

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: P842093

Luminaire Tested: **ARCH4-270-727-U-T2U**

Issue Date: 5/27/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P842093  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2401-285-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-270-727-U-T2U  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 1045mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37227 lumens  
Efficiency: N/A  
Efficacy: 138.4 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B4 - U0 - G4

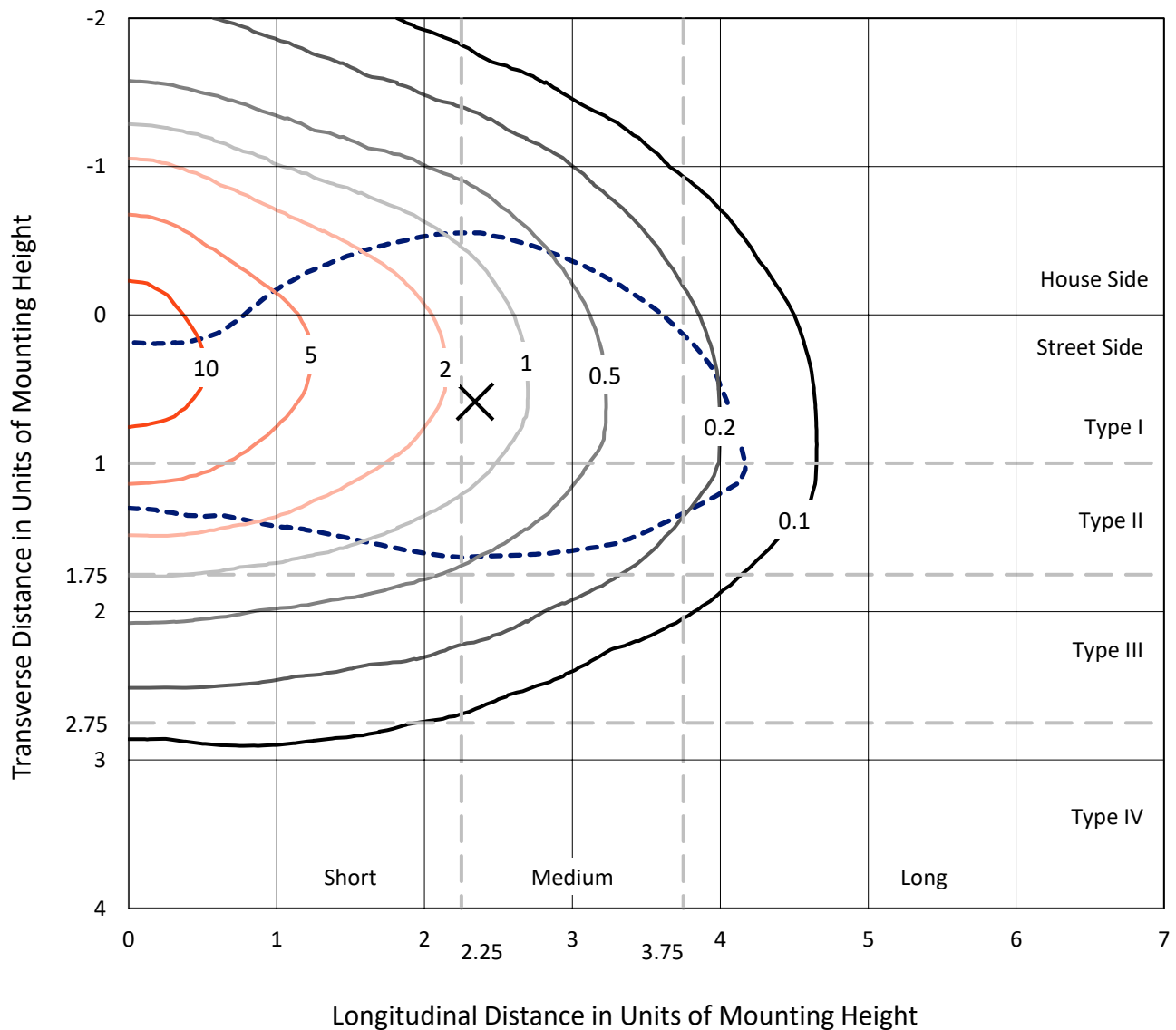
Input Watts (W): 269  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

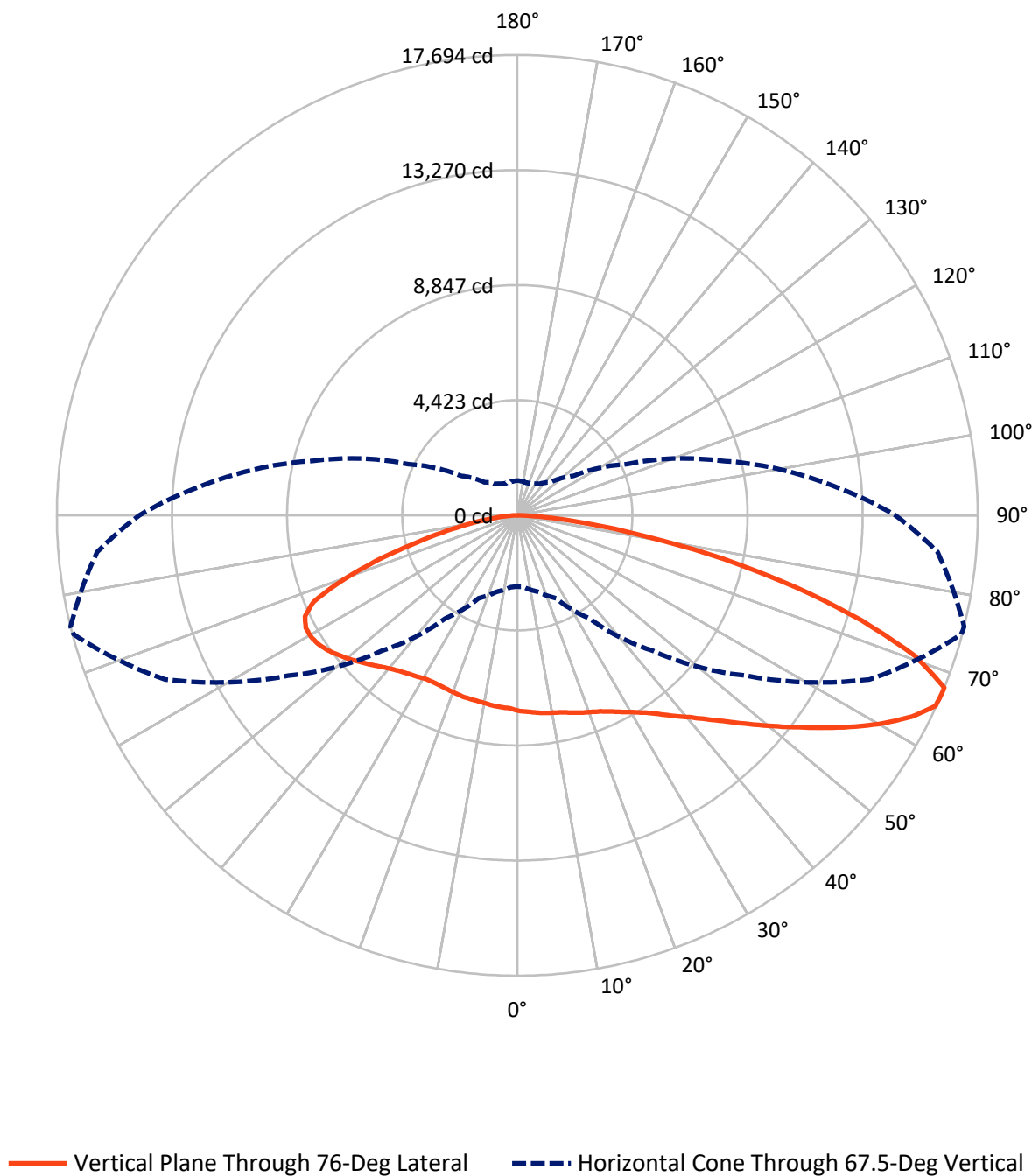
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.6 fc  
 Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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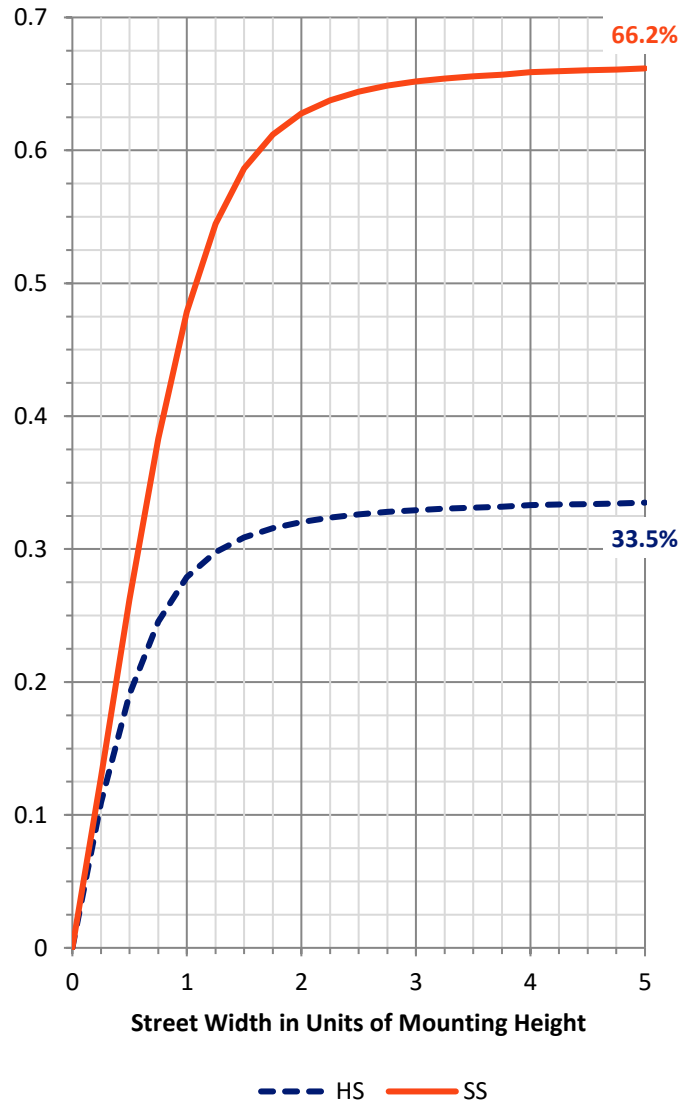
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 12579.2  | 0.0    | 12579.2 |
|                    | % Fixture | 33.8     | 0.0    | 33.8    |
| <b>Street Side</b> | Lumens    | 24647.8  | 0.0    | 24647.8 |
|                    | % Fixture | 66.2     | 0.0    | 66.2    |
| <b>Total</b>       | Lumens    | 37227.0  | 0.0    | 37227.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 725.1   | 1.9       |
| 10°-20°   | 2216.8  | 6.0       |
| 20°-30°   | 3766.4  | 10.1      |
| 30°-40°   | 5359.1  | 14.4      |
| 40°-50°   | 6768.3  | 18.2      |
| 50°-60°   | 7328.0  | 19.7      |
| 60°-70°   | 6815.9  | 18.3      |
| 70°-80°   | 3660.7  | 9.8       |
