

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: P458314

Luminaire Tested: **GLAN-SA9D-727-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458314
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA9D-727-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 59225 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

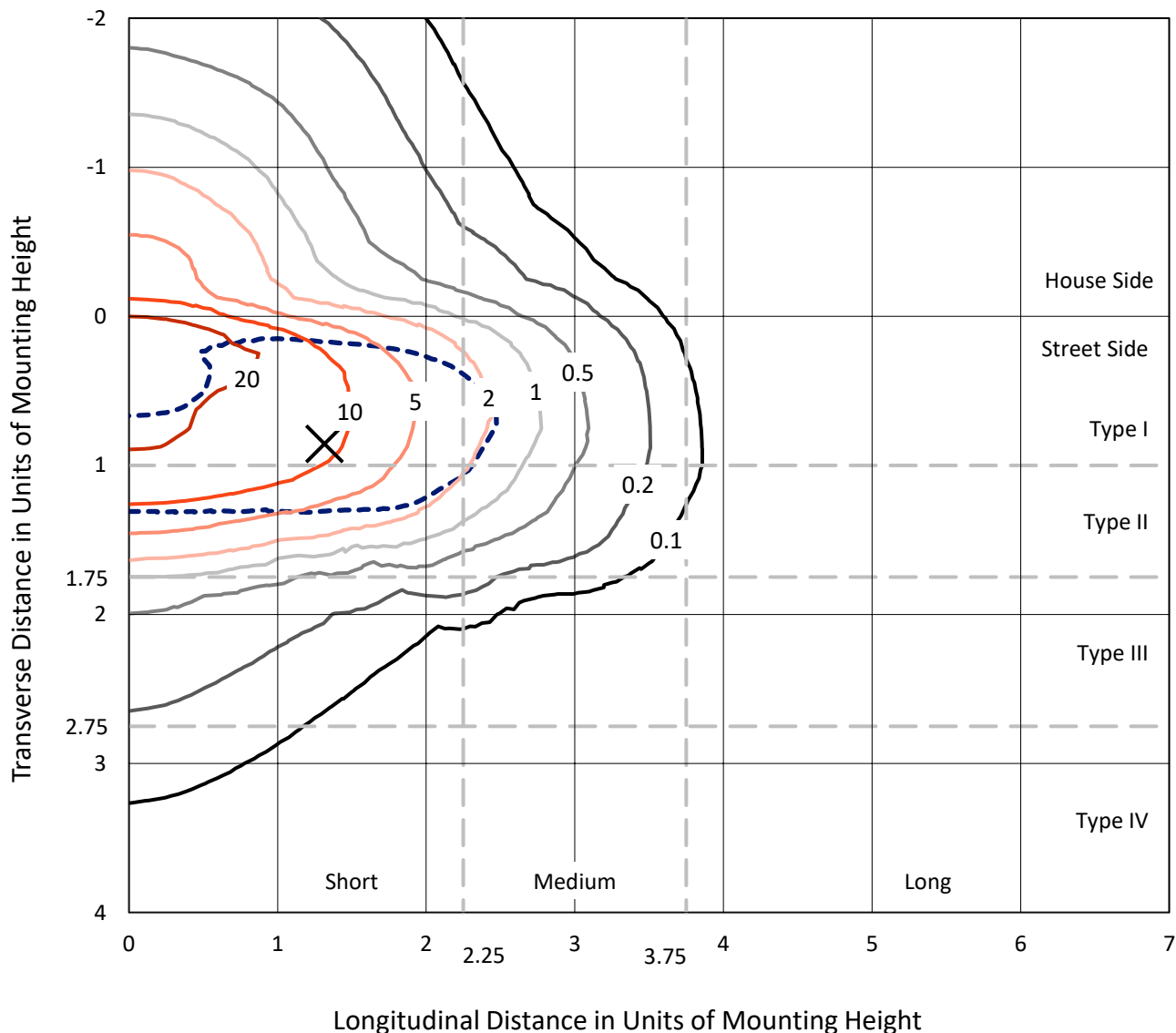
Input Watts (W): 552
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

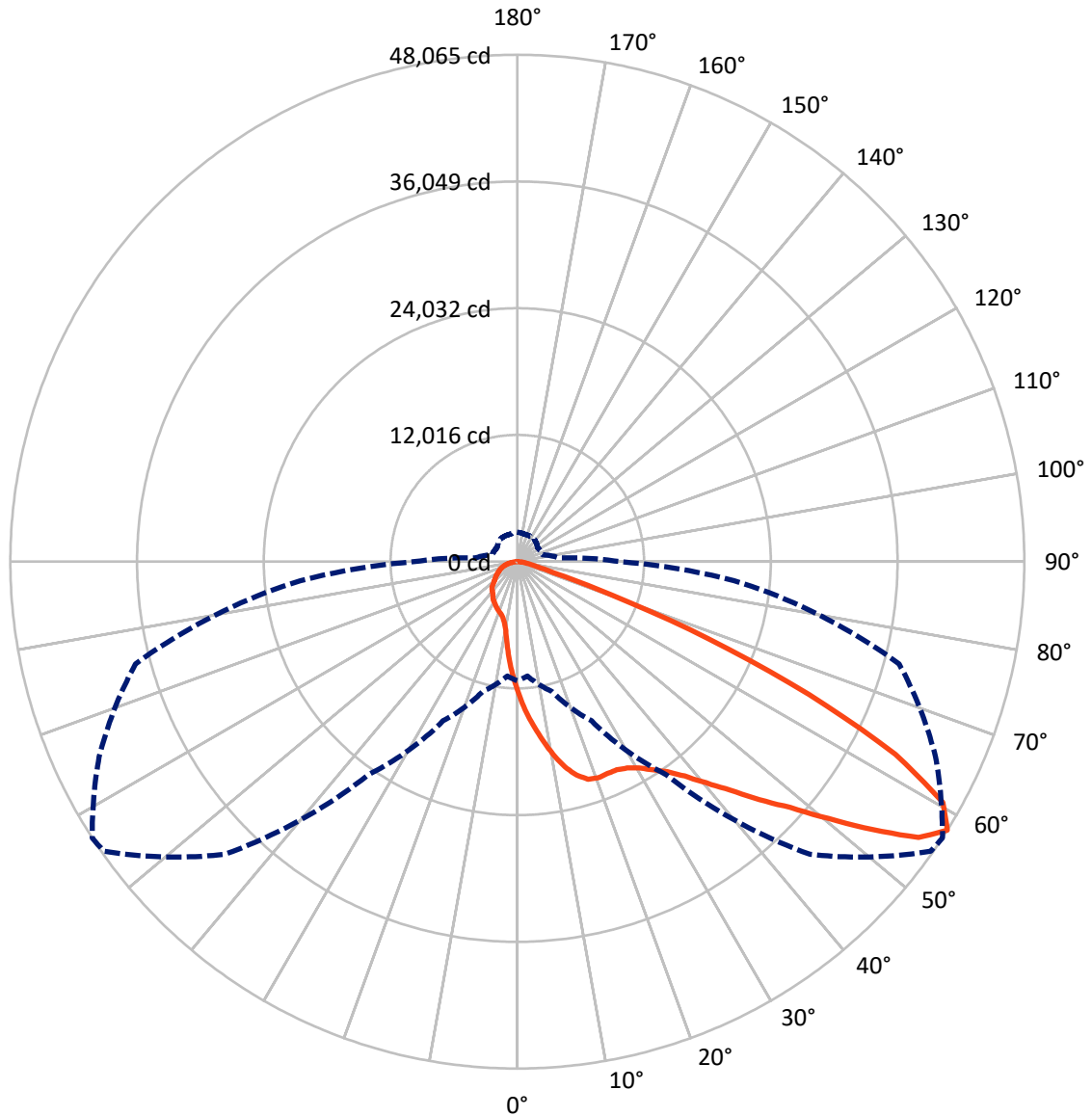
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 30.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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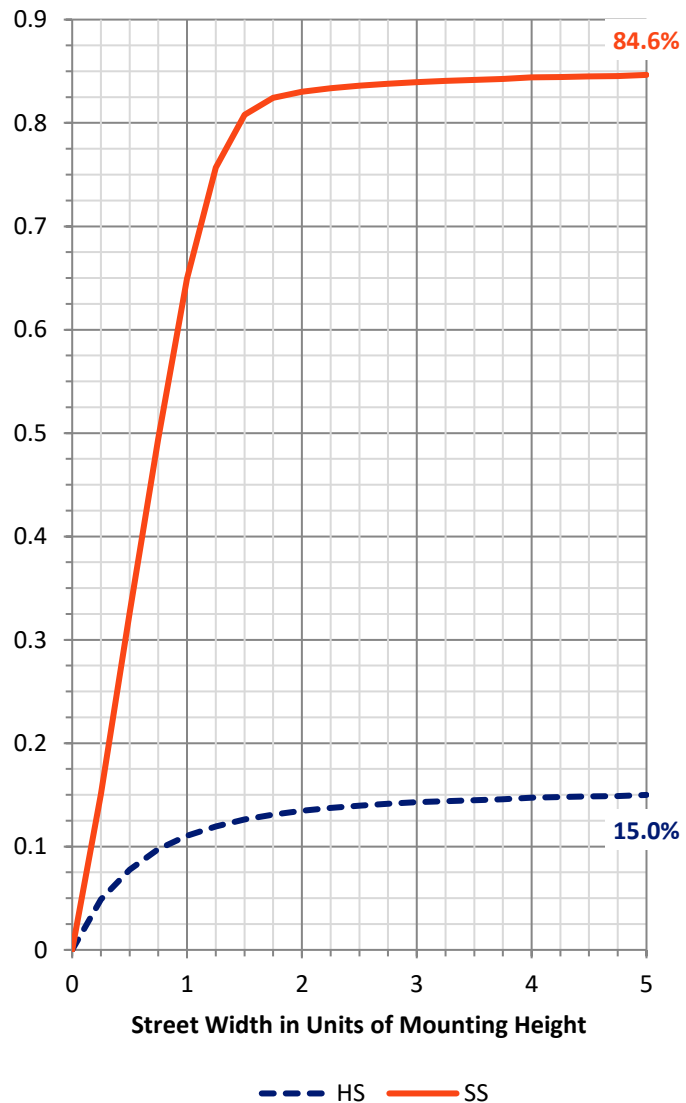
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9006.5 | 0.0 | 9006.5 |
| | % Fixture | 15.2 | 0.0 | 15.2 |
| Street Side | Lumens | 50218.5 | 0.0 | 50218.5 |
| | % Fixture | 84.8 | 0.0 | 84.8 |
| Total | Lumens | 59225.0 | 0.0 | 59225.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1195.8 | 2.0 |
| 10°-20° | 3524.2 | 6.0 |
| 20°-30° | 5852.0 | 9.9 |
| 30°-40° | 8814.9 | 14.9 |
| 40°-50° | 13234.7 | 22.3 |
| 50°-60° | 14834.4 | 25.0 |
| 60°-70° | 8681.8 | 14.7 |
| 70°-80° | 2568.0 | 4.3 |
| 80°-90° | 519.1 | 0.9 |
| 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° | 59225.0 | 100.0 |
