

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: P840872

Luminaire Tested: **ARCH4-100-727-U-T4W-HSS**

Issue Date: 5/27/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P840872  
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: ARCH4-100-727-U-T4W-HSS  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 845mA 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: 11718 lumens  
Efficiency: N/A  
Efficacy: 113.7 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): 103.1  
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



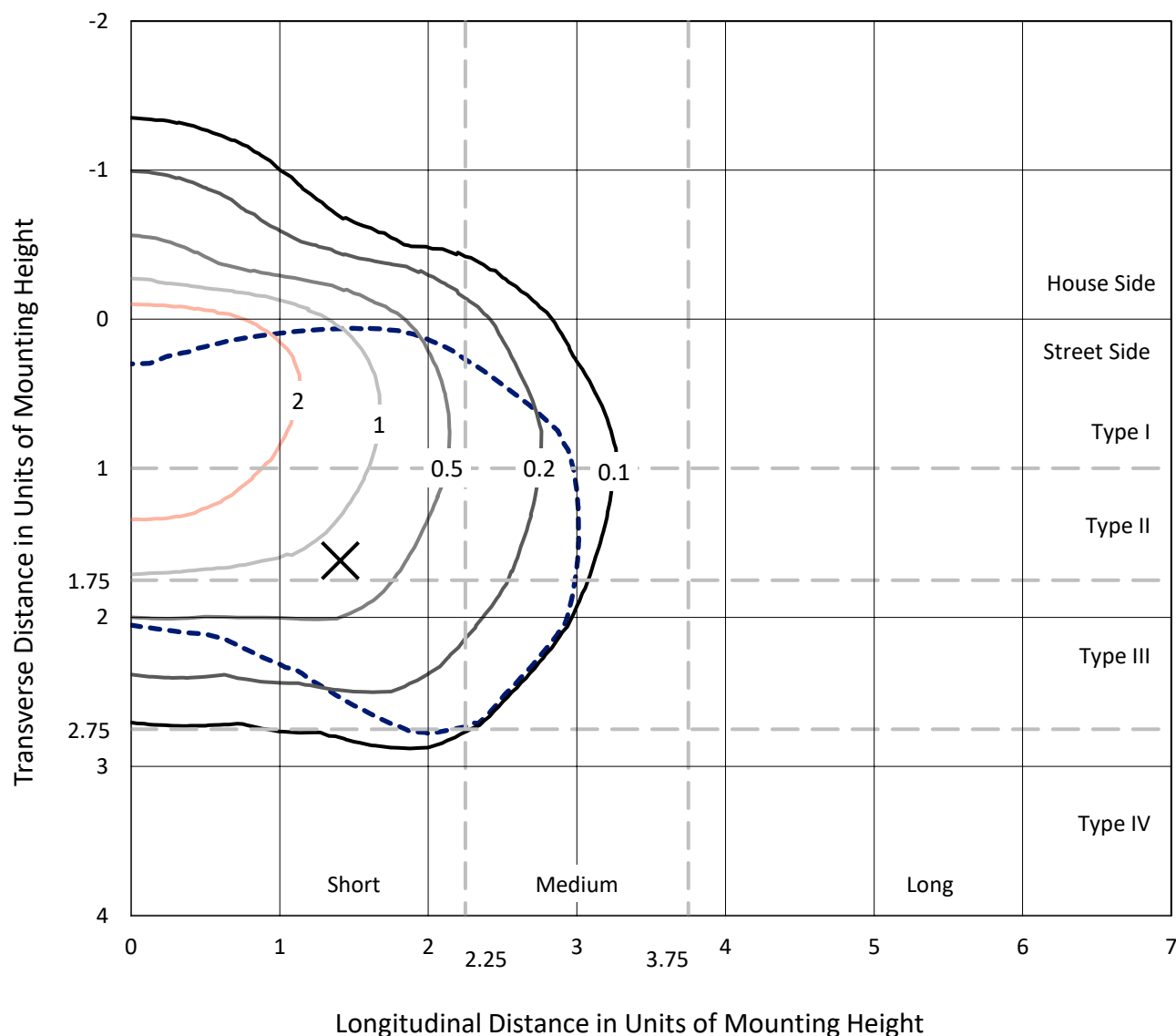
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

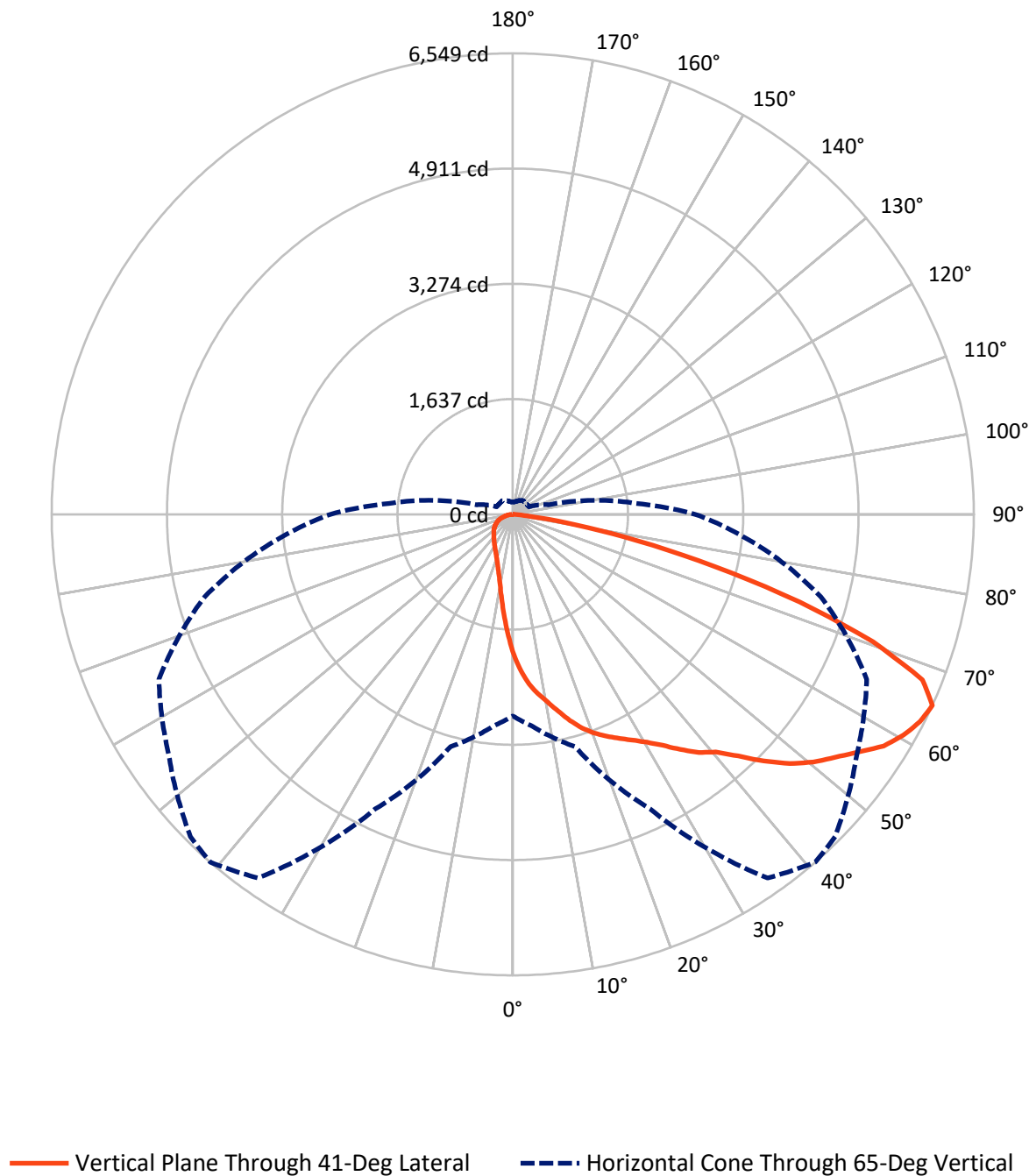


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc

Type III - Short - N/A

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## Luminous Intensity Polar Plot



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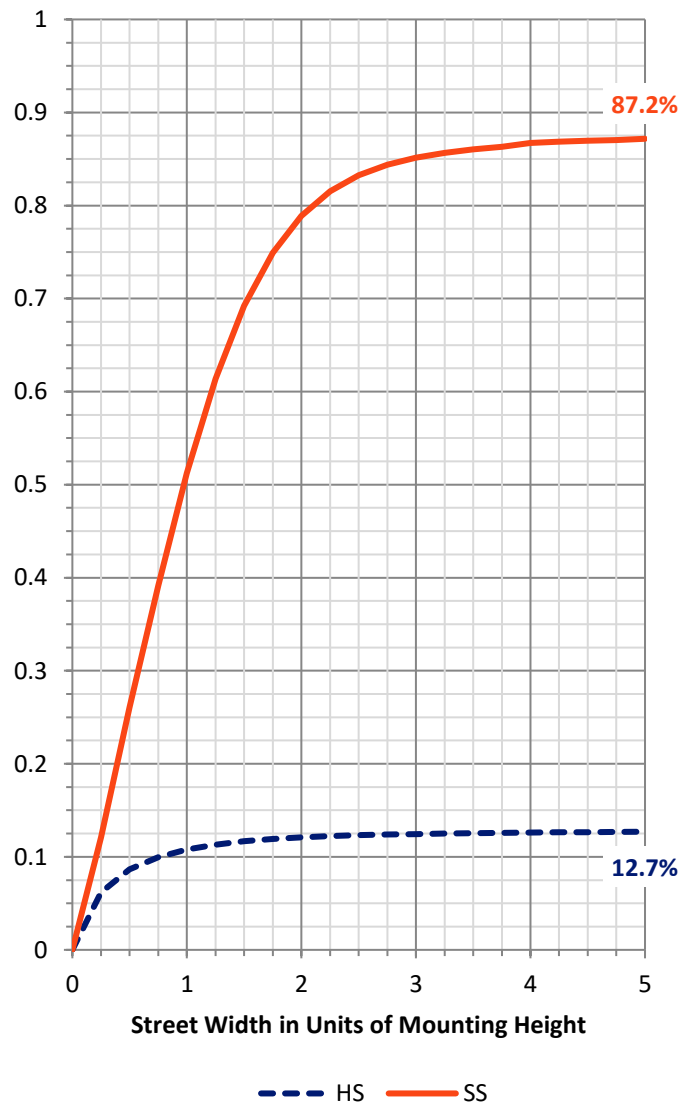
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1504.4   | 0.0    | 1504.4  |
|                    | % Fixture | 12.8     | 0.0    | 12.8    |
| <b>Street Side</b> | Lumens    | 10213.6  | 0.0    | 10213.6 |
|                    | % Fixture | 87.2     | 0.0    | 87.2    |
| <b>Total</b>       | Lumens    | 11718.0  | 0.0    | 11718.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 186.0   | 1.6       |
| 10°-20°   | 557.9   | 4.8       |
| 20°-30°   | 959.7   | 8.2       |
| 30°-40°   | 1455.5  | 12.4      |
