

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: P638525

Luminaire Tested: **IFLD-M-SA4E-827-U-LAM-VI**

Issue Date: 01/17/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P638525  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 01/17/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: IFLD-M-SA4E-827-U-LAM-VI  
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/  
Lambertian distribution lens and Visor  
Light Source: (64) 2700K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19615.5 lumens  
Efficiency: N/A  
Efficacy: 62.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 0.5' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B4 - U0 - G2

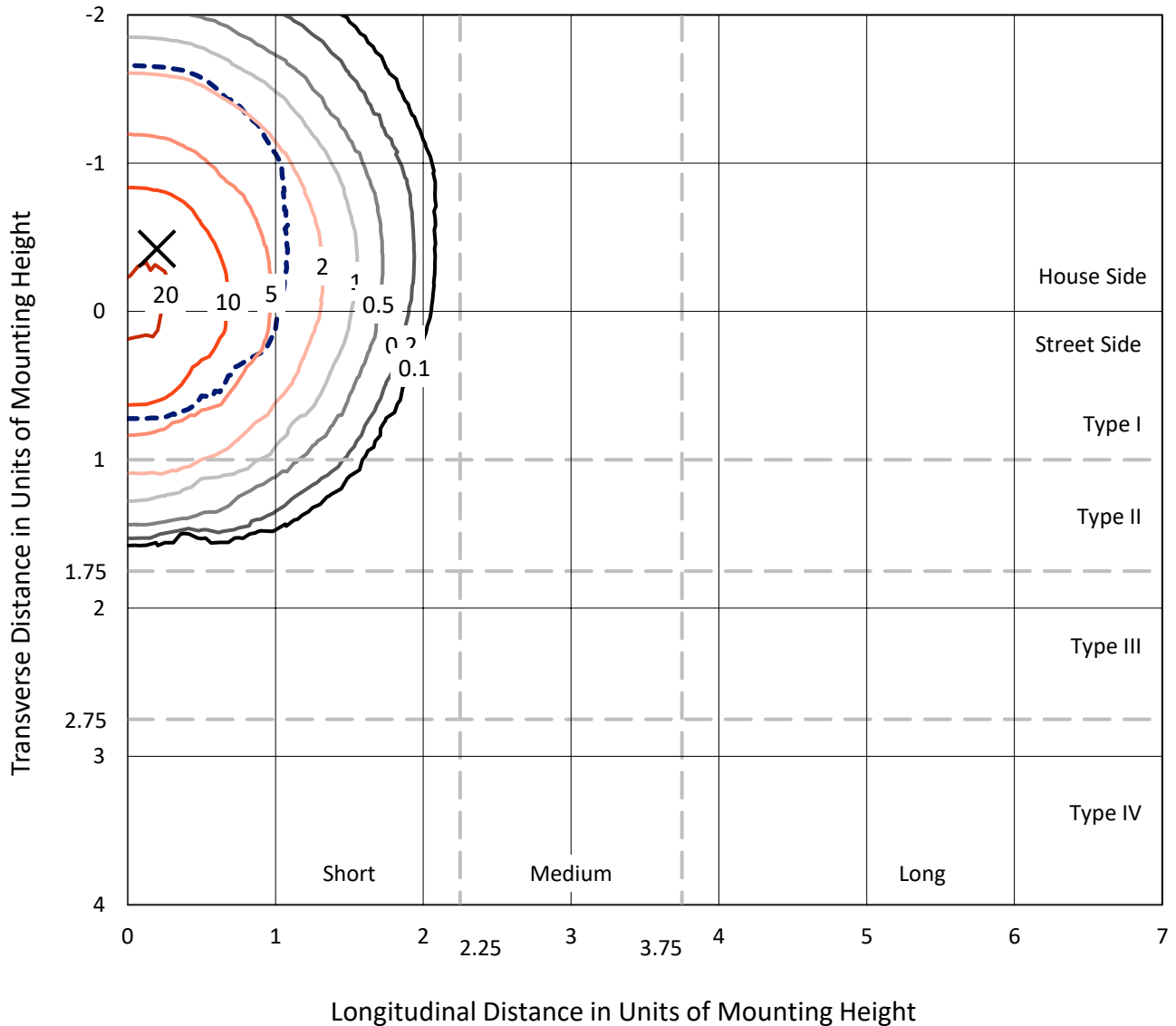
Input Watts (W): 314.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

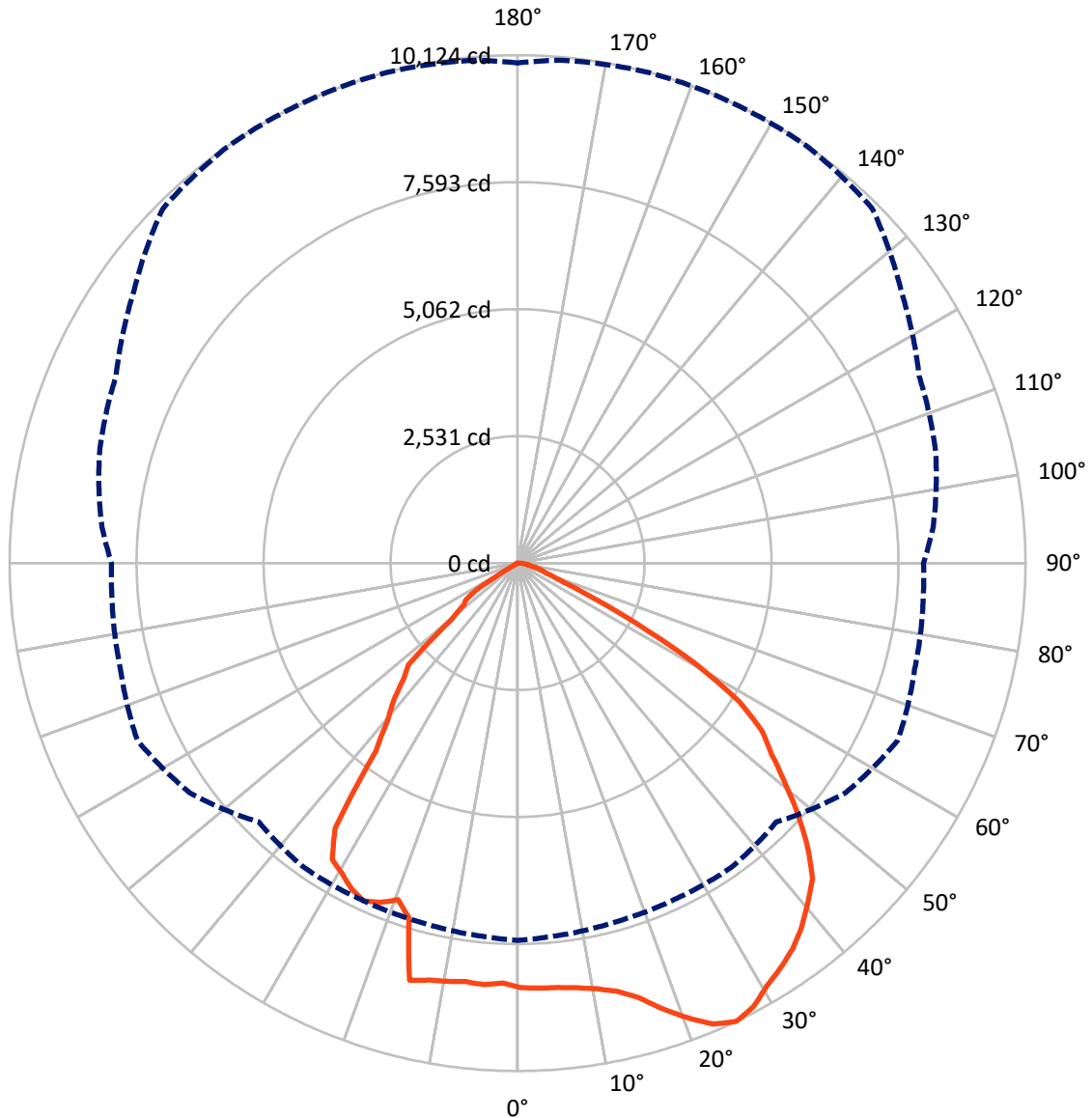
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 21.2 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 155-Deg Lateral      - - - Horizontal Cone Through 25-Deg Vertical

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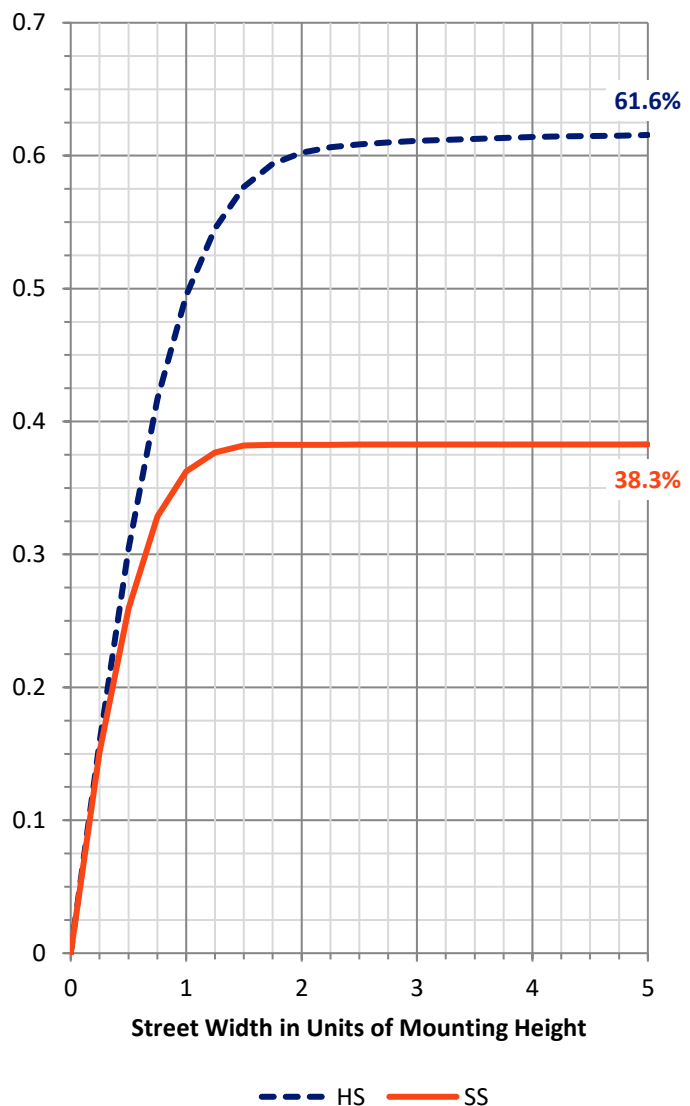
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 12144.0  | 0.0    | 12144.0 |
|                    | % Fixture | 61.9     | 0.0    | 61.9    |
| <b>Street Side</b> | Lumens    | 7471.5   | 0.0    | 7471.5  |
|                    | % Fixture | 38.1     | 0.0    | 38.1    |
| <b>Total</b>       | Lumens    | 19615.5  | 0.0    | 19615.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 812.0   | 4.1       |
