

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: P236829

Luminaire Tested: **ARCH-L-AF72-160-D-U-T2R-7030**

Issue Date: 8/23/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P236829  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 8/23/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-160-D-U-T2R-7030  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 705mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20427.1 lumens  
Efficiency: N/A  
Efficacy: 126.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

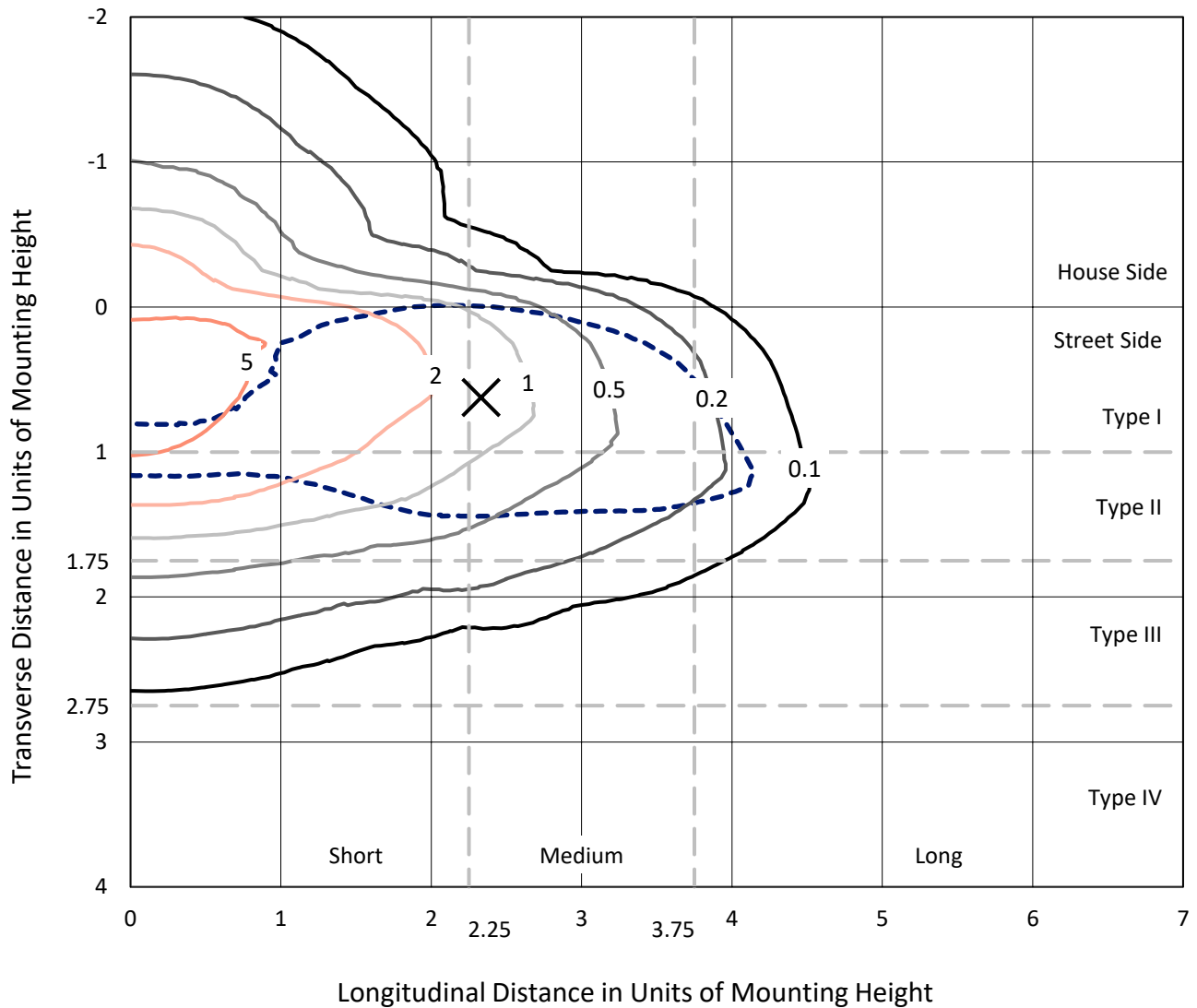
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

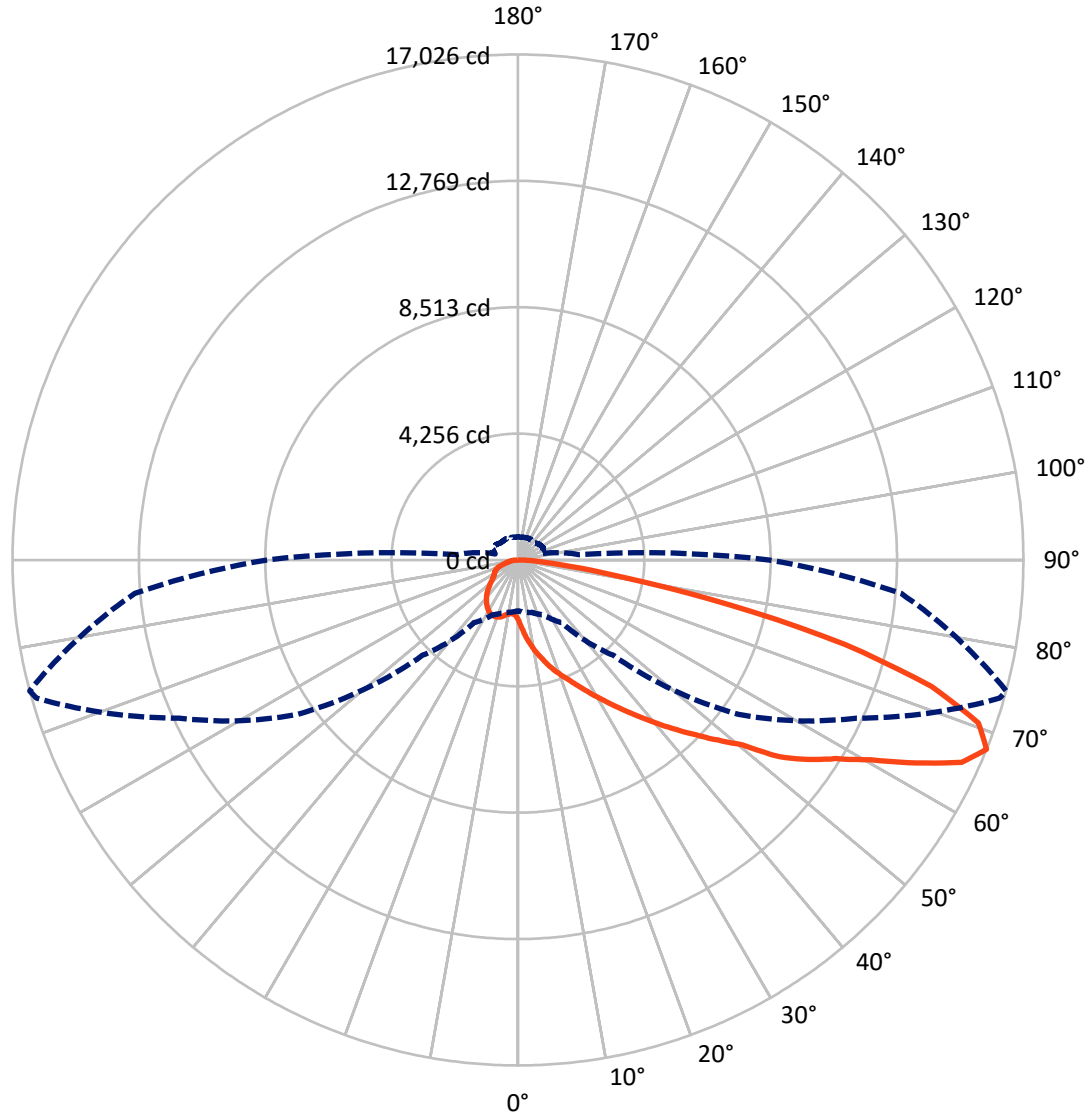
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc  
 Type II - Medium - N/A

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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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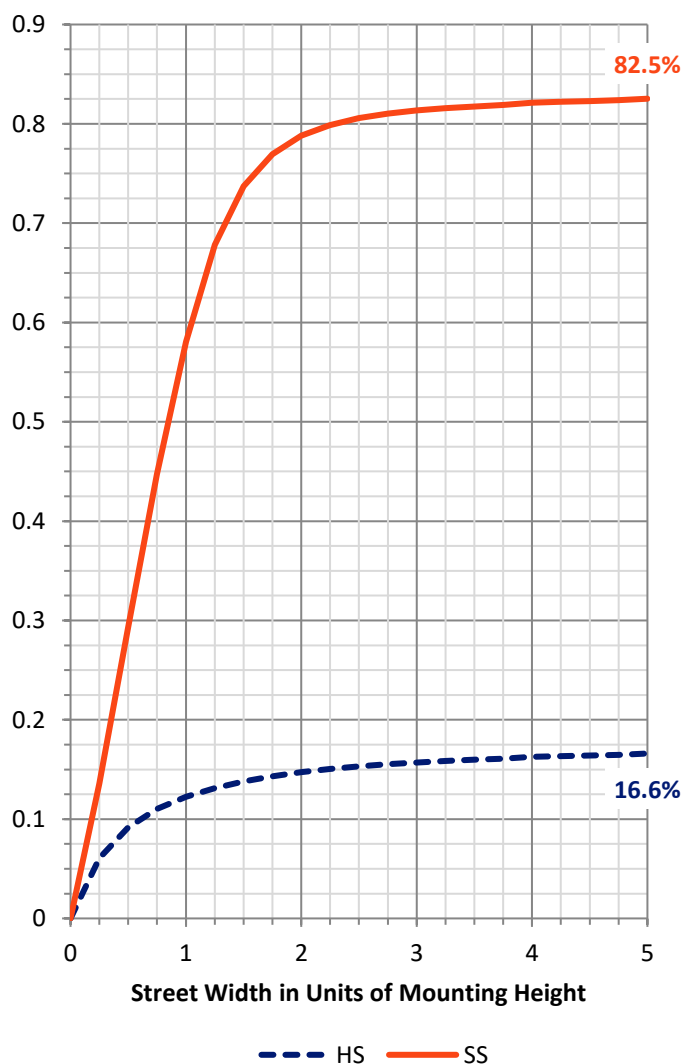
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3488.2   | 0.0    | 3488.2  |
|                    | % Fixture | 17.1     | 0.0    | 17.1    |
| <b>Street Side</b> | Lumens    | 16938.9  | 0.0    | 16938.9 |
|                    | % Fixture | 82.9     | 0.0    | 82.9    |
| <b>Total</b>       | Lumens    | 20427.1  | 0.0    | 20427.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 237.8   | 1.2       |
| 10°-20°   | 859.4   | 4.2       |
| 20°-30°   | 1567.4  | 7.7       |
| 30°-40°   | 2572.7  | 12.6      |
| 40°-50°   | 3720.5  | 18.2      |
