

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: P479505

Luminaire Tested: **IFLD-M-SA4D-830-U-5MQ**

Issue Date: 02/26/2021



Test Information

Test Method: LM-79-08
Report Number: P479505
Test Lab: INNOVATION CENTER(G2)
Issue Date: 02/26/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4D-830-U-5MQ
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ 5MQ distribution lens
Light Source: (64) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

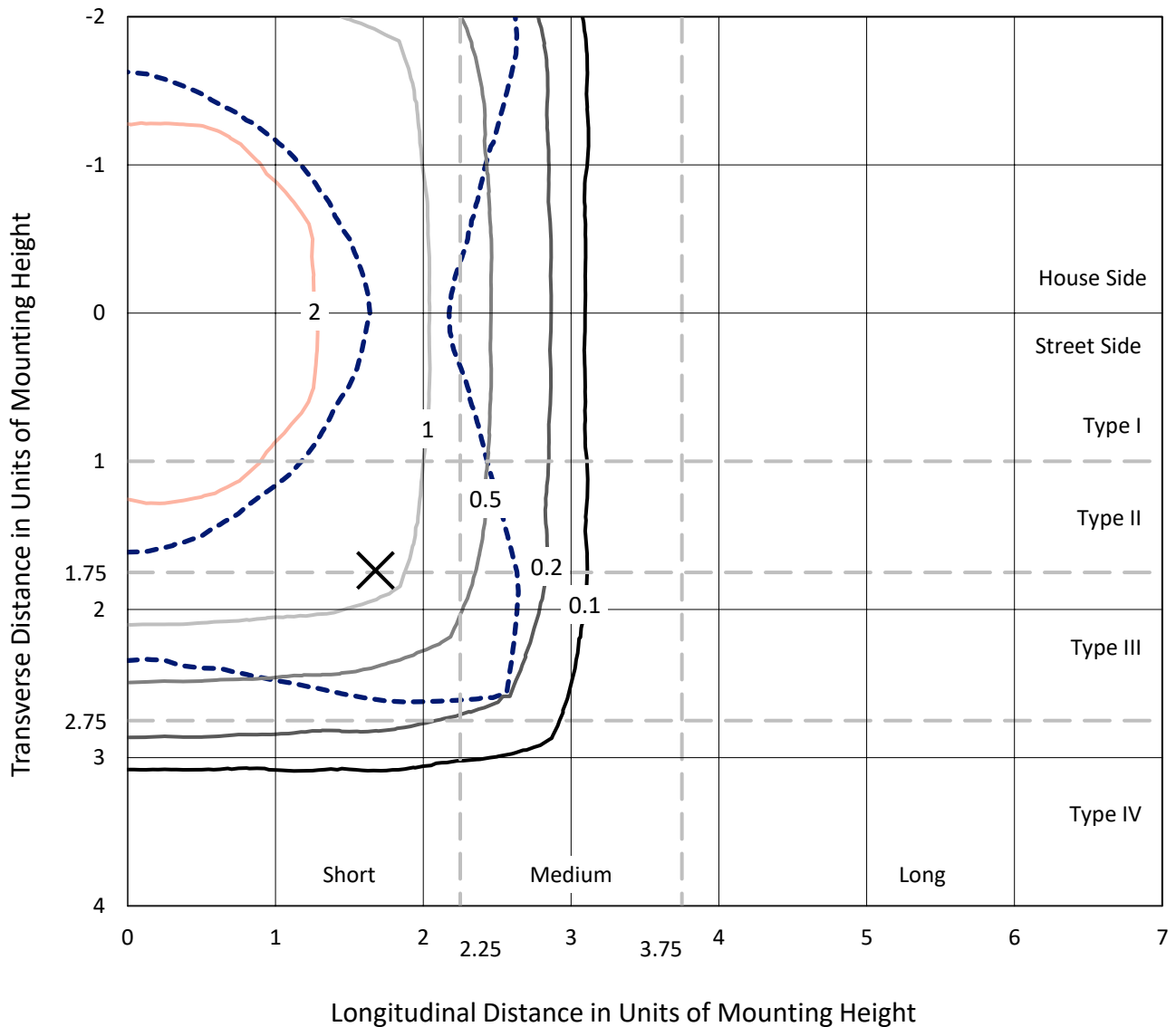
Lumens per Lamp: N/A
Luminaire Lumens: 25092.1 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G3

Input Watts (W): 249.7
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

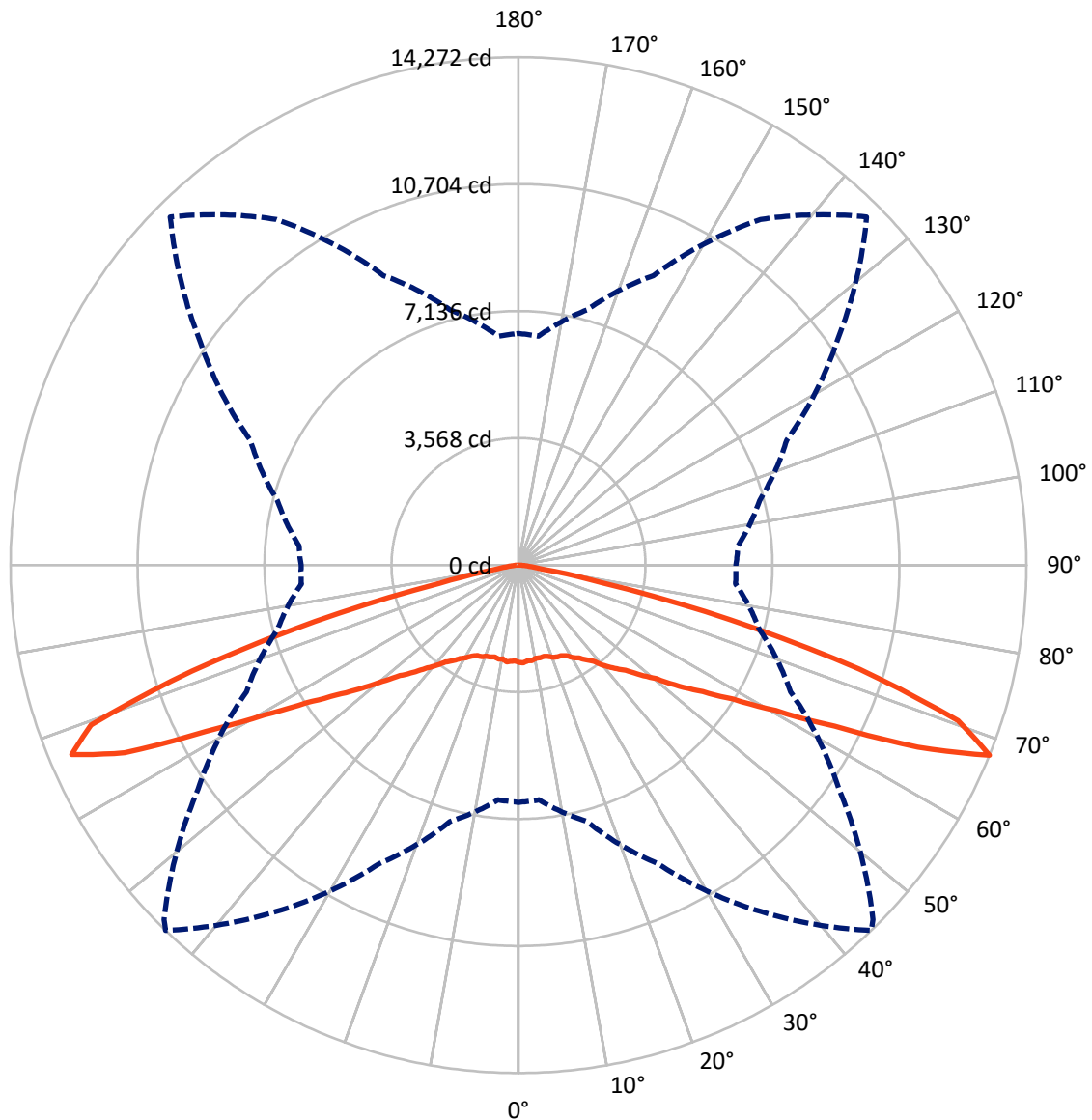
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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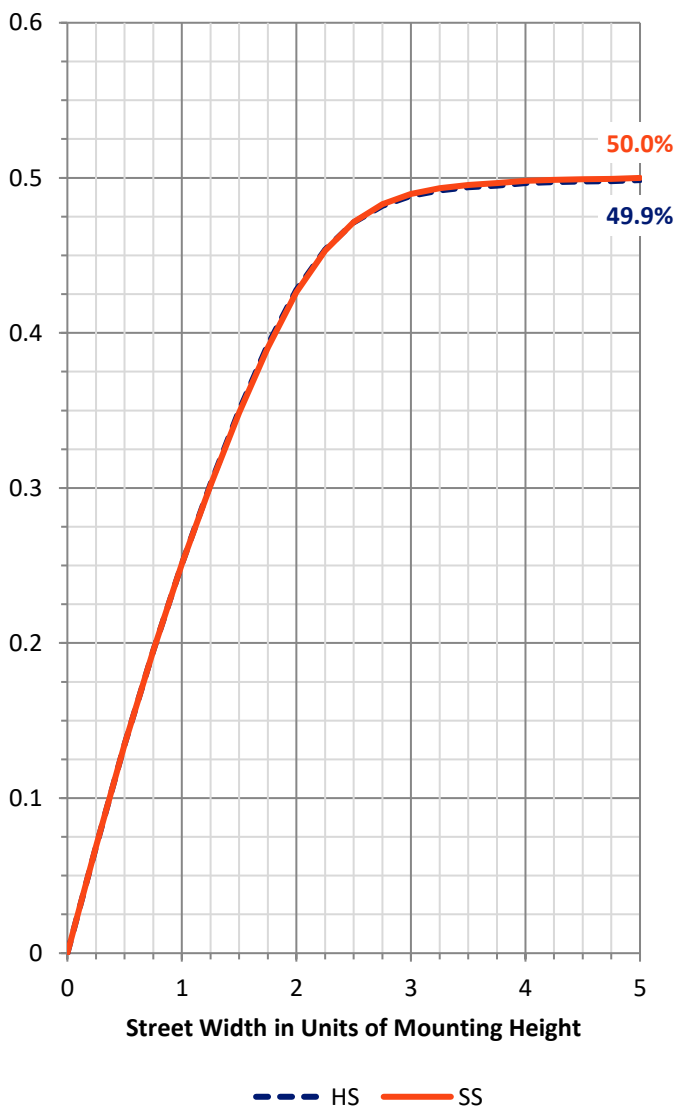
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 12513.9 | 0.0 | 12513.9 |
| | % Fixture | 49.9 | 0.0 | 49.9 |
| Street Side | Lumens | 12578.2 | 0.0 | 12578.2 |
| | % Fixture | 50.1 | 0.0 | 50.1 |
| Total | Lumens | 25092.1 | 0.0 | 25092.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 259.4 | 1.0 |
| 10°-20° | 757.7 | 3.0 |
| 20°-30° | 1288.6 | 5.1 |
| 30°-40° | 2043.1 | 8.1 |
| 40°-50° | 3331.4 | 13.3 |
| 50°-60° | 5689.6 | 22.7 |
| 60°-70° | 8653.9 | 34.5 |
| 70°-80° | 2916.9 | 11.6 |