| 10°-20°   | 2479.3  | 12.6      |
| 20°-30°   | 3919.7  | 20.0      |
| 30°-40°   | 4427.7  | 22.6      |
| 40°-50°   | 4146.6  | 21.1      |
| 50°-60°   | 2858.8  | 14.6      |
| 60°-70°   | 768.1   | 3.9       |
| 70°-80°   | 160.1   | 0.8       |
| 80°-90°   | 43.3    | 0.2       |
| 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°    | 19615.5 | 100.0     |
| 0°-180°   | 19615.5 | 100.0     |



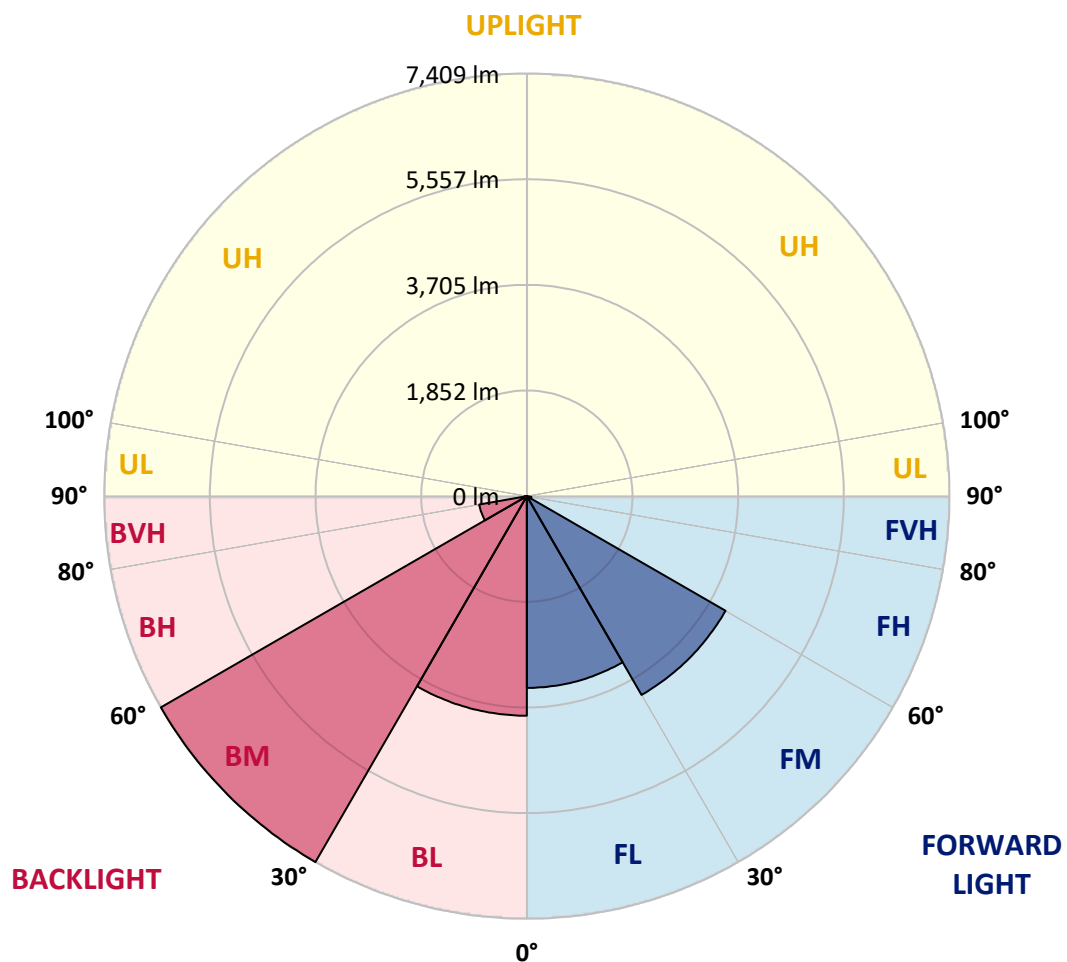
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 3361.5 | 17.1      |                         |      |         |
| FM (30°-60°)   | 4023.6 | 20.5      |                         |      |         |
| FH (60°-80°)   | 80.6   | 0.4       |                         |      | G0/660  |
| FVH (80°-90°)  | 5.8    | 0.0       |                         |      | G0/10   |
| BL (0°-30°)    | 3849.6 | 19.6      | B4/5000                 |      |         |
| BM (30°-60°)   | 7409.4 | 37.8      | B4/8500                 |      |         |
| BH (60°-80°)   | 847.5  | 4.3       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 37.5   | 0.2       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G2**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 8463.7 | 8463.7 | 8463.7 | 8463.7 | 8463.7 | 8463.7 | 8463.7 | 8463.7 | 8463.7 | 8463.7 |
| 2.5°  | 8501.2 | 8446.4 | 8394.5 | 8377.3 | 8449.3 | 8527.2 | 8478.1 | 8481.0 | 8463.7 | 8495.4 |
| 5°    | 8564.6 | 8489.7 | 8455.1 | 8429.1 | 8440.7 | 8521.4 | 8452.2 | 8478.1 | 8449.3 | 8486.8 |
