

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: P317908

Luminaire Tested: **GAN-SA4A-830-U-T3R**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P317908  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA4A-830-U-T3R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 15273 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B2 - U0 - G3

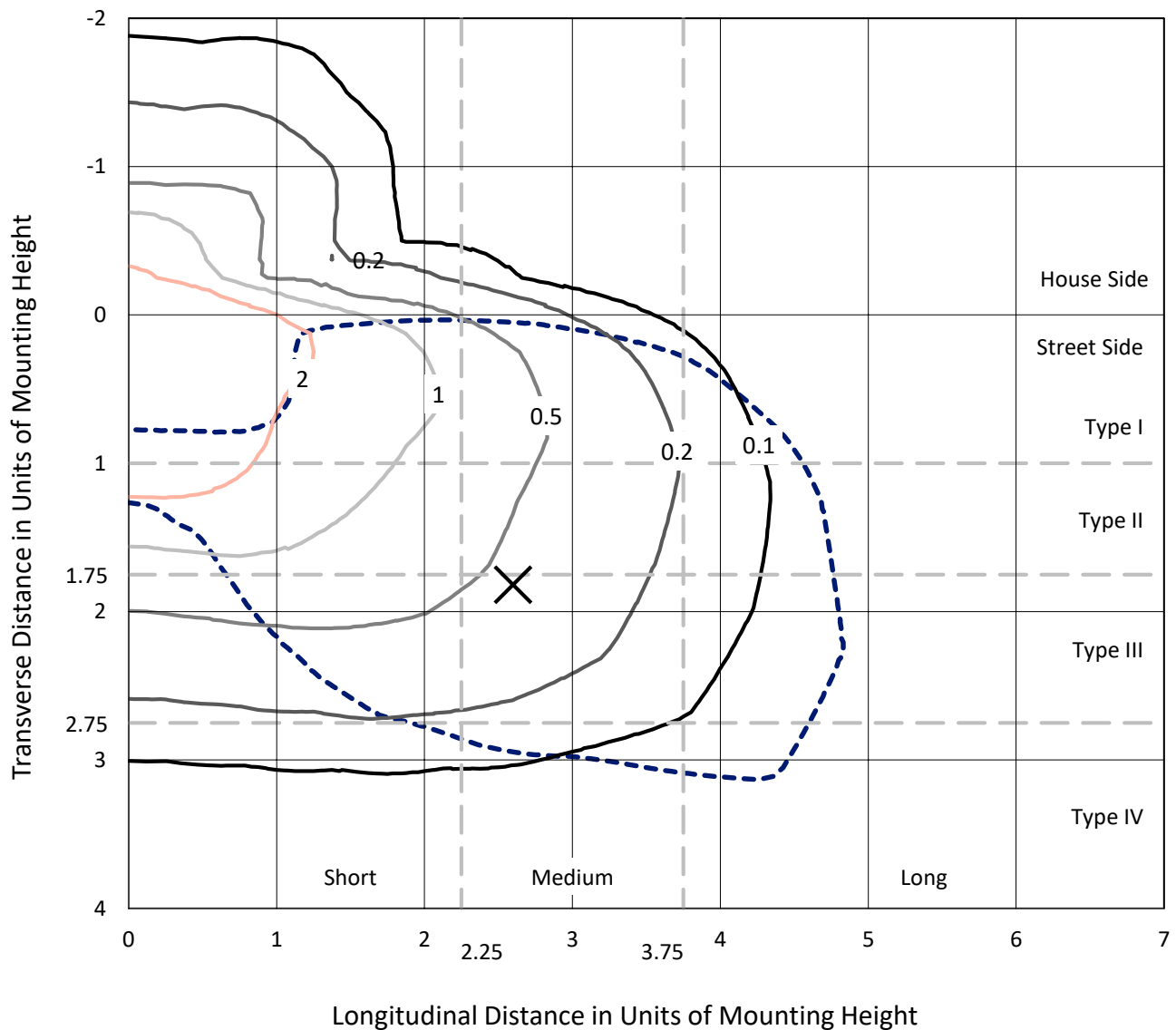
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

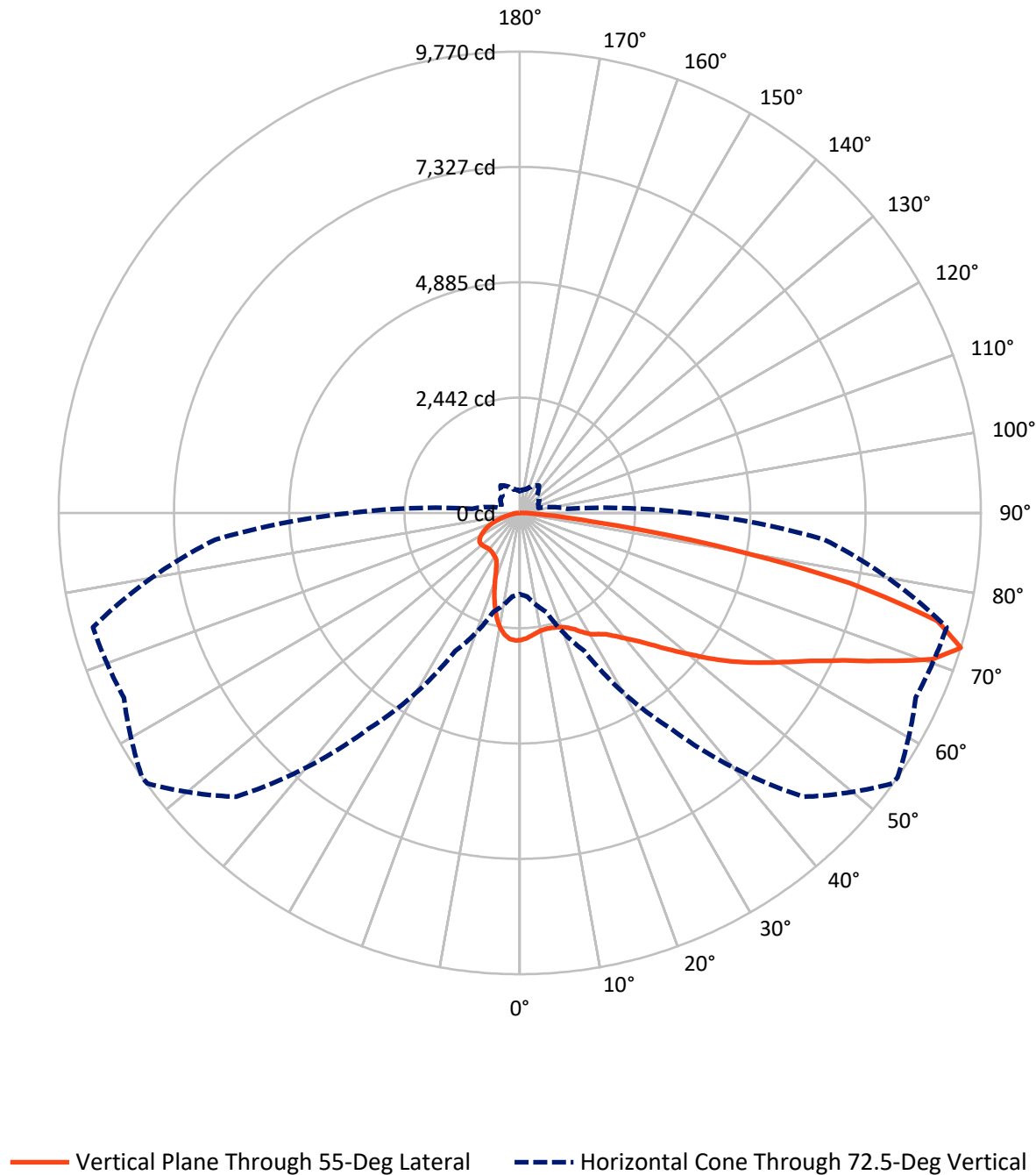
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
Type IV - 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    | 2838.7   | 0.0    | 2838.7  |
|                    | % Fixture | 18.6     | 0.0    | 18.6    |
| <b>Street Side</b> | Lumens    | 12434.2  | 0.0    | 12434.2 |
|                    | % Fixture | 81.4     | 0.0    | 81.4    |
| <b>Total</b>       | Lumens    | 15273.0  | 0.0    | 15273.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 243.8   | 1.6       |
| 10°-20°   | 649.0   | 4.2       |
| 20°-30°   | 1070.0  | 7.0       |
| 30°-40°   | 1582.8  | 10.4      |
| 40°-50°   | 2209.3  | 14.5      |
| 50°-60°   | 2876.5  | 18.8      |
| 60°-70°   | 3535.2  | 23.1      |
| 70°-80°   | 2771.1  | 18.1      |
| 80°-90°   | 335.3   | 2.2       |
| 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°    | 15273.0 | 100.0     |
| 0°-180°   | 15273.0 | 100.0     |

