

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: P842744

Luminaire Tested: **ARCH4-90-727-U-T4W-HSS**

Issue Date: 5/27/2024

### Test Information

Test Method: LM-79-08  
Report Number: P842744  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2401-285-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-90-727-U-T4W-HSS  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 765mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 10683 lumens  
Efficiency: N/A  
Efficacy: 114.7 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 93.1  
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



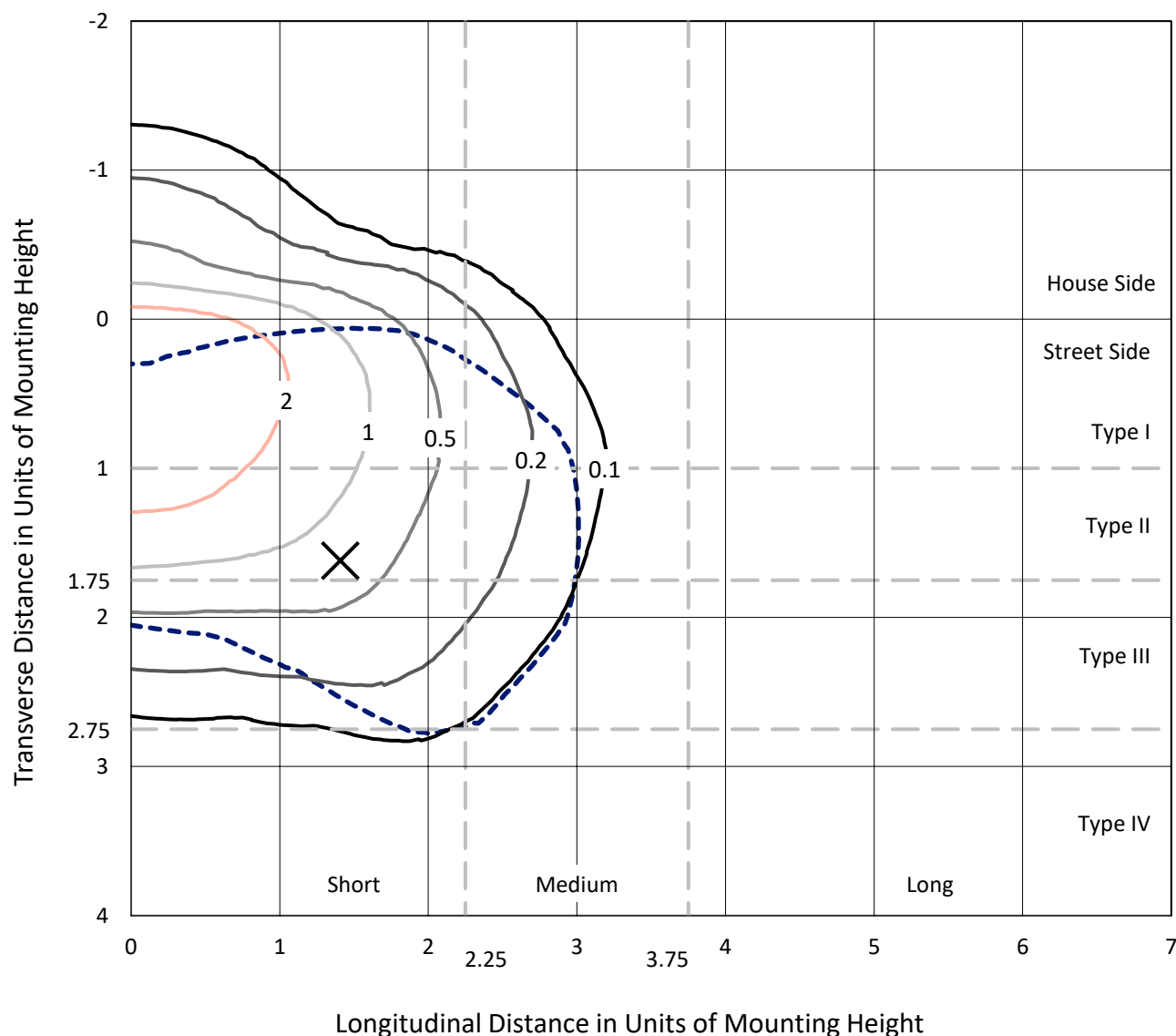
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

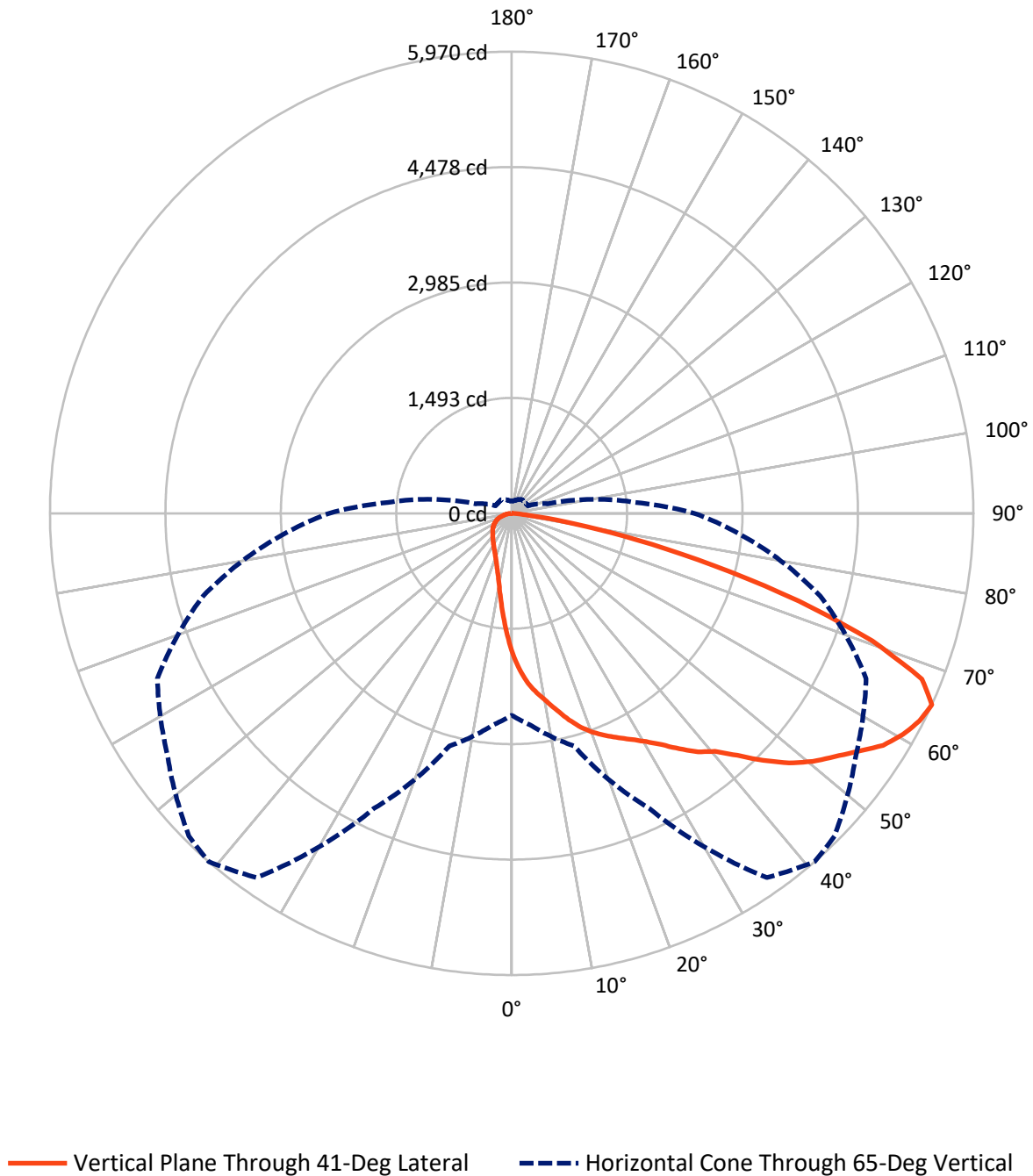


Based on 25 foot mounting height. Maximum calculated value = 4.2 fc

Type III - Short - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1371.5   | 0.0    | 1371.5  |
|                    | % Fixture | 12.8     | 0.0    | 12.8    |
| <b>Street Side</b> | Lumens    | 9311.5   | 0.0    | 9311.5  |
|                    | % Fixture | 87.2     | 0.0    | 87.2    |
| <b>Total</b>       | Lumens    | 10683.0  | 0.0    | 10683.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 169.6   | 1.6       |
| 10°-20°   | 508.6   | 4.8       |
| 20°-30°   | 874.9   | 8.2       |
| 30°-40°   | 1327.0  | 12.4      |
| 40°-50°   | 1944.1  | 18.2      |
| 50°-60°   | 2454.9  | 23.0      |
| 60°-70°   | 2301.9  | 21.5      |