| 40°-50°   | 2132.4  | 18.2      |
| 50°-60°   | 2692.8  | 23.0      |
| 60°-70°   | 2525.0  | 21.5      |
| 70°-80°   | 1125.4  | 9.6       |
| 80°-90°   | 83.4    | 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°    | 11718.0 | 100.0     |
| 0°-180°   | 11718.0 | 100.0     |

**Coefficient of Utilization**



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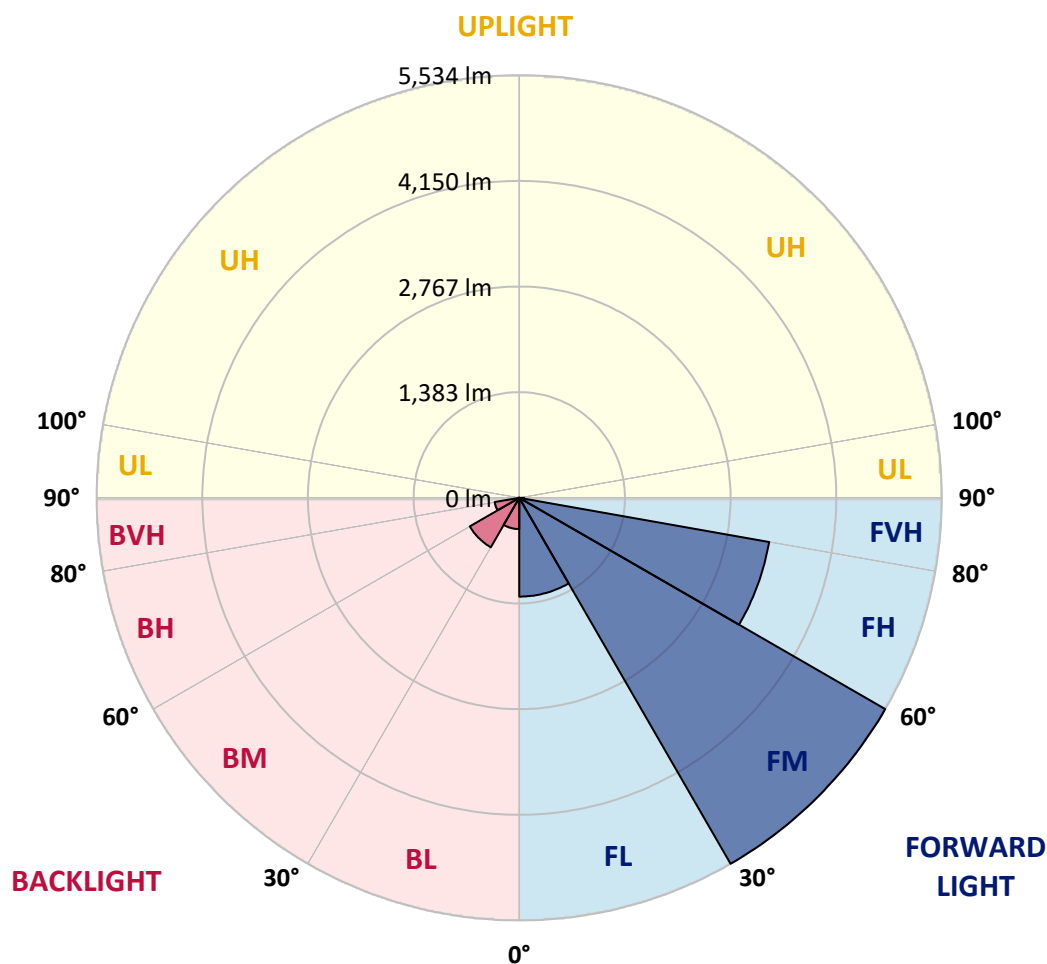
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1294.1 | 11.0      |                         |      |         |
| FM   | (30°-60°)   | 5533.7 | 47.2      |                         |      |         |
| FH   | (60°-80°)   | 3323.5 | 28.4      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 62.3   | 0.5       |                         |      | G1/100  |
| BL   | (0°-30°)    | 409.5  | 3.5       | B1/500                  |      |         |
| BM   | (30°-60°)   | 747.0  | 6.4       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 326.8  | 2.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 21.1   | 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°    | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 |
| 2.5°  | 2303.1 | 2295.7 | 2290.8 | 2263.6 | 2263.6 | 2226.5 | 2229.0 | 2194.4 | 2152.4 | 2085.6 | 2014.0 |
| 5°    | 2520.6 | 2510.7 | 2498.3 | 2471.1 | 2461.3 | 2424.2 | 2419.3 | 2369.8 | 2298.2 | 2182.0 | 2053.5 |
| 7.5°  | 2710.8 | 2701.0 | 2683.7 | 2644.1 | 2616.9 | 2572.5 | 2560.1 | 2495.9 | 2416.8 | 2273.5 | 2093.1 |