| 7.5°  | 8541.6 | 8489.7 | 8455.1 | 8406.1 | 8443.6 | 8538.7 | 8472.4 | 8475.3 | 8460.9 | 8495.4 |
| 10°   | 8527.2 | 8489.7 | 8446.4 | 8452.2 | 8495.4 | 8576.2 | 8524.3 | 8553.1 | 8532.9 | 8553.1 |
| 12.5° | 8561.7 | 8521.4 | 8498.3 | 8498.3 | 8535.8 | 8628.0 | 8602.1 | 8628.0 | 8619.4 | 8636.7 |
| 15°   | 8236.0 | 8273.5 | 8492.6 | 8590.6 | 8665.5 | 8757.8 | 8746.2 | 8772.2 | 8778.0 | 8803.9 |
| 17.5° | 6947.4 | 6909.9 | 6892.6 | 7397.1 | 8737.6 | 9023.0 | 9014.3 | 9011.5 | 8982.6 | 8962.4 |
| 20°   | 7117.5 | 7103.1 | 7082.9 | 7120.4 | 7270.3 | 9161.4 | 9219.0 | 8864.4 | 8760.7 | 8752.0 |
| 22.5° | 7388.5 | 7365.4 | 7290.5 | 7293.3 | 7339.5 | 7965.0 | 8933.6 | 8610.8 | 8576.2 | 8556.0 |
| 25°   | 7521.1 | 7475.0 | 7414.4 | 7397.1 | 7411.5 | 7296.2 | 7979.4 | 8362.8 | 8192.8 | 8114.9 |
| 27.5° | 7287.6 | 7290.5 | 7241.5 | 7287.6 | 7232.8 | 6713.9 | 6422.8 | 7878.5 | 7872.8 | 7838.2 |
| 30°   | 7111.7 | 7103.1 | 7045.4 | 7103.1 | 6725.4 | 6146.0 | 6022.1 | 7348.1 | 7287.6 | 7241.5 |
| 32.5° | 6572.7 | 6578.4 | 6745.6 | 6970.5 | 6350.7 | 5892.3 | 5517.6 | 6564.0 | 7137.7 | 7111.7 |
| 35°   | 4701.8 | 4713.3 | 5307.1 | 6417.0 | 5782.8 | 5387.8 | 5359.0 | 5673.2 | 6901.3 | 6912.8 |
| 37.5° | 4525.9 | 4525.9 | 4511.5 | 4693.1 | 5336.0 | 5183.2 | 5240.8 | 5209.1 | 6321.9 | 6350.7 |
| 40°   | 4399.1 | 4373.1 | 4352.9 | 4067.6 | 3710.1 | 5039.0 | 5079.4 | 4935.3 | 5975.9 | 5981.7 |
| 42.5° | 4246.3 | 4217.5 | 4223.2 | 3695.7 | 3320.9 | 4681.6 | 4569.1 | 4376.0 | 5399.4 | 5405.1 |
| 45°   | 3966.7 | 4015.7 | 4050.3 | 3234.4 | 3205.6 | 3344.0 | 4214.6 | 4093.5 | 5010.2 | 5116.9 |