| 80°-90°   | 586.6   | 1.6       |
| 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°    | 37227.0 | 100.0     |
| 0°-180°   | 37227.0 | 100.0     |

**Coefficient of Utilization**



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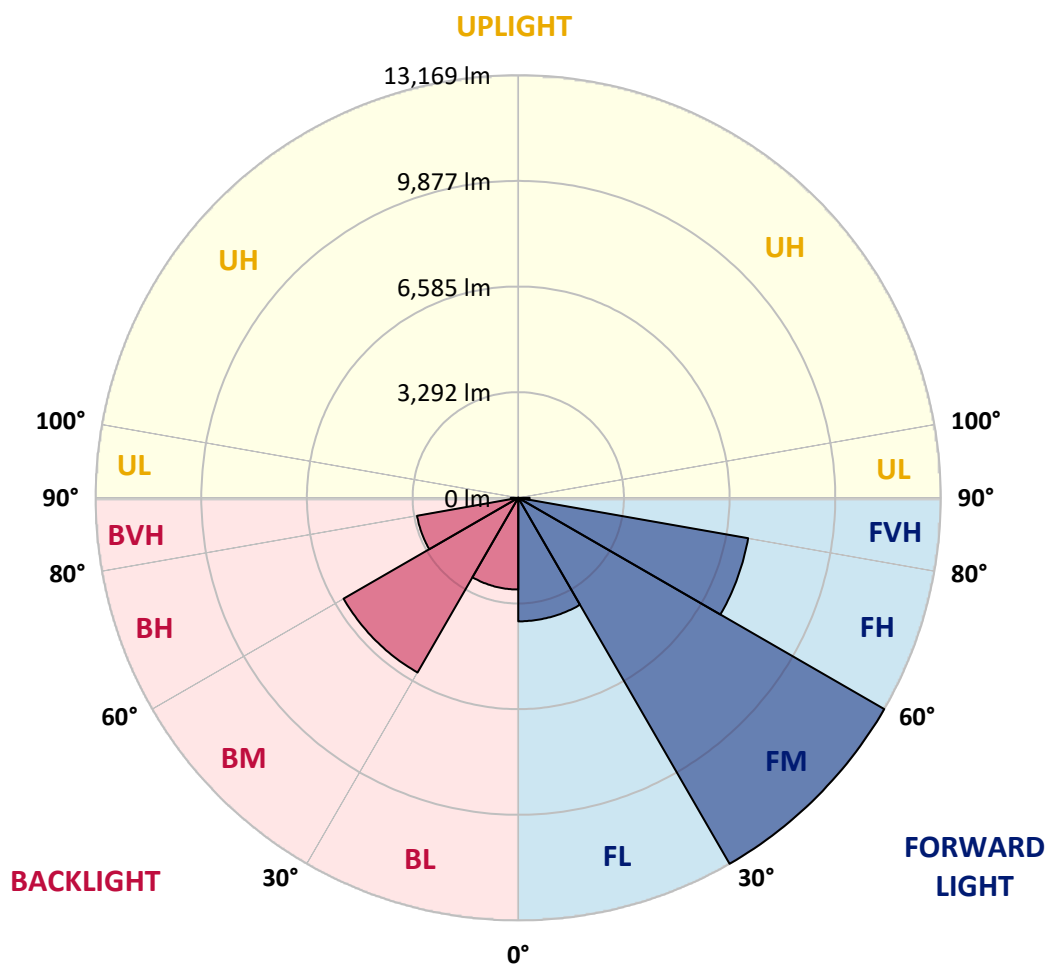
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3849.7  | 10.3      |                         |      |         |
| FM   | (30°-60°)   | 13169.5 | 35.4      |                         |      |         |
| FH   | (60°-80°)   | 7273.8  | 19.5      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 354.8   | 1.0       |                         |      | G3/500  |
| BL   | (0°-30°)    | 2858.7  | 7.7       | B4/5000                 |      |         |
| BM   | (30°-60°)   | 6286.0  | 16.9      | B4/8500                 |      |         |
| BH   | (60°-80°)   | 3202.8  | 8.6       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 231.8   | 0.6       |                         |      | G3/500  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G4**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7519.8  | 7519.8  | 7519.8  | 7519.8  | 7519.8  | 7519.8  | 7519.8  | 7519.8  | 7519.8  | 7519.8  | 7519.8  |
| 2.5°  | 7747.9  | 7734.0  | 7678.7  | 7685.6  | 7685.6  | 7678.7  | 7595.8  | 7561.2  | 7561.2  | 7554.3  | 7478.3  |
| 5°    | 8024.3  | 8003.6  | 7941.4  | 7927.6  | 7899.9  | 7865.3  | 7734.0  | 7658.0  | 7623.4  | 7616.5  | 7512.9  |
| 7.5°  | 8349.2  | 8321.5  | 8245.5  | 8204.0  | 8134.9  | 8045.0  | 7879.2  | 7761.7  | 7678.7  | 7671.8  | 7526.7  |