| 80°-90° | 151.4 | 0.6 |
| 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° | 25092.1 | 100.0 |
| 0°-180° | 25092.1 | 100.0 |

Coefficient of Utilization



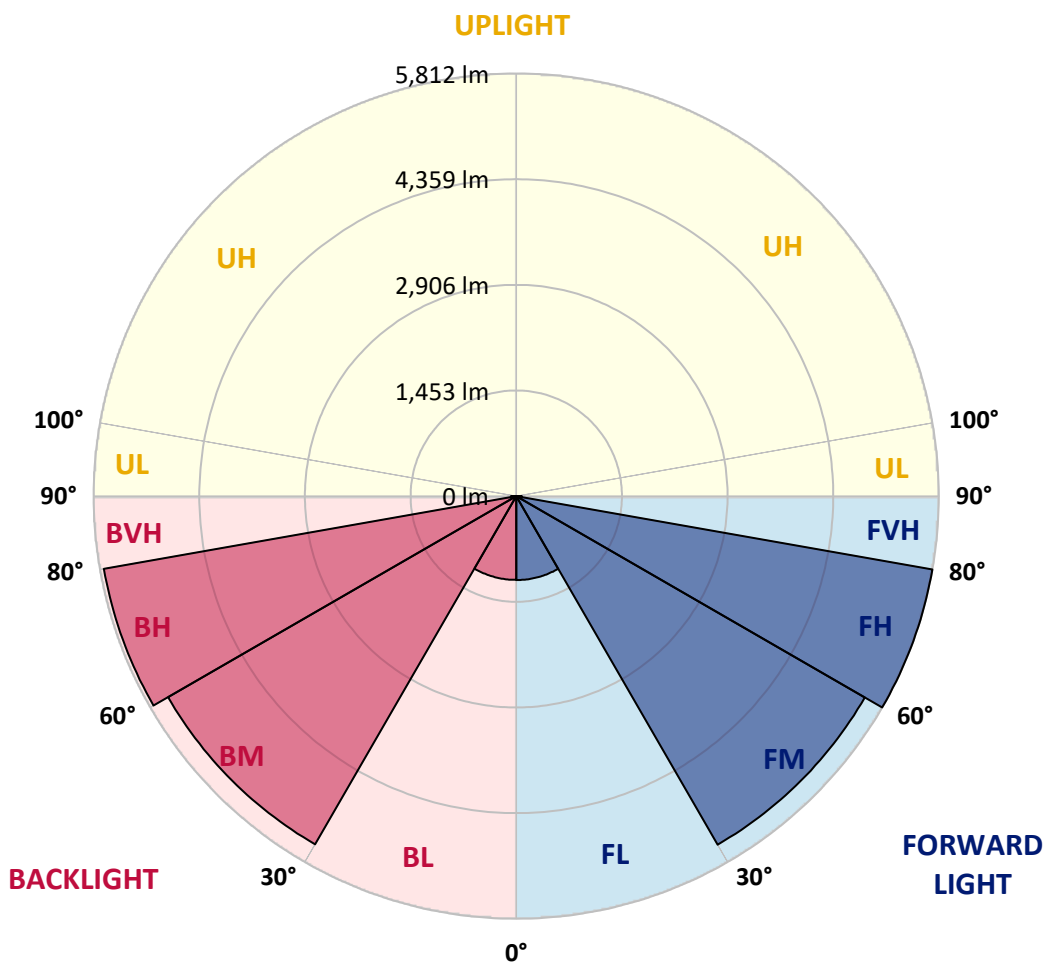
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1154.0 | 4.6 | | | |
| FM (30°-60°) | 5535.1 | 22.1 | | | |
| FH (60°-80°) | 5811.6 | 23.2 | | | G3/7500 |
| FVH (80°-90°) | 77.5 | 0.3 | | | G1/100 |
| BL (0°-30°) | 1151.7 | 4.6 | B3/2500 | | |
| BM (30°-60°) | 5529.1 | 22.0 | B4/8500 | | |
| BH (60°-80°) | 5759.2 | 23.0 | B5 | | G3/7500 |
| BVH (80°-90°) | 74.0 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|--------|--------|--------|
| 0° | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 |
| 2.5° | 2677.9 | 2709.4 | 2732.3 | 2729.4 | 2738.0 | 2746.6 | 2735.2 | 2752.3 | 2740.9 | 2760.9 | 2772.4 |
| 5° | 2729.4 | 2720.8 | 2723.7 | 2706.5 | 2746.6 | 2700.8 | 2700.8 | 2723.7 | 2752.3 | 2718.0 | 2738.0 |
| 7.5° | 2697.9 | 2692.2 | 2677.9 | 2703.6 | 2712.2 | 2712.2 | 2735.2 | 2692.2 | 2740.9 | 2752.3 | 2755.2 |
| 10° | 2663.5 | 2632.0 | 2675.0 | 2700.8 | 2706.5 | 2660.7 | 2680.7 | 2692.2 | 2677.9 | 2692.2 | 2700.8 |
| 12.5° | 2634.9 | 2652.1 | 2652.1 | 2652.1 | 2643.5 | 2675.0 | 2695.1 | 2692.2 | 2663.5 | 2689.3 | 2643.5 |
| 15° | 2632.0 | 2623.5 | 2649.2 | 2672.1 | 2657.8 | 2663.5 | 2672.1 | 2697.9 | 2643.5 | 2655.0 | 2655.0 |