| 70°-80°   | 1026.0  | 9.6       |
| 80°-90°   | 76.0    | 0.7       |
| 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°    | 10683.0 | 100.0     |
| 0°-180°   | 10683.0 | 100.0     |

**Coefficient of Utilization**



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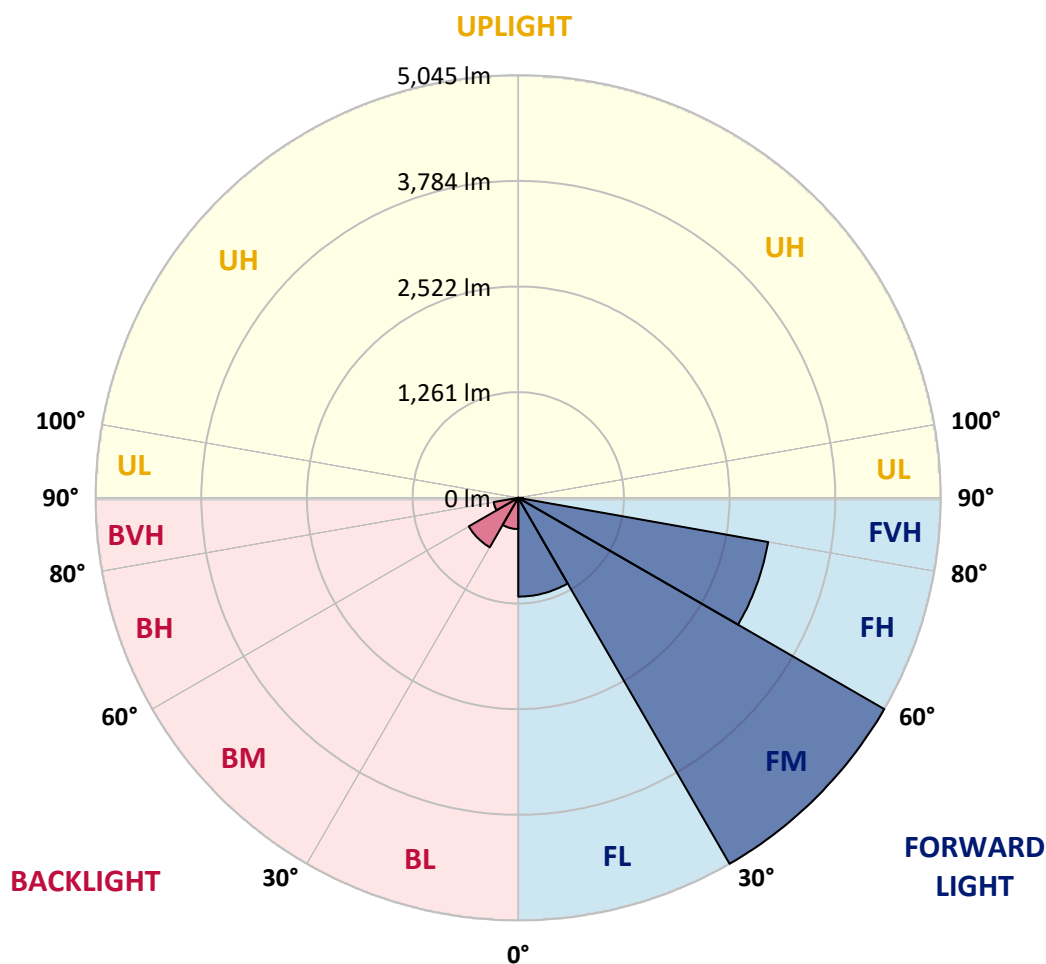
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1179.8 | 11.0      |                         |      |         |
| FM   | (30°-60°)   | 5044.9 | 47.2      |                         |      |         |
| FH   | (60°-80°)   | 3030.0 | 28.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 56.8   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 373.3  | 3.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 681.0  | 6.4       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 297.9  | 2.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 19.2   | 0.2       |                         |      | 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 III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 41°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 |
| 2.5°  | 2099.7 | 2092.9 | 2088.4 | 2063.6 | 2063.6 | 2029.8 | 2032.1 | 2000.6 | 1962.3 | 1901.4 | 1836.1 |
| 5°    | 2297.9 | 2288.9 | 2277.7 | 2252.9 | 2243.9 | 2210.1 | 2205.6 | 2160.5 | 2095.2 | 1989.3 | 1872.1 |
| 7.5°  | 2471.4 | 2462.4 | 2446.6 | 2410.6 | 2385.8 | 2345.2 | 2334.0 | 2275.4 | 2203.3 | 2072.6 | 1908.2 |
| 10°   | 2629.1 | 2622.4 | 2602.1 | 2557.0 | 2523.2 | 2473.7 | 2453.4 | 2374.5 | 2284.4 | 2140.2 | 1937.5 |