| 50°-60°   | 4384.7  | 21.5      |
| 60°-70°   | 4260.8  | 20.9      |
| 70°-80°   | 2368.4  | 11.6      |
| 80°-90°   | 455.4   | 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°    | 20427.1 | 100.0     |
| 0°-180°   | 20427.1 | 100.0     |

**Coefficient of Utilization**

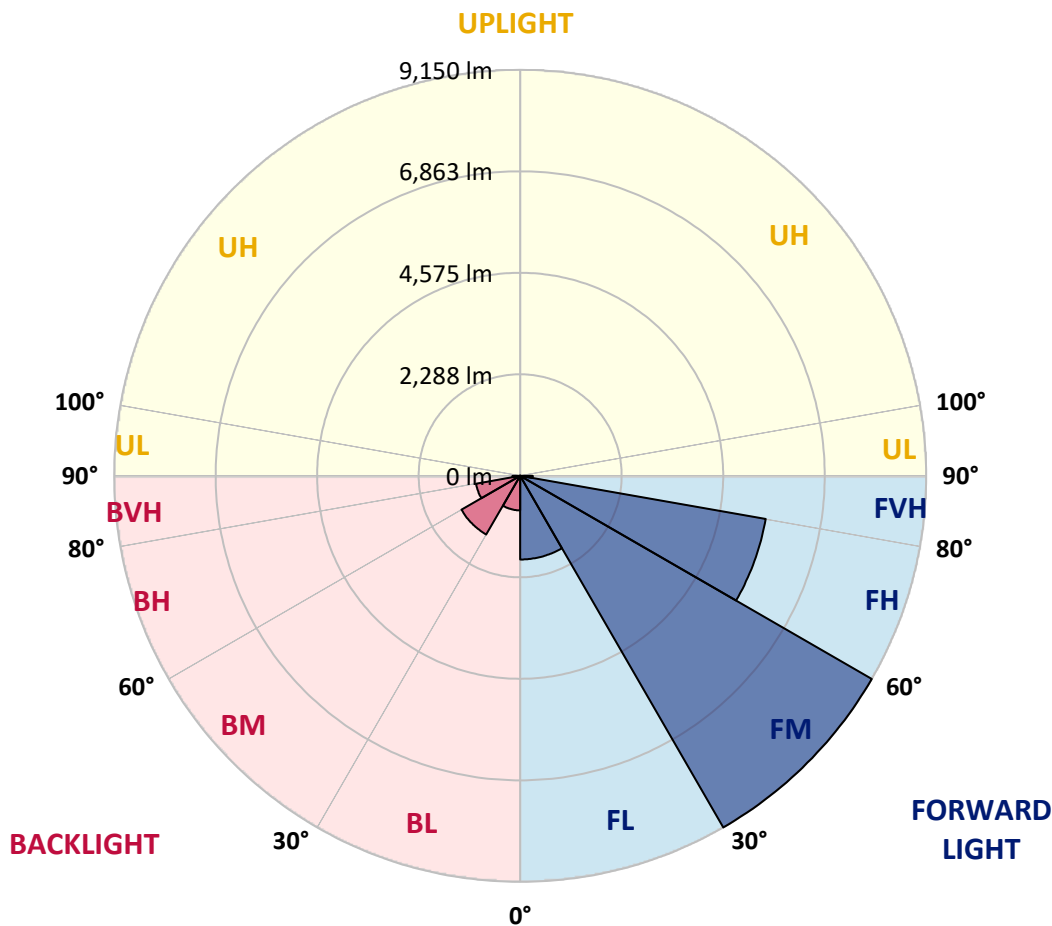


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1886.0 | 9.2       |                         |      |         |
| FM (30°-60°)   | 9150.3 | 44.8      |                         |      |         |
| FH (60°-80°)   | 5619.3 | 27.5      |                         |      | G3/7500 |
| FVH (80°-90°)  | 283.4  | 1.4       |                         |      | G3/500  |
| BL (0°-30°)    | 778.6  | 3.8       | B2/1000                 |      |         |
| BM (30°-60°)   | 1527.7 | 7.5       | B2/2500                 |      |         |
| BH (60°-80°)   | 1010.0 | 4.9       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 172.0  | 0.8       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 74°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0°    | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1  | 2024.1  | 2024.1  | 2024.1  | 2024.1  |
| 2.5°  | 2869.7 | 2878.2 | 2861.1 | 2822.7 | 2767.2 | 2664.8 | 2575.0  | 2417.1  | 2276.1  | 2259.1  | 2109.6  |
| 5°    | 3373.6 | 3382.1 | 3360.7 | 3313.8 | 3254.0 | 3143.0 | 3019.2  | 2814.1  | 2587.8  | 2545.0  | 2229.1  |
| 7.5°  | 3719.4 | 3723.7 | 3698.1 | 3651.1 | 3604.1 | 3493.1 | 3369.2  | 3138.7  | 2861.1  | 2827.0  | 2382.8  |
