

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: P650164

Luminaire Tested: **GLAN-SA9A-835-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P650164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA9A-835-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23374.9 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

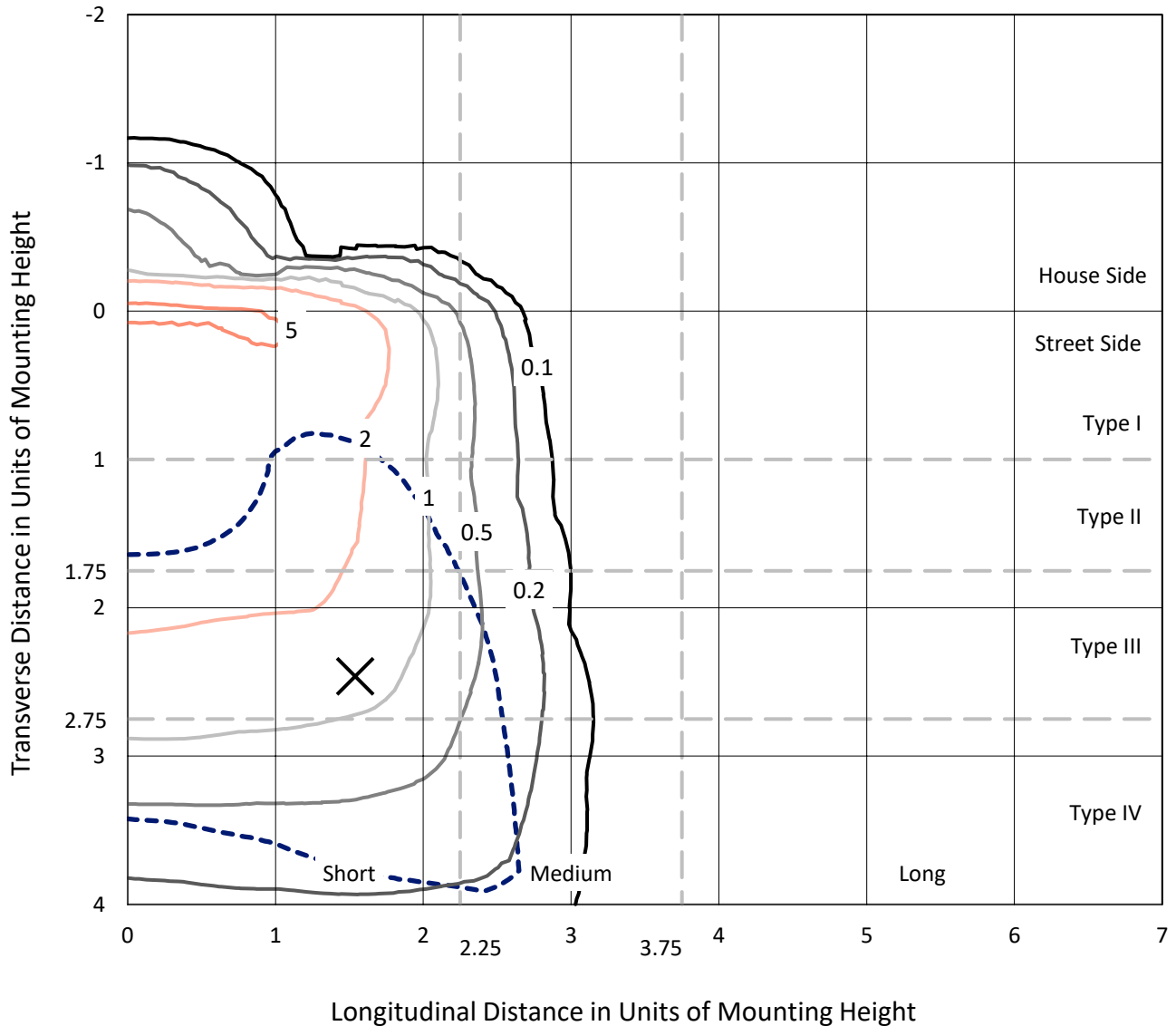
Input Watts (W): 274
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

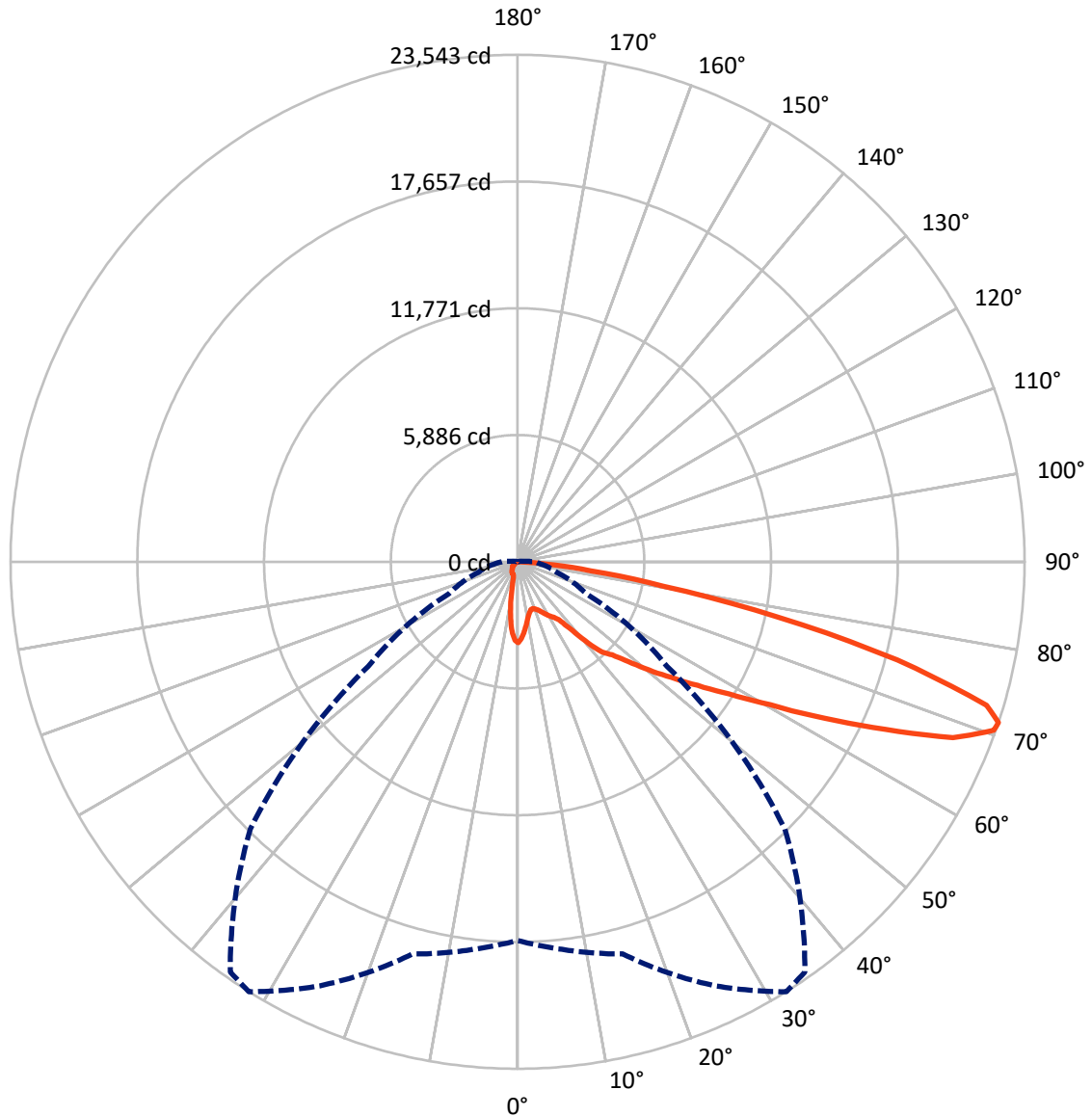
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1957.9 | 0.0 | 1957.9 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 21417.0 | 0.0 | 21417.0 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 23374.9 | 0.0 | 23374.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 305.7 | 1.3 |
| 10°-20° | 663.4 | 2.8 |
| 20°-30° | 1032.0 | 4.4 |
| 30°-40° | 1719.3 | 7.4 |
| 40°-50° | 3198.3 | 13.7 |
| 50°-60° | 5134.9 | 22.0 |
| 60°-70° | 6906.7 | 29.5 |
| 70°-80° | 4097.8 | 17.5 |
| 80°-90° | 316.8 | 1.4 |
| 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° | 23374.9 | 100.0 |
| 0°-180° | 23374.9 | 100.0 |

Coefficient of Utilization

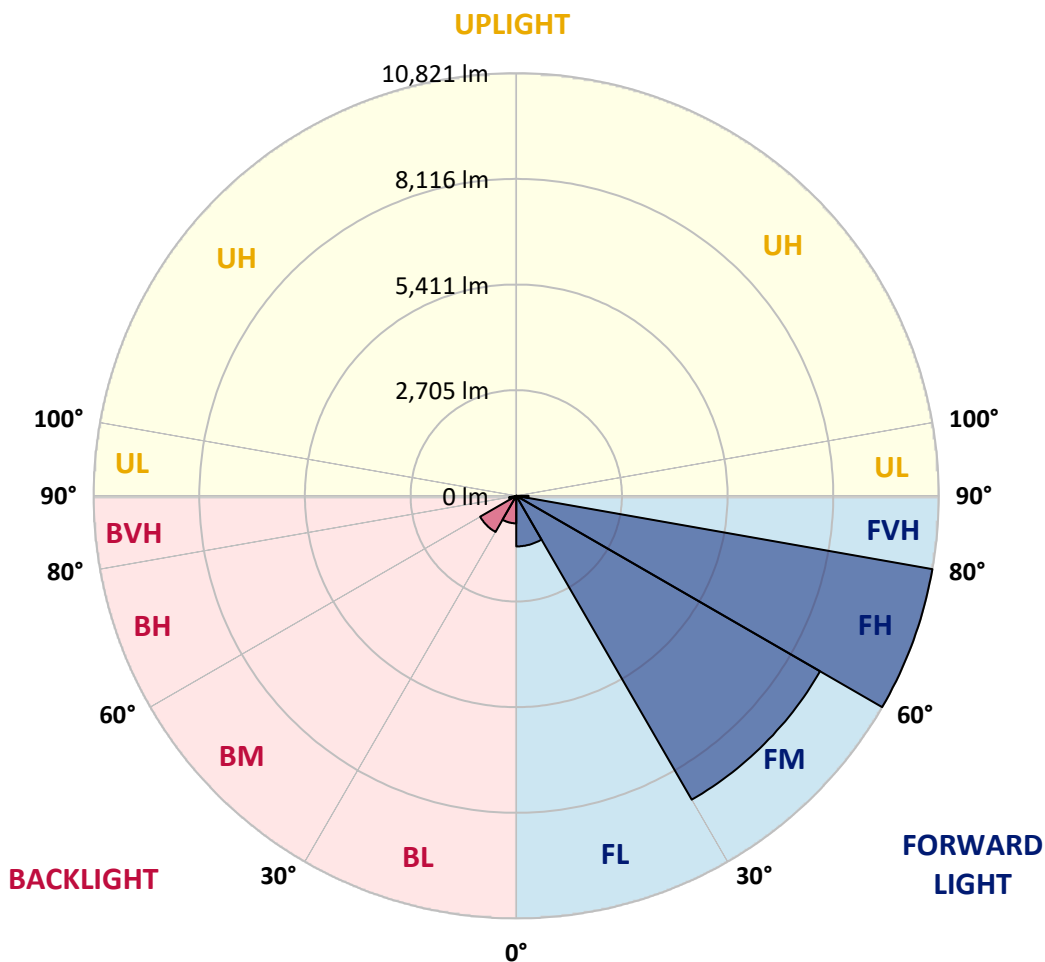


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1295.6 | 5.5 | | | |
| FM (30°-60°) | 8984.5 | 38.4 | | | |
| FH (60°-80°) | 10821.4 | 46.3 | | | G4/12000 |
| FVH (80°-90°) | 315.5 | 1.3 | | | G3/500 |
| BL (0°-30°) | 705.5 | 3.0 | B2/1000 | | |
| BM (30°-60°) | 1068.1 | 4.6 | B2/2500 | | |