| 12.5° | 2789.1 | 2780.1 | 2753.0 | 2714.7 | 2674.2 | 2615.6 | 2590.8 | 2489.4 | 2374.5 | 2214.6 | 1980.3 |
| 15°   | 2937.8 | 2924.2 | 2904.0 | 2863.4 | 2827.4 | 2771.0 | 2744.0 | 2624.6 | 2484.9 | 2297.9 | 2036.6 |
| 17.5° | 3034.6 | 3023.4 | 3005.3 | 2982.8 | 2953.5 | 2910.7 | 2883.7 | 2766.5 | 2595.3 | 2379.0 | 2095.2 |
| 20°   | 3093.2 | 3088.7 | 3081.9 | 3068.4 | 3054.9 | 3025.6 | 3005.3 | 2895.0 | 2714.7 | 2457.9 | 2151.5 |
| 22.5° | 3138.3 | 3133.8 | 3131.5 | 3131.5 | 3133.8 | 3122.5 | 3109.0 | 3014.4 | 2829.6 | 2541.2 | 2203.3 |
| 25°   | 3208.1 | 3205.8 | 3201.3 | 3196.8 | 3212.6 | 3214.9 | 3210.4 | 3145.0 | 2973.8 | 2651.6 | 2268.7 |
| 27.5° | 3305.0 | 3298.2 | 3289.2 | 3284.7 | 3300.5 | 3311.7 | 3320.7 | 3275.7 | 3127.0 | 2764.3 | 2343.0 |
| 30°   | 3453.7 | 3433.4 | 3410.9 | 3395.1 | 3406.4 | 3424.4 | 3444.7 | 3417.6 | 3284.7 | 2904.0 | 2419.6 |
| 32.5° | 3629.4 | 3604.6 | 3552.8 | 3523.5 | 3552.8 | 3566.3 | 3582.1 | 3568.6 | 3449.2 | 3054.9 | 2496.2 |
| 35°   | 3843.4 | 3814.1 | 3760.1 | 3717.3 | 3769.1 | 3739.8 | 3733.0 | 3719.5 | 3604.6 | 3203.6 | 2581.8 |
| 37.5° | 4199.4 | 4156.6 | 4071.0 | 3976.3 | 3976.3 | 3913.3 | 3888.5 | 3847.9 | 3744.3 | 3336.5 | 2665.2 |
| 40°   | 4611.6 | 4555.3 | 4444.9 | 4305.3 | 4176.8 | 4046.2 | 4030.4 | 4001.1 | 3908.7 | 3489.7 | 2759.8 |
| 42.5° | 5064.5 | 4956.3 | 4803.1 | 4634.2 | 4426.9 | 4278.2 | 4242.2 | 4158.8 | 4068.7 | 3645.2 | 2854.4 |