**Coefficient of Utilization**



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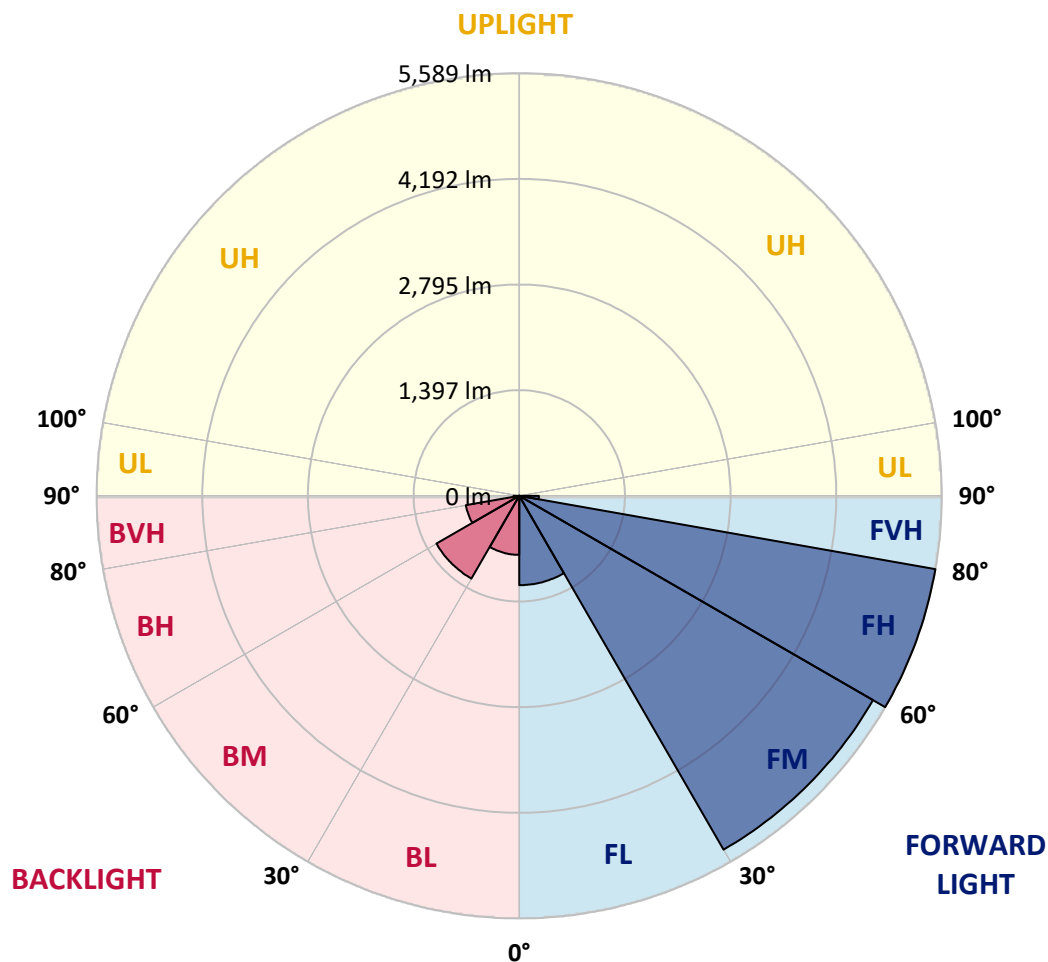
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1181.7 | 7.7       |                         |      |         |
| FM   | (30°-60°)   | 5403.9 | 35.4      |                         |      |         |
| FH   | (60°-80°)   | 5589.4 | 36.6      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 259.3  | 1.7       |                         |      | G3/500  |
| BL   | (0°-30°)    | 781.1  | 5.1       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1264.7 | 8.3       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 716.9  | 4.7       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 76.1   | 0.5       |                         |      | 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 IV Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 54°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 |
| 2.5°  | 2606.1 | 2599.9 | 2607.7 | 2618.5 | 2630.4 | 2646.4 | 2655.7 | 2659.8 | 2675.8 | 2682.0 | 2695.4 |
| 5°    | 2485.4 | 2482.3 | 2495.2 | 2513.8 | 2540.1 | 2577.2 | 2607.2 | 2612.8 | 2655.1 | 2685.1 | 2712.4 |
| 7.5°  | 2397.7 | 2397.7 | 2412.7 | 2434.9 | 2464.3 | 2514.3 | 2556.6 | 2564.3 | 2636.1 | 2700.5 | 2751.1 |
| 10°   | 2328.1 | 2330.7 | 2348.2 | 2374.5 | 2409.1 | 2462.2 | 2518.4 | 2527.2 | 2630.9 | 2736.6 | 2817.1 |
| 12.5° | 2281.7 | 2287.8 | 2303.8 | 2327.6 | 2370.4 | 2434.9 | 2506.1 | 2517.9 | 2641.7 | 2788.2 | 2896.6 |