| 47.5° | 2017.9 | 2061.2 | 3162.4 | 2975.0 | 3041.3 | 2972.1 | 3560.2 | 3563.1 | 4168.4 | 4523.0 |
| 50°   | 1830.5 | 1819.0 | 1821.9 | 1735.4 | 2807.8 | 2404.2 | 2574.3 | 3266.1 | 3338.2 | 3845.6 |
| 52.5° | 1706.6 | 1703.7 | 1527.9 | 1357.8 | 1764.2 | 2115.9 | 1868.0 | 2363.8 | 2482.0 | 3257.5 |
| 55°   | 1262.6 | 1354.9 | 1205.0 | 1277.1 | 1104.1 | 1695.1 | 1686.4 | 2133.2 | 2173.6 | 2611.8 |
| 57.5° | 11.5   | 14.4   | 34.6   | 971.5  | 763.9  | 847.5  | 1164.6 | 1455.8 | 1527.9 | 2035.2 |
| 60°   | 2.9    | 5.8    | 14.4   | 28.8   | 495.8  | 521.8  | 778.3  | 841.8  | 948.4  | 1213.6 |
| 62.5° | 0.0    | 0.0    | 5.8    | 14.4   | 25.9   | 213.3  | 247.9  | 271.0  | 418.0  | 619.8  |
| 65°   | 0.0    | 0.0    | 2.9    | 8.6    | 14.4   | 34.6   | 60.5   | 126.8  | 181.6  | 224.9  |
| 67.5° | 0.0    | 0.0    | 2.9    | 5.8    | 11.5   | 17.3   | 34.6   | 49.0   | 77.8   | 132.6  |
| 70°   | 0.0    | 0.0    | 2.9    | 5.8    | 8.6    | 14.4   | 23.1   | 34.6   | 46.1   | 66.3   |
| 72.5° | 0.0    | 0.0    | 2.9    | 5.8    | 5.8    | 17.3   | 17.3   | 25.9   | 34.6   | 43.2   |
| 75°   | 0.0    | 0.0    | 2.9    | 2.9    | 5.8    | 11.5   | 17.3   | 20.2   | 23.1   | 34.6   |
| 77.5° | 0.0    | 0.0    | 2.9    | 5.8    | 8.6    | 11.5   | 14.4   | 23.1   | 20.2   | 20.2   |
| 80°   | 0.0    | 0.0    | 2.9    | 8.6    | 8.6    | 14.4   | 17.3   | 23.1   | 14.4   | 14.4   |
| 82.5° | 0.0    | 0.0    | 2.9    | 11.5   | 8.6    | 28.8   | 28.8   | 31.7   | 11.5   | 11.5   |