| 10°   | 8674.0  | 8646.4  | 8556.5  | 8480.5  | 8383.7  | 8238.6  | 8024.3  | 7851.5  | 7720.2  | 7706.4  | 7533.6  |
| 12.5° | 9061.0  | 9033.4  | 8922.8  | 8826.1  | 8680.9  | 8487.4  | 8204.0  | 7969.0  | 7789.3  | 7768.6  | 7554.3  |
| 15°   | 9468.8  | 9427.4  | 9316.8  | 9206.2  | 9026.5  | 8777.7  | 8439.0  | 8128.0  | 7899.9  | 7865.3  | 7616.5  |
| 17.5° | 9807.5  | 9752.2  | 9662.4  | 9551.8  | 9351.3  | 9061.0  | 8674.0  | 8287.0  | 8003.6  | 7975.9  | 7678.7  |
| 20°   | 10097.8 | 10056.3 | 9959.6  | 9855.9  | 9641.6  | 9323.7  | 8895.2  | 8445.9  | 8100.3  | 8065.8  | 7727.1  |
| 22.5° | 10374.2 | 10319.0 | 10263.7 | 10187.6 | 9952.6  | 9600.1  | 9150.9  | 8639.4  | 8224.8  | 8183.3  | 7789.3  |
| 25°   | 10692.2 | 10630.0 | 10609.2 | 10567.8 | 10291.3 | 9931.9  | 9461.9  | 8881.3  | 8397.5  | 8349.2  | 7899.9  |
| 27.5° | 11086.1 | 11017.0 | 10975.5 | 10975.5 | 10643.8 | 10270.6 | 9793.7  | 9164.7  | 8598.0  | 8556.5  | 8038.1  |
| 30°   | 11500.8 | 11417.9 | 11355.7 | 11355.7 | 10982.5 | 10609.2 | 10118.5 | 9448.1  | 8826.1  | 8777.7  | 8217.8  |
| 32.5° | 11867.1 | 11784.2 | 11715.1 | 11708.2 | 11321.1 | 10947.9 | 10457.2 | 9759.1  | 9102.5  | 9040.3  | 8439.0  |
| 35°   | 12150.5 | 12074.5 | 12012.3 | 12026.1 | 11659.8 | 11293.5 | 10837.3 | 10173.8 | 9448.1  | 9379.0  | 8729.3  |
| 37.5° | 12323.3 | 12295.7 | 12261.1 | 12309.5 | 11970.8 | 11625.2 | 11231.3 | 10574.7 | 9842.1  | 9779.9  | 9088.7  |
| 40°   | 12413.2 | 12392.4 | 12530.6 | 12592.9 | 12233.5 | 11922.4 | 11625.2 | 10989.4 | 10270.6 | 10201.5 | 9503.4  |