| 15°   | 2311.1 | 2321.4 | 2322.9 | 2332.7 | 2356.5 | 2426.6 | 2513.3 | 2525.7 | 2664.9 | 2840.8 | 2986.8 |
| 17.5° | 2440.0 | 2443.6 | 2427.6 | 2407.0 | 2395.7 | 2440.5 | 2534.9 | 2547.8 | 2692.8 | 2893.0 | 3073.5 |
| 20°   | 2636.1 | 2634.0 | 2599.4 | 2543.7 | 2485.9 | 2493.2 | 2570.5 | 2584.0 | 2730.5 | 2938.9 | 3160.2 |
| 22.5° | 2883.7 | 2876.4 | 2823.3 | 2720.7 | 2622.1 | 2580.9 | 2633.0 | 2644.3 | 2787.2 | 3004.4 | 3253.0 |
| 25°   | 3183.9 | 3167.9 | 3097.7 | 2960.0 | 2815.1 | 2708.8 | 2726.8 | 2737.7 | 2869.7 | 3077.6 | 3338.1 |
| 27.5° | 3500.6 | 3484.6 | 3395.4 | 3228.8 | 3035.8 | 2870.3 | 2856.3 | 2865.6 | 2963.6 | 3131.8 | 3401.1 |
| 30°   | 3831.8 | 3814.8 | 3733.3 | 3546.5 | 3270.0 | 3037.4 | 2977.0 | 2980.6 | 3029.7 | 3161.2 | 3452.7 |
| 32.5° | 4164.5 | 4148.6 | 4057.3 | 3840.6 | 3524.4 | 3216.9 | 3064.2 | 3059.6 | 3069.4 | 3191.6 | 3511.0 |
| 35°   | 4501.9 | 4508.1 | 4401.3 | 4161.5 | 3806.0 | 3416.6 | 3167.4 | 3157.6 | 3135.9 | 3254.1 | 3593.5 |
| 37.5° | 4863.0 | 4858.9 | 4720.6 | 4469.9 | 4100.6 | 3633.2 | 3315.4 | 3313.9 | 3239.1 | 3372.2 | 3723.0 |
| 40°   | 5104.4 | 5107.0 | 5022.9 | 4785.6 | 4398.2 | 3873.1 | 3505.3 | 3501.7 | 3403.7 | 3549.1 | 3892.7 |
| 42.5° | 5198.9 | 5215.9 | 5237.5 | 5086.9 | 4709.8 | 4151.1 | 3731.7 | 3726.6 | 3633.2 | 3802.9 | 4092.3 |
| 45°   | 5205.6 | 5239.6 | 5373.7 | 5354.6 | 5025.5 | 4469.4 | 4021.1 | 4006.7 | 3939.6 | 4140.3 | 4330.7 |
