

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: P653816

Luminaire Tested: **GLAN-SA4A-840-U-SL2-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P653816
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA4A-840-U-SL2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12451.8 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

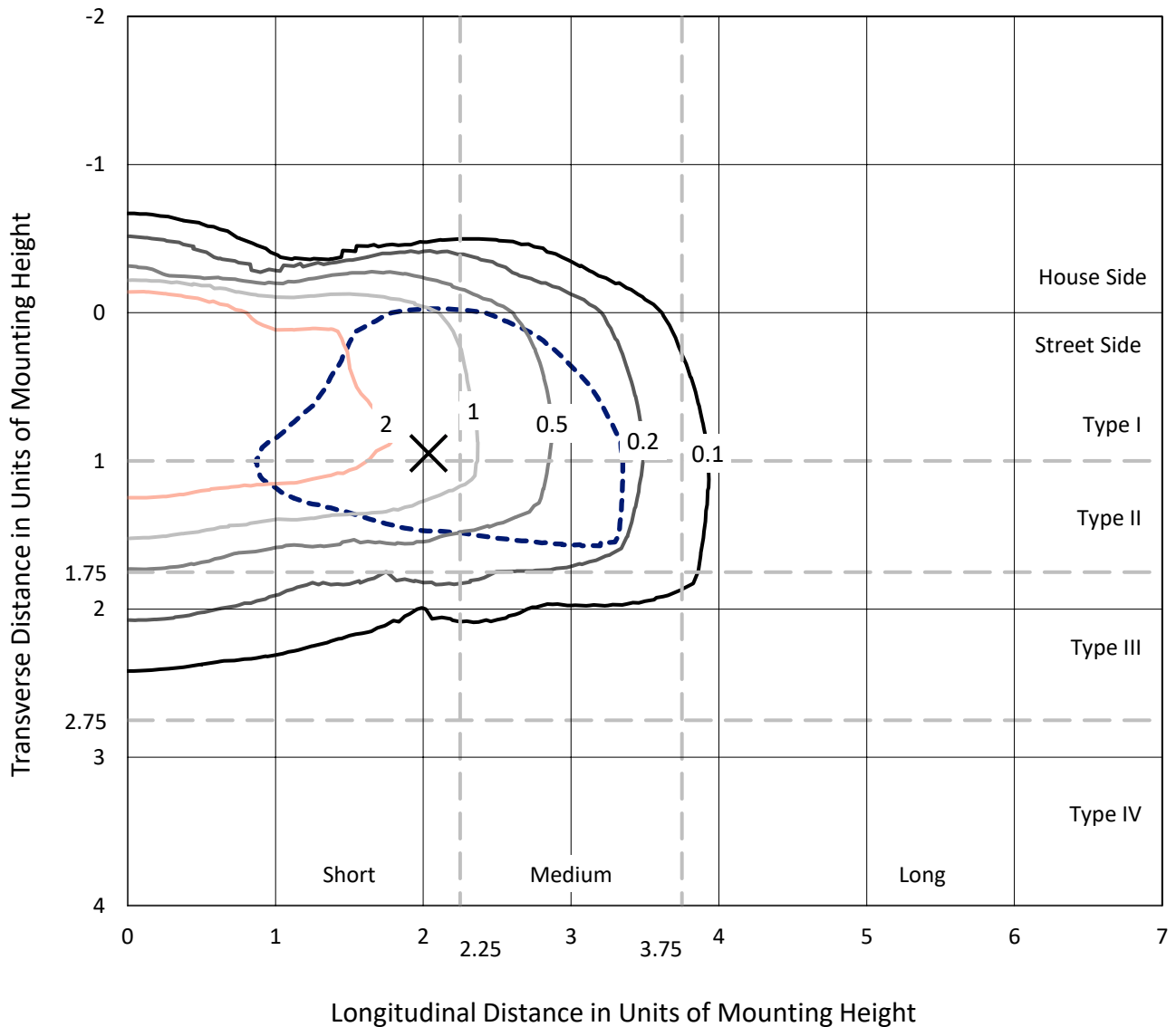
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

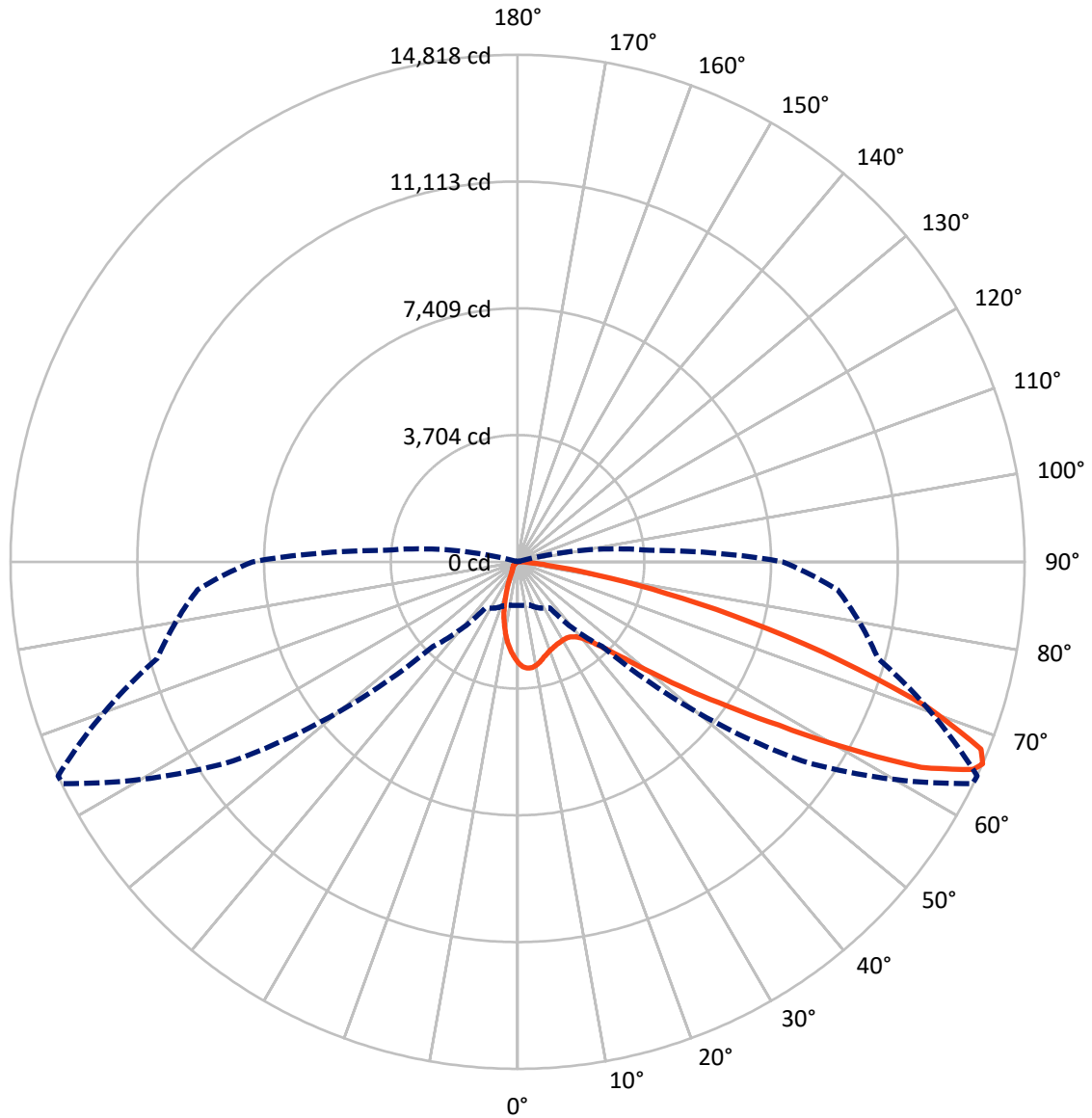
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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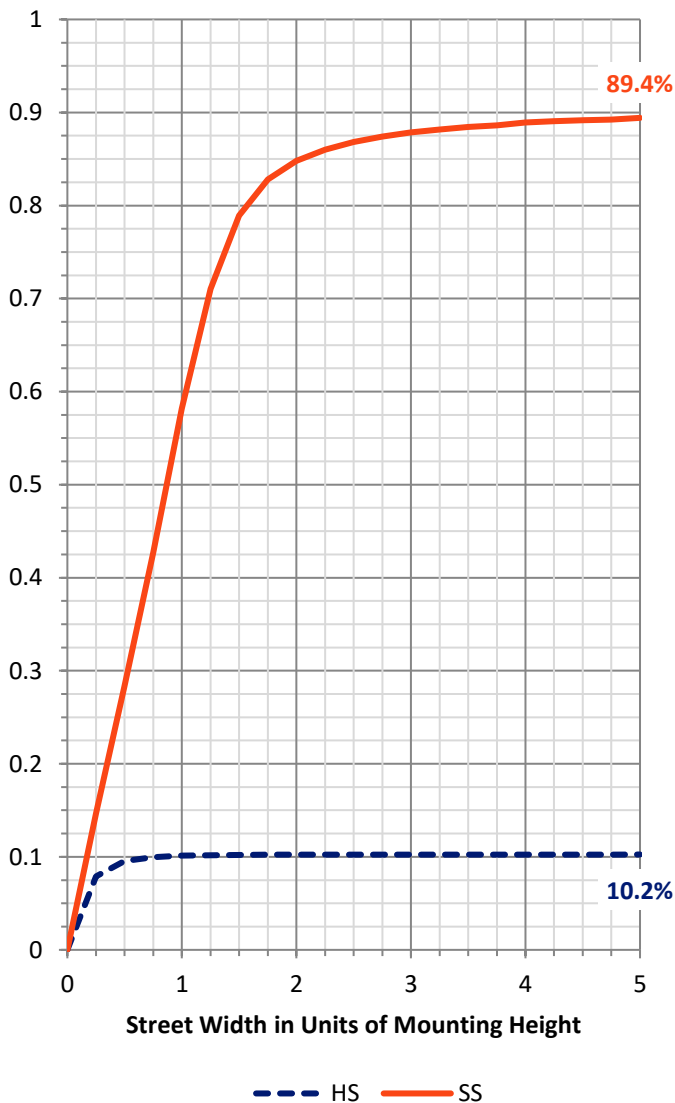
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1287.7 | 0.0 | 1287.7 |
| | % Fixture | 10.3 | 0.0 | 10.3 |
| Street Side | Lumens | 11164.1 | 0.0 | 11164.1 |
| | % Fixture | 89.7 | 0.0 | 89.7 |
| Total | Lumens | 12451.8 | 0.0 | 12451.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 241.5 | 1.9 |
| 10°-20° | 526.2 | 4.2 |
| 20°-30° | 753.7 | 6.1 |
| 30°-40° | 1100.9 | 8.8 |
| 40°-50° | 1846.1 | 14.8 |
| 50°-60° | 3080.8 | 24.7 |
| 60°-70° | 3270.1 | 26.3 |
| 70°-80° | 1481.0 | 11.9 |
| 80°-90° | 151.5 | 1.2 |
| 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° | 12451.8 | 100.0 |
| 0°-180° | 12451.8 | 100.0 |



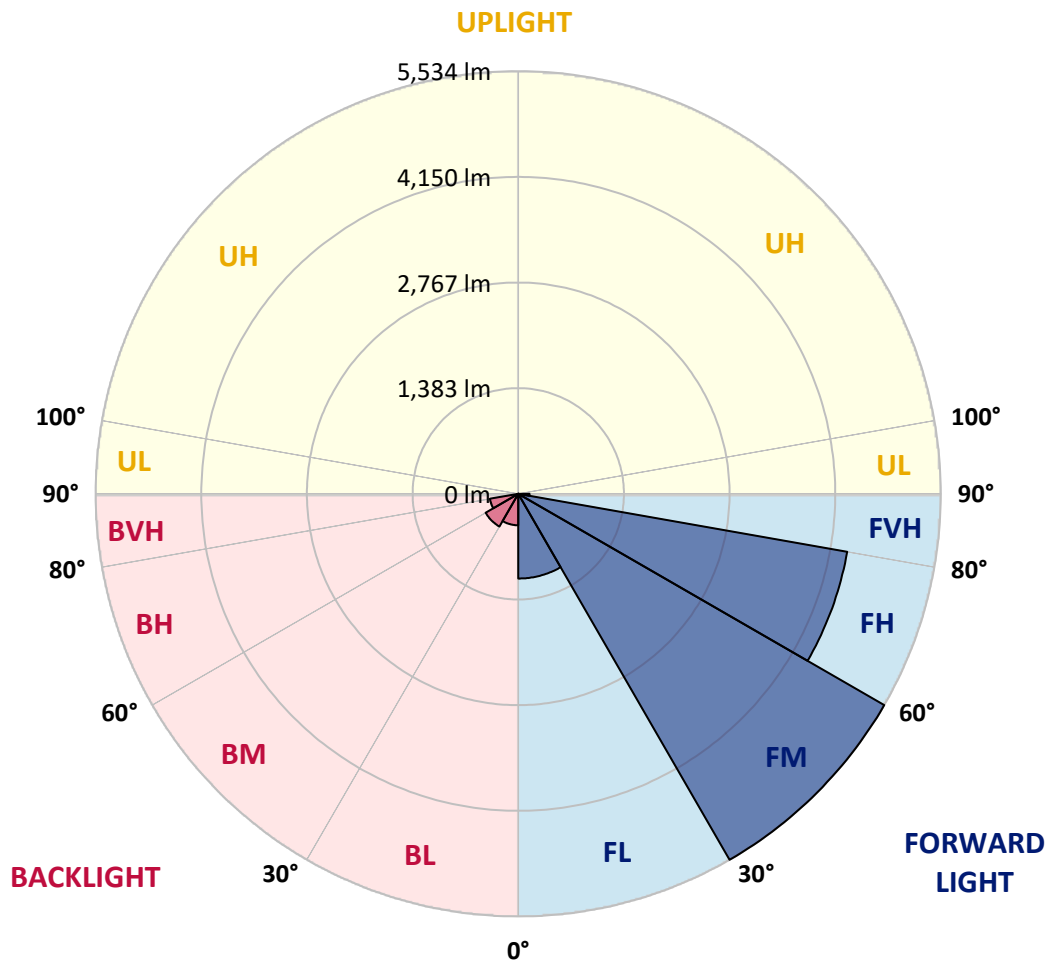
