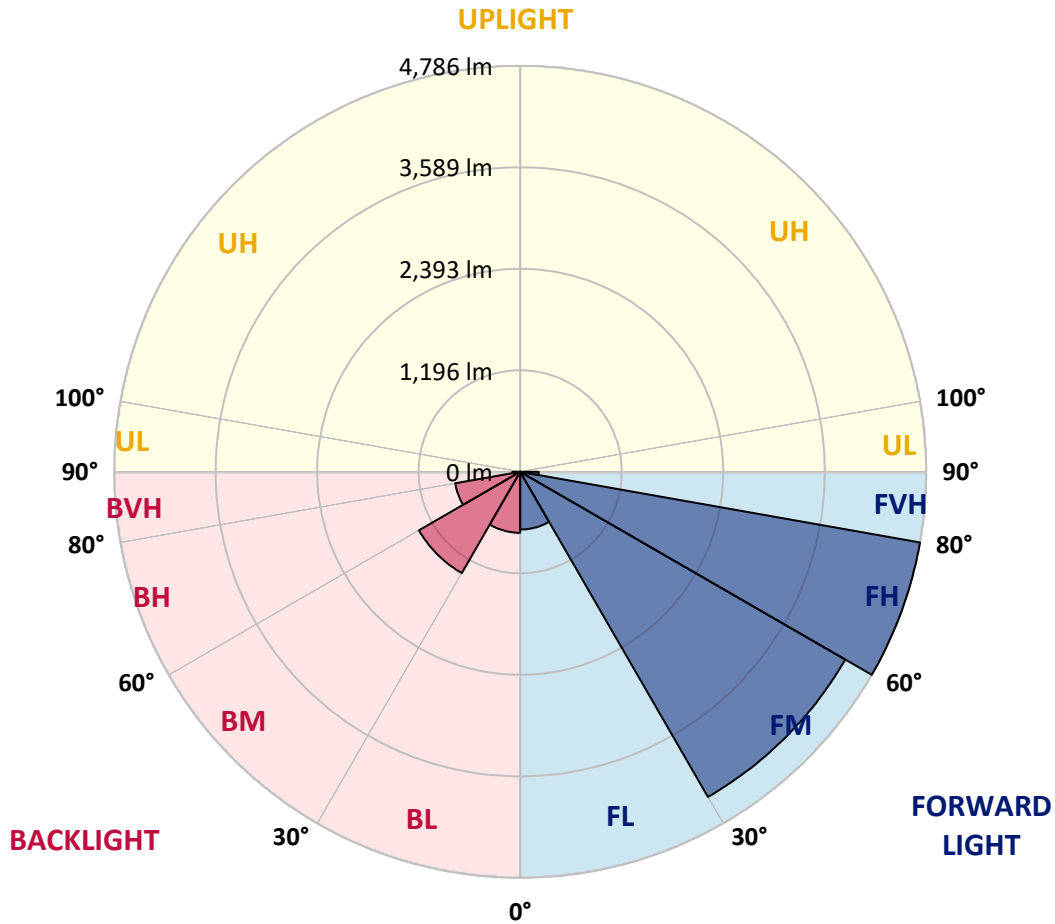
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 680.3  | 5.2       |                         |      |         |
| FM (30°-60°)   | 4425.3 | 33.8      |                         |      |         |
| FH (60°-80°)   | 4785.6 | 36.6      |                         |      | G2/5000 |
| FVH (80°-90°)  | 218.4  | 1.7       |                         |      | G2/225  |
| BL (0°-30°)    | 718.9  | 5.5       | B2/1000                 |      |         |
| BM (30°-60°)   | 1378.0 | 10.5      | B2/2500                 |      |         |
| BH (60°-80°)   | 777.6  | 5.9       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 90.9   | 0.7       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 54°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 |
| 2.5°  | 1405.4 | 1400.6 | 1400.6 | 1407.8 | 1410.2 | 1417.3 | 1417.3 | 1419.7 | 1426.9 | 1438.9 | 1453.3 |
| 5°    | 1362.3 | 1359.9 | 1362.3 | 1371.9 | 1376.6 | 1391.0 | 1395.8 | 1398.2 | 1412.6 | 1431.7 | 1453.3 |
| 7.5°  | 1319.2 | 1316.8 | 1321.6 | 1335.9 | 1350.3 | 1371.9 | 1383.8 | 1386.2 | 1407.8 | 1434.1 | 1462.8 |
| 10°   | 1304.8 | 1302.4 | 1309.6 | 1321.6 | 1335.9 | 1359.9 | 1379.0 | 1381.4 | 1412.6 | 1443.7 | 1484.4 |
| 12.5° | 1324.0 | 1321.6 | 1328.8 | 1340.7 | 1355.1 | 1371.9 | 1393.4 | 1395.8 | 1436.5 | 1477.2 | 1520.3 |
| 15°   | 1371.9 | 1371.9 | 1374.2 | 1381.4 | 1395.8 | 1410.2 | 1429.3 | 1431.7 | 1474.8 | 1522.7 | 1565.8 |
| 17.5° | 1446.1 | 1441.3 | 1441.3 | 1438.9 | 1448.5 | 1455.6 | 1479.6 | 1482.0 | 1527.5 | 1570.6 | 1613.7 |
| 20°   | 1537.0 | 1534.7 | 1525.1 | 1513.1 | 1510.7 | 1515.5 | 1539.4 | 1541.8 | 1587.3 | 1623.2 | 1663.9 |
| 22.5° | 1647.2 | 1649.6 | 1628.0 | 1601.7 | 1589.7 | 1596.9 | 1618.4 | 1620.8 | 1654.4 | 1685.5 | 1721.4 |
| 25°   | 1793.2 | 1786.0 | 1754.9 | 1716.6 | 1692.7 | 1692.7 | 1714.2 | 1714.2 | 1745.3 | 1764.5 | 1788.4 |
| 27.5° | 1932.1 | 1917.7 | 1889.0 | 1833.9 | 1795.6 | 1802.8 | 1824.3 | 1824.3 | 1853.1 | 1860.3 | 1872.2 |
| 30°   | 2082.9 | 2068.5 | 2032.6 | 1963.2 | 1912.9 | 1908.1 | 1934.5 | 1932.1 | 1970.4 | 1968.0 | 1958.4 |