| 85°   | 0.0    | 0.0    | 8.6    | 5.8    | 17.3   | 28.8   | 25.9   | 17.3   | 14.4   | 8.6    |
| 87.5° | 0.0    | 0.0    | 2.9    | 2.9    | 5.8    | 8.6    | 20.2   | 17.3   | 5.8    | 5.8    |
| 90°   | 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°    |
|--------|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 8463.7 | 0°    | 8463.7 | 8463.7 | 8463.7 | 8463.7 | 8463.7 | 8463.7  | 8463.7  | 8463.7  | 8463.7  |
| 8411.8 | 2.5°  | 8527.2 | 8489.7 | 8567.5 | 8558.9 | 8521.4 | 8504.1  | 8483.9  | 8466.6  | 8339.8  |
| 8417.6 | 5°    | 8530.0 | 8472.4 | 8567.5 | 8550.2 | 8544.5 | 8515.6  | 8498.3  | 8524.3  | 8409.0  |
| 8440.7 | 7.5°  | 8530.0 | 8472.4 | 8576.2 | 8581.9 | 8573.3 | 8550.2  | 8547.3  | 8564.6  | 8469.5  |
| 8481.0 | 10°   | 8587.7 | 8564.6 | 8651.1 | 8659.8 | 8648.2 | 8642.5  | 8628.0  | 8616.5  | 8515.6  |
| 8619.4 | 12.5° | 8708.8 | 8662.6 | 8760.7 | 8786.6 | 8778.0 | 8792.4  | 8757.8  | 8775.1  | 8671.3  |
| 8760.7 | 15°   | 8855.8 | 8858.7 | 8933.6 | 8991.3 | 8985.5 | 9031.6  | 8979.7  | 9025.9  | 8950.9  |
| 8922.1 | 17.5° | 9080.6 | 9112.4 | 9219.0 | 9305.5 | 9337.2 | 9371.8  | 9337.2  | 9351.6  | 9245.0  |
| 8743.4 | 20°   | 8844.3 | 8962.4 | 9475.6 | 9634.1 | 9700.4 | 9732.1  | 9674.5  | 9691.8  | 9585.1  |
| 8524.3 | 22.5° | 8630.9 | 8783.7 | 9239.2 | 9735.0 | 9939.7 | 10003.1 | 9982.9  | 9980.1  | 9939.7  |
| 8091.9 | 25°   | 8316.7 | 8625.2 | 8829.8 | 9354.5 | 9997.4 | 10112.7 | 10124.2 | 10121.3 | 10060.8 |
| 7826.6 | 27.5° | 7930.4 | 7999.6 | 8530.0 | 8850.0 | 9593.8 | 10031.9 | 10014.6 | 9931.0  | 9850.3  |