| 17.5° | 2629.2 | 2640.6 | 2649.2 | 2646.4 | 2695.1 | 2695.1 | 2686.5 | 2669.3 | 2712.2 | 2689.3 | 2657.8 |
| 20° | 2640.6 | 2632.0 | 2655.0 | 2663.5 | 2697.9 | 2766.7 | 2740.9 | 2726.6 | 2703.6 | 2675.0 | 2675.0 |
| 22.5° | 2655.0 | 2649.2 | 2680.7 | 2718.0 | 2783.8 | 2801.0 | 2798.2 | 2781.0 | 2740.9 | 2706.5 | 2700.8 |
| 25° | 2706.5 | 2655.0 | 2689.3 | 2760.9 | 2783.8 | 2818.2 | 2841.1 | 2818.2 | 2763.8 | 2772.4 | 2720.8 |
| 27.5° | 2783.8 | 2775.2 | 2821.1 | 2869.8 | 2849.7 | 2881.2 | 2861.2 | 2878.4 | 2881.2 | 2838.3 | 2786.7 |
| 30° | 2875.5 | 2849.7 | 2878.4 | 2972.9 | 2981.5 | 3015.8 | 2981.5 | 2935.6 | 2950.0 | 2912.7 | 2886.9 |
| 32.5° | 3007.2 | 2998.6 | 3053.1 | 3116.1 | 3127.5 | 3110.3 | 3093.2 | 3118.9 | 3058.8 | 3030.1 | 2984.3 |
| 35° | 3093.2 | 3130.4 | 3196.3 | 3244.9 | 3282.2 | 3265.0 | 3273.6 | 3247.8 | 3262.1 | 3202.0 | 3181.9 |
| 37.5° | 3348.1 | 3333.7 | 3348.1 | 3431.1 | 3439.7 | 3431.1 | 3439.7 | 3468.3 | 3448.3 | 3396.7 | 3345.2 |
| 40° | 3588.6 | 3565.7 | 3600.1 | 3694.6 | 3688.9 | 3717.5 | 3660.2 | 3691.7 | 3691.7 | 3594.4 | 3574.3 |
| 42.5° | 3769.1 | 3846.4 | 3886.5 | 3963.8 | 3992.5 | 3966.7 | 3955.2 | 3961.0 | 4024.0 | 3909.4 | 3866.4 |
| 45° | 4141.4 | 4138.5 | 4258.8 | 4301.8 | 4221.6 | 4215.9 | 4192.9 | 4261.7 | 4304.6 | 4238.8 | 4221.6 |
| 47.5° | 4545.2 | 4565.3 | 4634.0 | 4651.2 | 4699.9 | 4611.1 | 4611.1 | 4619.7 | 4771.5 | 4616.8 | 4536.6 |