| 32.5° | 2267.3 | 2260.1 | 2200.2 | 2111.6 | 2044.6 | 2027.8 | 2051.8 | 2054.2 | 2078.1 | 2070.9 | 2039.8 |
| 35°   | 2525.8 | 2523.4 | 2468.4 | 2312.8 | 2224.2 | 2193.0 | 2207.4 | 2207.4 | 2224.2 | 2205.0 | 2152.3 |
| 37.5° | 2851.4 | 2856.2 | 2808.3 | 2578.5 | 2454.0 | 2401.3 | 2403.7 | 2401.3 | 2406.1 | 2384.6 | 2329.5 |
| 40°   | 3177.0 | 3189.0 | 3186.6 | 2908.9 | 2750.9 | 2659.9 | 2626.4 | 2621.6 | 2633.6 | 2624.0 | 2571.3 |
| 42.5° | 3605.6 | 3634.3 | 3567.3 | 3315.9 | 3138.7 | 2985.5 | 2894.5 | 2882.6 | 2908.9 | 2920.9 | 2870.6 |
| 45°   | 4050.9 | 4041.3 | 3936.0 | 3754.0 | 3593.6 | 3397.3 | 3224.9 | 3205.8 | 3224.9 | 3260.8 | 3208.2 |
| 47.5° | 4283.1 | 4276.0 | 4249.6 | 4158.6 | 4134.7 | 3909.7 | 3648.7 | 3631.9 | 3596.0 | 3646.3 | 3584.0 |
| 50°   | 4666.2 | 4673.4 | 4565.7 | 4556.1 | 4656.6 | 4532.1 | 4127.5 | 4089.2 | 4024.6 | 4065.3 | 4012.6 |
| 52.5° | 4943.9 | 4912.8 | 4845.8 | 4929.6 | 5243.2 | 5176.2 | 4577.6 | 4560.9 | 4501.0 | 4491.4 | 4467.5 |
| 55°   | 5056.5 | 5056.5 | 5068.4 | 5262.4 | 5710.1 | 5621.5 | 5066.0 | 5082.8 | 5001.4 | 4934.4 | 4965.5 |
| 57.5° | 5090.0 | 5104.3 | 5207.3 | 5528.1 | 6258.3 | 5968.6 | 5604.7 | 5628.7 | 5511.3 | 5377.3 | 5475.4 |
| 60°   | 4924.8 | 4967.9 | 5214.5 | 5678.9 | 6567.2 | 6337.3 | 6172.1 | 6179.3 | 6009.3 | 5813.0 | 5985.4 |
| 62.5° | 4501.0 | 4553.7 | 4994.2 | 5741.2 | 6516.9 | 6715.6 | 6708.4 | 6725.2 | 6492.9 | 6248.7 | 6464.2 |
| 65°   | 3981.5 | 4034.2 | 4503.4 | 5566.4 | 6478.6 | 6986.1 | 7199.2 | 7244.7 | 6945.4 | 6617.4 | 6763.5 |
| 67.5° | 3217.7 | 3287.2 | 3732.5 | 4977.4 | 6291.8 | 7208.8 | 7658.9 | 7706.8 | 7295.0 | 6809.0 | 6737.2 |
| 70°   | 2331.9 | 2365.4 | 2738.9 | 3782.8 | 5530.5 | 7086.7 | 8022.8 | 8020.4 | 7409.9 | 6794.6 | 6378.0 |
| 72.5° | 1122.9 | 1149.2 | 1472.4 | 2348.7 | 3955.1 | 6014.1 | 7759.5 | 7804.9 | 7251.9 | 6586.3 | 5556.8 |
| 75°   | 462.1  | 488.4  | 596.1  | 991.2  | 2075.7 | 3974.3 | 6576.7 | 6684.5 | 6586.3 | 5911.2 | 4347.8 |
| 77.5° | 287.3  | 296.9  | 349.5  | 512.3  | 948.1  | 1855.5 | 4604.0 | 4750.0 | 5219.3 | 4735.6 | 2870.6 |
| 80°   | 215.5  | 222.7  | 261.0  | 359.1  | 598.5  | 684.7  | 2286.4 | 2470.8 | 3162.7 | 2717.4 | 1300.0 |
