

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: P319218

Luminaire Tested: **GAN-SA4D-830-U-T4W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P319218  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-18)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA4D-830-U-T4W  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24698 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G4

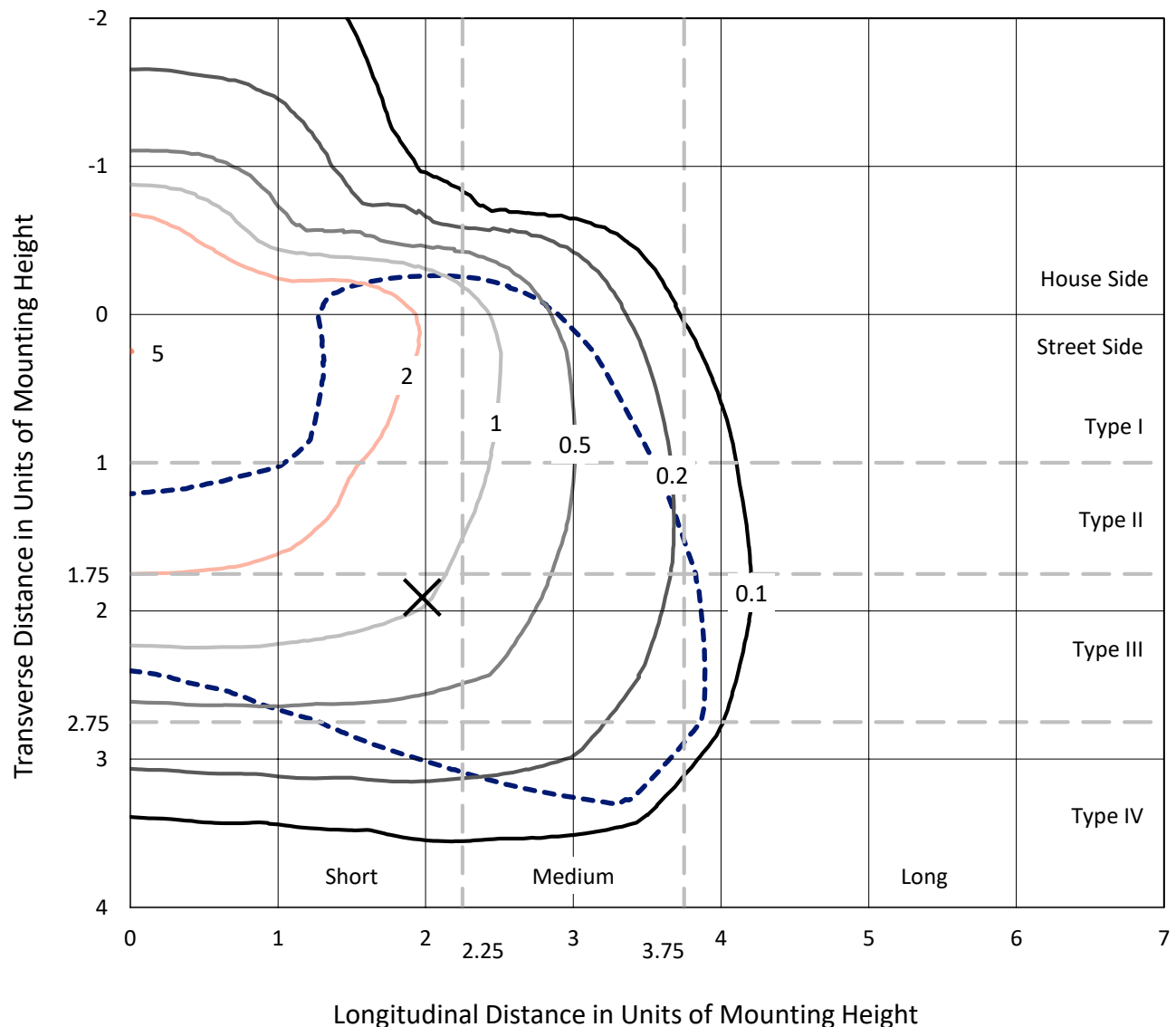
Input Watts (W): 258  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

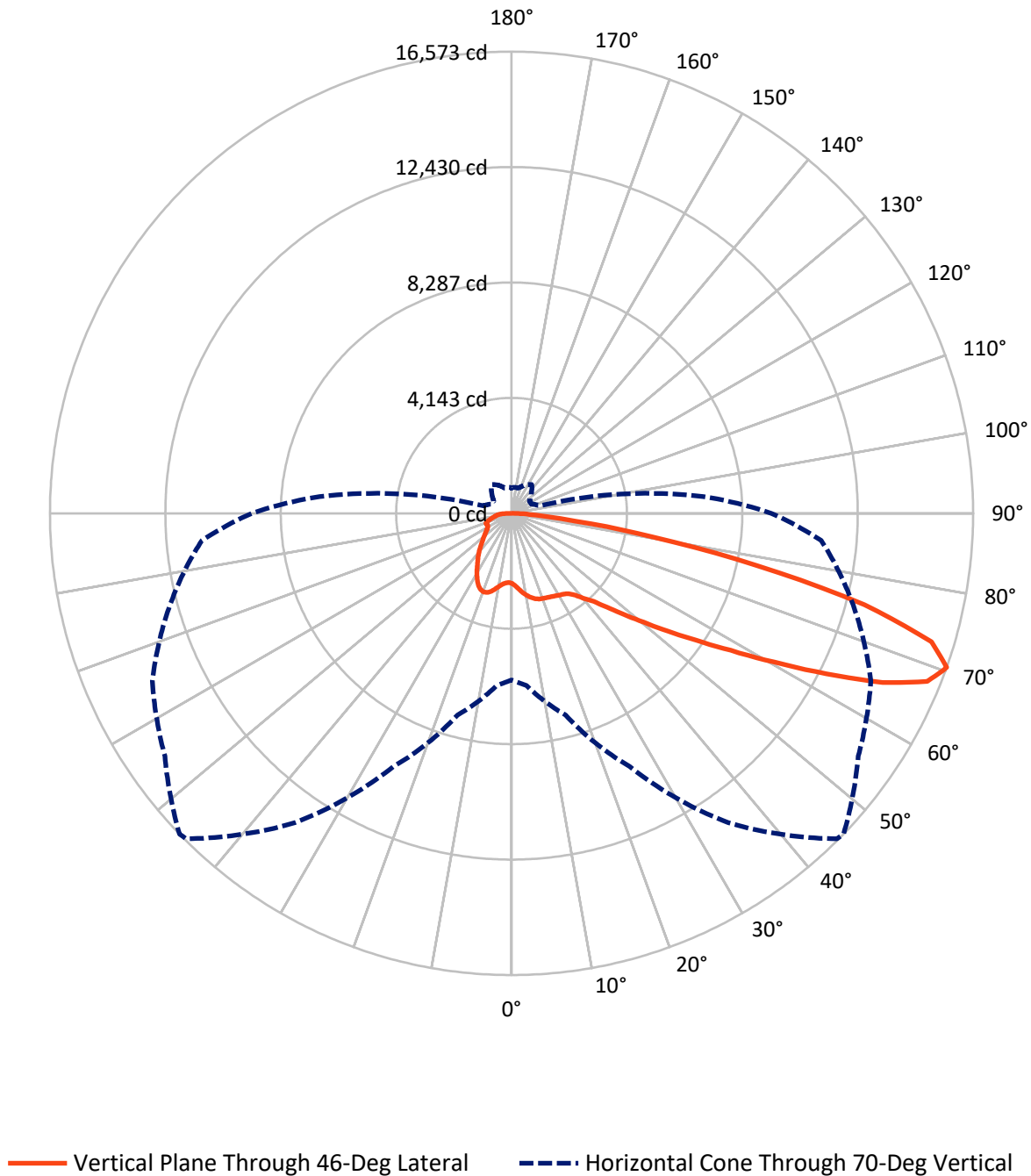
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc  
 Type IV - 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    | 5660.7   | 0.0    | 5660.7  |
|                    | % Fixture | 22.9     | 0.0    | 22.9    |
| <b>Street Side</b> | Lumens    | 19037.3  | 0.0    | 19037.3 |
|                    | % Fixture | 77.1     | 0.0    | 77.1    |
| <b>Total</b>       | Lumens    | 24698.0  | 0.0    | 24698.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 256.5   | 1.0       |
| 10°-20°   | 854.6   | 3.5       |
| 20°-30°   | 1425.0  | 5.8       |
| 30°-40°   | 2022.1  | 8.2       |
| 40°-50°   | 2974.5  | 12.0      |
| 50°-60°   | 5037.2  | 20.4      |
| 60°-70°   | 7150.3  | 29.0      |
| 70°-80°   | 4343.9  | 17.6      |
| 80°-90°   | 633.9   | 2.6       |
| 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°    | 24698.0 | 100.0     |
| 0°-180°   | 24698.0 | 100.0     |

**Coefficient of Utilization**



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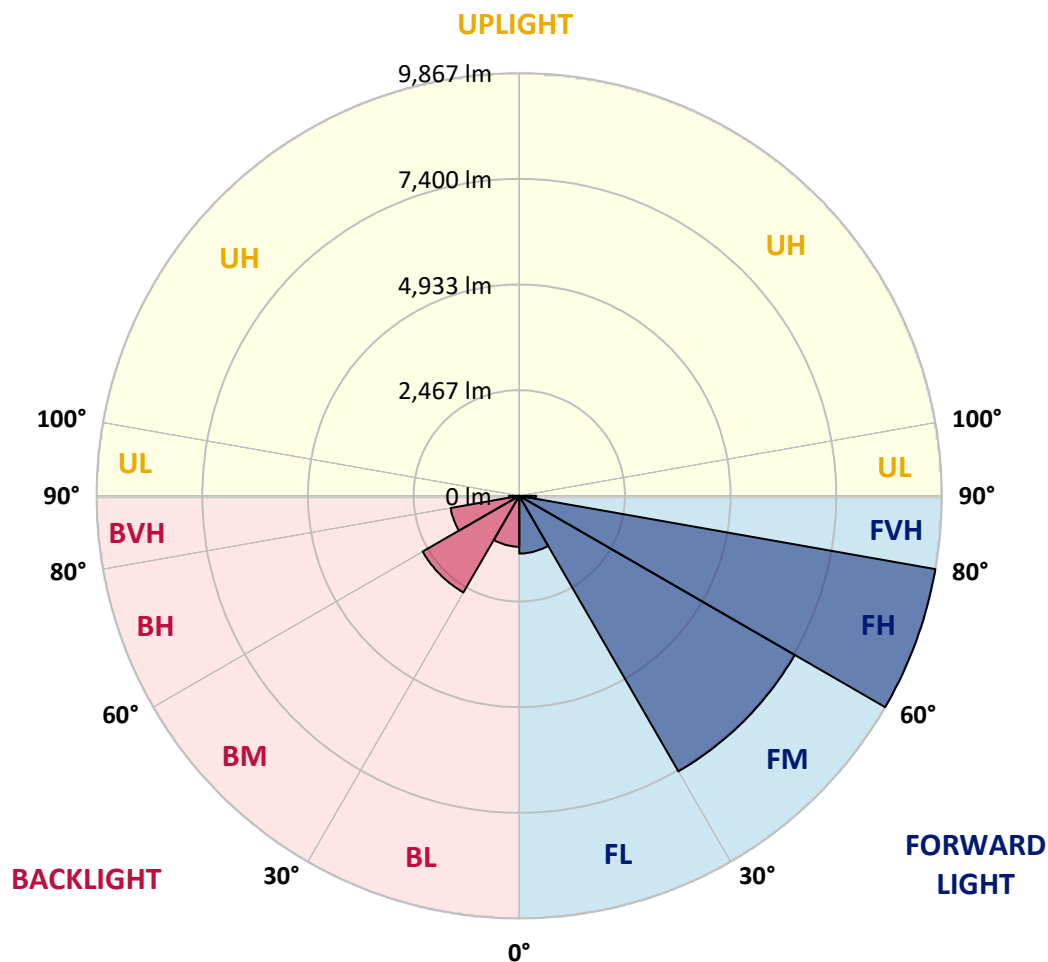
