

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: P841763

Luminaire Tested: **ARCH4-220-740-U-T4W-HSS**

Issue Date: 5/27/2024

### Test Information

Test Method: LM-79-08  
Report Number: P841763  
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: ARCH4-220-740-U-T4W-HSS  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 870mA 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: 24349 lumens  
Efficiency: N/A  
Efficacy: 109.8 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3

Input Watts (W): 221.8  
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



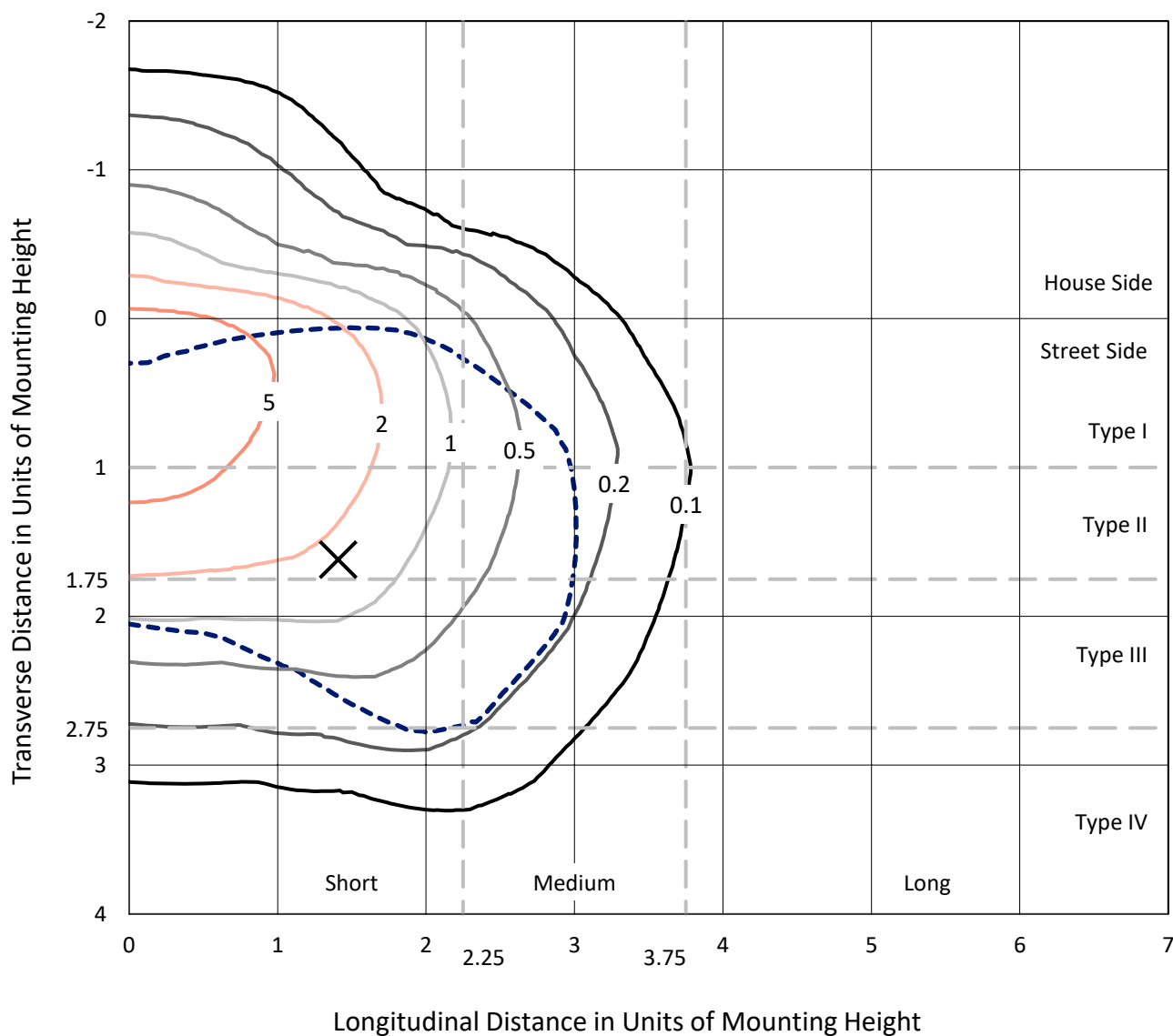
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

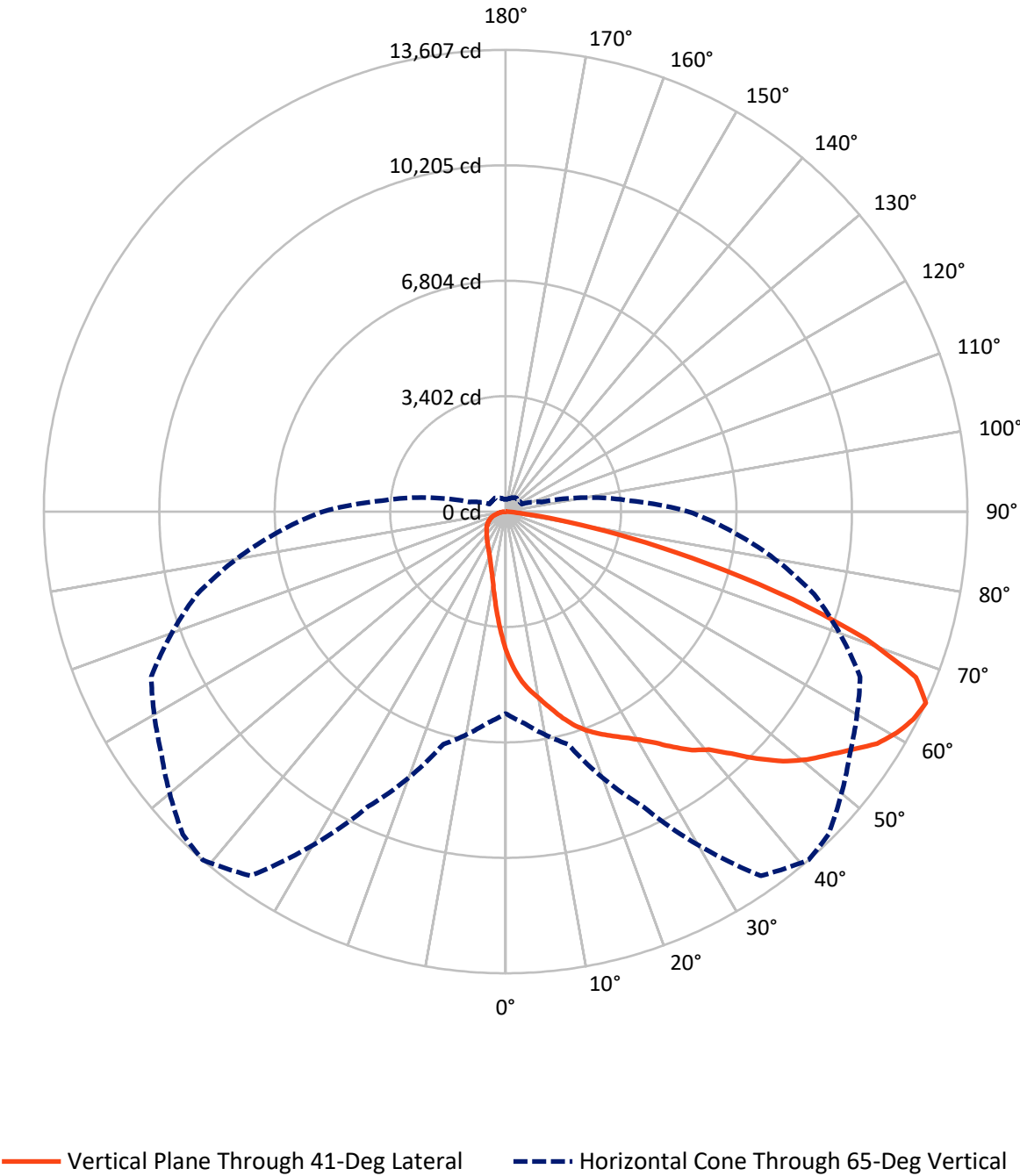


Based on 25 foot mounting height. Maximum calculated value = 9.6 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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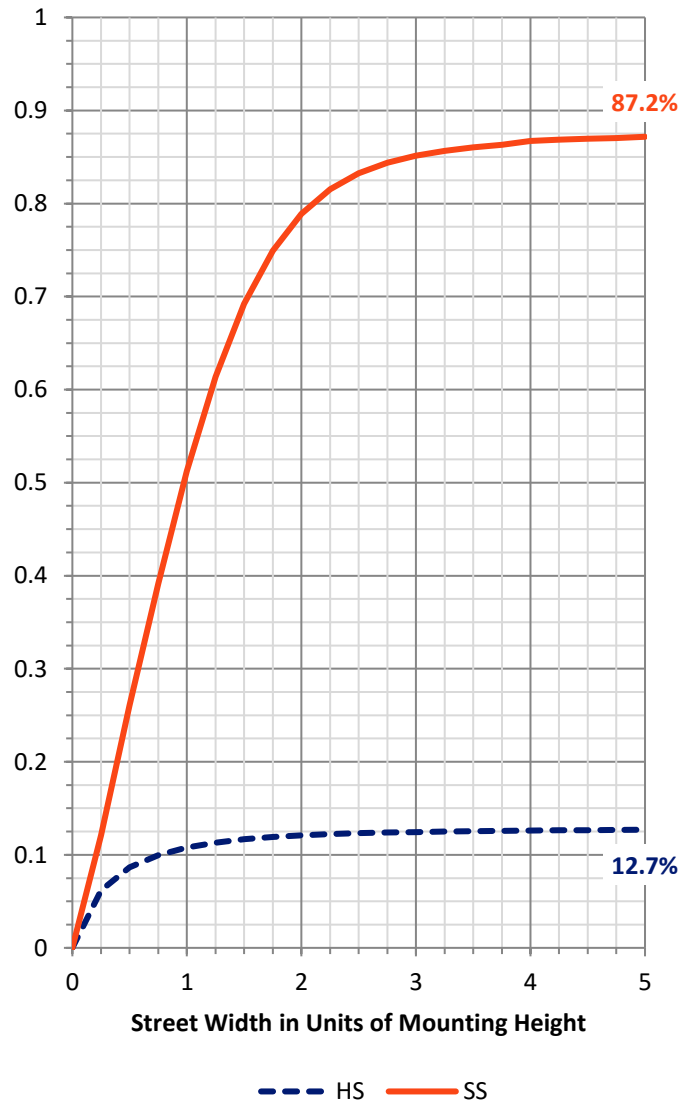
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3126.0   | 0.0    | 3126.0  |
|                    | % Fixture | 12.8     | 0.0    | 12.8    |
| <b>Street Side</b> | Lumens    | 21223.0  | 0.0    | 21223.0 |
|                    | % Fixture | 87.2     | 0.0    | 87.2    |
| <b>Total</b>       | Lumens    | 24349.0  | 0.0    | 24349.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 386.6   | 1.6       |
| 10°-20°   | 1159.2  | 4.8       |
| 20°-30°   | 1994.2  | 8.2       |
| 30°-40°   | 3024.5  | 12.4      |
| 40°-50°   | 4431.0  | 18.2      |
| 50°-60°   | 5595.3  | 23.0      |
| 60°-70°   | 5246.7  | 21.5      |