| 50° | 4909.0 | 4934.7 | 5072.2 | 5206.8 | 5115.2 | 5020.6 | 5057.9 | 5103.7 | 5186.8 | 5040.7 | 4972.0 |
| 52.5° | 5350.0 | 5490.3 | 5582.0 | 5653.6 | 5719.5 | 5653.6 | 5567.7 | 5619.2 | 5782.5 | 5587.7 | 5501.8 |
| 55° | 5985.8 | 6097.5 | 6183.4 | 6315.2 | 6369.6 | 6280.8 | 6272.2 | 6266.5 | 6358.2 | 6151.9 | 6034.5 |
| 57.5° | 6696.1 | 6650.3 | 6787.8 | 6991.1 | 7188.7 | 7102.8 | 7077.0 | 7082.8 | 7105.7 | 6813.5 | 6724.7 |
| 60° | 7578.2 | 7629.8 | 7793.0 | 7970.6 | 8179.7 | 8300.0 | 8131.0 | 8033.6 | 8053.7 | 7655.6 | 7518.1 |
| 62.5° | 8082.3 | 8196.9 | 8566.3 | 9176.4 | 9597.4 | 9972.6 | 9998.3 | 9365.4 | 8941.5 | 8168.2 | 7584.0 |
| 65° | 7838.9 | 7821.7 | 8517.6 | 9646.1 | 11241.3 | 12332.5 | 12169.3 | 10634.2 | 9153.4 | 7924.8 | 7140.0 |
| 67.5° | 6667.5 | 6621.6 | 7463.7 | 9253.7 | 11888.6 | 14271.5 | 14085.3 | 10992.2 | 8437.4 | 7011.2 | 6123.3 |
| 70° | 4296.0 | 4284.6 | 5198.2 | 7054.1 | 10614.1 | 13102.9 | 13171.7 | 9984.0 | 6867.9 | 5135.2 | 4256.0 |
| 72.5° | 1560.9 | 1655.4 | 2185.3 | 3792.0 | 7208.8 | 10024.1 | 10067.1 | 7392.1 | 3949.5 | 2374.3 | 1749.9 |
| 75° | 575.7 | 592.9 | 690.2 | 1231.5 | 3285.0 | 6154.8 | 6315.2 | 3585.8 | 1403.4 | 773.3 | 630.1 |
| 77.5° | 332.2 | 335.1 | 369.5 | 458.2 | 973.8 | 2402.9 | 2500.3 | 1088.3 | 544.2 | 412.4 | 380.9 |
| 80° | 226.3 | 223.4 | 260.6 | 297.9 | 389.5 | 681.6 | 724.6 | 455.4 | 343.7 | 286.4 | 240.6 |