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1109.5 | 8.9 | | | |
| FM (30°-60°) | 5533.9 | 44.4 | | | |
| FH (60°-80°) | 4374.0 | 35.1 | | | G2/5000 |
| FVH (80°-90°) | 146.7 | 1.2 | | | G2/225 |
| BL (0°-30°) | 411.9 | 3.3 | B1/500 | | |
| BM (30°-60°) | 493.8 | 4.0 | B1/1000 | | |
| BH (60°-80°) | 377.1 | 3.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 4.8 | 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 Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0° | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 |
| 2.5° | 3111.8 | 3115.1 | 3119.4 | 3125.2 | 3129.4 | 3116.8 | 3099.2 | 3079.0 | 3074.8 | 3031.8 | 2979.7 |
| 5° | 2945.2 | 2950.2 | 2987.2 | 3007.4 | 3052.9 | 3094.1 | 3120.2 | 3123.6 | 3121.9 | 3081.5 | 2998.2 |
| 7.5° | 2708.0 | 2722.3 | 2758.5 | 2793.8 | 2878.7 | 2957.0 | 3049.6 | 3114.3 | 3118.5 | 3107.6 | 3004.1 |
| 10° | 2515.4 | 2524.7 | 2543.2 | 2613.0 | 2683.6 | 2803.1 | 2932.6 | 3054.6 | 3064.7 | 3108.4 | 2999.0 |
| 12.5° | 2364.9 | 2378.3 | 2401.1 | 2454.9 | 2539.8 | 2652.5 | 2799.7 | 2963.7 | 2984.7 | 3092.4 | 2984.7 |
| 15° | 2259.8 | 2266.5 | 2289.2 | 2342.2 | 2424.6 | 2528.9 | 2677.7 | 2868.7 | 2887.2 | 3071.4 | 2982.2 |
| 17.5° | 2210.1 | 2217.7 | 2233.7 | 2275.7 | 2343.9 | 2440.6 | 2586.1 | 2792.1 | 2815.7 | 3058.0 | 2991.4 |