| BH (60°-80°) | 183.1 | 0.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.2 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 |
| 2.5° | 3486.3 | 3522.2 | 3516.8 | 3529.4 | 3559.9 | 3572.4 | 3606.5 | 3644.2 | 3696.2 | 3732.2 | 3755.4 |
| 5° | 3122.1 | 3149.0 | 3152.6 | 3215.4 | 3245.8 | 3280.0 | 3380.4 | 3489.9 | 3611.9 | 3708.8 | 3773.4 |
| 7.5° | 2732.7 | 2747.1 | 2775.8 | 2858.3 | 2935.5 | 2969.5 | 3122.1 | 3312.2 | 3504.2 | 3685.5 | 3802.1 |
| 10° | 2411.6 | 2427.7 | 2479.7 | 2567.6 | 2639.4 | 2684.3 | 2896.0 | 3134.7 | 3403.8 | 3672.9 | 3843.4 |
| 12.5° | 2228.5 | 2237.5 | 2257.2 | 2336.2 | 2427.7 | 2476.2 | 2704.0 | 2976.7 | 3323.1 | 3678.3 | 3913.4 |
| 15° | 2216.0 | 2212.4 | 2189.0 | 2221.4 | 2303.9 | 2354.1 | 2576.6 | 2869.1 | 3251.3 | 3696.2 | 3995.9 |
| 17.5° | 2282.4 | 2273.4 | 2217.8 | 2217.8 | 2286.0 | 2327.2 | 2522.7 | 2811.7 | 3215.4 | 3737.5 | 4112.6 |
| 20° | 2384.6 | 2370.3 | 2278.8 | 2271.6 | 2338.0 | 2381.0 | 2555.1 | 2815.3 | 3222.6 | 3814.7 | 4268.6 |
| 22.5° | 2513.8 | 2497.7 | 2359.5 | 2363.1 | 2434.9 | 2478.0 | 2648.3 | 2879.9 | 3267.4 | 3909.8 | 4435.5 |
| 25° | 2682.5 | 2664.5 | 2501.2 | 2494.1 | 2569.4 | 2607.1 | 2786.5 | 2994.7 | 3330.2 | 4028.2 | 4654.4 |
| 27.5° | 2906.7 | 2869.1 | 2673.5 | 2662.7 | 2743.5 | 2791.9 | 2953.4 | 3149.0 | 3441.4 | 4191.5 | 4948.6 |
| 30° | 3091.6 | 3050.3 | 2863.7 | 2835.0 | 2921.1 | 2958.8 | 3125.7 | 3357.1 | 3660.4 | 4476.8 | 5356.0 |
| 32.5° | 3333.8 | 3272.8 | 3053.9 | 2978.5 | 3070.1 | 3118.5 | 3375.0 | 3744.7 | 3985.2 | 4778.2 | 5840.4 |