| 45°   | 5566.9 | 5341.6 | 5118.5 | 5032.9 | 4690.5 | 4555.3 | 4487.7 | 4336.8 | 4235.4 | 3807.4 | 2953.5 |
| 47.5° | 5648.0 | 5472.2 | 5323.6 | 5310.0 | 4936.1 | 4823.4 | 4746.8 | 4530.5 | 4415.6 | 3980.8 | 3057.2 |
| 50°   | 5602.9 | 5497.0 | 5512.8 | 5458.7 | 5116.3 | 5041.9 | 4983.4 | 4737.8 | 4593.6 | 4147.6 | 3151.8 |
| 52.5° | 5413.7 | 5472.2 | 5562.4 | 5463.2 | 5287.5 | 5226.7 | 5197.4 | 4960.8 | 4760.3 | 4300.7 | 3237.4 |
| 55°   | 5188.4 | 5228.9 | 5422.7 | 5544.3 | 5485.8 | 5431.7 | 5404.7 | 5219.9 | 4924.8 | 4429.2 | 3316.2 |
| 57.5° | 4859.5 | 4841.4 | 5055.5 | 5530.8 | 5693.0 | 5661.5 | 5632.2 | 5474.5 | 5078.0 | 4521.5 | 3365.8 |
| 60°   | 4366.1 | 4327.8 | 4598.1 | 5260.5 | 5760.6 | 5810.2 | 5796.7 | 5643.5 | 5195.1 | 4519.3 | 3345.5 |
| 62.5° | 3512.2 | 3606.9 | 3980.8 | 4818.9 | 5789.9 | 5916.1 | 5891.3 | 5657.0 | 5233.4 | 4388.6 | 3217.1 |
| 65°   | 2611.1 | 2746.3 | 3113.5 | 4210.6 | 5749.4 | 5970.1 | 5902.5 | 5436.2 | 5055.5 | 4129.5 | 2935.5 |
| 67.5° | 1881.2 | 2000.6 | 2268.7 | 3464.9 | 5359.6 | 5722.3 | 5643.5 | 5075.7 | 4645.4 | 3762.3 | 2545.8 |
| 70°   | 1286.4 | 1372.0 | 1554.5 | 2523.2 | 4575.6 | 4947.3 | 4897.8 | 4537.3 | 3998.9 | 3325.3 | 2068.1 |
| 72.5° | 907.9  | 944.0  | 1061.1 | 1664.9 | 3476.2 | 3881.7 | 3823.1 | 3733.0 | 3212.6 | 2764.3 | 1608.6 |
| 75°   | 680.4  | 702.9  | 766.0  | 1076.9 | 2345.2 | 2689.9 | 2635.9 | 2687.7 | 2399.3 | 2092.9 | 1171.5 |
| 77.5° | 256.8  | 279.4  | 434.8  | 687.1  | 1387.8 | 1651.4 | 1597.3 | 1628.8 | 1333.7 | 1056.6 | 583.5  |
