

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: P190812

Luminaire Tested: **GAN-AF-04-LED-U-5MQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190812
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-04-LED-U-5MQ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25802.9 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 225
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: 28.75 FT

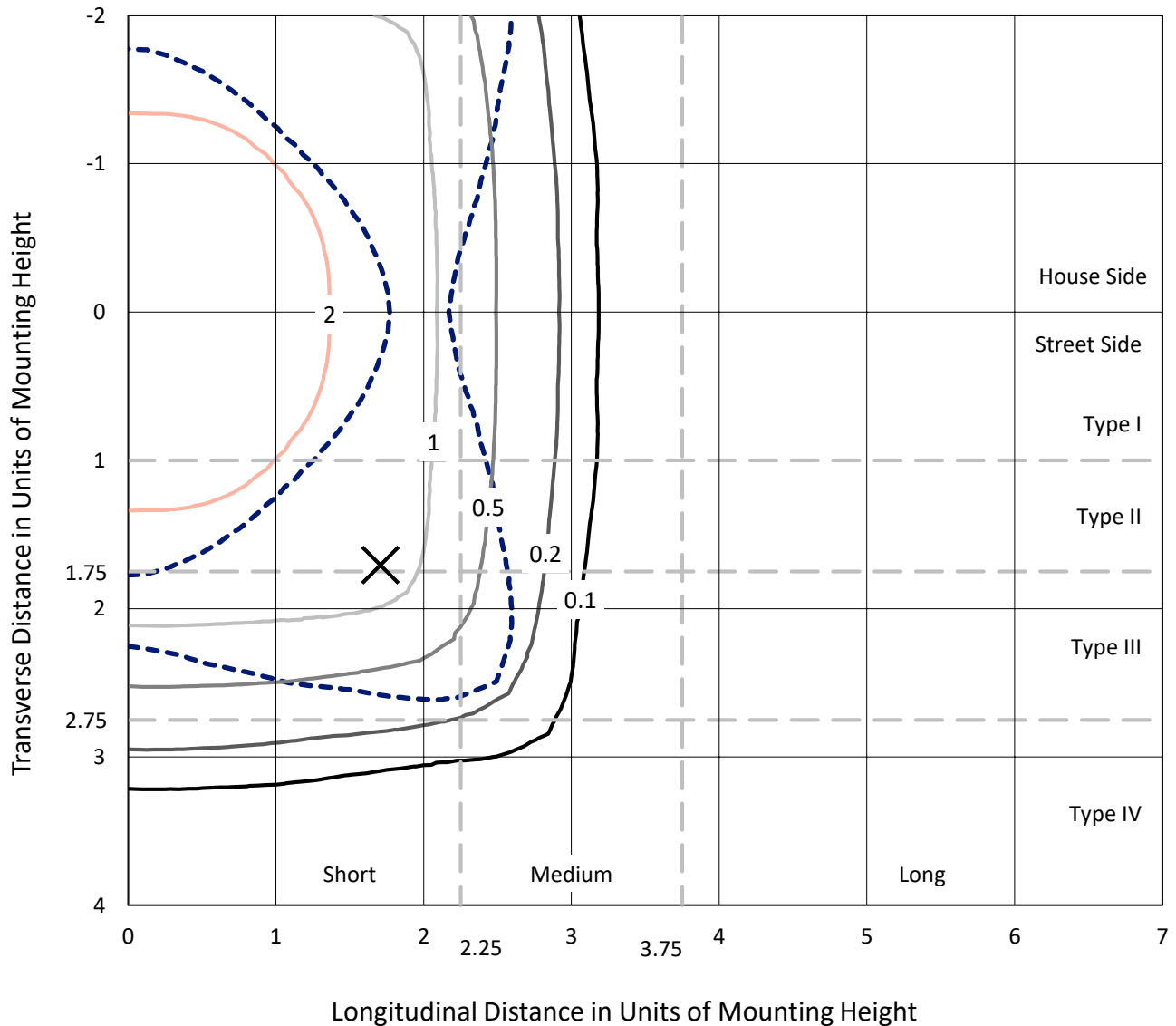


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

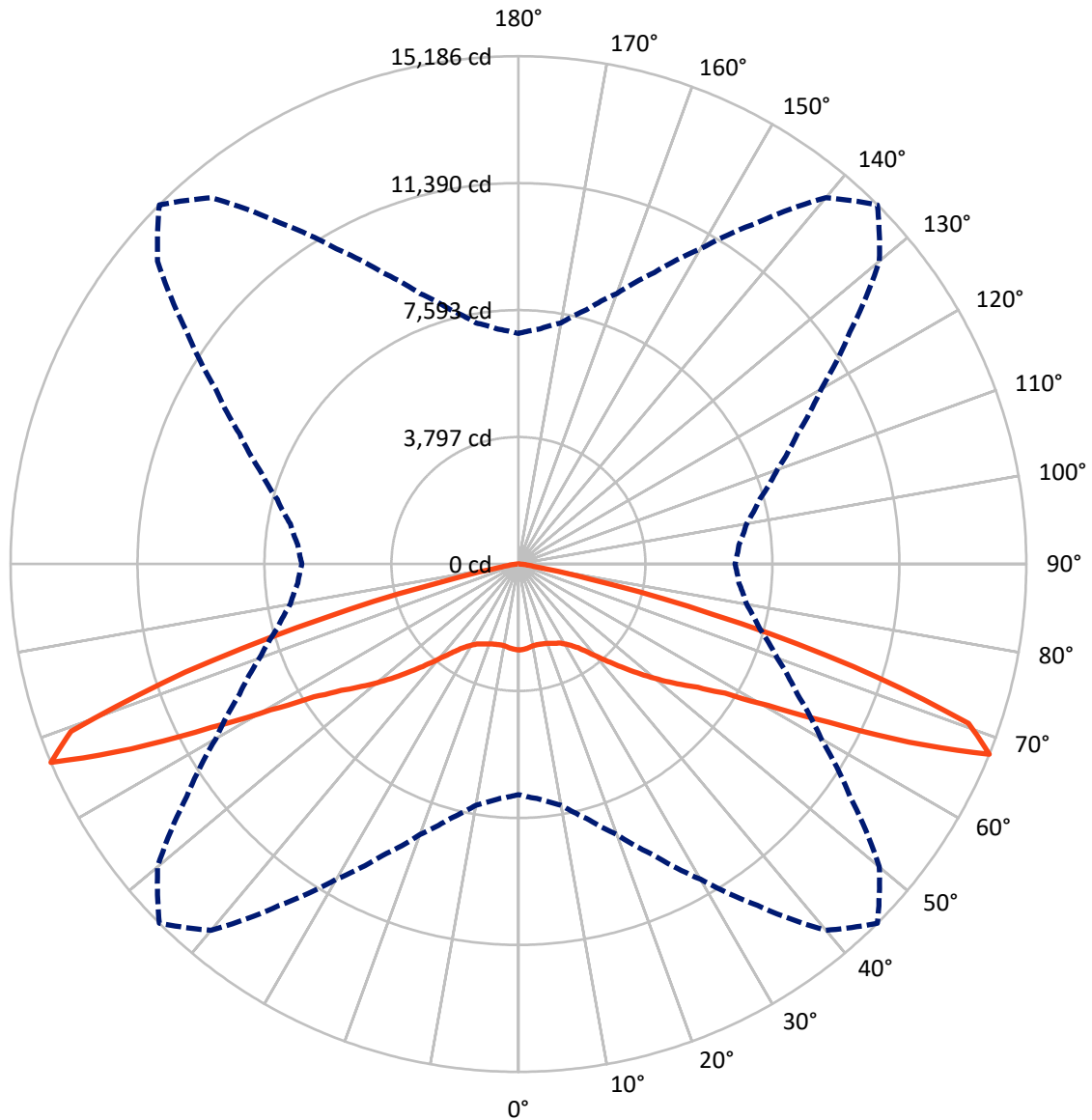


Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 12901.5 | 0.0 | 12901.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 12901.5 | 0.0 | 12901.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 25802.9 | 0.0 | 25802.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 240.7 | 0.9 |
| 10°-20° | 698.4 | 2.7 |
| 20°-30° | 1187.2 | 4.6 |
| 30°-40° | 1940.7 | 7.5 |
| 40°-50° | 3464.6 | 13.4 |
| 50°-60° | 5841.4 | 22.6 |
| 60°-70° | 9064.9 | 35.1 |
| 70°-80° | 3185.0 | 12.3 |
| 80°-90° | 180.0 | 0.7 |
| 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° | 25802.9 | 100.0 |
| 0°-180° | 25802.9 | 100.0 |



REPORT NUMBER: P190812

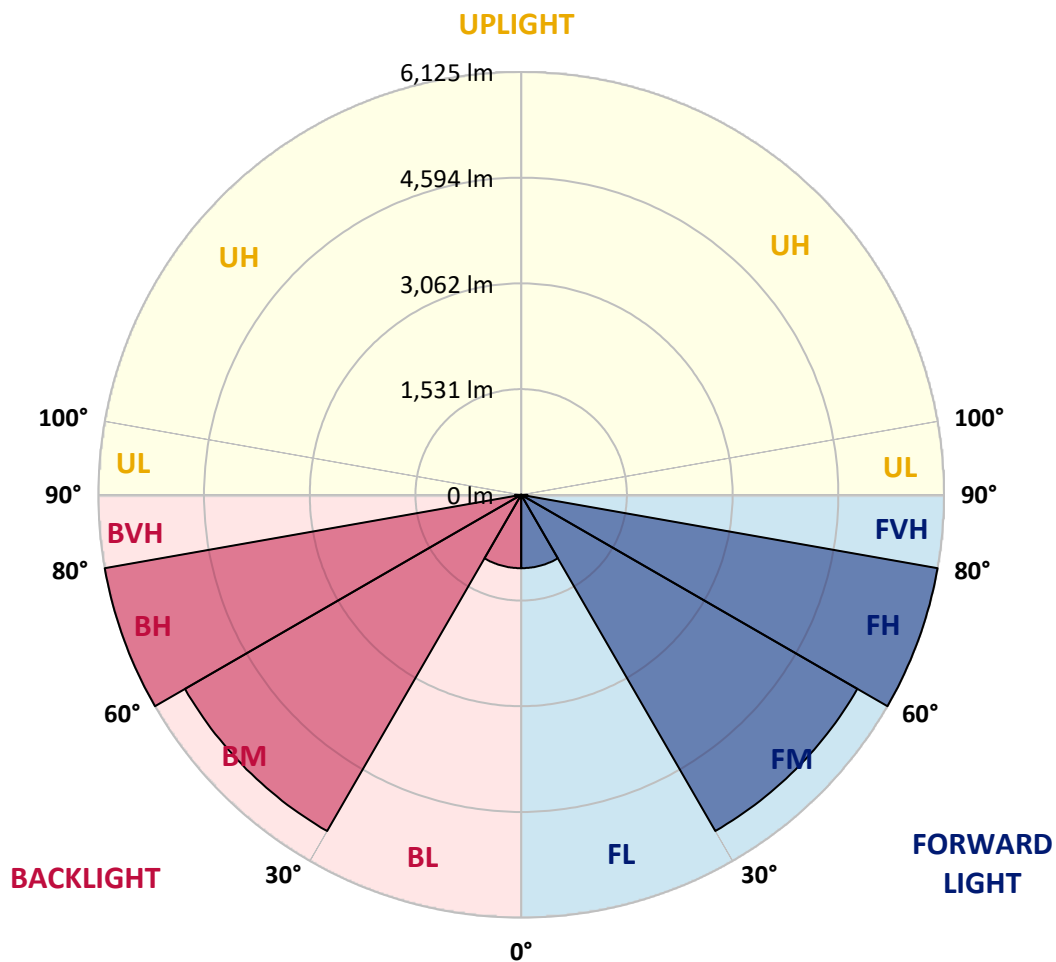
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1063.1 | 4.1 | | | |
| FM (30°-60°) | 5623.4 | 21.8 | | | |
| FH (60°-80°) | 6125.0 | 23.7 | | | G3/7500 |