| 10°   | 4014.0 | 4022.6 | 3988.5 | 3958.6 | 3907.3 | 3796.3 | 3668.2  | 3424.8  | 3138.7  | 3091.7  | 2540.9  |
| 12.5° | 4287.5 | 4296.0 | 4274.6 | 4249.0 | 4231.8 | 4129.4 | 3988.5  | 3698.1  | 3390.7  | 3339.4  | 2728.8  |
| 15°   | 4471.0 | 4479.5 | 4483.8 | 4518.0 | 4539.2 | 4466.7 | 4325.8  | 4009.9  | 3663.9  | 3616.9  | 2950.8  |
| 17.5° | 4419.7 | 4441.2 | 4505.2 | 4629.0 | 4761.4 | 4765.7 | 4650.4  | 4317.3  | 3933.0  | 3881.8  | 3177.2  |
| 20°   | 4270.3 | 4287.5 | 4364.3 | 4552.2 | 4812.7 | 4962.1 | 4953.6  | 4629.0  | 4184.9  | 4129.4  | 3386.4  |
| 22.5° | 4394.2 | 4415.5 | 4415.5 | 4530.8 | 4786.9 | 5064.6 | 5175.6  | 4936.5  | 4436.8  | 4385.5  | 3595.6  |
| 25°   | 4923.7 | 4936.5 | 4846.8 | 4799.9 | 4893.7 | 5150.1 | 5359.2  | 5269.6  | 4744.4  | 4684.5  | 3821.9  |
| 27.5° | 5662.5 | 5641.0 | 5530.0 | 5342.1 | 5239.6 | 5308.1 | 5521.5  | 5585.6  | 5098.8  | 5026.2  | 4056.8  |
| 30°   | 6396.9 | 6384.1 | 6255.9 | 6004.1 | 5773.5 | 5628.3 | 5700.8  | 5867.4  | 5483.0  | 5397.6  | 4283.1  |
| 32.5° | 7084.5 | 7063.1 | 6922.1 | 6627.5 | 6367.1 | 6098.0 | 5957.1  | 6123.7  | 5893.0  | 5794.8  | 4535.1  |
| 35°   | 7716.4 | 7660.9 | 7520.0 | 7212.5 | 6943.5 | 6687.3 | 6341.4  | 6367.1  | 6337.1  | 6234.7  | 4812.7  |
| 37.5° | 8228.9 | 8186.1 | 8032.4 | 7746.4 | 7460.2 | 7216.8 | 6853.9  | 6644.6  | 6815.4  | 6717.2  | 5132.9  |
| 40°   | 8681.5 | 8634.5 | 8476.6 | 8190.4 | 7925.6 | 7695.1 | 7409.0  | 6982.0  | 7353.4  | 7242.5  | 5491.6  |