| 47.5° | 5147.8 | 5182.9 | 5405.7 | 5514.0 | 5307.7 | 4805.2 | 4359.5 | 4348.2 | 4290.4 | 4562.3 | 4588.6 |
| 50°   | 5021.4 | 5054.9 | 5339.7 | 5591.9 | 5539.8 | 5128.2 | 4749.5 | 4719.6 | 4688.7 | 5049.8 | 4883.7 |
| 52.5° | 4784.6 | 4849.1 | 5251.5 | 5610.5 | 5678.6 | 5415.0 | 5159.6 | 5140.0 | 5157.1 | 5564.1 | 5179.2 |
| 55°   | 4223.9 | 4296.1 | 5024.0 | 5595.0 | 5781.3 | 5655.9 | 5569.8 | 5568.7 | 5656.9 | 6103.7 | 5496.5 |
| 57.5° | 3909.7 | 3960.8 | 4560.7 | 5568.7 | 5903.0 | 5895.3 | 5975.7 | 5985.5 | 6157.3 | 6691.2 | 5828.7 |
| 60°   | 3732.3 | 3785.9 | 4326.0 | 5471.2 | 6091.8 | 6204.8 | 6390.0 | 6409.6 | 6666.0 | 7341.7 | 6228.5 |
| 62.5° | 3570.8 | 3629.6 | 4180.5 | 5272.6 | 6314.1 | 6647.4 | 6886.2 | 6903.8 | 7204.5 | 8010.3 | 6614.9 |
| 65°   | 3294.8 | 3361.4 | 3967.5 | 5142.1 | 6516.4 | 7224.6 | 7517.1 | 7529.0 | 7823.0 | 8710.8 | 6910.5 |
| 67.5° | 2904.8 | 2965.7 | 3565.6 | 4853.7 | 6666.0 | 7925.7 | 8355.9 | 8362.6 | 8436.4 | 9205.5 | 7061.6 |
| 70°   | 2449.3 | 2472.5 | 2993.0 | 4258.4 | 6489.0 | 8581.4 | 9275.2 | 9276.7 | 8995.6 | 9522.3 | 7036.9 |
| 72.5° | 1720.9 | 1775.6 | 2172.8 | 3223.6 | 5576.5 | 8501.4 | 9752.4 | 9769.9 | 9255.6 | 9362.4 | 6474.6 |
| 75°   | 1055.5 | 1113.2 | 1362.9 | 1953.6 | 3537.8 | 6686.1 | 9010.6 | 9132.3 | 8768.1 | 8347.7 | 5289.1 |
| 77.5° | 705.7  | 727.4  | 889.3  | 1139.0 | 1602.8 | 3846.8 | 6927.5 | 7156.5 | 7284.0 | 6087.7 | 3382.5 |
| 80°   | 393.6  | 434.9  | 589.6  | 707.8  | 712.9  | 1528.5 | 4153.7 | 4207.4 | 4052.6 | 2424.0 | 1043.6 |