| FVH (80°-90°) | 90.0 | 0.3 | | | G1/100 |
| BL (0°-30°) | 1063.1 | 4.1 | B3/2500 | | |
| BM (30°-60°) | 5623.4 | 21.8 | B4/8500 | | |
| BH (60°-80°) | 6125.0 | 23.7 | B5 | | G3/7500 |
| BVH (80°-90°) | 90.0 | 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° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 |
| 2.5° | 2561.9 | 2564.2 | 2564.2 | 2564.2 | 2563.1 | 2563.1 | 2560.7 | 2563.1 | 2561.9 | 2558.3 | 2559.5 |
| 5° | 2540.5 | 2542.9 | 2542.9 | 2541.7 | 2545.3 | 2544.1 | 2540.5 | 2542.9 | 2541.7 | 2539.4 | 2540.5 |
| 7.5° | 2509.7 | 2513.2 | 2513.2 | 2512.1 | 2515.6 | 2514.4 | 2512.1 | 2513.2 | 2513.2 | 2509.7 | 2509.7 |
| 10° | 2475.2 | 2477.6 | 2477.6 | 2476.5 | 2482.4 | 2482.4 | 2481.2 | 2484.7 | 2486.0 | 2482.4 | 2480.0 |
| 12.5° | 2443.2 | 2446.8 | 2446.8 | 2451.5 | 2457.4 | 2459.8 | 2465.7 | 2470.5 | 2475.2 | 2474.1 | 2469.3 |
| 15° | 2424.2 | 2426.6 | 2431.3 | 2437.3 | 2446.8 | 2455.1 | 2464.6 | 2475.2 | 2484.7 | 2487.1 | 2480.0 |
| 17.5° | 2412.3 | 2415.9 | 2423.1 | 2431.3 | 2444.4 | 2458.7 | 2472.9 | 2487.1 | 2500.2 | 2504.9 | 2496.6 |
| 20° | 2408.8 | 2411.2 | 2418.3 | 2432.6 | 2450.4 | 2471.7 | 2491.9 | 2508.5 | 2526.3 | 2532.2 | 2526.3 |
| 22.5° | 2415.9 | 2420.7 | 2429.0 | 2445.6 | 2469.3 | 2496.6 | 2520.3 | 2542.9 | 2565.5 | 2576.1 | 2567.8 |
| 25° | 2447.9 | 2452.7 | 2463.4 | 2484.7 | 2510.8 | 2539.4 | 2566.6 | 2592.8 | 2612.9 | 2623.6 | 2617.6 |
