

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: P482232

Luminaire Tested: **IFLD-M-SA4A-830-U-T2R-HSS**

Issue Date: 02/26/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P482232  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 02/26/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: IFLD-M-SA4A-830-U-T2R-HSS  
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ T2R distribution lens with House Side Shield  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

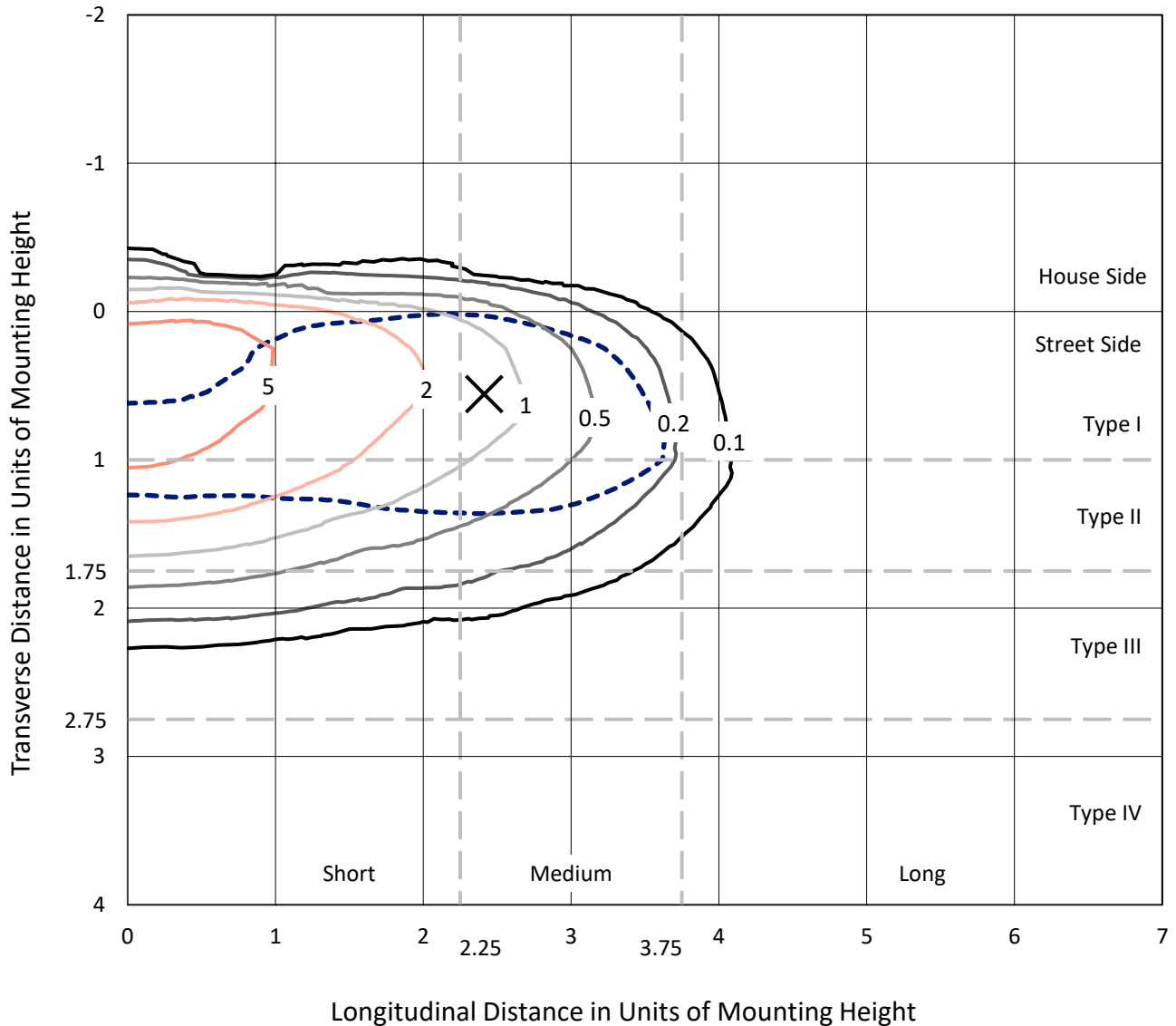
Lumens per Lamp: N/A  
Luminaire Lumens: 11536.9 lumens  
Efficiency: N/A  
Efficacy: 89.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

Input Watts (W): 128.6  
Input Voltage (V): 120  
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

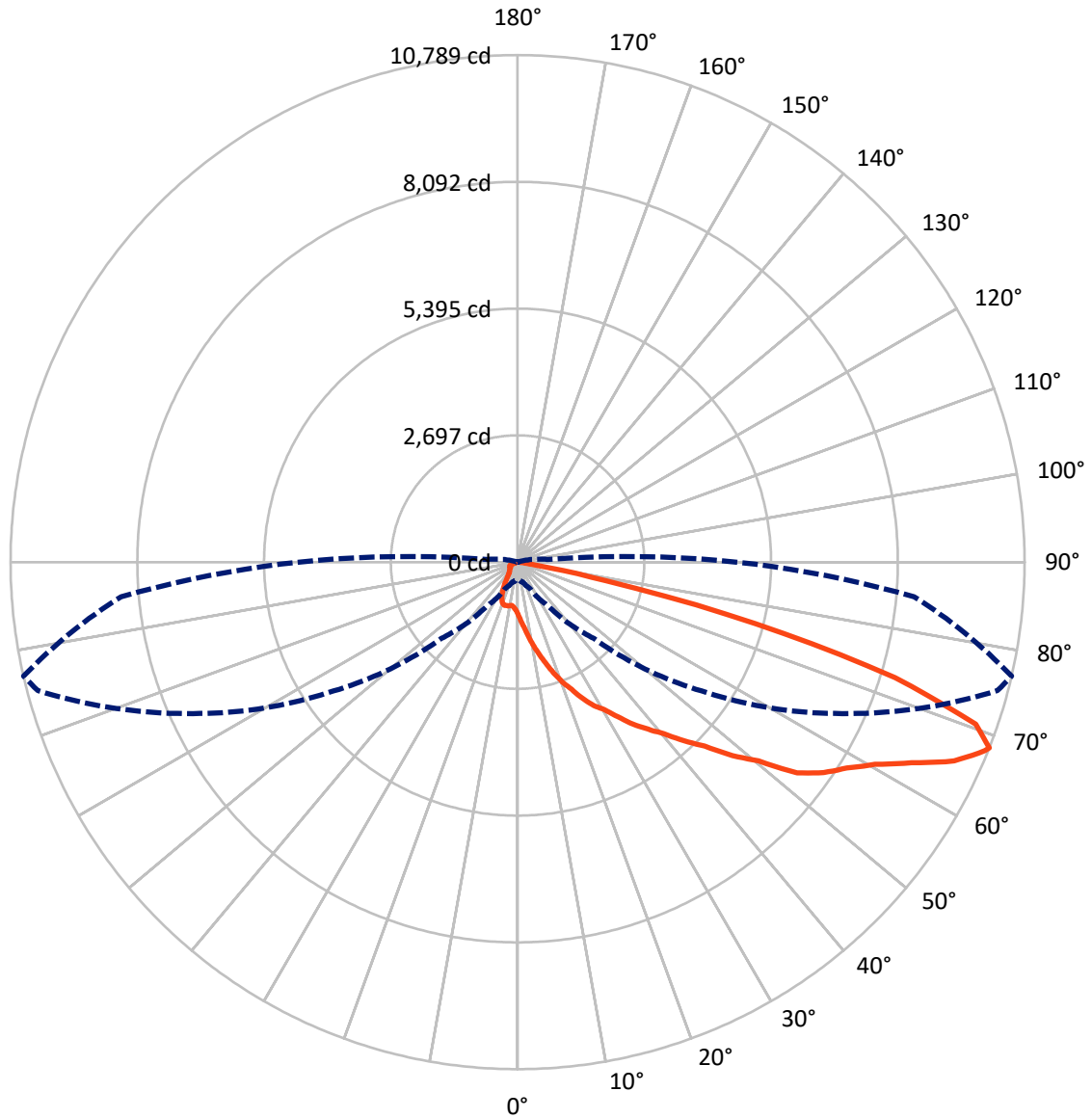
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.2 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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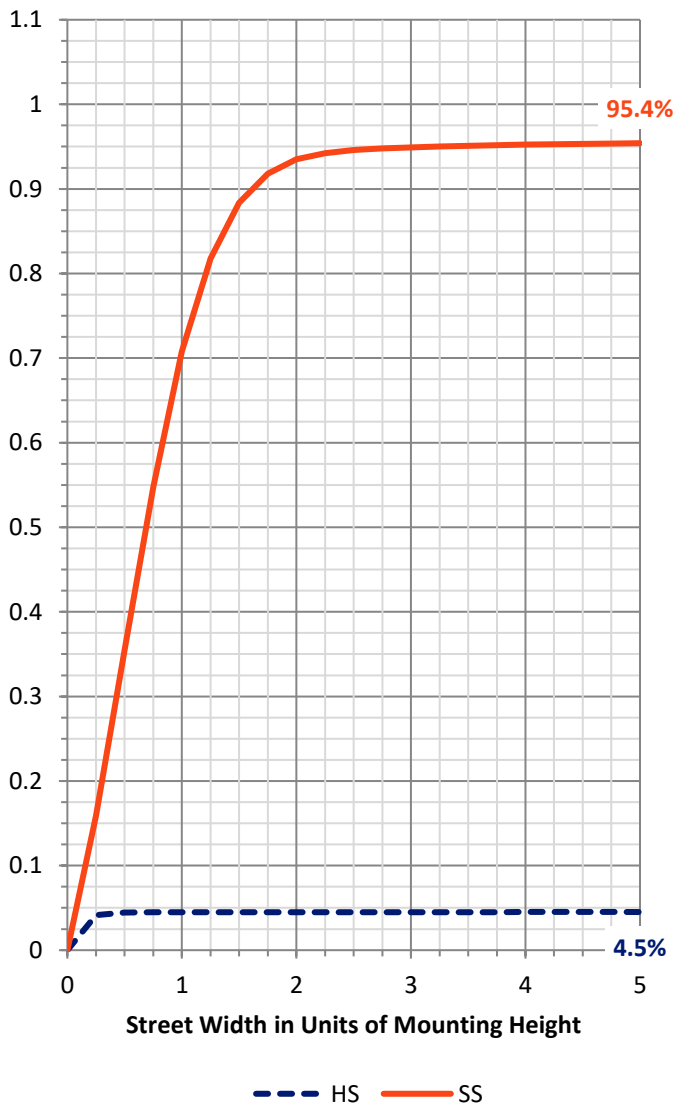
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 523.2    | 0.0    | 523.2   |
|                    | % Fixture | 4.5      | 0.0    | 4.5     |
| <b>Street Side</b> | Lumens    | 11013.7  | 0.0    | 11013.7 |
|                    | % Fixture | 95.5     | 0.0    | 95.5    |
| <b>Total</b>       | Lumens    | 11536.9  | 0.0    | 11536.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 129.1   | 1.1       |
| 10°-20°   | 476.0   | 4.1       |