| 10°   | 2883.8 | 2876.4 | 2854.2 | 2804.8 | 2767.7 | 2713.3 | 2691.1 | 2604.6 | 2505.7 | 2347.6 | 2125.2 |
| 12.5° | 3059.3 | 3049.4 | 3019.7 | 2977.7 | 2933.3 | 2869.0 | 2841.8 | 2730.6 | 2604.6 | 2429.1 | 2172.1 |
| 15°   | 3222.4 | 3207.5 | 3185.3 | 3140.8 | 3101.3 | 3039.5 | 3009.9 | 2878.9 | 2725.7 | 2520.6 | 2233.9 |
| 17.5° | 3328.6 | 3316.3 | 3296.5 | 3271.8 | 3239.7 | 3192.7 | 3163.1 | 3034.6 | 2846.8 | 2609.5 | 2298.2 |
| 20°   | 3392.9 | 3387.9 | 3380.5 | 3365.7 | 3350.9 | 3318.7 | 3296.5 | 3175.4 | 2977.7 | 2696.0 | 2359.9 |
| 22.5° | 3442.3 | 3437.4 | 3434.9 | 3434.9 | 3437.4 | 3425.0 | 3410.2 | 3306.4 | 3103.8 | 2787.5 | 2416.8 |
| 25°   | 3518.9 | 3516.4 | 3511.5 | 3506.6 | 3523.9 | 3526.3 | 3521.4 | 3449.7 | 3261.9 | 2908.5 | 2488.4 |
| 27.5° | 3625.2 | 3617.8 | 3607.9 | 3602.9 | 3620.2 | 3632.6 | 3642.5 | 3593.0 | 3430.0 | 3032.1 | 2570.0 |
| 30°   | 3788.3 | 3766.0 | 3741.3 | 3724.0 | 3736.4 | 3756.1 | 3778.4 | 3748.7 | 3602.9 | 3185.3 | 2654.0 |
| 32.5° | 3981.0 | 3953.8 | 3897.0 | 3864.9 | 3897.0 | 3911.8 | 3929.1 | 3914.3 | 3783.3 | 3350.9 | 2738.0 |
| 35°   | 4215.8 | 4183.7 | 4124.3 | 4077.4 | 4134.2 | 4102.1 | 4094.7 | 4079.9 | 3953.8 | 3514.0 | 2831.9 |
| 37.5° | 4606.2 | 4559.3 | 4465.4 | 4361.6 | 4361.6 | 4292.4 | 4265.2 | 4220.7 | 4107.0 | 3659.8 | 2923.4 |
| 40°   | 5058.4 | 4996.7 | 4875.6 | 4722.4 | 4581.5 | 4438.2 | 4420.9 | 4388.8 | 4287.4 | 3827.8 | 3027.2 |
| 42.5° | 5555.1 | 5436.5 | 5268.5 | 5083.1 | 4855.8 | 4692.7 | 4653.2 | 4561.7 | 4462.9 | 3998.3 | 3130.9 |