| 20° | 2223.6 | 2230.3 | 2231.2 | 2253.0 | 2299.3 | 2380.9 | 2518.8 | 2720.6 | 2750.9 | 3049.6 | 3006.6 |
| 22.5° | 2300.1 | 2301.0 | 2290.9 | 2280.8 | 2296.8 | 2355.6 | 2477.6 | 2675.2 | 2706.3 | 3047.9 | 3024.2 |
| 25° | 2414.5 | 2417.0 | 2400.2 | 2364.9 | 2332.9 | 2363.2 | 2468.3 | 2645.8 | 2673.5 | 3043.7 | 3035.3 |
| 27.5° | 2572.6 | 2571.8 | 2566.7 | 2507.9 | 2417.0 | 2396.8 | 2475.9 | 2629.8 | 2653.4 | 3031.8 | 3039.5 |
| 30° | 2793.8 | 2787.1 | 2776.1 | 2709.7 | 2570.9 | 2478.4 | 2507.9 | 2619.7 | 2641.6 | 3015.0 | 3028.4 |
| 32.5° | 3011.6 | 3036.9 | 3035.3 | 2972.1 | 2798.8 | 2623.9 | 2574.3 | 2633.2 | 2649.2 | 3004.1 | 3012.5 |
| 35° | 3265.7 | 3264.8 | 3329.6 | 3306.1 | 3103.4 | 2809.8 | 2687.8 | 2677.7 | 2690.4 | 3011.6 | 3004.9 |
| 37.5° | 3501.2 | 3523.0 | 3624.0 | 3648.3 | 3463.3 | 3072.3 | 2848.5 | 2773.6 | 2777.8 | 3063.0 | 3023.4 |
| 40° | 3794.7 | 3836.7 | 3987.3 | 4068.8 | 3905.7 | 3461.6 | 3085.7 | 2949.4 | 2950.2 | 3189.2 | 3093.3 |
| 42.5° | 4173.1 | 4239.6 | 4380.0 | 4516.3 | 4428.8 | 3922.5 | 3441.5 | 3227.8 | 3226.2 | 3411.2 | 3253.1 |
| 45° | 4633.2 | 4679.4 | 4839.2 | 5055.3 | 4999.8 | 4565.9 | 3959.5 | 3659.3 | 3637.4 | 3775.3 | 3536.5 |
| 47.5° | 5030.1 | 5093.2 | 5255.5 | 5501.9 | 5754.2 | 5351.4 | 4578.5 | 4252.2 | 4237.9 | 4354.8 | 4022.6 |