| 82.5° | 208.4  | 231.1  | 393.6  | 415.8  | 389.0  | 511.7  | 1548.1 | 1549.6 | 1294.8 | 650.0  | 310.0  |
| 85°   | 161.5  | 180.6  | 269.8  | 253.8  | 198.6  | 227.0  | 510.7  | 538.6  | 440.5  | 266.2  | 101.1  |
| 87.5° | 80.5   | 100.1  | 183.1  | 160.9  | 77.9   | 65.0   | 182.6  | 195.0  | 173.8  | 104.2  | 36.6   |
| 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°    | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 | 2693.8 |
| 2.5°  | 2700.5 | 2705.2 | 2710.9 | 2704.7 | 2702.6 | 2694.3 | 2680.4 | 2677.3 | 2670.1 | 2670.6 | 2674.7 |
| 5°    | 2724.3 | 2732.0 | 2728.9 | 2705.2 | 2676.8 | 2637.1 | 2595.8 | 2560.7 | 2537.5 | 2536.0 | 2534.4 |
| 7.5°  | 2769.7 | 2774.8 | 2750.6 | 2683.0 | 2603.6 | 2511.7 | 2425.1 | 2349.2 | 2303.3 | 2292.0 | 2289.4 |
| 10°   | 2840.8 | 2839.8 | 2773.3 | 2637.1 | 2478.7 | 2314.7 | 2175.4 | 2070.2 | 2008.8 | 1990.7 | 1986.1 |
| 12.5° | 2920.3 | 2908.4 | 2781.0 | 2553.5 | 2302.3 | 2074.8 | 1898.4 | 1781.3 | 1717.3 | 1696.7 | 1691.5 |
| 15°   | 3002.3 | 2972.9 | 2761.9 | 2428.7 | 2085.6 | 1816.3 | 1631.2 | 1522.8 | 1488.3 | 1476.9 | 1474.8 |
| 17.5° | 3078.7 | 3021.9 | 2707.2 | 2259.5 | 1838.5 | 1558.9 | 1414.5 | 1371.2 | 1379.4 | 1394.4 | 1394.9 |
| 20°   | 3153.5 | 3054.9 | 2619.5 | 2045.9 | 1578.0 | 1346.9 | 1297.9 | 1329.9 | 1369.1 | 1399.5 | 1403.7 |
| 22.5° | 3227.2 | 3078.1 | 2506.6 | 1799.3 | 1344.9 | 1227.8 | 1262.3 | 1320.6 | 1365.5 | 1398.5 | 1404.2 |