| 80°   | 69.8   | 74.3   | 144.2  | 326.7  | 630.8  | 822.3  | 748.0  | 642.1  | 495.6  | 486.6  | 308.6  |
| 82.5° | 29.3   | 33.8   | 65.3   | 175.7  | 225.3  | 225.3  | 189.2  | 234.3  | 189.2  | 227.5  | 148.7  |
| 85°   | 11.3   | 13.5   | 15.8   | 45.1   | 29.3   | 31.5   | 33.8   | 45.1   | 38.3   | 47.3   | 33.8   |
| 87.5° | 0.0    | 0.0    | 0.0    | 2.3    | 2.3    | 4.5    | 2.3    | 4.5    | 6.8    | 6.8    | 6.8    |
| 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°    | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 | 1820.3 |
| 2.5°  | 1809.1 | 1784.3 | 1748.2 | 1689.7 | 1628.8 | 1595.0 | 1552.2 | 1545.5 | 1500.4 | 1495.9 | 1477.9 |
| 5°    | 1820.3 | 1768.5 | 1676.1 | 1563.5 | 1453.1 | 1367.5 | 1304.4 | 1270.6 | 1205.3 | 1205.3 | 1187.3 |
| 7.5°  | 1829.3 | 1748.2 | 1599.5 | 1432.8 | 1281.9 | 1167.0 | 1081.4 | 1045.3 | 986.8  | 982.3  | 968.7  |
| 10°   | 1831.6 | 1723.5 | 1516.2 | 1299.9 | 1115.2 | 998.0  | 914.7  | 874.1  | 822.3  | 817.8  | 808.8  |
| 12.5° | 1849.6 | 1709.9 | 1441.8 | 1185.0 | 995.8  | 869.6  | 788.5  | 754.7  | 714.2  | 709.7  | 700.6  |
| 15°   | 1878.9 | 1709.9 | 1378.8 | 1088.1 | 889.9  | 772.7  | 702.9  | 671.4  | 642.1  | 637.6  | 633.1  |
| 17.5° | 1908.2 | 1705.4 | 1315.7 | 998.0  | 802.0  | 696.1  | 635.3  | 610.5  | 588.0  | 585.7  | 581.2  |
| 20°   | 1935.2 | 1703.2 | 1252.6 | 921.4  | 734.4  | 633.1  | 585.7  | 563.2  | 545.2  | 545.2  | 542.9  |