| 45°   | 6106.2 | 5859.1 | 5614.4 | 5520.5 | 5144.9 | 4996.7 | 4922.5 | 4757.0 | 4645.8 | 4176.2 | 3239.7 |
| 47.5° | 6195.2 | 6002.4 | 5839.3 | 5824.5 | 5414.3 | 5290.7 | 5206.7 | 4969.5 | 4843.4 | 4366.5 | 3353.3 |
| 50°   | 6145.7 | 6029.6 | 6046.9 | 5987.6 | 5612.0 | 5530.4 | 5466.2 | 5196.8 | 5038.7 | 4549.4 | 3457.1 |
| 52.5° | 5938.2 | 6002.4 | 6101.3 | 5992.5 | 5799.8 | 5733.1 | 5700.9 | 5441.5 | 5221.5 | 4717.4 | 3551.0 |
| 55°   | 5691.0 | 5735.5 | 5948.0 | 6081.5 | 6017.2 | 5957.9 | 5928.3 | 5725.6 | 5401.9 | 4858.3 | 3637.5 |
| 57.5° | 5330.3 | 5310.5 | 5545.3 | 6066.7 | 6244.6 | 6210.0 | 6177.9 | 6004.9 | 5570.0 | 4959.6 | 3691.9 |
| 60°   | 4789.1 | 4747.1 | 5043.6 | 5770.1 | 6318.7 | 6373.1 | 6358.3 | 6190.2 | 5698.5 | 4957.1 | 3669.7 |
| 62.5° | 3852.5 | 3956.3 | 4366.5 | 5285.8 | 6350.8 | 6489.2 | 6462.0 | 6205.0 | 5740.5 | 4813.8 | 3528.8 |
| 65°   | 2864.1 | 3012.3 | 3415.1 | 4618.6 | 6306.4 | 6548.5 | 6474.4 | 5962.9 | 5545.3 | 4529.6 | 3219.9 |
| 67.5° | 2063.4 | 2194.4 | 2488.4 | 3800.6 | 5878.9 | 6276.7 | 6190.2 | 5567.5 | 5095.5 | 4126.8 | 2792.4 |
| 70°   | 1411.0 | 1504.9 | 1705.1 | 2767.7 | 5018.9 | 5426.6 | 5372.3 | 4976.9 | 4386.3 | 3647.4 | 2268.5 |
| 72.5° | 995.9  | 1035.4 | 1163.9 | 1826.2 | 3813.0 | 4257.8 | 4193.5 | 4094.7 | 3523.9 | 3032.1 | 1764.4 |
| 75°   | 746.3  | 771.0  | 840.2  | 1181.2 | 2572.5 | 2950.5 | 2891.2 | 2948.1 | 2631.8 | 2295.7 | 1285.0 |