| 27.5° | 2507.3 | 2513.2 | 2526.3 | 2547.7 | 2576.1 | 2607.0 | 2636.7 | 2658.0 | 2674.6 | 2678.2 | 2671.0 |
| 30° | 2596.2 | 2609.3 | 2624.8 | 2648.5 | 2681.8 | 2707.9 | 2737.5 | 2756.4 | 2776.7 | 2776.7 | 2770.8 |
| 32.5° | 2735.2 | 2748.2 | 2764.8 | 2787.3 | 2813.4 | 2842.0 | 2868.0 | 2884.6 | 2906.0 | 2907.2 | 2892.9 |
| 35° | 2942.8 | 2948.8 | 2963.0 | 2977.2 | 3000.9 | 3025.9 | 3048.4 | 3059.0 | 3076.8 | 3078.1 | 3065.0 |
| 37.5° | 3216.9 | 3218.1 | 3227.5 | 3232.3 | 3253.7 | 3280.9 | 3302.3 | 3309.5 | 3326.0 | 3323.7 | 3310.6 |
| 40° | 3536.0 | 3542.0 | 3545.5 | 3552.7 | 3575.2 | 3601.3 | 3623.9 | 3627.5 | 3645.3 | 3641.7 | 3625.0 |
| 42.5° | 3905.1 | 3907.5 | 3927.6 | 3938.4 | 3959.7 | 3972.7 | 4001.3 | 4004.8 | 4026.1 | 4016.6 | 3997.7 |
| 45° | 4319.2 | 4340.6 | 4359.6 | 4380.9 | 4403.5 | 4418.9 | 4441.4 | 4436.7 | 4451.0 | 4436.7 | 4426.0 |
| 47.5° | 4754.7 | 4770.1 | 4812.9 | 4846.1 | 4882.9 | 4895.9 | 4928.0 | 4913.7 | 4928.0 | 4907.8 | 4904.2 |
| 50° | 5234.1 | 5261.4 | 5298.2 | 5336.1 | 5375.3 | 5396.7 | 5438.2 | 5420.4 | 5439.4 | 5420.4 | 5409.8 |
| 52.5° | 5706.3 | 5713.5 | 5794.2 | 5849.9 | 5904.6 | 5929.4 | 5954.4 | 5946.1 | 5947.2 | 5946.1 | 5935.4 |
| 55° | 6154.9 | 6171.6 | 6252.2 | 6328.2 | 6423.1 | 6493.1 | 6535.8 | 6531.0 | 6520.4 | 6509.8 | 6492.0 |
| 57.5° | 6660.4 | 6677.0 | 6769.6 | 6863.3 | 6971.3 | 7070.9 | 7157.6 | 7246.6 | 7281.0 | 7290.5 | 7251.3 |