| 82.5° | 179.6  | 182.0  | 208.3  | 261.0  | 407.0  | 392.6  | 732.6  | 816.4  | 1474.8 | 1036.7 | 447.7  |
| 85°   | 167.6  | 172.4  | 186.7  | 186.7  | 258.6  | 246.6  | 304.1  | 318.4  | 428.6  | 354.3  | 155.6  |
| 87.5° | 86.2   | 81.4   | 165.2  | 146.0  | 134.1  | 119.7  | 129.3  | 138.9  | 160.4  | 170.0  | 69.4   |
| 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°    | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 | 1462.8 |
| 2.5°  | 1458.0 | 1465.2 | 1477.2 | 1489.2 | 1503.5 | 1520.3 | 1529.9 | 1541.8 | 1551.4 | 1546.6 | 1544.2 |
| 5°    | 1465.2 | 1477.2 | 1503.5 | 1527.5 | 1556.2 | 1589.7 | 1611.3 | 1635.2 | 1654.4 | 1659.1 | 1652.0 |
| 7.5°  | 1477.2 | 1498.7 | 1534.7 | 1577.7 | 1616.1 | 1659.1 | 1692.7 | 1726.2 | 1750.1 | 1754.9 | 1754.9 |
| 10°   | 1505.9 | 1529.9 | 1577.7 | 1635.2 | 1680.7 | 1726.2 | 1764.5 | 1790.8 | 1812.4 | 1822.0 | 1822.0 |
| 12.5° | 1546.6 | 1575.4 | 1632.8 | 1702.2 | 1752.5 | 1795.6 | 1817.2 | 1829.1 | 1838.7 | 1848.3 | 1850.7 |
| 15°   | 1594.5 | 1625.6 | 1695.1 | 1769.3 | 1822.0 | 1843.5 | 1843.5 | 1841.1 | 1841.1 | 1845.9 | 1850.7 |
| 17.5° | 1642.4 | 1675.9 | 1747.7 | 1826.7 | 1860.3 | 1848.3 | 1831.5 | 1824.3 | 1819.6 | 1817.2 | 1824.3 |
| 20°   | 1692.7 | 1726.2 | 1798.0 | 1872.2 | 1862.7 | 1812.4 | 1788.4 | 1771.7 | 1757.3 | 1750.1 | 1759.7 |
| 22.5° | 1747.7 | 1778.9 | 1853.1 | 1903.4 | 1831.5 | 1754.9 | 1709.4 | 1683.1 | 1659.1 | 1644.8 | 1654.4 |
| 25°   | 1812.4 | 1843.5 | 1915.3 | 1912.9 | 1776.5 | 1668.7 | 1596.9 | 1553.8 | 1527.5 | 1513.1 | 1513.1 |
| 27.5° | 1889.0 | 1915.3 | 1984.8 | 1889.0 | 1699.8 | 1553.8 | 1448.5 | 1407.8 | 1400.6 | 1388.6 | 1388.6 |
| 30°   | 1968.0 | 1989.5 | 2049.4 | 1833.9 | 1594.5 | 1403.0 | 1288.1 | 1268.9 | 1271.3 | 1259.3 | 1261.7 |
| 32.5° | 2049.4 | 2070.9 | 2087.7 | 1752.5 | 1458.0 | 1233.0 | 1156.4 | 1142.0 | 1139.6 | 1130.0 | 1120.5 |
| 35°   | 2164.3 | 2195.4 | 2092.5 | 1642.4 | 1292.8 | 1091.7 | 1036.7 | 1022.3 | 1007.9 | 974.4  | 974.4  |
| 37.5° | 2339.1 | 2372.6 | 2080.5 | 1505.9 | 1122.9 | 981.6  | 931.3  | 912.2  | 888.2  | 854.7  | 842.7  |
| 40°   | 2578.5 | 2578.5 | 2054.2 | 1352.7 | 986.4  | 893.0  | 845.1  | 821.2  | 794.9  | 761.3  | 754.2  |