| 77.5° | 281.7  | 306.4  | 476.9  | 753.7  | 1522.2 | 1811.3 | 1752.0 | 1786.6 | 1462.9 | 1159.0 | 640.0  |
| 80°   | 76.6   | 81.5   | 158.2  | 358.3  | 691.9  | 902.0  | 820.4  | 704.3  | 543.7  | 533.8  | 338.5  |
| 82.5° | 32.1   | 37.1   | 71.7   | 192.7  | 247.1  | 247.1  | 207.6  | 257.0  | 207.6  | 249.6  | 163.1  |
| 85°   | 12.4   | 14.8   | 17.3   | 49.4   | 32.1   | 34.6   | 37.1   | 49.4   | 42.0   | 51.9   | 37.1   |
| 87.5° | 0.0    | 0.0    | 0.0    | 2.5    | 2.5    | 4.9    | 2.5    | 4.9    | 7.4    | 7.4    | 7.4    |
| 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°    | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 | 1996.7 |
| 2.5°  | 1984.3 | 1957.1 | 1917.6 | 1853.4 | 1786.6 | 1749.6 | 1702.6 | 1695.2 | 1645.8 | 1640.8 | 1621.1 |
| 5°    | 1996.7 | 1939.8 | 1838.5 | 1715.0 | 1593.9 | 1500.0 | 1430.8 | 1393.7 | 1322.1 | 1322.1 | 1302.3 |
| 7.5°  | 2006.6 | 1917.6 | 1754.5 | 1571.6 | 1406.1 | 1280.1 | 1186.2 | 1146.6 | 1082.4 | 1077.4 | 1062.6 |
| 10°   | 2009.0 | 1890.4 | 1663.1 | 1425.9 | 1223.2 | 1094.7 | 1003.3 | 958.8  | 902.0  | 897.0  | 887.1  |
| 12.5° | 2028.8 | 1875.6 | 1581.5 | 1299.8 | 1092.2 | 953.9  | 864.9  | 827.8  | 783.4  | 778.4  | 768.5  |
| 15°   | 2060.9 | 1875.6 | 1512.3 | 1193.6 | 976.1  | 847.6  | 771.0  | 736.4  | 704.3  | 699.3  | 694.4  |
| 17.5° | 2093.1 | 1870.7 | 1443.1 | 1094.7 | 879.7  | 763.6  | 696.9  | 669.7  | 645.0  | 642.5  | 637.6  |
| 20°   | 2122.7 | 1868.2 | 1374.0 | 1010.7 | 805.6  | 694.4  | 642.5  | 617.8  | 598.0  | 598.0  | 595.5  |