| 42.5° | 9023.1 | 8989.0 | 8860.9 | 8579.0 | 8322.9 | 8113.6 | 7972.6  | 7409.0  | 7912.9  | 7806.1  | 5884.4  |
| 45°   | 9206.8 | 9172.7 | 9104.2 | 8878.0 | 8643.1 | 8480.8 | 8493.6  | 7917.2  | 8497.9  | 8408.3  | 6349.9  |
| 47.5° | 8980.4 | 9006.1 | 9065.9 | 9023.1 | 8878.0 | 8801.2 | 8959.1  | 8442.4  | 9151.2  | 9065.9  | 6853.9  |
| 50°   | 8374.0 | 8399.8 | 8638.8 | 8933.5 | 8984.7 | 9078.7 | 9377.6  | 9048.8  | 9843.0  | 9774.8  | 7477.2  |
| 52.5° | 6883.8 | 7024.6 | 7686.6 | 8391.1 | 8873.7 | 9262.4 | 9843.0  | 9949.8  | 11008.9 | 11008.9 | 8579.0  |
| 55°   | 5201.3 | 5325.1 | 6081.0 | 7310.7 | 8442.4 | 9279.4 | 10184.7 | 10560.5 | 11850.1 | 11867.2 | 9155.5  |
| 57.5° | 4214.7 | 4291.7 | 4663.1 | 5923.0 | 7537.1 | 9065.9 | 10590.4 | 11085.8 | 12550.4 | 12627.3 | 9898.6  |
| 60°   | 3420.5 | 3463.2 | 3706.6 | 4582.0 | 6285.9 | 8489.3 | 10880.8 | 11837.2 | 13549.7 | 13656.5 | 10846.6 |
| 62.5° | 2750.0 | 2792.7 | 2955.0 | 3480.4 | 4932.2 | 7409.0 | 10829.4 | 12618.8 | 14881.9 | 15057.1 | 12089.2 |
| 65°   | 2194.9 | 2241.9 | 2348.6 | 2673.2 | 3655.4 | 6068.2 | 10304.2 | 13020.2 | 16261.4 | 16432.1 | 12913.5 |
| 67.5° | 1712.4 | 1755.1 | 1827.7 | 2041.2 | 2575.0 | 4539.2 | 9061.6  | 12597.4 | 16880.5 | 17025.8 | 12956.1 |
| 70°   | 1293.9 | 1315.3 | 1375.0 | 1511.7 | 1840.5 | 3014.8 | 7093.0  | 11179.6 | 16325.4 | 16457.7 | 12102.1 |
| 72.5° | 1003.5 | 999.2  | 1033.4 | 1101.8 | 1285.3 | 2075.4 | 4701.7  | 9091.5  | 14433.7 | 14570.3 | 10325.6 |
| 75°   | 819.9  | 815.6  | 837.0  | 858.3  | 930.9  | 1392.1 | 2775.7  | 6845.3  | 11649.4 | 11388.9 | 7746.4  |