| 70°-80°   | 2338.4  | 9.6       |
| 80°-90°   | 173.2   | 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°    | 24349.0 | 100.0     |
| 0°-180°   | 24349.0 | 100.0     |

**Coefficient of Utilization**



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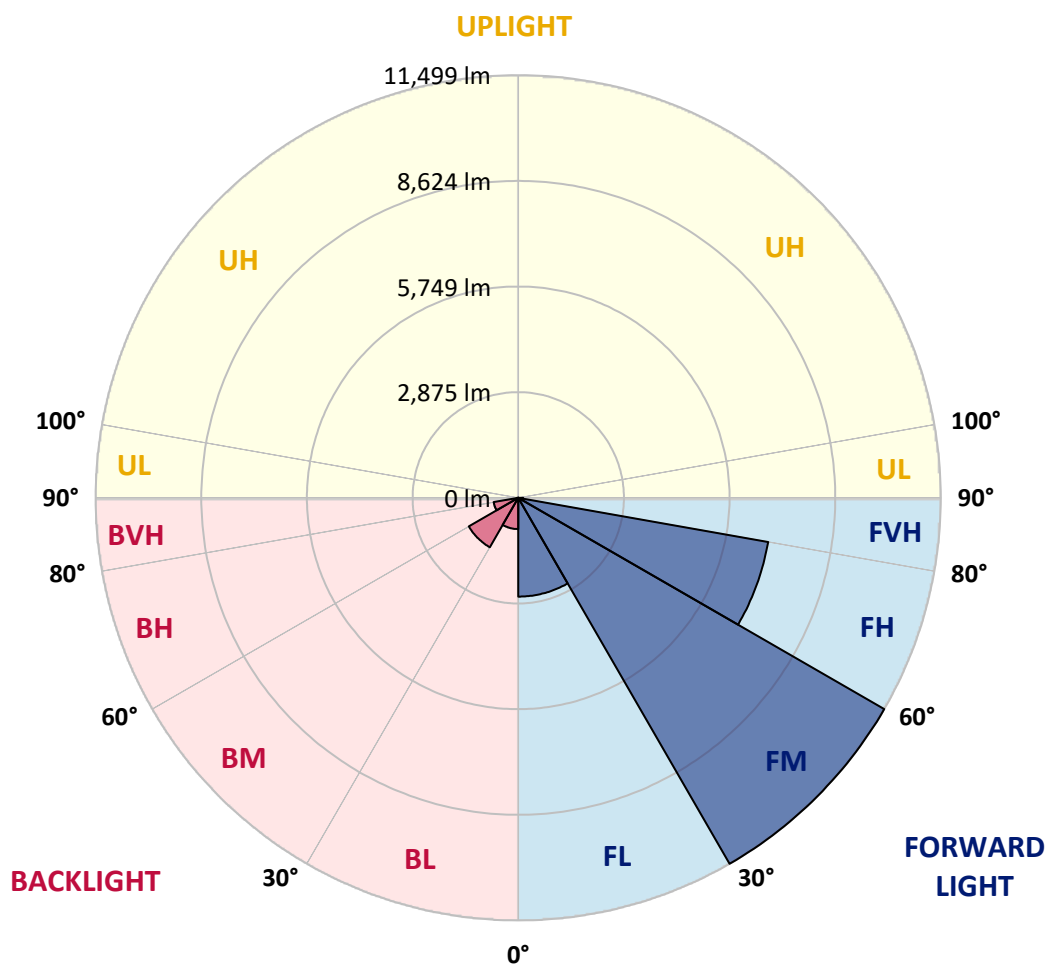
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2689.0  | 11.0      |                         |      |         |
| FM   | (30°-60°)   | 11498.5 | 47.2      |                         |      |         |
| FH   | (60°-80°)   | 6906.0  | 28.4      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 129.4   | 0.5       |                         |      | G2/225  |
| BL   | (0°-30°)    | 850.9   | 3.5       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1552.2  | 6.4       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 679.1   | 2.8       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 43.9    | 0.2       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 41°     | 45°     | 55°     | 65°     | 75°     | 85°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 4148.9  | 4148.9  | 4148.9  | 4148.9  | 4148.9  | 4148.9  | 4148.9  | 4148.9  | 4148.9  | 4148.9  | 4148.9 |
| 2.5°  | 4785.7  | 4770.3  | 4760.0  | 4703.5  | 4703.5  | 4626.5  | 4631.6  | 4559.7  | 4472.4  | 4333.8  | 4184.9 |
| 5°    | 5237.5  | 5217.0  | 5191.3  | 5134.8  | 5114.3  | 5037.3  | 5027.0  | 4924.3  | 4775.4  | 4534.1  | 4267.0 |
| 7.5°  | 5632.9  | 5612.4  | 5576.4  | 5494.3  | 5437.8  | 5345.4  | 5319.7  | 5186.2  | 5021.9  | 4724.0  | 4349.2 |