| 25°   | 3289.1 | 3083.8 | 2350.8 | 1536.2 | 1182.9 | 1182.9 | 1245.3 | 1300.5 | 1344.9 | 1377.4 | 1383.0 |
| 27.5° | 3311.8 | 3045.6 | 2131.0 | 1292.7 | 1101.4 | 1162.2 | 1221.6 | 1267.5 | 1305.1 | 1339.7 | 1345.9 |
| 30°   | 3320.6 | 2975.0 | 1877.2 | 1097.2 | 1067.8 | 1140.1 | 1189.6 | 1228.8 | 1264.4 | 1296.9 | 1302.6 |
| 32.5° | 3322.1 | 2889.9 | 1607.9 | 986.3  | 1044.6 | 1116.8 | 1149.9 | 1184.4 | 1222.6 | 1235.5 | 1237.6 |
| 35°   | 3331.9 | 2789.3 | 1324.2 | 929.6  | 1023.0 | 1095.2 | 1121.5 | 1146.2 | 1084.3 | 1089.0 | 1093.1 |
| 37.5° | 3360.3 | 2689.7 | 1086.9 | 897.6  | 1009.0 | 1083.8 | 1115.3 | 1025.5 | 977.0  | 965.7  | 964.1  |
| 40°   | 3413.5 | 2583.4 | 911.0  | 871.8  | 1003.9 | 1089.5 | 1075.6 | 957.4  | 873.9  | 811.5  | 802.2  |
| 42.5° | 3487.2 | 2468.9 | 798.6  | 854.8  | 1007.5 | 1116.8 | 1020.4 | 891.9  | 753.2  | 712.9  | 707.8  |
| 45°   | 3570.3 | 2348.7 | 737.7  | 842.9  | 1019.9 | 1138.0 | 1009.0 | 804.7  | 696.9  | 666.5  | 663.9  |
| 47.5° | 3650.8 | 2201.7 | 706.2  | 837.8  | 1036.9 | 1121.0 | 961.0  | 777.9  | 670.1  | 654.1  | 655.7  |
| 50°   | 3743.1 | 2069.1 | 687.1  | 832.1  | 1051.8 | 1110.1 | 906.9  | 764.0  | 659.8  | 679.4  | 700.0  |
| 52.5° | 3821.0 | 1931.9 | 670.1  | 820.7  | 1057.5 | 1091.0 | 893.0  | 766.6  | 659.8  | 697.4  | 717.0  |
| 55°   | 3913.3 | 1828.2 | 650.5  | 797.0  | 1046.7 | 1036.9 | 883.2  | 782.0  | 667.5  | 643.8  | 645.9  |