| 42.5° | 12544.5 | 12717.3 | 12772.6 | 12758.7 | 12427.0 | 12150.5 | 11984.6 | 11438.6 | 10775.1 | 10712.9 | 10001.0 |
| 45°   | 12074.5 | 12033.0 | 12337.1 | 12503.0 | 12440.8 | 12295.7 | 12323.3 | 11977.7 | 11362.6 | 11300.4 | 10574.7 |
| 47.5° | 11445.5 | 11390.2 | 11563.0 | 11970.8 | 12212.7 | 12350.9 | 12627.4 | 12537.6 | 12039.9 | 11984.6 | 11245.1 |
| 50°   | 10118.5 | 10194.5 | 10837.3 | 11383.3 | 11860.2 | 12337.1 | 12883.1 | 13138.9 | 12786.4 | 12731.1 | 11963.9 |
| 52.5° | 8646.4  | 8722.4  | 9392.8  | 10650.7 | 11431.7 | 12233.5 | 13069.8 | 13740.2 | 13595.0 | 13532.8 | 12731.1 |
| 55°   | 7575.1  | 7740.9  | 8501.2  | 9413.5  | 10823.5 | 11908.6 | 13180.3 | 14355.3 | 14465.9 | 14410.6 | 13567.4 |
| 57.5° | 6510.7  | 6635.1  | 7208.8  | 8017.4  | 9994.1  | 11341.9 | 13173.4 | 14929.0 | 15378.2 | 15322.9 | 14417.5 |
| 60°   | 5259.7  | 5418.7  | 5874.8  | 6745.7  | 8888.3  | 10664.5 | 12979.9 | 15378.2 | 16256.0 | 16214.5 | 15240.0 |
| 62.5° | 4402.7  | 4451.0  | 4775.9  | 5529.2  | 7464.5  | 9807.5  | 12544.5 | 15620.1 | 17050.8 | 17023.2 | 15979.5 |
| 65°   | 3545.6  | 3552.5  | 3849.7  | 4478.7  | 6089.1  | 8743.1  | 11804.9 | 15530.3 | 17652.1 | 17665.9 | 16511.7 |
| 67.5° | 2737.0  | 2771.5  | 3041.1  | 3518.0  | 4838.1  | 7360.8  | 10747.5 | 14922.0 | 17659.0 | 17693.6 | 16207.6 |
| 70°   | 1893.8  | 1921.4  | 2329.2  | 2792.3  | 3739.2  | 5867.9  | 9316.8  | 13311.7 | 16207.6 | 16235.2 | 14528.1 |
| 72.5° | 1333.9  | 1347.8  | 1783.2  | 2232.4  | 2923.6  | 4423.4  | 7029.1  | 11010.1 | 13816.2 | 13836.9 | 12219.6 |
| 75°   | 995.3   | 1009.1  | 1257.9  | 1693.3  | 2239.3  | 3061.8  | 4803.5  | 8432.1  | 11037.8 | 11037.8 | 9648.5  |