| 0°-180° | 59225.0 | 100.0 |



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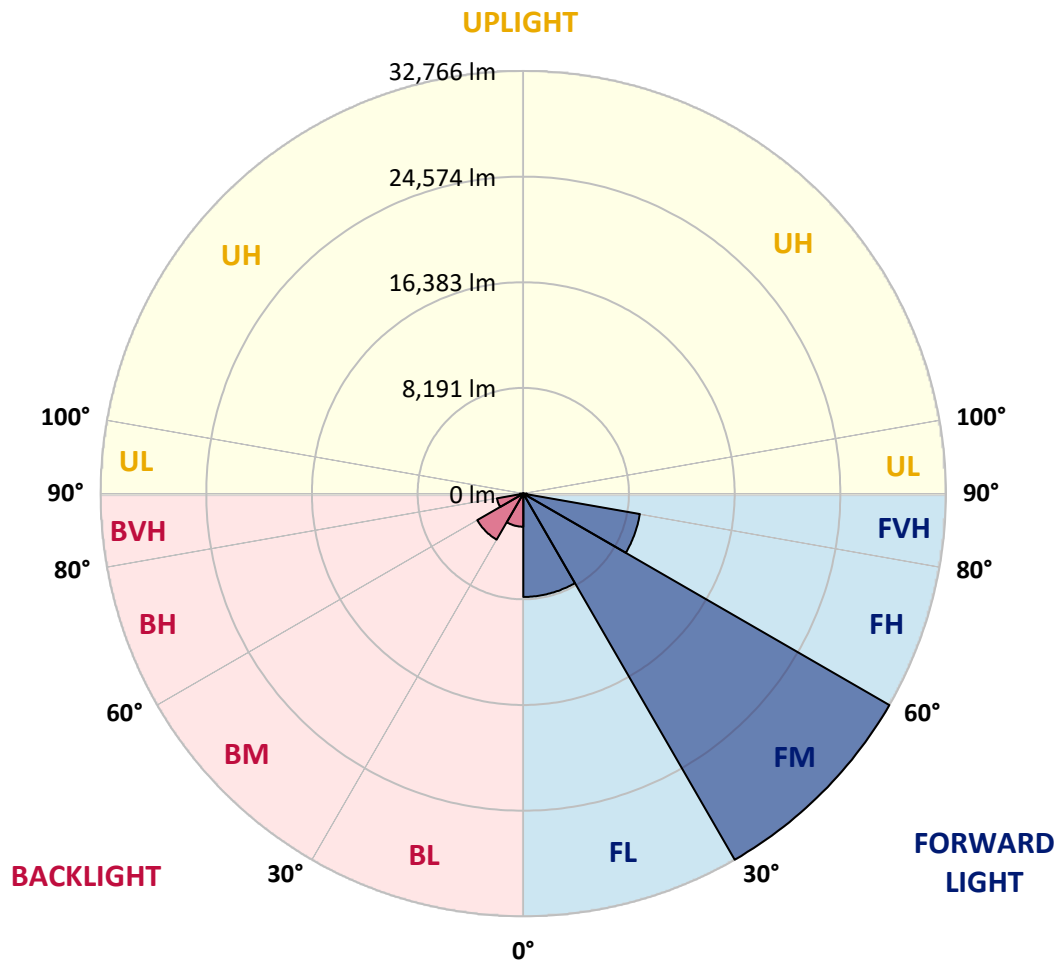
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 8005.9 | 13.5 | | | |
| FM | (30°-60°) | 32765.9 | 55.3 | | | |
| FH | (60°-80°) | 9177.5 | 15.5 | | | G4/12000 |
| FVH | (80°-90°) | 269.3 | 0.5 | | | G3/500 |
| BL | (0°-30°) | 2566.3 | 4.3 | B4/5000 | | |
| BM | (30°-60°) | 4118.1 | 7.0 | B3/5000 | | |
| BH | (60°-80°) | 2072.3 | 3.5 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 249.7 | 0.4 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 57° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 |
| 2.5° | 15460.7 | 15292.1 | 15159.2 | 15042.5 | 14890.1 | 14478.4 | 14066.7 | 14060.2 | 13732.8 | 13227.0 | 12708.3 |
| 5° | 17979.7 | 17752.8 | 17781.9 | 17418.8 | 17055.7 | 16459.2 | 15587.2 | 15541.8 | 14844.8 | 13898.1 | 12935.3 |
| 7.5° | 19620.1 | 19623.4 | 19532.6 | 19325.1 | 18932.8 | 18255.3 | 17266.5 | 17042.8 | 16073.4 | 14637.3 | 13194.6 |
| 10° | 19535.8 | 19623.4 | 19775.7 | 19954.0 | 20074.0 | 19740.1 | 18838.8 | 18566.5 | 17305.4 | 15532.0 | 13483.2 |
| 12.5° | 18414.1 | 18550.3 | 18767.5 | 19214.9 | 19937.8 | 20488.9 | 20181.0 | 19960.5 | 18731.8 | 16423.6 | 13800.9 |