| 22.5° | 1962.3 | 1698.7 | 1191.8 | 849.3  | 675.9  | 585.7  | 545.2  | 520.4  | 506.9  | 506.9  | 504.6  |
| 25°   | 2002.8 | 1698.7 | 1135.5 | 788.5  | 628.6  | 549.7  | 509.2  | 491.1  | 479.9  | 477.6  | 477.6  |
| 27.5° | 2050.1 | 1712.2 | 1085.9 | 734.4  | 588.0  | 513.7  | 482.1  | 464.1  | 450.6  | 446.1  | 448.3  |
| 30°   | 2101.9 | 1723.5 | 1040.8 | 687.1  | 549.7  | 486.6  | 452.8  | 434.8  | 421.3  | 416.8  | 419.0  |
| 32.5° | 2153.8 | 1737.0 | 1000.3 | 644.3  | 511.4  | 461.8  | 428.0  | 407.8  | 394.3  | 392.0  | 392.0  |
| 35°   | 2210.1 | 1750.5 | 959.7  | 608.3  | 479.9  | 437.1  | 405.5  | 383.0  | 374.0  | 369.5  | 371.7  |
| 37.5° | 2266.4 | 1773.0 | 921.4  | 574.5  | 457.3  | 414.5  | 385.2  | 362.7  | 356.0  | 353.7  | 353.7  |
| 40°   | 2334.0 | 1806.8 | 905.7  | 552.0  | 437.1  | 394.3  | 369.5  | 346.9  | 340.2  | 340.2  | 340.2  |
| 42.5° | 2390.3 | 1833.8 | 892.1  | 527.2  | 421.3  | 376.2  | 353.7  | 335.7  | 331.2  | 328.9  | 331.2  |
| 45°   | 2446.6 | 1858.6 | 874.1  | 504.6  | 401.0  | 358.2  | 340.2  | 322.2  | 317.7  | 317.7  | 317.7  |
| 47.5° | 2503.0 | 1872.1 | 849.3  | 482.1  | 383.0  | 342.4  | 326.7  | 310.9  | 306.4  | 306.4  | 306.4  |
| 50°   | 2548.0 | 1883.4 | 813.3  | 457.3  | 362.7  | 328.9  | 313.2  | 297.4  | 292.9  | 292.9  | 292.9  |
| 52.5° | 2593.1 | 1885.7 | 775.0  | 428.0  | 342.4  | 313.2  | 299.6  | 283.9  | 279.4  | 277.1  | 277.1  |
| 55°   | 2633.6 | 1883.4 | 729.9  | 394.3  | 319.9  | 295.1  | 283.9  | 270.3  | 261.3  | 252.3  | 256.8  |