| 77.5° | 691.8  | 687.6  | 708.9  | 713.1  | 743.1  | 960.8  | 1580.0  | 4505.2  | 7771.9  | 7323.5  | 4364.3  |
| 80°   | 585.1  | 580.7  | 606.4  | 614.9  | 636.3  | 704.6  | 909.6   | 2438.3  | 3903.1  | 3698.1  | 2083.9  |
| 82.5° | 439.9  | 456.9  | 503.9  | 525.2  | 550.8  | 520.9  | 563.7   | 1076.1  | 1810.7  | 1729.5  | 905.3   |
| 85°   | 213.5  | 252.0  | 380.0  | 422.8  | 452.7  | 328.8  | 384.4   | 508.2   | 815.6   | 777.2   | 367.2   |
| 87.5° | 72.5   | 64.0   | 226.2  | 269.0  | 294.7  | 149.4  | 213.5   | 281.9   | 337.4   | 307.4   | 115.3   |
| 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°    | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 | 2024.1 |
| 2.5°  | 2045.5 | 1981.4 | 1887.5 | 1814.9 | 1768.0 | 1729.5 | 1712.4 | 1708.2 | 1699.6 | 1695.2 | 1695.2 |
| 5°    | 2088.2 | 1972.9 | 1827.7 | 1750.9 | 1729.5 | 1712.4 | 1721.0 | 1725.2 | 1725.2 | 1725.2 | 1725.2 |
| 7.5°  | 2152.2 | 1989.9 | 1814.9 | 1763.7 | 1759.4 | 1759.4 | 1785.0 | 1797.8 | 1806.4 | 1806.4 | 1806.4 |
| 10°   | 2237.6 | 2019.8 | 1836.2 | 1793.5 | 1806.4 | 1814.9 | 1844.8 | 1861.9 | 1870.4 | 1874.7 | 1878.9 |
| 12.5° | 2352.9 | 2083.9 | 1878.9 | 1844.8 | 1861.9 | 1866.1 | 1887.5 | 1895.9 | 1904.6 | 1908.9 | 1908.9 |
| 15°   | 2506.6 | 2177.9 | 1947.2 | 1904.6 | 1908.9 | 1904.6 | 1904.6 | 1895.9 | 1891.8 | 1891.8 | 1900.2 |
| 17.5° | 2664.8 | 2267.5 | 2007.1 | 1947.2 | 1930.2 | 1895.9 | 1870.4 | 1849.0 | 1836.2 | 1827.7 | 1832.0 |