| 77.5° | 705.0   | 711.9   | 815.6   | 1168.1  | 1492.9  | 2066.6  | 2889.0  | 5522.3  | 8100.3  | 8114.2  | 7029.1  |
| 80°   | 476.9   | 483.8   | 532.2   | 787.9   | 933.1   | 1119.7  | 1568.9  | 2895.9  | 5107.6  | 5128.4  | 4464.9  |
| 82.5° | 248.8   | 262.6   | 297.2   | 400.9   | 470.0   | 622.0   | 808.7   | 1472.2  | 2826.8  | 2882.1  | 2681.7  |
| 85°   | 96.8    | 96.8    | 110.6   | 131.3   | 172.8   | 241.9   | 373.2   | 559.8   | 1278.6  | 1320.1  | 1181.9  |
| 87.5° | 34.6    | 34.6    | 41.5    | 41.5    | 48.4    | 55.3    | 62.2    | 82.9    | 145.1   | 145.1   | 138.2   |
| 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°    | 7519.8  | 7519.8  | 7519.8 | 7519.8 | 7519.8 | 7519.8 | 7519.8 | 7519.8 | 7519.8 | 7519.8 | 7519.8 |
| 2.5°  | 7450.7  | 7450.7  | 7416.1 | 7429.9 | 7423.0 | 7409.2 | 7395.4 | 7416.1 | 7395.4 | 7347.0 | 7340.1 |
| 5°    | 7464.5  | 7450.7  | 7395.4 | 7388.5 | 7367.7 | 7340.1 | 7305.5 | 7319.3 | 7284.8 | 7243.3 | 7236.4 |
| 7.5°  | 7471.4  | 7443.7  | 7367.7 | 7340.1 | 7298.6 | 7243.3 | 7188.0 | 7188.0 | 7139.6 | 7098.2 | 7091.3 |
| 10°   | 7457.6  | 7423.0  | 7319.3 | 7264.0 | 7188.0 | 7105.1 | 7029.1 | 7008.3 | 6953.0 | 6904.6 | 6904.6 |
| 12.5° | 7464.5  | 7416.1  | 7284.8 | 7194.9 | 7091.3 | 6987.6 | 6890.8 | 6863.2 | 6814.8 | 6766.4 | 6759.5 |
| 15°   | 7505.9  | 7436.8  | 7271.0 | 7153.5 | 7001.4 | 6883.9 | 6780.2 | 6759.5 | 6718.0 | 6683.5 | 6683.5 |
| 17.5° | 7547.4  | 7457.6  | 7250.2 | 7084.3 | 6897.7 | 6766.4 | 6669.7 | 6669.7 | 6642.0 | 6621.3 | 6621.3 |