| 60° | 7343.9 | 7342.7 | 7466.1 | 7580.1 | 7734.3 | 7882.7 | 8072.4 | 8265.9 | 8487.7 | 8591.0 | 8454.6 |
| 62.5° | 8039.3 | 8067.7 | 8245.7 | 8447.4 | 8765.5 | 9075.1 | 9425.2 | 9769.3 | 10120.6 | 10406.5 | 10102.8 |
| 65° | 7956.2 | 8065.4 | 8330.0 | 8786.8 | 9374.1 | 10071.9 | 10826.6 | 11625.1 | 12346.6 | 12842.6 | 12286.0 |
| 67.5° | 6895.3 | 7050.8 | 7320.1 | 7875.5 | 8610.0 | 9616.2 | 10883.5 | 12462.9 | 14298.6 | 15186.1 | 14086.1 |
| 70° | 4997.9 | 5173.6 | 5456.0 | 5998.3 | 6725.7 | 7682.1 | 9058.5 | 10954.7 | 13384.9 | 14279.6 | 13068.1 |
| 72.5° | 2487.1 | 2582.0 | 2756.4 | 3101.8 | 3652.3 | 4428.4 | 5676.7 | 7499.4 | 9649.5 | 10470.6 | 9363.5 |
| 75° | 844.9 | 888.7 | 918.4 | 1031.1 | 1205.5 | 1510.6 | 2131.1 | 3278.6 | 5001.5 | 5995.9 | 4930.3 |
| 77.5° | 487.7 | 488.9 | 509.0 | 529.3 | 558.9 | 592.1 | 675.1 | 886.4 | 1533.1 | 2177.5 | 1586.5 |
| 80° | 315.7 | 314.5 | 331.0 | 346.5 | 366.6 | 383.3 | 388.0 | 410.6 | 473.4 | 561.3 | 502.0 |
| 82.5° | 163.8 | 183.9 | 220.8 | 240.9 | 278.9 | 286.0 | 276.5 | 268.2 | 283.6 | 294.3 | 301.4 |
| 85° | 90.2 | 78.4 | 117.4 | 151.9 | 168.5 | 170.8 | 170.8 | 161.4 | 167.4 | 163.8 | 178.0 |
| 87.5° | 41.5 | 38.0 | 46.2 | 74.8 | 79.5 | 67.6 | 71.2 | 62.9 | 45.1 | 43.9 | 49.8 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|
| 0° | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 | 2571.4 |