| 35° | 3879.3 | 3841.6 | 3574.2 | 3310.4 | 3305.1 | 3366.1 | 3742.9 | 4135.9 | 4318.9 | 5248.3 | 6500.7 |
| 37.5° | 4659.8 | 4632.9 | 4349.4 | 3995.9 | 3893.6 | 3864.9 | 4189.7 | 4566.5 | 4851.8 | 5894.3 | 7268.7 |
| 40° | 5565.9 | 5503.1 | 5243.0 | 4943.3 | 4810.5 | 4726.2 | 4717.2 | 5207.0 | 5547.9 | 6771.7 | 8069.0 |
| 42.5° | 6215.5 | 6100.6 | 5784.8 | 5763.3 | 5734.5 | 5646.7 | 5391.9 | 6143.7 | 6446.9 | 7715.4 | 8924.8 |
| 45° | 6897.3 | 6723.2 | 6253.1 | 6172.4 | 6161.6 | 6156.3 | 6411.0 | 7252.5 | 7426.6 | 8738.2 | 9804.0 |
| 47.5° | 7426.6 | 7288.4 | 6902.7 | 6866.8 | 6911.6 | 7033.6 | 7758.5 | 8429.6 | 8393.7 | 9649.7 | 10541.5 |
| 50° | 8131.8 | 8027.7 | 7598.9 | 7667.1 | 7898.5 | 8097.6 | 9278.3 | 9712.5 | 9188.6 | 10367.5 | 11078.0 |
| 52.5° | 8964.3 | 8772.3 | 8374.0 | 8558.8 | 8914.1 | 9246.0 | 10891.4 | 10835.8 | 9746.6 | 10907.5 | 11478.1 |
| 55° | 9685.6 | 9549.2 | 9412.9 | 9604.8 | 10136.0 | 10550.5 | 12348.4 | 11677.3 | 10152.1 | 11341.8 | 11653.9 |
| 57.5° | 10905.7 | 10873.4 | 10733.4 | 10929.0 | 11573.2 | 12003.9 | 13652.8 | 12330.4 | 10412.3 | 11567.8 | 11447.6 |
| 60° | 12710.8 | 12658.8 | 12398.6 | 12648.0 | 13487.7 | 14164.2 | 14855.0 | 12917.2 | 10471.5 | 11479.9 | 10853.7 |
| 62.5° | 14881.9 | 14704.3 | 14481.7 | 14849.6 | 16001.5 | 16299.4 | 15987.1 | 13265.2 | 10250.8 | 10780.1 | 9421.8 |
| 65° | 16909.4 | 16726.4 | 16731.8 | 17506.9 | 18761.1 | 18963.9 | 17307.7 | 13213.2 | 9604.8 | 9027.1 | 6949.3 |
| 67.5° | 18461.5 | 18431.0 | 18649.9 | 20162.5 | 21802.5 | 21662.6 | 18488.4 | 12434.4 | 7690.3 | 5851.2 | 3692.6 |