| 15° | 17713.9 | 17794.9 | 17914.9 | 18216.4 | 18994.4 | 20313.9 | 21111.4 | 20994.7 | 20077.2 | 17431.8 | 14157.5 |
| 17.5° | 17499.9 | 17580.9 | 17619.8 | 17804.6 | 18359.0 | 19710.9 | 21477.7 | 21685.2 | 21270.2 | 18359.0 | 14517.3 |
| 20° | 17713.9 | 17752.8 | 17752.8 | 17863.0 | 18297.4 | 19357.5 | 21461.5 | 21879.7 | 22249.3 | 19471.0 | 14854.5 |
| 22.5° | 18274.7 | 18290.9 | 18268.2 | 18307.1 | 18631.3 | 19454.8 | 21309.1 | 21827.9 | 23040.3 | 20414.4 | 15117.1 |
| 25° | 19185.7 | 19211.6 | 19062.5 | 18971.7 | 19208.4 | 19882.7 | 21393.4 | 21870.0 | 23659.5 | 21315.6 | 15292.1 |
| 27.5° | 20219.9 | 20252.3 | 20070.7 | 19860.0 | 19970.2 | 20411.1 | 21724.1 | 22152.0 | 24123.1 | 22203.9 | 15402.4 |
| 30° | 21487.5 | 21500.4 | 21195.7 | 20942.8 | 20871.5 | 21198.9 | 22288.2 | 22687.0 | 24700.2 | 23251.1 | 15567.7 |
| 32.5° | 22784.2 | 22881.5 | 22489.2 | 22132.6 | 22012.6 | 22113.1 | 23121.4 | 23507.2 | 25387.5 | 24376.0 | 15833.5 |
| 35° | 24547.8 | 24564.0 | 24094.0 | 23659.5 | 23264.0 | 23393.7 | 24188.0 | 24466.8 | 26337.4 | 25676.0 | 16209.6 |
| 37.5° | 26749.1 | 26898.2 | 26249.8 | 25439.4 | 24953.1 | 24765.0 | 25478.3 | 25783.0 | 27669.8 | 27271.0 | 16776.9 |
| 40° | 29193.5 | 29248.6 | 28694.2 | 28188.5 | 27300.2 | 26755.6 | 27248.4 | 27579.0 | 29313.5 | 29174.1 | 17435.1 |