| 22.5° | 2152.4 | 1863.2 | 1307.2 | 931.6  | 741.3  | 642.5  | 598.0  | 570.8  | 556.0  | 556.0  | 553.5  |
| 25°   | 2196.8 | 1863.2 | 1245.5 | 864.9  | 689.4  | 603.0  | 558.5  | 538.7  | 526.4  | 523.9  | 523.9  |
| 27.5° | 2248.7 | 1878.1 | 1191.1 | 805.6  | 645.0  | 563.4  | 528.8  | 509.1  | 494.2  | 489.3  | 491.8  |
| 30°   | 2305.6 | 1890.4 | 1141.7 | 753.7  | 603.0  | 533.8  | 496.7  | 476.9  | 462.1  | 457.2  | 459.6  |
| 32.5° | 2362.4 | 1905.3 | 1097.2 | 706.7  | 561.0  | 506.6  | 469.5  | 447.3  | 432.5  | 430.0  | 430.0  |
| 35°   | 2424.2 | 1920.1 | 1052.7 | 667.2  | 526.4  | 479.4  | 444.8  | 420.1  | 410.2  | 405.3  | 407.7  |
| 37.5° | 2486.0 | 1944.8 | 1010.7 | 630.1  | 501.6  | 454.7  | 422.6  | 397.9  | 390.4  | 388.0  | 388.0  |
| 40°   | 2560.1 | 1981.9 | 993.4  | 605.4  | 479.4  | 432.5  | 405.3  | 380.6  | 373.1  | 373.1  | 373.1  |
| 42.5° | 2621.9 | 2011.5 | 978.6  | 578.2  | 462.1  | 412.7  | 388.0  | 368.2  | 363.3  | 360.8  | 363.3  |
| 45°   | 2683.7 | 2038.7 | 958.8  | 553.5  | 439.9  | 392.9  | 373.1  | 353.4  | 348.4  | 348.4  | 348.4  |
| 47.5° | 2745.4 | 2053.5 | 931.6  | 528.8  | 420.1  | 375.6  | 358.3  | 341.0  | 336.1  | 336.1  | 336.1  |
| 50°   | 2794.9 | 2065.9 | 892.1  | 501.6  | 397.9  | 360.8  | 343.5  | 326.2  | 321.2  | 321.2  | 321.2  |
| 52.5° | 2844.3 | 2068.3 | 850.1  | 469.5  | 375.6  | 343.5  | 328.7  | 311.4  | 306.4  | 304.0  | 304.0  |
| 55°   | 2888.8 | 2065.9 | 800.7  | 432.5  | 350.9  | 323.7  | 311.4  | 296.5  | 286.7  | 276.8  | 281.7  |