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1347.6 | 5.5       |                         |      |          |
| FM   | (30°-60°)   | 7428.1 | 30.1      |                         |      |          |
| FH   | (60°-80°)   | 9866.7 | 39.9      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 394.9  | 1.6       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1188.5 | 4.8       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 2605.8 | 10.6      | B3/5000                 |      |          |
| BH   | (60°-80°)   | 1627.4 | 6.6       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 239.0  | 1.0       |                         |      | G3/500   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 46°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2516.2  | 2516.2  | 2516.2  | 2516.2  | 2516.2  | 2516.2  | 2516.2  | 2516.2  | 2516.2  | 2516.2  | 2516.2  |
| 2.5°  | 2642.2  | 2643.9  | 2647.3  | 2638.8  | 2615.1  | 2608.4  | 2605.8  | 2581.3  | 2565.3  | 2541.6  | 2521.3  |
| 5°    | 2853.5  | 2855.2  | 2850.1  | 2826.4  | 2774.0  | 2735.2  | 2731.8  | 2676.0  | 2625.3  | 2571.2  | 2530.6  |
| 7.5°  | 3074.1  | 3076.6  | 3060.6  | 3015.8  | 2942.2  | 2874.6  | 2870.4  | 2794.3  | 2717.4  | 2635.4  | 2574.6  |
| 10°   | 3269.3  | 3259.2  | 3233.0  | 3170.4  | 3083.4  | 3000.6  | 2997.2  | 2917.7  | 2829.0  | 2730.1  | 2648.9  |
| 12.5° | 3399.5  | 3391.1  | 3357.2  | 3281.2  | 3185.7  | 3109.6  | 3102.8  | 3029.3  | 2943.1  | 2834.9  | 2737.7  |