| 42.5° | 30730.2 | 30850.1 | 30892.3 | 30840.4 | 30172.6 | 29258.3 | 29446.4 | 29602.0 | 31258.6 | 30960.4 | 18109.4 |
| 45° | 31248.9 | 31427.2 | 32030.2 | 33307.5 | 33378.8 | 32477.6 | 32039.9 | 32189.0 | 33378.8 | 32762.9 | 18754.5 |
| 47.5° | 30389.8 | 30694.5 | 31806.5 | 34426.0 | 36387.3 | 36455.4 | 35135.9 | 34808.5 | 35311.0 | 34257.4 | 19221.4 |
| 50° | 28169.1 | 28233.9 | 29935.9 | 33729.0 | 37797.6 | 40258.2 | 38893.3 | 38283.9 | 37145.9 | 35362.9 | 19542.3 |
| 52.5° | 24732.6 | 24807.2 | 26233.6 | 30490.3 | 36928.7 | 42916.6 | 43289.4 | 42200.1 | 39010.0 | 36222.0 | 19753.0 |
| 55° | 18359.0 | 18790.2 | 20359.3 | 24473.3 | 32811.5 | 42666.9 | 46784.2 | 46165.0 | 41263.2 | 36902.8 | 20083.7 |
| 57.5° | 11288.4 | 10892.9 | 12753.7 | 16650.5 | 24677.5 | 39237.0 | 47863.7 | 48064.7 | 43743.2 | 37473.4 | 20638.1 |
| 60° | 5193.6 | 5271.4 | 6039.7 | 8587.9 | 15042.5 | 30694.5 | 45082.2 | 46353.0 | 45114.6 | 37453.9 | 20777.5 |
| 62.5° | 3579.1 | 3507.8 | 3313.2 | 3770.4 | 6859.9 | 19412.6 | 38079.6 | 40232.2 | 42365.4 | 36290.1 | 20223.1 |
| 65° | 3199.8 | 3128.5 | 2752.4 | 2626.0 | 3151.1 | 8461.4 | 27682.8 | 30399.5 | 35670.9 | 33352.9 | 18842.0 |
| 67.5° | 2989.1 | 2891.8 | 2502.8 | 2256.4 | 2249.9 | 3368.4 | 16323.1 | 19594.2 | 26457.3 | 28198.2 | 16326.3 |