| 57.5° | 2920.9 | 2063.4 | 743.8  | 395.4  | 326.2  | 304.0  | 299.0  | 279.2  | 259.5  | 234.8  | 239.7  |
| 60°   | 2908.5 | 2036.2 | 682.0  | 348.4  | 299.0  | 284.2  | 284.2  | 257.0  | 222.4  | 210.0  | 212.5  |
| 62.5° | 2829.5 | 1959.6 | 617.8  | 299.0  | 271.8  | 264.4  | 261.9  | 232.3  | 205.1  | 192.7  | 195.2  |
| 65°   | 2592.2 | 1766.9 | 523.9  | 254.5  | 244.6  | 242.2  | 242.2  | 215.0  | 190.3  | 175.5  | 177.9  |
| 67.5° | 2231.4 | 1482.7 | 427.5  | 215.0  | 217.5  | 222.4  | 222.4  | 197.7  | 173.0  | 158.2  | 160.6  |
| 70°   | 1789.1 | 1159.0 | 341.0  | 185.3  | 187.8  | 195.2  | 200.2  | 177.9  | 155.7  | 140.9  | 140.9  |
| 72.5° | 1346.8 | 879.7  | 274.3  | 155.7  | 168.0  | 168.0  | 175.5  | 158.2  | 135.9  | 121.1  | 123.6  |
| 75°   | 976.1  | 630.1  | 217.5  | 131.0  | 145.8  | 143.3  | 143.3  | 133.4  | 116.1  | 106.3  | 106.3  |
| 77.5° | 462.1  | 331.1  | 173.0  | 93.9   | 113.7  | 111.2  | 113.7  | 106.3  | 98.8   | 89.0   | 91.4   |
| 80°   | 227.3  | 163.1  | 111.2  | 66.7   | 79.1   | 81.5   | 89.0   | 84.0   | 81.5   | 74.1   | 74.1   |
| 82.5° | 108.7  | 64.2   | 51.9   | 47.0   | 54.4   | 56.8   | 61.8   | 61.8   | 64.2   | 59.3   | 59.3   |
| 85°   | 29.7   | 17.3   | 22.2   | 29.7   | 34.6   | 37.1   | 42.0   | 44.5   | 44.5   | 42.0   | 44.5   |
| 87.5° | 7.4    | 7.4    | 9.9    | 14.8   | 17.3   | 19.8   | 22.2   | 22.2   | 9.9    | 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)