| 82.5° | 131.7 | 140.3 | 191.9 | 211.9 | 237.7 | 300.7 | 306.5 | 283.5 | 257.8 | 211.9 | 157.5 |
| 85° | 80.2 | 65.9 | 106.0 | 117.4 | 137.5 | 134.6 | 134.6 | 154.7 | 166.1 | 148.9 | 88.8 |
| 87.5° | 20.0 | 20.0 | 25.8 | 28.6 | 37.2 | 28.6 | 31.5 | 60.1 | 80.2 | 74.5 | 45.8 |
| 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° | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 | 2740.9 |
| 2.5° | 2746.6 | 2738.0 | 2743.7 | 2775.2 | 2755.2 | 2695.1 | 2709.4 | 2740.9 | 2715.1 | 2700.8 | 2697.9 |
| 5° | 2735.2 | 2752.3 | 2732.3 | 2738.0 | 2758.1 | 2709.4 | 2718.0 | 2758.1 | 2740.9 | 2746.6 | 2715.1 |
| 7.5° | 2738.0 | 2746.6 | 2729.4 | 2703.6 | 2703.6 | 2743.7 | 2720.8 | 2726.6 | 2700.8 | 2743.7 | 2686.5 |
| 10° | 2720.8 | 2697.9 | 2677.9 | 2692.2 | 2686.5 | 2675.0 | 2666.4 | 2683.6 | 2657.8 | 2695.1 | 2655.0 |
| 12.5° | 2669.3 | 2675.0 | 2669.3 | 2663.5 | 2675.0 | 2703.6 | 2657.8 | 2663.5 | 2623.5 | 2629.2 | 2649.2 |
| 15° | 2649.2 | 2666.4 | 2660.7 | 2692.2 | 2706.5 | 2663.5 | 2697.9 | 2663.5 | 2632.0 | 2614.9 | 2646.4 |
| 17.5° | 2657.8 | 2683.6 | 2675.0 | 2697.9 | 2672.1 | 2703.6 | 2709.4 | 2695.1 | 2657.8 | 2643.5 | 2657.8 |
| 20° | 2666.4 | 2657.8 | 2669.3 | 2709.4 | 2746.6 | 2715.1 | 2715.1 | 2706.5 | 2672.1 | 2652.1 | 2652.1 |
| 22.5° | 2686.5 | 2672.1 | 2689.3 | 2720.8 | 2732.3 | 2781.0 | 2738.0 | 2718.0 | 2660.7 | 2609.1 | 2657.8 |