| 7276.0 | 30°   | 7437.5 | 7751.7 | 7991.0 | 8501.2 | 9072.0 | 9784.0  | 9784.0  | 9720.6  | 9637.0  |
| 7080.0 | 32.5° | 7186.7 | 7593.1 | 7815.1 | 7999.6 | 8486.8 | 9507.3  | 9622.6  | 9556.3  | 9490.0  |
| 6927.2 | 35°   | 7054.1 | 7114.6 | 7633.5 | 7800.7 | 8212.9 | 8974.0  | 9441.0  | 9374.7  | 9325.7  |
| 6520.8 | 37.5° | 6762.9 | 6904.2 | 7146.3 | 7593.1 | 7720.0 | 8538.7  | 9198.8  | 9164.2  | 9106.6  |
| 5993.2 | 40°   | 6114.3 | 6491.9 | 6863.8 | 7287.6 | 7420.2 | 7979.4  | 8904.8  | 8919.2  | 8841.4  |
| 5431.1 | 42.5° | 5730.9 | 5987.5 | 6569.8 | 6855.2 | 7212.6 | 7619.1  | 8619.4  | 8642.5  | 8587.7  |
| 5145.7 | 45°   | 5281.2 | 5566.6 | 5975.9 | 6494.8 | 6982.0 | 7123.3  | 8114.9  | 8357.1  | 8310.9  |
| 4577.8 | 47.5° | 4869.0 | 5099.6 | 5601.2 | 6125.8 | 6664.9 | 6644.7  | 7535.5  | 7991.0  | 7927.5  |
| 4142.5 | 50°   | 4283.8 | 4687.3 | 4923.7 | 5405.1 | 6209.4 | 6264.2  | 6918.6  | 7561.4  | 7509.5  |
| 3519.8 | 52.5° | 3612.1 | 4119.4 | 4572.0 | 5013.1 | 5748.2 | 5877.9  | 6344.9  | 7123.3  | 7088.7  |
| 2689.6 | 55°   | 3156.6 | 3525.6 | 4035.8 | 4390.4 | 5188.9 | 5534.9  | 5915.4  | 6705.3  | 6688.0  |
| 2211.1 | 57.5° | 2245.7 | 2957.7 | 3378.6 | 3874.4 | 4295.3 | 4920.8  | 5203.4  | 5854.9  | 5693.4  |
| 1225.2 | 60°   | 1522.1 | 1856.5 | 2369.6 | 2902.9 | 3185.4 | 3811.0  | 4073.3  | 4595.1  | 4551.9  |
| 732.2  | 62.5° | 804.3  | 1112.7 | 1478.8 | 1746.9 | 1951.6 | 2559.9  | 2669.4  | 3231.6  | 3217.1  |