| 15°   | 3471.4  | 3477.3  | 3431.6  | 3345.4  | 3252.4  | 3188.2  | 3182.3  | 3129.9  | 3053.0  | 2943.9  | 2832.4  |
| 17.5° | 3480.6  | 3485.7  | 3441.8  | 3356.4  | 3280.3  | 3236.4  | 3233.8  | 3199.2  | 3143.4  | 3038.6  | 2922.0  |
| 20°   | 3426.6  | 3429.9  | 3393.6  | 3323.4  | 3273.6  | 3260.0  | 3259.2  | 3244.0  | 3202.6  | 3109.6  | 2996.3  |
| 22.5° | 3347.9  | 3350.5  | 3324.3  | 3273.6  | 3256.7  | 3277.8  | 3283.7  | 3277.8  | 3248.2  | 3161.2  | 3054.7  |
| 25°   | 3328.5  | 3326.8  | 3299.8  | 3248.2  | 3262.6  | 3307.4  | 3315.0  | 3317.5  | 3297.2  | 3221.2  | 3129.0  |
| 27.5° | 3422.3  | 3416.4  | 3364.9  | 3282.0  | 3291.3  | 3345.4  | 3355.6  | 3380.1  | 3367.4  | 3300.6  | 3213.6  |
| 30°   | 3693.6  | 3683.5  | 3577.8  | 3410.5  | 3364.9  | 3392.7  | 3405.4  | 3444.3  | 3446.8  | 3391.1  | 3326.0  |
| 32.5° | 4151.8  | 4139.1  | 3949.7  | 3650.5  | 3489.1  | 3440.9  | 3452.8  | 3511.1  | 3542.3  | 3499.2  | 3429.1  |
| 35°   | 4730.7  | 4716.4  | 4467.9  | 4058.8  | 3697.0  | 3533.1  | 3541.5  | 3588.0  | 3650.5  | 3589.7  | 3496.7  |
| 37.5° | 5334.2  | 5299.6  | 5060.4  | 4538.9  | 4027.5  | 3730.0  | 3730.0  | 3735.9  | 3765.5  | 3638.7  | 3576.2  |
| 40°   | 5934.3  | 5899.7  | 5683.3  | 5103.5  | 4455.2  | 4040.2  | 4020.7  | 3889.7  | 3866.1  | 3757.0  | 3735.9  |
| 42.5° | 6492.2  | 6482.1  | 6354.4  | 5741.6  | 4957.3  | 4345.3  | 4318.3  | 4096.0  | 4101.0  | 4033.4  | 4034.3  |
| 45°   | 7085.5  | 7085.5  | 6981.6  | 6385.7  | 5542.2  | 4835.5  | 4808.5  | 4481.4  | 4532.1  | 4500.8  | 4576.1  |