| 20°-30°   | 922.4   | 8.0       |
| 30°-40°   | 1608.1  | 13.9      |
| 40°-50°   | 2355.2  | 20.4      |
| 50°-60°   | 2767.0  | 24.0      |
| 60°-70°   | 2336.5  | 20.3      |
| 70°-80°   | 905.7   | 7.9       |
| 80°-90°   | 36.8    | 0.3       |
| 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°    | 11536.9 | 100.0     |
| 0°-180°   | 11536.9 | 100.0     |

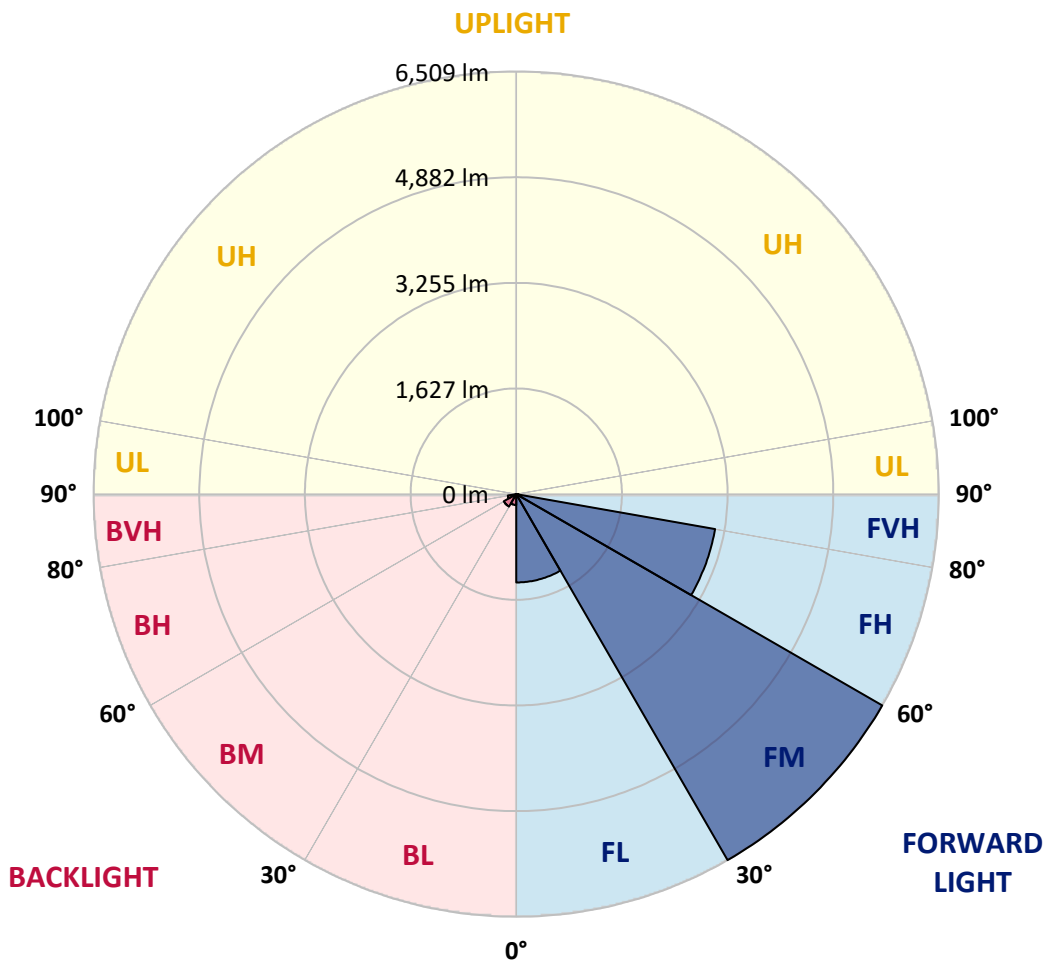


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1360.3 | 11.8      |                         |      |         |
| FM (30°-60°)   | 6509.3 | 56.4      |                         |      |         |
| FH (60°-80°)   | 3110.1 | 27.0      |                         |      | G2/5000 |
| FVH (80°-90°)  | 34.0   | 0.3       |                         |      | G1/100  |
| BL (0°-30°)    | 167.2  | 1.4       | B1/500                  |      |         |
| BM (30°-60°)   | 221.1  | 1.9       | B1/1000                 |      |         |
| BH (60°-80°)   | 132.1  | 1.1       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 2.9    | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**  
 Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°     | 77°     | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| 0°    | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7  | 1104.7  | 1104.7 |
| 2.5°  | 1678.5 | 1646.7 | 1613.3 | 1603.8 | 1541.8 | 1471.8 | 1406.7 | 1343.1 | 1236.6  | 1238.2  | 1165.1 |