| 57.5° | 4032.5 | 1794.2 | 628.8  | 759.9  | 1010.6 | 958.0  | 878.5  | 797.0  | 662.9  | 647.9  | 653.1  |
| 60°   | 4197.6 | 1830.3 | 620.1  | 711.4  | 954.3  | 896.1  | 879.0  | 789.3  | 630.4  | 604.6  | 605.1  |
| 62.5° | 4354.9 | 1870.5 | 619.5  | 680.9  | 885.2  | 840.9  | 867.2  | 764.0  | 613.9  | 598.9  | 604.6  |
| 65°   | 4406.5 | 1829.8 | 594.8  | 646.9  | 807.3  | 774.8  | 845.5  | 737.2  | 601.5  | 578.8  | 577.8  |
| 67.5° | 4337.4 | 1703.4 | 544.7  | 591.7  | 718.1  | 698.0  | 817.1  | 705.2  | 581.9  | 563.3  | 560.2  |
| 70°   | 4132.1 | 1421.2 | 482.8  | 519.0  | 616.5  | 611.3  | 772.2  | 668.0  | 555.6  | 539.6  | 526.2  |
| 72.5° | 3579.6 | 1012.6 | 407.0  | 431.8  | 501.9  | 518.4  | 710.3  | 619.5  | 518.4  | 483.9  | 463.2  |
| 75°   | 2939.9 | 749.5  | 334.3  | 339.4  | 381.2  | 426.1  | 625.2  | 562.8  | 474.6  | 415.8  | 399.8  |
| 77.5° | 1800.4 | 458.6  | 266.2  | 268.2  | 273.4  | 340.0  | 514.8  | 499.4  | 418.9  | 346.7  | 335.3  |
| 80°   | 582.9  | 250.2  | 192.4  | 202.2  | 186.7  | 249.2  | 398.2  | 425.1  | 359.6  | 289.9  | 277.5  |
| 82.5° | 221.8  | 146.0  | 130.0  | 136.7  | 129.5  | 167.1  | 290.4  | 340.5  | 294.6  | 238.3  | 194.0  |
| 85°   | 107.3  | 82.5   | 76.9   | 86.1   | 80.0   | 85.6   | 185.7  | 250.7  | 223.4  | 155.3  | 144.4  |
| 87.5° | 38.2   | 36.6   | 29.4   | 39.7   | 34.0   | 30.4   | 56.7   | 126.4  | 147.5  | 106.8  | 95.4   |
| 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)