| 47.5° | 7569.9  | 7585.1  | 7570.7  | 7056.8  | 6222.6  | 5458.5  | 5409.5  | 5015.6  | 5157.6  | 5264.9  | 5483.8  |
| 50°   | 8064.3  | 8088.0  | 8090.5  | 7793.0  | 7045.0  | 6198.9  | 6143.1  | 5724.7  | 6041.7  | 6349.4  | 6779.6  |
| 52.5° | 8781.9  | 8835.2  | 8623.0  | 8527.5  | 8052.5  | 7077.9  | 7023.0  | 6636.7  | 7165.8  | 7597.8  | 8339.0  |
| 55°   | 9447.1  | 9400.6  | 9249.3  | 9308.5  | 9131.0  | 8078.7  | 8037.3  | 7698.3  | 8418.5  | 8979.7  | 9942.4  |
| 57.5° | 9807.2  | 9803.8  | 9955.9  | 10209.5 | 10294.0 | 9312.7  | 9278.1  | 8948.4  | 9830.8  | 10252.6 | 11447.8 |
| 60°   | 10229.8 | 10235.7 | 10612.7 | 11188.3 | 11536.5 | 10849.3 | 10834.1 | 10583.9 | 11202.6 | 11441.0 | 12628.5 |
| 62.5° | 10289.0 | 10395.5 | 11044.6 | 12035.2 | 12699.5 | 12644.6 | 12678.4 | 12057.2 | 12429.9 | 12389.3 | 13510.1 |
| 65°   | 9608.5  | 9748.9  | 10923.7 | 12291.3 | 13855.8 | 14608.1 | 14639.3 | 13538.9 | 13397.7 | 13199.9 | 13825.4 |
| 67.5° | 8213.9  | 8421.8  | 9698.1  | 11734.3 | 14237.0 | 16059.3 | 16103.3 | 14687.5 | 14200.7 | 13474.6 | 13066.4 |
| 70°   | 5977.5  | 6208.2  | 7492.9  | 10021.9 | 13557.5 | 16523.4 | 16573.2 | 15195.5 | 14231.1 | 12692.8 | 11154.5 |
| 72.5° | 3610.8  | 3791.7  | 4850.8  | 7378.0  | 11442.7 | 15678.1 | 15766.9 | 14551.4 | 12992.8 | 10751.3 | 8236.7  |
| 75°   | 1585.6  | 1704.0  | 2345.5  | 4251.5  | 8191.9  | 12971.7 | 13082.4 | 12455.3 | 10556.9 | 7813.3  | 4868.5  |
| 77.5° | 675.3   | 709.1   | 961.9   | 1846.8  | 4631.0  | 8863.9  | 9016.0  | 9100.6  | 7162.5  | 4251.5  | 2057.3  |