| 2.5° | 2559.5 | 2560.7 | 2560.7 | 2564.2 | 2565.5 | 2567.8 | 2570.2 | 2571.4 |
| 5° | 2539.4 | 2542.9 | 2540.5 | 2544.1 | 2544.1 | 2546.4 | 2546.4 | 2547.7 |
| 7.5° | 2509.7 | 2513.2 | 2513.2 | 2513.2 | 2512.1 | 2515.6 | 2515.6 | 2515.6 |
| 10° | 2478.8 | 2481.2 | 2480.0 | 2477.6 | 2475.2 | 2478.8 | 2477.6 | 2476.5 |
| 12.5° | 2469.3 | 2463.4 | 2458.7 | 2456.3 | 2451.5 | 2452.7 | 2449.1 | 2449.1 |
| 15° | 2475.2 | 2464.6 | 2456.3 | 2452.7 | 2447.9 | 2445.6 | 2443.2 | 2444.4 |
| 17.5° | 2490.7 | 2477.6 | 2466.9 | 2461.0 | 2455.1 | 2451.5 | 2446.8 | 2447.9 |
| 20° | 2518.0 | 2502.5 | 2487.1 | 2475.2 | 2464.6 | 2458.7 | 2455.1 | 2453.9 |
| 22.5° | 2558.3 | 2535.8 | 2513.2 | 2495.4 | 2481.2 | 2472.9 | 2469.3 | 2466.9 |
| 25° | 2604.6 | 2579.7 | 2553.6 | 2533.4 | 2519.1 | 2508.5 | 2501.3 | 2501.3 |
| 27.5° | 2662.7 | 2642.6 | 2618.9 | 2595.1 | 2582.0 | 2571.4 | 2566.6 | 2564.2 |
| 30° | 2760.0 | 2741.1 | 2722.1 | 2699.6 | 2682.9 | 2672.3 | 2664.0 | 2656.8 |
| 32.5° | 2884.6 | 2869.2 | 2853.8 | 2837.2 | 2821.7 | 2807.5 | 2794.5 | 2788.6 |
| 35° | 3060.3 | 3048.4 | 3037.8 | 3018.7 | 3012.8 | 3004.5 | 2997.3 | 2991.4 |
| 37.5° | 3302.3 | 3297.6 | 3297.6 | 3277.4 | 3272.6 | 3269.0 | 3262.0 | 3263.1 |
| 40° | 3620.3 | 3625.0 | 3619.1 | 3612.0 | 3608.5 | 3598.9 | 3598.9 | 3607.2 |
| 42.5° | 3996.5 | 4000.0 | 4013.1 | 4001.3 | 4014.3 | 4002.4 | 3995.3 | 4001.3 |
| 45° | 4433.2 | 4446.2 | 4472.3 | 4460.5 | 4468.8 | 4448.6 | 4423.6 | 4424.9 |