| 10°   | 5992.3  | 5976.9  | 5930.7  | 5828.0  | 5751.0  | 5638.0  | 5591.8  | 5412.1  | 5206.7  | 4878.1  | 4416.0 |
| 12.5° | 6356.9  | 6336.4  | 6274.8  | 6187.5  | 6095.0  | 5961.5  | 5905.1  | 5674.0  | 5412.1  | 5047.5  | 4513.5 |
| 15°   | 6695.8  | 6665.0  | 6618.8  | 6526.4  | 6444.2  | 6315.8  | 6254.2  | 5982.1  | 5663.7  | 5237.5  | 4641.9 |
| 17.5° | 6916.6  | 6890.9  | 6849.9  | 6798.5  | 6731.8  | 6634.2  | 6572.6  | 6305.6  | 5915.3  | 5422.4  | 4775.4 |
| 20°   | 7050.1  | 7039.9  | 7024.4  | 6993.6  | 6962.8  | 6896.1  | 6849.9  | 6598.3  | 6187.5  | 5602.1  | 4903.8 |
| 22.5° | 7152.8  | 7142.5  | 7137.4  | 7137.4  | 7142.5  | 7116.9  | 7086.1  | 6870.4  | 6449.3  | 5792.1  | 5021.9 |
| 25°   | 7312.0  | 7306.9  | 7296.6  | 7286.3  | 7322.3  | 7327.4  | 7317.1  | 7168.2  | 6778.0  | 6043.7  | 5170.8 |
| 27.5° | 7532.8  | 7517.4  | 7496.9  | 7486.6  | 7522.5  | 7548.2  | 7568.7  | 7466.0  | 7127.1  | 6300.4  | 5340.2 |
| 30°   | 7871.7  | 7825.5  | 7774.1  | 7738.2  | 7763.9  | 7804.9  | 7851.2  | 7789.5  | 7486.6  | 6618.8  | 5514.8 |
| 32.5° | 8272.2  | 8215.7  | 8097.6  | 8030.9  | 8097.6  | 8128.4  | 8164.4  | 8133.6  | 7861.4  | 6962.8  | 5689.4 |
| 35°   | 8760.0  | 8693.3  | 8570.0  | 8472.5  | 8590.6  | 8523.8  | 8508.4  | 8477.6  | 8215.7  | 7301.7  | 5884.5 |
| 37.5° | 9571.3  | 9473.8  | 9278.6  | 9063.0  | 9063.0  | 8919.2  | 8862.7  | 8770.3  | 8534.1  | 7604.7  | 6074.5 |
| 40°   | 10511.0 | 10382.6 | 10131.0 | 9812.7  | 9520.0  | 9222.2  | 9186.2  | 9119.5  | 8908.9  | 7953.9  | 6290.2 |