| 80°   | 420.9   | 434.4   | 544.3   | 835.9   | 2167.2  | 4978.4  | 5142.4  | 5354.5  | 3556.7  | 1562.8  | 718.4   |
| 82.5° | 256.1   | 271.3   | 361.8   | 505.4   | 1128.4  | 2256.8  | 2335.4  | 2485.0  | 1380.3  | 675.3   | 371.9   |
| 85°   | 153.8   | 164.8   | 221.4   | 319.5   | 642.4   | 887.5   | 886.6   | 980.5   | 650.0   | 434.4   | 196.1   |
| 87.5° | 73.5    | 82.0    | 118.3   | 165.7   | 323.7   | 333.0   | 311.9   | 353.3   | 394.7   | 284.8   | 98.9    |
| 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°    | 2516.2  | 2516.2  | 2516.2 | 2516.2 | 2516.2 | 2516.2 | 2516.2 | 2516.2 | 2516.2 | 2516.2 | 2516.2 |
| 2.5°  | 2514.6  | 2511.2  | 2500.2 | 2491.7 | 2490.0 | 2485.0 | 2480.7 | 2483.3 | 2486.7 | 2487.5 | 2487.5 |
| 5°    | 2513.7  | 2504.4  | 2490.0 | 2484.1 | 2491.7 | 2501.9 | 2514.6 | 2531.5 | 2541.6 | 2549.2 | 2554.3 |
| 7.5°  | 2554.3  | 2536.5  | 2520.5 | 2517.1 | 2532.3 | 2559.3 | 2588.1 | 2623.6 | 2648.1 | 2665.0 | 2668.4 |
| 10°   | 2621.9  | 2599.9  | 2583.9 | 2587.2 | 2614.3 | 2653.2 | 2693.7 | 2739.4 | 2776.6 | 2799.4 | 2801.1 |
| 12.5° | 2699.7  | 2678.5  | 2663.3 | 2677.7 | 2722.5 | 2769.8 | 2812.1 | 2851.8 | 2885.6 | 2908.4 | 2908.4 |
| 15°   | 2789.3  | 2774.0  | 2756.3 | 2789.3 | 2850.1 | 2892.4 | 2910.1 | 2929.6 | 2948.2 | 2965.1 | 2961.7 |
| 17.5° | 2875.5  | 2861.1  | 2851.8 | 2890.7 | 2954.1 | 2973.5 | 2961.7 | 2947.3 | 2947.3 | 2956.6 | 2958.3 |
| 20°   | 2949.8  | 2937.2  | 2943.1 | 2981.1 | 3014.1 | 2993.8 | 2949.8 | 2904.2 | 2885.6 | 2890.7 | 2895.8 |