| 70° | 2768.6 | 2690.8 | 2305.0 | 2032.7 | 1916.0 | 2117.0 | 7174.4 | 9391.8 | 17178.9 | 20320.4 | 12718.1 |
| 72.5° | 2548.2 | 2457.4 | 2110.5 | 1818.7 | 1666.3 | 1585.3 | 2749.1 | 3575.8 | 9706.3 | 12183.1 | 7796.8 |
| 75° | 2227.2 | 2181.8 | 1886.8 | 1646.9 | 1481.6 | 1280.6 | 1744.2 | 1990.5 | 4642.4 | 5595.6 | 3913.0 |
| 77.5° | 1948.4 | 1899.8 | 1676.1 | 1439.4 | 1319.5 | 1040.7 | 1238.4 | 1351.9 | 1958.1 | 2269.3 | 1766.8 |
| 80° | 1426.4 | 1475.1 | 1413.5 | 1270.8 | 1176.8 | 817.0 | 833.2 | 927.2 | 1163.8 | 1287.0 | 1079.6 |
| 82.5° | 904.5 | 995.3 | 1089.3 | 979.1 | 891.5 | 645.1 | 577.1 | 612.7 | 794.3 | 842.9 | 479.8 |
| 85° | 379.3 | 385.8 | 632.2 | 596.5 | 509.0 | 382.5 | 346.9 | 366.3 | 424.7 | 444.1 | 223.7 |
| 87.5° | 145.9 | 142.6 | 223.7 | 207.5 | 158.9 | 110.2 | 110.2 | 123.2 | 168.6 | 155.6 | 71.3 |
| 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° | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 | 12442.5 |
| 2.5° | 12484.6 | 12254.5 | 11797.4 | 11230.0 | 10815.1 | 10348.2 | 9936.5 | 9641.5 | 9531.2 | 9479.4 | 9382.1 |
| 5° | 12474.9 | 12021.0 | 11074.4 | 10082.4 | 9284.9 | 8467.9 | 7777.4 | 7330.0 | 7291.1 | 6992.8 | 6963.6 |
| 7.5° | 12478.2 | 11784.4 | 10276.9 | 8818.0 | 7602.3 | 6765.9 | 6195.3 | 6046.2 | 5867.9 | 5822.5 | 5845.2 |