| 42.5° | 11543.1 | 11296.6 | 10947.5 | 10562.3 | 10089.9 | 9751.0  | 9668.9  | 9478.9  | 9273.5  | 8308.2  | 6505.8 |
| 45°   | 12688.2 | 12174.7 | 11666.3 | 11471.2 | 10690.7 | 10382.6 | 10228.6 | 9884.5  | 9653.5  | 8677.9  | 6731.8 |
| 47.5° | 12873.0 | 12472.5 | 12133.6 | 12102.8 | 11250.4 | 10993.7 | 10819.1 | 10326.1 | 10064.3 | 9073.2  | 6968.0 |
| 50°   | 12770.3 | 12529.0 | 12564.9 | 12441.7 | 11661.2 | 11491.7 | 11358.2 | 10798.5 | 10469.9 | 9453.2  | 7183.6 |
| 52.5° | 12339.0 | 12472.5 | 12677.9 | 12452.0 | 12051.4 | 11912.8 | 11846.1 | 11306.9 | 10849.9 | 9802.4  | 7378.8 |
| 55°   | 11825.5 | 11917.9 | 12359.5 | 12636.8 | 12503.3 | 12380.1 | 12318.5 | 11897.4 | 11224.7 | 10095.1 | 7558.5 |
| 57.5° | 11075.8 | 11034.7 | 11522.6 | 12606.0 | 12975.7 | 12903.8 | 12837.1 | 12477.6 | 11573.9 | 10305.6 | 7671.4 |
| 60°   | 9951.3  | 9864.0  | 10480.2 | 11989.8 | 13129.8 | 13242.7 | 13211.9 | 12862.7 | 11840.9 | 10300.5 | 7625.2 |
| 62.5° | 8005.2  | 8220.9  | 9073.2  | 10983.4 | 13196.5 | 13484.1 | 13427.6 | 12893.6 | 11928.2 | 10002.6 | 7332.5 |
| 65°   | 5951.3  | 6259.4  | 7096.3  | 9597.0  | 13104.1 | 13607.3 | 13453.3 | 12390.3 | 11522.6 | 9412.1  | 6690.7 |
| 67.5° | 4287.6  | 4559.7  | 5170.8  | 7897.4  | 12215.8 | 13042.5 | 12862.7 | 11568.8 | 10588.0 | 8575.2  | 5802.4 |
| 70°   | 2932.0  | 3127.1  | 3543.0  | 5751.0  | 10428.8 | 11276.1 | 11163.1 | 10341.5 | 9114.3  | 7579.0  | 4713.8 |
| 72.5° | 2069.3  | 2151.5  | 2418.5  | 3794.6  | 7923.0  | 8847.3  | 8713.8  | 8508.4  | 7322.3  | 6300.4  | 3666.3 |