| 50° | 5203.4 | 5258.9 | 5429.6 | 5775.2 | 6386.6 | 6382.4 | 5500.2 | 5117.6 | 5093.2 | 5156.3 | 4774.4 |
| 52.5° | 5013.3 | 5065.4 | 5237.8 | 5668.4 | 6684.4 | 7638.9 | 6835.7 | 6203.3 | 6173.9 | 6093.1 | 5672.6 |
| 55° | 4362.4 | 4405.2 | 4660.1 | 5154.6 | 6570.0 | 8476.5 | 8675.8 | 7544.7 | 7430.3 | 7116.6 | 6689.4 |
| 57.5° | 3473.4 | 3451.5 | 3609.7 | 4184.1 | 5898.9 | 8757.4 | 10564.8 | 9215.8 | 9011.4 | 8001.4 | 7549.7 |
| 60° | 2406.9 | 2474.2 | 2538.1 | 2916.6 | 4435.5 | 8270.5 | 11739.7 | 11316.7 | 11047.5 | 8871.8 | 8373.9 |
| 62.5° | 1769.5 | 1814.0 | 1856.1 | 2031.0 | 2788.8 | 6603.6 | 11947.4 | 13474.7 | 13235.8 | 9796.1 | 9160.3 |
| 65° | 1399.4 | 1402.8 | 1419.6 | 1592.0 | 1837.6 | 4294.2 | 10949.1 | 14691.6 | 14630.2 | 10685.9 | 9479.1 |
| 66° | 1275.0 | 1275.8 | 1301.9 | 1486.9 | 1649.2 | 3497.0 | 10149.4 | 14784.1 | 14817.7 | 10899.5 | 9385.7 |
| 67.5° | 1114.3 | 1111.0 | 1148.8 | 1336.3 | 1502.0 | 2521.3 | 8717.9 | 14409.0 | 14608.3 | 11063.5 | 9050.1 |
| 70° | 863.7 | 859.5 | 905.8 | 1121.1 | 1383.4 | 1682.0 | 5794.6 | 12372.1 | 12693.4 | 10728.0 | 8007.2 |
| 72.5° | 575.2 | 578.6 | 657.7 | 884.7 | 1320.4 | 1481.0 | 3486.0 | 9411.8 | 9865.9 | 8859.2 | 6299.2 |
| 75° | 335.6 | 341.4 | 431.4 | 657.7 | 1146.3 | 1412.0 | 1973.0 | 6711.3 | 7001.4 | 6117.5 | 3924.2 |