| 25° | 2726.6 | 2735.2 | 2746.6 | 2735.2 | 2798.2 | 2792.4 | 2786.7 | 2772.4 | 2683.6 | 2686.5 | 2677.9 |
| 27.5° | 2803.9 | 2755.2 | 2769.5 | 2838.3 | 2846.8 | 2869.8 | 2841.1 | 2866.9 | 2772.4 | 2775.2 | 2718.0 |
| 30° | 2898.4 | 2846.8 | 2892.7 | 2952.8 | 2950.0 | 2992.9 | 2978.6 | 2984.3 | 2918.4 | 2881.2 | 2803.9 |
| 32.5° | 3001.5 | 2995.8 | 3024.4 | 3061.7 | 3076.0 | 3098.9 | 3096.0 | 3096.0 | 3055.9 | 2958.5 | 2972.9 |
| 35° | 3116.1 | 3156.2 | 3190.5 | 3230.6 | 3236.4 | 3265.0 | 3224.9 | 3230.6 | 3190.5 | 3118.9 | 3141.8 |
| 37.5° | 3342.3 | 3339.5 | 3376.7 | 3425.4 | 3431.1 | 3408.2 | 3439.7 | 3425.4 | 3371.0 | 3322.3 | 3285.0 |
| 40° | 3605.8 | 3548.5 | 3582.9 | 3697.5 | 3706.1 | 3666.0 | 3663.1 | 3660.2 | 3620.1 | 3514.2 | 3491.3 |
| 42.5° | 3834.9 | 3909.4 | 3903.7 | 3940.9 | 3915.1 | 3895.1 | 3966.7 | 3926.6 | 3895.1 | 3783.4 | 3763.3 |
| 45° | 4129.9 | 4152.8 | 4227.3 | 4347.6 | 4224.4 | 4224.4 | 4273.1 | 4241.6 | 4224.4 | 4141.4 | 4064.1 |
| 47.5° | 4496.5 | 4516.6 | 4665.5 | 4674.1 | 4593.9 | 4539.5 | 4691.3 | 4697.0 | 4625.4 | 4562.4 | 4467.9 |
| 50° | 4926.1 | 4934.7 | 5069.3 | 5206.8 | 5118.0 | 5014.9 | 5169.6 | 5229.7 | 5069.3 | 4983.4 | 4866.0 |
| 52.5° | 5398.7 | 5372.9 | 5484.6 | 5742.4 | 5656.5 | 5625.0 | 5791.1 | 5805.4 | 5587.7 | 5453.1 | 5484.6 |
| 55° | 5942.9 | 5908.5 | 6212.1 | 6386.8 | 6332.4 | 6275.1 | 6349.6 | 6383.9 | 6209.2 | 5988.7 | 6066.0 |