| 75°   | 1550.7  | 1602.1  | 1745.8  | 2454.4  | 5345.4  | 6131.0  | 6007.8  | 6125.9  | 5468.6  | 4770.3  | 2670.1 |
| 77.5° | 585.4   | 636.7   | 991.0   | 1566.1  | 3163.1  | 3763.8  | 3640.6  | 3712.5  | 3039.8  | 2408.2  | 1329.9 |
| 80°   | 159.2   | 169.4   | 328.6   | 744.6   | 1437.8  | 1874.2  | 1704.8  | 1463.4  | 1129.7  | 1109.1  | 703.5  |
| 82.5° | 66.8    | 77.0    | 148.9   | 400.5   | 513.5   | 513.5   | 431.3   | 534.0   | 431.3   | 518.6   | 338.9  |
| 85°   | 25.7    | 30.8    | 35.9    | 102.7   | 66.8    | 71.9    | 77.0    | 102.7   | 87.3    | 107.8   | 77.0   |
| 87.5° | 0.0     | 0.0     | 0.0     | 5.1     | 5.1     | 10.3    | 5.1     | 10.3    | 15.4    | 15.4    | 15.4   |
| 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°    | 4148.9 | 4148.9 | 4148.9 | 4148.9 | 4148.9 | 4148.9 | 4148.9 | 4148.9 | 4148.9 | 4148.9 | 4148.9 |
| 2.5°  | 4123.3 | 4066.8 | 3984.6 | 3851.1 | 3712.5 | 3635.5 | 3537.9 | 3522.5 | 3419.8 | 3409.5 | 3368.4 |
| 5°    | 4148.9 | 4030.8 | 3820.3 | 3563.6 | 3312.0 | 3116.8 | 2973.1 | 2896.0 | 2747.1 | 2747.1 | 2706.1 |
| 7.5°  | 4169.5 | 3984.6 | 3645.7 | 3265.8 | 2921.7 | 2659.8 | 2464.7 | 2382.6 | 2249.1 | 2238.8 | 2208.0 |
| 10°   | 4174.6 | 3928.1 | 3455.7 | 2962.8 | 2541.7 | 2274.7 | 2084.7 | 1992.3 | 1874.2 | 1863.9 | 1843.4 |
| 12.5° | 4215.7 | 3897.3 | 3286.3 | 2700.9 | 2269.6 | 1982.0 | 1797.2 | 1720.2 | 1627.7 | 1617.5 | 1596.9 |
| 15°   | 4282.4 | 3897.3 | 3142.5 | 2480.1 | 2028.3 | 1761.2 | 1602.1 | 1530.2 | 1463.4 | 1453.2 | 1442.9 |
| 17.5° | 4349.2 | 3887.1 | 2998.7 | 2274.7 | 1828.0 | 1586.7 | 1448.0 | 1391.5 | 1340.2 | 1335.1 | 1324.8 |