| 70° | 18540.4 | 18599.7 | 19227.7 | 21780.9 | 23446.1 | 23223.5 | 18388.0 | 10107.3 | 4794.4 | 2691.4 | 1455.2 |
| 71° | 17585.9 | 17984.3 | 18852.7 | 21730.7 | 23542.9 | 23254.1 | 17541.0 | 8465.5 | 3516.8 | 1876.9 | 1049.7 |
| 72.5° | 14986.0 | 15195.9 | 17072.7 | 20451.4 | 22776.8 | 22159.5 | 15393.2 | 5933.7 | 2251.8 | 1148.3 | 602.9 |
| 75° | 8253.8 | 8770.5 | 11433.3 | 16044.6 | 18217.5 | 17675.6 | 10031.9 | 2818.8 | 1123.2 | 628.0 | 249.4 |
| 77.5° | 3929.5 | 3829.0 | 5578.5 | 9542.0 | 12351.9 | 12323.2 | 5054.5 | 1252.4 | 654.9 | 425.2 | 125.6 |
| 80° | 1123.2 | 1263.2 | 2135.2 | 4536.0 | 6857.8 | 6933.2 | 1941.4 | 604.7 | 454.0 | 331.9 | 64.6 |
| 82.5° | 339.1 | 346.3 | 784.1 | 2006.0 | 3411.0 | 3215.4 | 728.5 | 308.6 | 326.6 | 263.8 | 37.7 |
| 85° | 59.2 | 73.6 | 231.5 | 707.0 | 1300.9 | 986.9 | 183.0 | 147.1 | 215.3 | 174.1 | 21.5 |
| 87.5° | 3.6 | 5.4 | 77.1 | 80.7 | 114.9 | 66.4 | 32.3 | 21.5 | 46.7 | 46.7 | 12.5 |
| 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° | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 | 3759.0 |
| 2.5° | 3771.6 | 3782.4 | 3775.2 | 3759.0 | 3732.2 | 3699.8 | 3656.8 | 3620.9 | 3590.4 | 3574.2 | 3594.0 |
| 5° | 3795.0 | 3809.3 | 3773.4 | 3692.6 | 3570.6 | 3437.8 | 3287.1 | 3170.5 | 3079.0 | 3050.3 | 3039.5 |
| 7.5° | 3830.8 | 3839.8 | 3742.9 | 3563.4 | 3305.1 | 2991.1 | 2716.5 | 2485.1 | 2305.7 | 2251.8 | 2172.9 |
| 10° | 3877.5 | 3872.1 | 3689.1 | 3355.3 | 2901.4 | 2429.5 | 2004.2 | 1688.5 | 1449.8 | 1363.7 | 1356.5 |