| 5°    | 2163.3 | 2123.5 | 2096.5 | 2090.1 | 1993.2 | 1872.4 | 1773.8 | 1594.2 | 1417.8  | 1378.1  | 1244.6 |
| 7.5°  | 2562.2 | 2549.5 | 2509.8 | 2476.4 | 2404.9 | 2257.0 | 2141.0 | 1883.5 | 1614.9  | 1570.4  | 1341.5 |
| 10°   | 2803.8 | 2822.9 | 2840.4 | 2797.5 | 2741.8 | 2635.3 | 2476.4 | 2198.2 | 1839.0  | 1783.4  | 1467.1 |
| 12.5° | 3061.3 | 3029.5 | 3040.7 | 3075.6 | 3002.5 | 2978.7 | 2781.6 | 2522.5 | 2101.3  | 1994.8  | 1626.0 |
| 15°   | 3128.1 | 3140.8 | 3167.8 | 3269.5 | 3318.8 | 3250.5 | 3080.4 | 2784.7 | 2373.1  | 2225.3  | 1773.8 |
| 17.5° | 3172.6 | 3166.2 | 3199.6 | 3352.2 | 3426.9 | 3492.1 | 3385.6 | 3077.2 | 2609.9  | 2478.0  | 1958.2 |
| 20°   | 3228.2 | 3193.2 | 3266.4 | 3363.3 | 3536.6 | 3673.3 | 3668.5 | 3371.3 | 2857.9  | 2718.0  | 2141.0 |
| 22.5° | 3434.8 | 3407.8 | 3466.6 | 3476.2 | 3597.0 | 3787.7 | 3833.8 | 3611.3 | 3112.2  | 2940.5  | 2338.1 |
| 25°   | 3816.3 | 3865.6 | 3795.6 | 3735.2 | 3771.8 | 3897.4 | 3930.8 | 3824.3 | 3368.1  | 3210.7  | 2535.2 |
| 27.5° | 4374.2 | 4367.9 | 4229.6 | 4151.7 | 4064.3 | 4048.4 | 4072.2 | 4022.9 | 3569.9  | 3457.1  | 2697.3 |
| 30°   | 4973.4 | 4921.0 | 4793.8 | 4606.3 | 4414.0 | 4294.7 | 4261.4 | 4210.5 | 3806.8  | 3643.1  | 2857.9 |
| 32.5° | 5450.3 | 5478.9 | 5337.4 | 5092.7 | 4773.2 | 4612.6 | 4452.1 | 4396.5 | 4067.4  | 3922.8  | 3042.2 |
| 35°   | 5889.0 | 5850.8 | 5738.0 | 5531.3 | 5245.2 | 4986.2 | 4735.0 | 4615.8 | 4380.6  | 4237.5  | 3245.7 |
| 37.5° | 6213.2 | 6260.9 | 6046.3 | 5849.2 | 5564.7 | 5350.1 | 5103.8 | 4843.1 | 4703.2  | 4512.5  | 3493.6 |