| 22.5° | 3014.9  | 3009.0  | 3026.8 | 3044.5 | 3020.8 | 2949.8 | 2868.7 | 2807.0 | 2784.2 | 2782.5 | 2784.2 |
| 25°   | 3091.0  | 3090.2  | 3112.1 | 3080.0 | 2975.2 | 2844.2 | 2735.2 | 2675.1 | 2662.5 | 2672.6 | 2689.5 |
| 27.5° | 3185.7  | 3195.0  | 3205.9 | 3088.5 | 2882.2 | 2684.4 | 2573.7 | 2532.3 | 2545.0 | 2569.5 | 2585.6 |
| 30°   | 3306.5  | 3331.9  | 3308.2 | 3067.3 | 2748.7 | 2501.9 | 2396.2 | 2384.4 | 2419.0 | 2453.7 | 2470.6 |
| 32.5° | 3424.0  | 3463.7  | 3406.3 | 3012.4 | 2576.3 | 2308.3 | 2226.3 | 2222.9 | 2265.2 | 2299.0 | 2322.7 |
| 35°   | 3518.7  | 3597.3  | 3479.8 | 2903.4 | 2376.8 | 2130.0 | 2070.0 | 2047.1 | 2062.4 | 2102.1 | 2129.1 |
| 37.5° | 3642.1  | 3773.1  | 3530.5 | 2736.8 | 2160.4 | 1982.9 | 1912.8 | 1860.3 | 1846.8 | 1862.9 | 1876.4 |
| 40°   | 3867.8  | 4041.0  | 3554.2 | 2504.4 | 1949.1 | 1835.8 | 1764.8 | 1687.9 | 1634.7 | 1595.8 | 1596.6 |
| 42.5° | 4236.3  | 4390.1  | 3539.0 | 2222.1 | 1753.8 | 1692.1 | 1611.8 | 1523.1 | 1436.9 | 1349.0 | 1342.2 |
| 45°   | 4834.7  | 4909.1  | 3493.3 | 1922.9 | 1582.3 | 1541.7 | 1466.5 | 1377.7 | 1262.8 | 1163.0 | 1153.7 |
| 47.5° | 5792.3  | 5627.5  | 3422.3 | 1661.7 | 1431.0 | 1414.1 | 1344.8 | 1242.5 | 1120.8 | 1040.5 | 1033.7 |
| 50°   | 7098.2  | 6664.6  | 3387.7 | 1453.8 | 1297.4 | 1302.5 | 1245.9 | 1137.7 | 1022.7 | 963.6  | 956.8  |
| 52.5° | 8660.2  | 7872.5  | 3454.4 | 1293.2 | 1190.1 | 1207.8 | 1165.6 | 1064.1 | 967.8  | 921.3  | 914.5  |
| 55°   | 10280.5 | 9123.4  | 3526.3 | 1176.6 | 1088.7 | 1123.3 | 1108.9 | 1025.3 | 938.2  | 895.1  | 889.2  |