| 12.5° | 3949.2 | 3920.6 | 3620.9 | 3071.9 | 2420.5 | 1803.2 | 1277.5 | 999.4 | 848.7 | 798.4 | 787.7 |
| 15° | 4038.9 | 3970.7 | 3513.2 | 2739.9 | 1853.5 | 1164.5 | 787.7 | 703.4 | 683.6 | 680.0 | 676.4 |
| 17.5° | 4144.8 | 4037.1 | 3371.5 | 2332.6 | 1302.7 | 755.4 | 658.5 | 656.7 | 658.5 | 654.9 | 653.1 |
| 20° | 4288.3 | 4107.1 | 3202.8 | 1849.9 | 861.3 | 637.0 | 628.0 | 628.0 | 629.8 | 628.0 | 628.0 |
| 22.5° | 4440.9 | 4189.7 | 2994.7 | 1412.1 | 649.5 | 604.7 | 602.9 | 606.4 | 610.0 | 608.2 | 608.2 |
| 25° | 4629.3 | 4297.3 | 2720.1 | 967.2 | 581.4 | 577.8 | 579.6 | 586.7 | 593.9 | 595.7 | 593.9 |
| 27.5° | 4902.0 | 4430.1 | 2425.9 | 665.7 | 532.9 | 536.5 | 554.4 | 572.4 | 583.2 | 585.0 | 585.0 |
| 30° | 5208.8 | 4577.3 | 2041.9 | 540.1 | 493.4 | 493.4 | 515.0 | 549.0 | 572.4 | 576.0 | 577.8 |
| 32.5° | 5603.6 | 4747.7 | 1616.7 | 486.2 | 455.8 | 452.2 | 471.9 | 513.2 | 556.2 | 568.8 | 568.8 |
| 35° | 6091.7 | 4948.6 | 1202.1 | 452.2 | 428.8 | 419.8 | 430.6 | 464.7 | 520.4 | 556.2 | 559.8 |
| 37.5° | 6664.0 | 5138.8 | 879.2 | 421.6 | 403.7 | 391.2 | 398.3 | 425.2 | 470.1 | 523.9 | 538.3 |
| 40° | 7193.3 | 5307.5 | 656.7 | 396.5 | 378.6 | 369.7 | 375.0 | 387.6 | 425.2 | 475.5 | 484.4 |
| 42.5° | 7771.1 | 5438.5 | 522.1 | 369.7 | 353.4 | 349.9 | 349.9 | 355.2 | 380.4 | 409.1 | 410.9 |
| 45° | 8347.1 | 5485.1 | 437.8 | 337.3 | 326.6 | 330.1 | 328.4 | 324.8 | 335.5 | 331.9 | 331.9 |
| 47.5° | 8757.9 | 5429.6 | 362.5 | 306.9 | 306.9 | 312.2 | 303.3 | 290.6 | 285.3 | 263.8 | 265.6 |