| 40°   | 6520.0 | 6445.3 | 6300.6 | 6119.4 | 5855.6 | 5691.9 | 5529.8 | 5122.9 | 5046.6  | 4800.2  | 3773.4 |
| 42.5° | 6466.0 | 6470.7 | 6391.2 | 6245.0 | 6054.3 | 5960.5 | 5904.9 | 5463.0 | 5358.1  | 5200.7  | 4046.8 |
| 45°   | 6245.0 | 6264.1 | 6291.1 | 6219.6 | 6235.5 | 6141.7 | 6291.1 | 5854.0 | 5750.7  | 5583.8  | 4361.5 |
| 47.5° | 6001.8 | 6033.6 | 6027.3 | 6157.6 | 6305.4 | 6337.2 | 6710.7 | 6287.9 | 6243.4  | 6151.2  | 4797.0 |
| 50°   | 5598.1 | 5610.8 | 5733.2 | 5970.0 | 6171.9 | 6504.1 | 7025.4 | 6761.6 | 6829.9  | 6648.7  | 5315.2 |
| 52.5° | 4908.3 | 4954.4 | 5269.1 | 5607.6 | 6014.5 | 6588.3 | 7238.4 | 7465.7 | 7639.0  | 7453.0  | 5812.7 |
| 55°   | 4035.7 | 4099.2 | 4409.2 | 5043.4 | 5639.4 | 6461.2 | 7432.3 | 7837.7 | 8188.9  | 7907.6  | 6114.7 |
| 57.5° | 3247.3 | 3253.6 | 3531.8 | 4186.7 | 5107.0 | 6211.6 | 7530.9 | 8018.9 | 8490.9  | 8265.2  | 6483.4 |
| 60°   | 2474.8 | 2449.4 | 2698.9 | 3266.4 | 4210.5 | 5598.1 | 7284.5 | 8111.1 | 8867.6  | 8737.3  | 6926.9 |
| 62.5° | 1592.6 | 1552.9 | 1824.7 | 2377.8 | 3288.6 | 4576.1 | 6791.8 | 8112.6 | 9455.7  | 9406.5  | 7669.2 |
| 65°   | 788.4  | 761.4  | 995.0  | 1457.5 | 2276.1 | 3500.0 | 6089.2 | 8082.4 | 10174.2 | 10206.0 | 8392.4 |
| 67.5° | 416.4  | 426.0  | 500.7  | 739.1  | 1312.9 | 2473.2 | 5030.7 | 7728.0 | 10541.3 | 10719.4 | 8567.2 |
| 68°   | 383.1  | 386.2  | 445.1  | 615.1  | 1139.6 | 2293.6 | 4779.5 | 7624.7 | 10570.0 | 10789.3 | 8470.3 |