| 57.5° | 11667.5 | 10057.4 | 3382.6 | 1081.9 | 998.2  | 1052.3 | 1065.0 | 1000.7 | 923.0  | 884.1  | 877.3  |
| 60°   | 12540.6 | 10433.5 | 3005.6 | 993.1  | 926.4  | 995.7  | 1039.6 | 994.0  | 928.9  | 925.5  | 920.5  |
| 62.5° | 12954.8 | 10400.5 | 2440.2 | 923.0  | 881.6  | 971.2  | 1058.2 | 1032.0 | 996.5  | 1027.0 | 1029.5 |
| 65°   | 12768.9 | 9903.5  | 1817.2 | 876.5  | 849.5  | 980.5  | 1114.0 | 1103.9 | 1016.0 | 1046.4 | 1050.6 |
| 67.5° | 11545.0 | 8717.7  | 1345.6 | 835.9  | 814.0  | 1006.7 | 1215.4 | 1127.5 | 977.9  | 999.9  | 986.4  |
| 70°   | 9331.3  | 6911.4  | 1037.9 | 790.3  | 777.6  | 1003.3 | 1261.1 | 1113.2 | 936.5  | 941.6  | 905.2  |
| 72.5° | 6434.7  | 4713.0  | 844.4  | 748.0  | 725.2  | 914.5  | 1229.0 | 1077.7 | 901.9  | 863.0  | 814.8  |
| 75°   | 3499.2  | 2529.8  | 717.6  | 704.1  | 633.1  | 803.0  | 1169.8 | 1052.3 | 870.6  | 819.0  | 792.0  |
| 77.5° | 1376.9  | 1049.8  | 622.9  | 644.1  | 553.6  | 709.1  | 1103.9 | 1004.1 | 827.5  | 759.9  | 746.3  |
| 80°   | 562.1   | 535.9   | 516.4  | 557.0  | 475.9  | 620.4  | 1024.4 | 947.5  | 775.9  | 704.9  | 677.9  |
| 82.5° | 318.7   | 333.0   | 401.5  | 439.5  | 386.3  | 571.4  | 986.4  | 901.9  | 714.2  | 631.4  | 599.3  |
| 85°   | 163.1   | 195.2   | 279.8  | 315.3  | 284.0  | 486.0  | 908.6  | 789.4  | 573.1  | 483.5  | 486.0  |
| 87.5° | 78.6    | 109.0   | 176.7  | 197.8  | 184.3  | 351.6  | 678.7  | 572.2  | 446.3  | 353.3  | 342.3  |
| 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)