| 20°   | 7568.2  | 7464.5  | 7208.8 | 6987.6 | 6773.3 | 6635.1 | 6545.2 | 6559.1 | 6552.2 | 6545.2 | 6545.2 |
| 22.5° | 7616.5  | 7478.3  | 7174.2 | 6897.7 | 6642.0 | 6496.9 | 6413.9 | 6434.7 | 6427.7 | 6427.7 | 6434.7 |
| 25°   | 7692.6  | 7512.9  | 7146.5 | 6814.8 | 6517.6 | 6358.6 | 6268.8 | 6282.6 | 6282.6 | 6282.6 | 6282.6 |
| 27.5° | 7796.2  | 7582.0  | 7139.6 | 6738.8 | 6393.2 | 6213.5 | 6102.9 | 6102.9 | 6075.3 | 6082.2 | 6089.1 |
| 30°   | 7955.2  | 7713.3  | 7153.5 | 6669.7 | 6261.9 | 6033.8 | 5902.5 | 5881.7 | 5874.8 | 5888.6 | 5895.6 |
| 32.5° | 8148.7  | 7893.0  | 7236.4 | 6621.3 | 6123.6 | 5833.4 | 5667.5 | 5660.6 | 5639.8 | 5639.8 | 5639.8 |
| 35°   | 8390.6  | 8065.8  | 7312.4 | 6614.4 | 5985.4 | 5619.1 | 5439.4 | 5418.7 | 5370.3 | 5349.5 | 5349.5 |
| 37.5° | 8701.6  | 8335.3  | 7402.3 | 6566.0 | 5867.9 | 5411.7 | 5197.5 | 5128.4 | 5073.1 | 5066.2 | 5066.2 |
| 40°   | 9081.8  | 8639.4  | 7533.6 | 6510.7 | 5743.5 | 5197.5 | 4914.1 | 4796.6 | 4803.5 | 4831.2 | 4831.2 |
| 42.5° | 9531.0  | 9012.7  | 7699.5 | 6483.0 | 5563.8 | 4976.3 | 4582.4 | 4444.1 | 4492.5 | 4520.2 | 4527.1 |
| 45°   | 10056.3 | 9455.0  | 7886.1 | 6448.5 | 5397.9 | 4727.5 | 4229.9 | 4057.1 | 4077.8 | 4084.7 | 4091.6 |
| 47.5° | 10664.5 | 9945.7  | 8079.6 | 6420.8 | 5211.3 | 4416.5 | 3842.8 | 3614.7 | 3607.8 | 3566.4 | 3580.2 |
| 50°   | 11300.4 | 10464.1 | 8280.0 | 6372.5 | 4983.2 | 4050.2 | 3435.0 | 3165.5 | 3110.2 | 3048.0 | 3054.9 |
| 52.5° | 11977.7 | 10996.3 | 8466.7 | 6296.4 | 4699.9 | 3676.9 | 3048.0 | 2757.7 | 2647.1 | 2578.0 | 2591.8 |