| 57.5° | 6647.4 | 6664.6 | 6816.4 | 6988.2 | 7077.0 | 7091.3 | 7125.7 | 7091.3 | 6913.8 | 6690.4 | 6618.8 |
| 60° | 7352.0 | 7403.5 | 7698.5 | 8022.2 | 8050.8 | 8302.8 | 8257.0 | 8085.2 | 7833.1 | 7515.2 | 7529.5 |
| 62.5° | 7612.6 | 7569.6 | 8045.1 | 8835.5 | 9508.6 | 9969.7 | 9766.3 | 9156.3 | 8572.0 | 7993.5 | 8036.5 |
| 65° | 7088.5 | 7194.4 | 7841.7 | 9079.0 | 10539.6 | 12364.0 | 11281.4 | 9594.5 | 8414.5 | 7667.0 | 7584.0 |
| 67.5° | 6109.0 | 6189.2 | 7011.2 | 8317.1 | 10909.1 | 13836.1 | 11854.2 | 8975.9 | 7420.7 | 6452.7 | 6504.2 |
| 70° | 4256.0 | 4296.0 | 5100.8 | 6813.5 | 9892.4 | 13057.1 | 10694.3 | 6893.7 | 5123.8 | 4084.1 | 4141.4 |
| 72.5° | 1712.7 | 1810.1 | 2339.9 | 4104.2 | 7303.3 | 9921.0 | 7200.2 | 3617.3 | 2125.1 | 1580.9 | 1434.9 |
| 75° | 633.0 | 635.8 | 747.5 | 1412.0 | 3468.3 | 6235.0 | 3247.8 | 1162.8 | 678.8 | 555.6 | 529.8 |
| 77.5° | 366.6 | 363.7 | 389.5 | 509.8 | 1005.3 | 2434.4 | 922.2 | 455.4 | 369.5 | 332.2 | 317.9 |
| 80° | 229.1 | 226.3 | 266.4 | 338.0 | 441.1 | 667.3 | 389.5 | 283.5 | 249.2 | 214.8 | 214.8 |
| 82.5° | 146.1 | 148.9 | 209.1 | 249.2 | 269.2 | 295.0 | 226.3 | 200.5 | 186.2 | 123.2 | 120.3 |
| 85° | 94.5 | 85.9 | 146.1 | 166.1 | 148.9 | 131.7 | 126.0 | 106.0 | 97.4 | 60.1 | 65.9 |
| 87.5° | 43.0 | 45.8 | 74.5 | 83.1 | 54.4 | 31.5 | 31.5 | 22.9 | 22.9 | 14.3 | 14.3 |
| 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)