| 294.0  | 65°   | 354.6  | 469.9  | 801.4  | 939.8  | 1150.2 | 1432.7  | 1527.9  | 1729.6  | 1680.6  |
| 144.1  | 67.5° | 184.5  | 279.6  | 452.6  | 556.4  | 700.5  | 807.2   | 885.0   | 948.4   | 988.8   |
| 95.1   | 70°   | 112.4  | 204.7  | 279.6  | 386.3  | 481.4  | 567.9   | 628.4   | 714.9   | 766.8   |
| 49.0   | 72.5° | 83.6   | 129.7  | 193.1  | 296.9  | 348.8  | 449.7   | 510.2   | 573.7   | 619.8   |
| 40.4   | 75°   | 46.1   | 86.5   | 155.7  | 233.5  | 279.6  | 366.1   | 420.9   | 464.1   | 478.5   |
| 23.1   | 77.5° | 28.8   | 66.3   | 129.7  | 181.6  | 219.1  | 296.9   | 282.5   | 322.9   | 357.5   |
| 17.3   | 80°   | 20.2   | 49.0   | 100.9  | 149.9  | 152.8  | 190.3   | 224.9   | 259.4   | 282.5   |
| 11.5   | 82.5° | 14.4   | 40.4   | 75.0   | 115.3  | 100.9  | 147.0   | 175.8   | 201.8   | 147.0   |
| 8.6    | 85°   | 11.5   | 28.8   | 37.5   | 69.2   | 57.7   | 103.8   | 89.4    | 86.5    | 57.7    |
| 5.8    | 87.5° | 8.6    | 14.4   | 25.9   | 31.7   | 23.1   | 23.1    | 28.8    | 34.6    | 28.8    |
| 0.0    | 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 0.0     | 0.0     |





| 180°   |
|--------|
| 8463.7 |
| 8253.3 |
| 8310.9 |
| 8360.0 |
| 8432.0 |
| 8579.0 |
| 8827.0 |
| 9152.7 |
| 9510.2 |
| 9810.0 |
| 9968.5 |
| 9786.9 |
| 9605.3 |
| 9435.2 |
| 9256.5 |
| 9048.9 |
| 8824.1 |
| 8581.9 |
| 8316.7 |
| 7973.7 |
| 7518.2 |
| 7111.7 |
| 6708.1 |
| 5676.1 |
| 4554.7 |
| 3220.0 |
| 1660.5 |
| 988.8  |
| 769.7  |
| 628.4  |
| 469.9  |
| 363.2  |
| 285.4  |
| 106.7  |
| 57.7   |
| 28.8   |
| 0.0    |

(END OF REPORT)