| 20°   | 2822.7 | 2348.6 | 2041.2 | 1955.8 | 1908.9 | 1853.4 | 1806.4 | 1776.4 | 1759.4 | 1742.2 | 1750.9 |
| 22.5° | 2980.7 | 2425.5 | 2054.0 | 1930.2 | 1861.9 | 1780.7 | 1729.5 | 1682.5 | 1644.1 | 1618.4 | 1622.7 |
| 25°   | 3155.7 | 2511.0 | 2054.0 | 1900.2 | 1797.8 | 1712.4 | 1648.2 | 1571.4 | 1516.0 | 1494.5 | 1503.2 |
| 27.5° | 3330.9 | 2583.6 | 2032.7 | 1844.8 | 1725.2 | 1639.8 | 1545.8 | 1456.2 | 1422.0 | 1409.2 | 1413.5 |
| 30°   | 3505.9 | 2639.0 | 1985.7 | 1776.4 | 1648.2 | 1554.4 | 1430.5 | 1370.7 | 1328.0 | 1293.9 | 1298.2 |
| 32.5° | 3681.1 | 2677.5 | 1921.7 | 1691.0 | 1567.3 | 1447.6 | 1345.2 | 1276.8 | 1200.0 | 1157.3 | 1161.5 |
| 35°   | 3881.8 | 2707.3 | 1844.8 | 1605.7 | 1477.5 | 1353.7 | 1276.8 | 1165.8 | 1084.6 | 1050.5 | 1042.0 |
| 37.5° | 4091.0 | 2728.8 | 1763.7 | 1511.7 | 1387.8 | 1285.3 | 1208.5 | 1071.9 | 995.1  | 948.1  | 943.8  |
| 40°   | 4317.3 | 2737.3 | 1665.4 | 1413.5 | 1302.5 | 1242.6 | 1118.9 | 1016.3 | 883.9  | 854.1  | 854.1  |
| 42.5° | 4586.2 | 2733.0 | 1567.3 | 1315.3 | 1208.5 | 1144.5 | 1054.8 | 1007.8 | 892.5  | 862.6  | 845.5  |
| 45°   | 4893.7 | 2733.0 | 1460.5 | 1200.0 | 1114.6 | 1020.6 | 982.1  | 952.3  | 875.3  | 888.3  | 896.8  |
| 47.5° | 5243.9 | 2724.5 | 1332.3 | 1106.0 | 1037.6 | 956.6  | 935.1  | 871.2  | 841.3  | 849.8  | 858.3  |
| 50°   | 5726.5 | 2737.3 | 1217.0 | 1029.1 | 982.1  | 913.9  | 888.3  | 854.1  | 841.3  | 845.5  | 841.3  |
| 52.5° | 6396.9 | 2694.6 | 1106.0 | 982.1  | 939.5  | 849.8  | 849.8  | 845.5  | 849.8  | 845.5  | 845.5  |
| 55°   | 6764.1 | 2600.6 | 1024.9 | 956.6  | 909.6  | 819.9  | 837.0  | 845.5  | 854.1  | 849.8  | 849.8  |