| 50° | 9039.7 | 5226.8 | 297.9 | 270.9 | 285.3 | 292.5 | 274.5 | 254.8 | 235.1 | 211.7 | 206.3 |
| 52.5° | 9156.3 | 4866.1 | 244.1 | 224.3 | 253.0 | 262.0 | 240.5 | 217.1 | 186.6 | 166.9 | 161.5 |
| 55° | 9080.9 | 4421.1 | 202.7 | 183.0 | 213.5 | 224.3 | 202.7 | 175.9 | 141.7 | 120.2 | 116.7 |
| 57.5° | 8749.0 | 3890.0 | 172.3 | 145.3 | 170.5 | 177.7 | 163.3 | 134.6 | 100.5 | 78.9 | 78.9 |
| 60° | 8174.8 | 3341.0 | 139.9 | 114.9 | 127.4 | 138.2 | 123.8 | 96.9 | 68.2 | 48.5 | 44.9 |
| 62.5° | 7010.3 | 2712.9 | 113.1 | 89.7 | 89.7 | 98.7 | 86.1 | 70.0 | 43.1 | 25.1 | 23.3 |
| 65° | 5061.7 | 1860.7 | 89.7 | 66.4 | 64.6 | 64.6 | 53.8 | 46.7 | 25.1 | 10.7 | 7.2 |
| 67.5° | 2750.7 | 1049.7 | 71.8 | 50.3 | 44.9 | 43.1 | 34.1 | 26.9 | 10.7 | 1.8 | 0.0 |
| 70° | 1081.9 | 403.7 | 55.6 | 34.1 | 28.7 | 26.9 | 17.9 | 12.5 | 7.2 | 0.0 | 0.0 |
| 71° | 733.9 | 278.1 | 48.5 | 28.7 | 23.3 | 19.7 | 14.3 | 10.7 | 5.4 | 0.0 | 0.0 |
| 72.5° | 419.8 | 172.3 | 37.7 | 21.5 | 17.9 | 14.3 | 10.7 | 7.2 | 5.4 | 0.0 | 0.0 |
| 75° | 183.0 | 87.9 | 23.3 | 16.1 | 12.5 | 9.0 | 7.2 | 5.4 | 1.8 | 0.0 | 0.0 |
| 77.5° | 93.3 | 48.5 | 16.1 | 12.5 | 7.2 | 5.4 | 3.6 | 1.8 | 0.0 | 0.0 | 0.0 |
| 80° | 52.1 | 25.1 | 10.7 | 7.2 | 5.4 | 3.6 | 1.8 | 1.8 | 0.0 | 0.0 | 0.0 |
| 82.5° | 28.7 | 14.3 | 5.4 | 3.6 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 17.9 | 9.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 9.0 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 1.8 | 0.0 | 0.0 | 0.0 |
| 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)