| 20°   | 4410.8 | 3881.9 | 2855.0 | 2100.1 | 1674.0 | 1442.9 | 1335.1 | 1283.7 | 1242.6 | 1242.6 | 1237.5 |
| 22.5° | 4472.4 | 3871.7 | 2716.3 | 1935.8 | 1540.4 | 1335.1 | 1242.6 | 1186.1 | 1155.3 | 1155.3 | 1150.2 |
| 25°   | 4564.9 | 3871.7 | 2588.0 | 1797.2 | 1432.6 | 1252.9 | 1160.5 | 1119.4 | 1093.7 | 1088.6 | 1088.6 |
| 27.5° | 4672.7 | 3902.5 | 2475.0 | 1674.0 | 1340.2 | 1170.7 | 1098.9 | 1057.8 | 1027.0 | 1016.7 | 1021.8 |
| 30°   | 4790.8 | 3928.1 | 2372.3 | 1566.1 | 1252.9 | 1109.1 | 1032.1 | 991.0  | 960.2  | 949.9  | 955.1  |
| 32.5° | 4908.9 | 3959.0 | 2279.9 | 1468.6 | 1165.6 | 1052.6 | 975.6  | 929.4  | 898.6  | 893.5  | 893.5  |
| 35°   | 5037.3 | 3989.8 | 2187.4 | 1386.4 | 1093.7 | 996.2  | 924.3  | 872.9  | 852.4  | 842.1  | 847.2  |
| 37.5° | 5165.6 | 4041.1 | 2100.1 | 1309.4 | 1042.4 | 944.8  | 878.1  | 826.7  | 811.3  | 806.2  | 806.2  |
| 40°   | 5319.7 | 4118.1 | 2064.2 | 1258.0 | 996.2  | 898.6  | 842.1  | 790.8  | 775.4  | 775.4  | 775.4  |
| 42.5° | 5448.1 | 4179.8 | 2033.4 | 1201.6 | 960.2  | 857.5  | 806.2  | 765.1  | 754.8  | 749.7  | 754.8  |
| 45°   | 5576.4 | 4236.2 | 1992.3 | 1150.2 | 914.0  | 816.4  | 775.4  | 734.3  | 724.0  | 724.0  | 724.0  |
| 47.5° | 5704.8 | 4267.0 | 1935.8 | 1098.9 | 872.9  | 780.5  | 744.6  | 708.6  | 698.3  | 698.3  | 698.3  |
| 50°   | 5807.5 | 4292.7 | 1853.7 | 1042.4 | 826.7  | 749.7  | 713.7  | 677.8  | 667.5  | 667.5  | 667.5  |
| 52.5° | 5910.2 | 4297.9 | 1766.4 | 975.6  | 780.5  | 713.7  | 682.9  | 647.0  | 636.7  | 631.6  | 631.6  |