| 47.5° | 4923.3 | 4935.1 | 4945.8 | 4937.5 | 4938.6 | 4905.5 | 4872.2 | 4863.9 |
| 50° | 5432.3 | 5437.0 | 5442.9 | 5431.1 | 5433.5 | 5396.7 | 5358.7 | 5359.9 |
| 52.5° | 5935.4 | 5958.0 | 5981.7 | 5949.6 | 5942.5 | 5901.0 | 5847.6 | 5826.2 |
| 55° | 6510.9 | 6542.9 | 6515.7 | 6459.8 | 6404.1 | 6348.3 | 6278.4 | 6266.5 |
| 57.5° | 7220.5 | 7165.9 | 7080.5 | 6974.9 | 6897.8 | 6819.4 | 6748.2 | 6718.5 |
| 60° | 8207.7 | 8002.4 | 7848.2 | 7691.6 | 7593.1 | 7497.0 | 7403.2 | 7389.0 |
| 62.5° | 9603.2 | 9248.4 | 8941.1 | 8617.1 | 8352.5 | 8146.1 | 7981.1 | 7934.8 |
| 65° | 11352.2 | 10513.3 | 9786.0 | 9107.2 | 8517.4 | 8072.4 | 7792.4 | 7669.1 |
| 67.5° | 12104.6 | 10448.0 | 9200.9 | 8237.4 | 7466.1 | 6927.4 | 6624.8 | 6474.2 |
| 70° | 10636.7 | 8664.6 | 7308.3 | 6343.6 | 5641.1 | 5066.8 | 4792.7 | 4631.3 |
| 72.5° | 7317.8 | 5511.8 | 4358.4 | 3557.4 | 2996.2 | 2515.6 | 2325.8 | 2311.5 |
| 75° | 3285.7 | 2176.2 | 1499.9 | 1155.7 | 973.0 | 846.1 | 806.9 | 777.2 |
| 77.5° | 919.6 | 680.0 | 606.4 | 567.2 | 529.3 | 485.3 | 468.7 | 472.3 |
| 80° | 447.3 | 422.5 | 405.8 | 380.9 | 346.5 | 309.7 | 293.1 | 300.2 |
| 82.5° | 296.7 | 293.1 | 303.8 | 286.0 | 236.1 | 200.5 | 168.5 | 154.3 |
| 85° | 180.3 | 182.7 | 186.3 | 187.5 | 159.0 | 111.5 | 75.9 | 85.4 |
| 87.5° | 71.2 | 81.8 | 89.0 | 92.6 | 86.6 | 53.4 | 42.8 | 43.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)