| 42.5° | 2861.0 | 2794.0 | 2013.5 | 1197.1 | 885.8  | 833.2  | 790.1  | 763.7  | 732.6  | 694.3  | 689.5  |
| 45°   | 3191.4 | 3009.5 | 1956.0 | 1058.2 | 811.6  | 797.3  | 770.9  | 725.4  | 672.8  | 632.1  | 624.9  |
| 47.5° | 3512.2 | 3203.4 | 1901.0 | 960.1  | 749.4  | 782.9  | 761.3  | 684.7  | 612.9  | 555.4  | 548.3  |
| 50°   | 3864.2 | 3375.8 | 1836.3 | 878.7  | 701.5  | 773.3  | 749.4  | 624.9  | 545.9  | 505.2  | 500.4  |
| 52.5° | 4216.1 | 3550.5 | 1766.9 | 792.5  | 660.8  | 754.2  | 720.6  | 581.8  | 543.5  | 488.4  | 481.2  |
| 55°   | 4587.2 | 3754.0 | 1685.5 | 696.7  | 612.9  | 715.9  | 682.3  | 579.4  | 560.2  | 488.4  | 471.6  |
| 57.5° | 4948.7 | 3979.1 | 1553.8 | 603.3  | 560.2  | 658.4  | 668.0  | 565.0  | 524.3  | 483.6  | 464.5  |
| 60°   | 5348.5 | 4218.5 | 1335.9 | 524.3  | 514.7  | 610.5  | 648.8  | 533.9  | 483.6  | 469.3  | 459.7  |
| 62.5° | 5669.4 | 4434.0 | 1043.9 | 469.3  | 476.4  | 572.2  | 624.9  | 514.7  | 466.9  | 454.9  | 452.5  |
| 65°   | 5808.2 | 4438.8 | 749.4  | 421.4  | 438.1  | 536.3  | 600.9  | 498.0  | 452.5  | 447.7  | 445.3  |
| 67.5° | 5662.2 | 4194.6 | 526.7  | 375.9  | 397.4  | 502.8  | 569.8  | 481.2  | 438.1  | 440.5  | 435.7  |
| 70°   | 5190.5 | 3679.8 | 385.5  | 332.8  | 359.1  | 466.9  | 536.3  | 459.7  | 421.4  | 426.2  | 419.0  |
| 72.5° | 4343.0 | 2868.2 | 308.8  | 296.9  | 328.0  | 428.6  | 502.8  | 435.7  | 395.0  | 397.4  | 383.1  |
| 75°   | 3208.2 | 1901.0 | 258.6  | 265.8  | 292.1  | 392.6  | 459.7  | 404.6  | 366.3  | 356.7  | 347.2  |
| 77.5° | 1908.1 | 976.8  | 213.1  | 232.2  | 261.0  | 349.5  | 411.8  | 366.3  | 335.2  | 318.4  | 311.2  |
| 80°   | 787.7  | 395.0  | 174.8  | 196.3  | 227.4  | 311.2  | 363.9  | 320.8  | 299.3  | 282.5  | 272.9  |
| 82.5° | 313.6  | 193.9  | 138.9  | 160.4  | 191.5  | 270.5  | 318.4  | 282.5  | 261.0  | 249.0  | 222.7  |
| 85°   | 119.7  | 95.8   | 93.4   | 112.5  | 143.6  | 208.3  | 263.4  | 237.0  | 220.3  | 189.1  | 182.0  |
| 87.5° | 47.9   | 43.1   | 43.1   | 55.1   | 81.4   | 131.7  | 189.1  | 165.2  | 172.4  | 136.5  | 138.9  |
| 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)