| 55°   | 12724.2 | 11542.3 | 8646.4 | 6178.9 | 4402.7 | 3303.7 | 2702.4 | 2405.2 | 2267.0 | 2211.7 | 2218.6 |
| 57.5° | 13408.4 | 12067.6 | 8777.7 | 6033.8 | 4077.8 | 2965.1 | 2398.3 | 2108.0 | 2018.2 | 2011.3 | 2018.2 |
| 60°   | 14071.9 | 12509.9 | 8833.0 | 5833.4 | 3746.1 | 2654.0 | 2114.9 | 1893.8 | 1831.6 | 1866.1 | 1873.0 |
| 62.5° | 14631.8 | 12793.3 | 8805.3 | 5563.8 | 3407.4 | 2356.8 | 1886.9 | 1727.9 | 1686.4 | 1755.5 | 1762.4 |
| 65°   | 14956.6 | 12883.1 | 8611.8 | 5176.8 | 3041.1 | 2066.6 | 1672.6 | 1499.8 | 1479.1 | 1520.5 | 1541.3 |
| 67.5° | 14528.1 | 12323.3 | 8086.5 | 4644.6 | 2633.3 | 1797.0 | 1465.2 | 1327.0 | 1292.5 | 1327.0 | 1327.0 |
| 70°   | 12876.2 | 10678.4 | 6842.4 | 3801.4 | 2184.1 | 1534.4 | 1271.7 | 1175.0 | 1147.3 | 1175.0 | 1168.1 |
| 72.5° | 10726.7 | 8881.3  | 5391.0 | 2965.1 | 1721.0 | 1292.5 | 1105.8 | 1016.0 | 988.4  | 960.7  | 946.9  |
| 75°   | 8321.5  | 6745.7  | 3911.9 | 2177.1 | 1299.4 | 1036.7 | 926.1  | 843.2  | 774.1  | 801.7  | 787.9  |
| 77.5° | 6096.0  | 4734.4  | 2771.5 | 1506.7 | 933.1  | 801.7  | 725.7  | 663.5  | 615.1  | 670.4  | 663.5  |
| 80°   | 3925.8  | 3061.8  | 1852.3 | 1009.1 | 642.8  | 559.8  | 532.2  | 497.6  | 546.0  | 711.9  | 725.7  |
| 82.5° | 2398.3  | 1942.1  | 1105.8 | 656.6  | 421.6  | 373.2  | 345.6  | 345.6  | 559.8  | 615.1  | 622.0  |
| 85°   | 1071.3  | 1029.8  | 601.3  | 338.7  | 235.0  | 214.3  | 193.5  | 248.8  | 228.1  | 165.9  | 172.8  |
| 87.5° | 172.8   | 179.7   | 131.3  | 117.5  | 89.9   | 89.9   | 69.1   | 48.4   | 34.6   | 20.7   | 20.7   |
| 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)