| 77.5° | 175.8 | 178.3 | 241.4 | 434.0 | 878.8 | 1311.1 | 1314.5 | 4287.5 | 4423.7 | 2972.9 | 1553.3 |
| 80° | 93.4 | 90.8 | 129.5 | 261.6 | 604.7 | 1151.3 | 1066.4 | 2269.9 | 2359.8 | 883.0 | 392.7 |
| 82.5° | 35.3 | 38.7 | 69.0 | 171.6 | 357.4 | 826.7 | 918.4 | 1003.3 | 972.2 | 194.3 | 164.8 |
| 85° | 6.7 | 8.4 | 29.4 | 101.8 | 180.0 | 345.7 | 677.0 | 492.0 | 455.8 | 73.2 | 95.0 |
| 87.5° | 0.8 | 1.7 | 8.4 | 24.4 | 26.1 | 116.9 | 200.2 | 136.2 | 117.7 | 26.9 | 39.5 |
| 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° | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 | 2952.8 |
| 2.5° | 2954.4 | 2931.7 | 2856.0 | 2781.2 | 2704.7 | 2635.7 | 2588.6 | 2512.1 | 2492.7 | 2465.0 | 2449.0 |
| 5° | 2948.5 | 2895.6 | 2750.1 | 2591.1 | 2443.1 | 2283.3 | 2161.4 | 2043.6 | 1980.6 | 1948.6 | 1936.8 |
| 7.5° | 2931.7 | 2847.6 | 2620.6 | 2371.6 | 2134.5 | 1895.6 | 1687.9 | 1529.8 | 1428.0 | 1358.2 | 1311.1 |
| 10° | 2898.1 | 2782.0 | 2470.0 | 2127.7 | 1769.5 | 1454.1 | 1190.9 | 990.7 | 836.0 | 787.2 | 788.9 |
| 12.5° | 2863.6 | 2708.9 | 2301.8 | 1856.9 | 1412.9 | 1015.1 | 735.9 | 577.8 | 503.8 | 479.4 | 474.3 |
| 15° | 2831.6 | 2639.1 | 2137.0 | 1594.5 | 1052.1 | 657.7 | 474.3 | 418.8 | 398.6 | 394.4 | 393.6 |
| 17.5° | 2814.8 | 2574.3 | 1961.2 | 1294.3 | 734.2 | 446.6 | 380.1 | 365.0 | 359.1 | 354.9 | 353.2 |