| 70°   | 311.5  | 316.3  | 337.0  | 386.2  | 616.7  | 1492.5 | 3687.6 | 6747.3 | 10139.2 | 10339.5 | 7667.6 |
| 72.5° | 248.0  | 262.3  | 275.0  | 295.6  | 362.4  | 783.6  | 2293.6 | 5258.0 | 8376.5  | 8398.7  | 5968.4 |
| 75°   | 189.1  | 200.3  | 225.7  | 243.2  | 282.9  | 430.7  | 1092.0 | 3206.0 | 5496.4  | 5226.2  | 3515.9 |
| 77.5° | 146.2  | 155.8  | 166.9  | 190.7  | 236.8  | 290.9  | 333.8  | 1360.6 | 2334.9  | 1921.7  | 993.4  |
| 80°   | 87.4   | 93.8   | 130.3  | 149.4  | 206.6  | 197.1  | 131.9  | 378.3  | 473.7   | 373.5   | 181.2  |
| 82.5° | 50.9   | 55.6   | 74.7   | 114.4  | 144.6  | 106.5  | 77.9   | 117.6  | 116.0   | 101.7   | 60.4   |
| 85°   | 1.6    | 3.2    | 41.3   | 68.3   | 50.9   | 28.6   | 47.7   | 49.3   | 41.3    | 38.1    | 27.0   |
| 87.5° | 0.0    | 1.6    | 11.1   | 9.5    | 11.1   | 6.4    | 9.5    | 12.7   | 15.9    | 14.3    | 11.1   |
| 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°    | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 | 1104.7 |
| 2.5°  | 1115.8 | 1080.8 | 1003.0 | 944.1  | 880.6  | 842.4  | 804.3  | 780.4  | 767.7  | 759.8  | 766.1  |
| 5°    | 1144.4 | 1071.3 | 945.7  | 834.5  | 761.4  | 712.1  | 662.8  | 637.4  | 613.5  | 600.8  | 608.8  |
| 7.5°  | 1208.0 | 1098.3 | 890.1  | 769.3  | 683.5  | 607.2  | 545.2  | 495.9  | 467.3  | 441.9  | 446.6  |
| 10°   | 1285.9 | 1114.2 | 891.7  | 731.2  | 607.2  | 486.4  | 399.0  | 337.0  | 302.0  | 279.7  | 278.2  |