| 57.5° | 2662.9 | 1881.2 | 678.1  | 360.5  | 297.4  | 277.1  | 272.6  | 254.6  | 236.6  | 214.0  | 218.5  |
| 60°   | 2651.6 | 1856.4 | 621.8  | 317.7  | 272.6  | 259.1  | 259.1  | 234.3  | 202.8  | 191.5  | 193.7  |
| 62.5° | 2579.5 | 1786.5 | 563.2  | 272.6  | 247.8  | 241.1  | 238.8  | 211.8  | 187.0  | 175.7  | 178.0  |
| 65°   | 2363.3 | 1610.8 | 477.6  | 232.0  | 223.0  | 220.8  | 220.8  | 196.0  | 173.5  | 160.0  | 162.2  |
| 67.5° | 2034.4 | 1351.7 | 389.7  | 196.0  | 198.3  | 202.8  | 202.8  | 180.2  | 157.7  | 144.2  | 146.4  |
| 70°   | 1631.1 | 1056.6 | 310.9  | 169.0  | 171.2  | 178.0  | 182.5  | 162.2  | 141.9  | 128.4  | 128.4  |
| 72.5° | 1227.8 | 802.0  | 250.1  | 141.9  | 153.2  | 153.2  | 160.0  | 144.2  | 123.9  | 110.4  | 112.6  |
| 75°   | 889.9  | 574.5  | 198.3  | 119.4  | 132.9  | 130.7  | 130.7  | 121.7  | 105.9  | 96.9   | 96.9   |
| 77.5° | 421.3  | 301.9  | 157.7  | 85.6   | 103.6  | 101.4  | 103.6  | 96.9   | 90.1   | 81.1   | 83.4   |
| 80°   | 207.3  | 148.7  | 101.4  | 60.8   | 72.1   | 74.3   | 81.1   | 76.6   | 74.3   | 67.6   | 67.6   |
| 82.5° | 99.1   | 58.6   | 47.3   | 42.8   | 49.6   | 51.8   | 56.3   | 56.3   | 58.6   | 54.1   | 54.1   |
| 85°   | 27.0   | 15.8   | 20.3   | 27.0   | 31.5   | 33.8   | 38.3   | 40.6   | 40.6   | 38.3   | 40.6   |
| 87.5° | 6.8    | 6.8    | 9.0    | 13.5   | 15.8   | 18.0   | 20.3   | 20.3   | 9.0    | 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)