| 57.5° | 7285.2 | 2536.6 | 960.8  | 939.5  | 892.5  | 811.4  | 828.4  | 845.5  | 849.8  | 845.5  | 845.5  |
| 60°   | 7900.1 | 2493.9 | 918.1  | 943.8  | 879.6  | 811.4  | 832.7  | 845.5  | 841.3  | 837.0  | 837.0  |
| 62.5° | 8613.2 | 2476.8 | 888.3  | 956.6  | 866.9  | 815.6  | 832.7  | 845.5  | 828.4  | 824.2  | 824.2  |
| 65°   | 8882.2 | 2323.1 | 849.8  | 965.1  | 875.3  | 815.6  | 828.4  | 832.7  | 811.4  | 807.1  | 802.8  |
| 67.5° | 8468.0 | 2058.3 | 794.4  | 948.1  | 901.1  | 815.6  | 815.6  | 811.4  | 785.7  | 781.4  | 772.9  |
| 70°   | 7541.4 | 1708.2 | 708.9  | 892.5  | 918.1  | 819.9  | 798.5  | 777.2  | 751.6  | 751.6  | 734.4  |
| 72.5° | 6174.9 | 1345.2 | 597.8  | 794.4  | 905.3  | 832.7  | 764.4  | 734.4  | 704.6  | 704.6  | 687.6  |
| 75°   | 4449.7 | 1003.5 | 478.2  | 661.9  | 849.8  | 828.4  | 721.6  | 683.2  | 649.1  | 644.8  | 623.5  |
| 77.5° | 2536.6 | 704.6  | 388.6  | 516.7  | 755.8  | 807.1  | 683.2  | 623.5  | 585.1  | 572.2  | 559.4  |
| 80°   | 1302.5 | 473.9  | 316.0  | 405.7  | 627.7  | 747.4  | 653.4  | 555.1  | 512.4  | 491.1  | 469.7  |
| 82.5° | 619.2  | 316.0  | 243.4  | 299.0  | 473.9  | 653.4  | 614.9  | 478.2  | 431.3  | 405.7  | 380.0  |
| 85°   | 277.5  | 187.9  | 162.2  | 192.2  | 337.4  | 508.2  | 542.4  | 392.9  | 337.4  | 422.8  | 311.7  |
| 87.5° | 89.7   | 85.4   | 85.4   | 89.7   | 162.2  | 222.1  | 397.1  | 290.4  | 269.0  | 222.1  | 187.9  |
| 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)