| 12.5° | 1365.4 | 1176.2 | 898.0  | 693.0  | 513.4  | 365.6  | 262.3  | 216.2  | 195.5  | 184.4  | 184.4  |
| 15°   | 1486.2 | 1231.8 | 882.2  | 623.1  | 389.4  | 238.4  | 179.6  | 163.7  | 155.8  | 146.2  | 147.8  |
| 17.5° | 1591.1 | 1320.8 | 874.2  | 518.2  | 267.0  | 171.7  | 149.4  | 131.9  | 124.0  | 114.4  | 114.4  |
| 20°   | 1732.5 | 1376.5 | 831.3  | 400.5  | 184.4  | 143.1  | 120.8  | 104.9  | 92.2   | 84.2   | 85.8   |
| 22.5° | 1861.3 | 1419.4 | 755.0  | 273.4  | 141.5  | 112.9  | 89.0   | 73.1   | 62.0   | 52.5   | 54.0   |
| 25°   | 2001.1 | 1462.3 | 643.7  | 168.5  | 100.1  | 69.9   | 47.7   | 35.0   | 23.8   | 17.5   | 17.5   |
| 27.5° | 2101.3 | 1475.0 | 499.1  | 100.1  | 60.4   | 31.8   | 11.1   | 1.6    | 0.0    | 0.0    | 0.0    |
| 30°   | 2203.0 | 1479.8 | 344.9  | 54.0   | 23.8   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 32.5° | 2319.0 | 1478.2 | 216.2  | 28.6   | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 35°   | 2408.0 | 1451.2 | 103.3  | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 37.5° | 2543.1 | 1411.4 | 31.8   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 40°   | 2697.3 | 1339.9 | 6.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 42.5° | 2835.6 | 1266.8 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 45°   | 2993.0 | 1176.2 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 47.5° | 3269.5 | 1138.1 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 50°   | 3630.3 | 1107.9 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 52.5° | 3852.9 | 1018.8 | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 55°   | 3968.9 | 926.7  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 57.5° | 4140.6 | 882.2  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 60°   | 4394.9 | 885.3  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 62.5° | 4792.2 | 929.8  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 65°   | 5011.6 | 885.3  | 6.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 4825.6 | 708.9  | 30.2   | 7.9    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 68°   | 4665.1 | 651.7  | 30.2   | 7.9    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 3856.0 | 424.4  | 28.6   | 7.9    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 2808.6 | 235.2  | 23.8   | 6.4    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 1634.0 | 117.6  | 17.5   | 6.4    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 426.0  | 58.8   | 14.3   | 7.9    | 4.8    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 84.2   | 38.1   | 12.7   | 9.5    | 6.4    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 39.7   | 27.0   | 12.7   | 9.5    | 7.9    | 4.8    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 20.7   | 12.7   | 12.7   | 9.5    | 9.5    | 6.4    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 9.5    | 4.8    | 4.8    | 4.8    | 4.8    | 3.2    | 1.6    | 0.0    | 0.0    | 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)