| 20° | 2800.5 | 2518.0 | 1793.0 | 1013.4 | 502.1 | 365.8 | 340.6 | 326.3 | 316.2 | 312.0 | 309.5 |
| 22.5° | 2790.4 | 2459.9 | 1618.9 | 784.7 | 384.3 | 324.6 | 301.9 | 283.4 | 269.1 | 264.1 | 260.7 |
| 25° | 2775.3 | 2396.0 | 1443.2 | 573.6 | 323.8 | 288.5 | 262.4 | 240.5 | 222.0 | 212.8 | 211.1 |
| 27.5° | 2753.4 | 2323.7 | 1250.6 | 424.7 | 289.3 | 256.5 | 224.5 | 197.6 | 179.1 | 169.0 | 169.9 |
| 30° | 2718.1 | 2248.0 | 1058.0 | 337.2 | 261.6 | 223.7 | 189.2 | 163.2 | 145.5 | 137.9 | 137.1 |
| 32.5° | 2676.1 | 2156.3 | 881.4 | 289.3 | 236.3 | 194.3 | 158.1 | 135.4 | 121.9 | 116.1 | 115.2 |
| 35° | 2636.5 | 2063.8 | 701.4 | 259.9 | 210.2 | 167.4 | 132.9 | 113.5 | 103.4 | 98.4 | 99.2 |
| 37.5° | 2614.7 | 1981.4 | 546.6 | 236.3 | 189.2 | 143.8 | 114.4 | 97.6 | 88.3 | 84.1 | 83.3 |
| 40° | 2629.0 | 1914.1 | 434.8 | 215.3 | 165.7 | 123.6 | 98.4 | 84.1 | 74.8 | 69.0 | 69.0 |
| 42.5° | 2696.2 | 1884.7 | 350.7 | 195.1 | 143.8 | 106.8 | 85.8 | 72.3 | 62.2 | 56.3 | 57.2 |
| 45° | 2901.4 | 1915.8 | 293.5 | 176.6 | 123.6 | 92.5 | 74.0 | 59.7 | 50.5 | 46.3 | 45.4 |
| 47.5° | 3242.1 | 2032.7 | 254.0 | 157.3 | 106.0 | 79.1 | 62.2 | 49.6 | 40.4 | 37.0 | 36.2 |
| 50° | 3837.6 | 2274.1 | 224.5 | 137.9 | 90.0 | 67.3 | 51.3 | 39.5 | 32.0 | 28.6 | 28.6 |
| 52.5° | 4656.7 | 2800.5 | 203.5 | 116.1 | 75.7 | 57.2 | 42.0 | 32.0 | 25.2 | 22.7 | 21.9 |