| 55°   | 6002.6 | 4292.7 | 1663.7 | 898.6  | 729.1  | 672.7  | 647.0  | 616.2  | 595.6  | 575.1  | 585.4  |
| 57.5° | 6069.4 | 4287.6 | 1545.6 | 821.6  | 677.8  | 631.6  | 621.3  | 580.2  | 539.2  | 487.8  | 498.1  |
| 60°   | 6043.7 | 4231.1 | 1417.2 | 724.0  | 621.3  | 590.5  | 590.5  | 534.0  | 462.1  | 436.5  | 441.6  |
| 62.5° | 5879.4 | 4071.9 | 1283.7 | 621.3  | 564.8  | 549.4  | 544.3  | 482.7  | 426.2  | 400.5  | 405.7  |
| 65°   | 5386.4 | 3671.4 | 1088.6 | 528.9  | 508.3  | 503.2  | 503.2  | 446.7  | 395.4  | 364.6  | 369.7  |
| 67.5° | 4636.8 | 3080.9 | 888.3  | 446.7  | 451.9  | 462.1  | 462.1  | 410.8  | 359.4  | 328.6  | 333.8  |
| 70°   | 3717.6 | 2408.2 | 708.6  | 385.1  | 390.2  | 405.7  | 415.9  | 369.7  | 323.5  | 292.7  | 292.7  |
| 72.5° | 2798.5 | 1828.0 | 570.0  | 323.5  | 349.2  | 349.2  | 364.6  | 328.6  | 282.4  | 251.6  | 256.7  |
| 75°   | 2028.3 | 1309.4 | 451.9  | 272.1  | 303.0  | 297.8  | 297.8  | 277.3  | 241.3  | 220.8  | 220.8  |
| 77.5° | 960.2  | 688.1  | 359.4  | 195.1  | 236.2  | 231.1  | 236.2  | 220.8  | 205.4  | 184.9  | 190.0  |
| 80°   | 472.4  | 338.9  | 231.1  | 138.6  | 164.3  | 169.4  | 184.9  | 174.6  | 169.4  | 154.0  | 154.0  |
| 82.5° | 225.9  | 133.5  | 107.8  | 97.6   | 113.0  | 118.1  | 128.4  | 128.4  | 133.5  | 123.2  | 123.2  |
| 85°   | 61.6   | 35.9   | 46.2   | 61.6   | 71.9   | 77.0   | 87.3   | 92.4   | 92.4   | 87.3   | 92.4   |
| 87.5° | 15.4   | 15.4   | 20.5   | 30.8   | 35.9   | 41.1   | 46.2   | 46.2   | 20.5   | 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)