| 55° | 5512.8 | 3355.7 | 192.6 | 97.6 | 63.1 | 47.1 | 33.6 | 25.2 | 19.3 | 16.8 | 16.0 |
| 57.5° | 6336.2 | 3791.3 | 180.0 | 79.1 | 50.5 | 36.2 | 26.1 | 19.3 | 13.5 | 11.8 | 10.9 |
| 60° | 7125.9 | 4143.7 | 153.1 | 63.1 | 39.5 | 26.1 | 19.3 | 13.5 | 9.3 | 7.6 | 7.6 |
| 62.5° | 7832.3 | 4348.9 | 120.3 | 50.5 | 30.3 | 18.5 | 12.6 | 10.1 | 6.7 | 5.0 | 5.0 |
| 65° | 7914.7 | 4082.3 | 90.8 | 38.7 | 21.9 | 11.8 | 7.6 | 7.6 | 5.0 | 3.4 | 3.4 |
| 66° | 7749.1 | 3856.1 | 79.9 | 35.3 | 19.3 | 10.1 | 6.7 | 5.9 | 4.2 | 2.5 | 2.5 |
| 67.5° | 7379.0 | 3470.1 | 69.0 | 30.3 | 16.0 | 7.6 | 5.0 | 5.0 | 3.4 | 1.7 | 1.7 |
| 70° | 6375.7 | 2834.2 | 54.7 | 22.7 | 11.8 | 5.9 | 3.4 | 3.4 | 2.5 | 1.7 | 1.7 |
| 72.5° | 4859.4 | 2116.0 | 44.6 | 16.8 | 8.4 | 4.2 | 2.5 | 2.5 | 2.5 | 1.7 | 1.7 |
| 75° | 2930.9 | 1139.6 | 34.5 | 12.6 | 7.6 | 3.4 | 1.7 | 2.5 | 3.4 | 2.5 | 1.7 |
| 77.5° | 1079.8 | 387.7 | 26.9 | 10.1 | 5.9 | 3.4 | 1.7 | 1.7 | 3.4 | 2.5 | 2.5 |
| 80° | 264.9 | 100.9 | 19.3 | 8.4 | 5.9 | 3.4 | 1.7 | 1.7 | 3.4 | 3.4 | 3.4 |
| 82.5° | 122.8 | 42.9 | 13.5 | 7.6 | 5.9 | 3.4 | 1.7 | 1.7 | 2.5 | 3.4 | 3.4 |
| 85° | 70.6 | 20.2 | 10.9 | 8.4 | 5.9 | 3.4 | 1.7 | 1.7 | 2.5 | 3.4 | 3.4 |
| 87.5° | 28.6 | 10.1 | 10.1 | 8.4 | 6.7 | 4.2 | 1.7 | 1.7 | 1.7 | 2.5 | 2.5 |
| 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)