| 10° | 12487.9 | 11482.9 | 9421.0 | 7566.6 | 6389.8 | 5841.9 | 5628.0 | 5569.6 | 5576.1 | 5595.6 | 5598.8 |
| 12.5° | 12500.8 | 11191.1 | 8532.7 | 6616.8 | 5709.0 | 5482.1 | 5459.4 | 5511.3 | 5566.4 | 5608.5 | 5618.2 |
| 15° | 12517.1 | 10857.2 | 7667.1 | 5851.7 | 5368.6 | 5349.2 | 5423.7 | 5511.3 | 5589.1 | 5650.7 | 5660.4 |
| 17.5° | 12497.6 | 10468.2 | 6941.0 | 5381.6 | 5180.6 | 5274.6 | 5397.8 | 5508.0 | 5579.3 | 5637.7 | 5644.2 |
| 20° | 12452.2 | 10033.7 | 6240.7 | 5050.9 | 5063.9 | 5216.3 | 5349.2 | 5452.9 | 5530.7 | 5559.9 | 5582.6 |
| 22.5° | 12277.2 | 9515.0 | 5631.2 | 4794.8 | 4924.5 | 5135.2 | 5294.1 | 5355.7 | 5268.1 | 5206.5 | 5222.7 |
| 25° | 11978.9 | 8840.7 | 5063.9 | 4587.3 | 4798.0 | 5021.7 | 5183.8 | 5034.7 | 4963.4 | 4937.4 | 4950.4 |
| 27.5° | 11606.1 | 8101.6 | 4635.9 | 4370.1 | 4635.9 | 4895.3 | 4849.9 | 4824.0 | 4791.6 | 4749.4 | 4759.1 |
| 30° | 11204.1 | 7378.6 | 4272.9 | 4201.5 | 4460.9 | 4610.0 | 4629.5 | 4671.6 | 4635.9 | 4571.1 | 4597.0 |
| 32.5° | 10831.3 | 6697.8 | 3997.3 | 4058.9 | 4337.7 | 4315.0 | 4460.9 | 4509.5 | 4344.2 | 4127.0 | 4136.7 |
| 35° | 10513.6 | 6065.6 | 3789.8 | 3919.5 | 4127.0 | 4136.7 | 4282.6 | 4114.0 | 3935.7 | 3832.0 | 3838.4 |
| 37.5° | 10273.6 | 5572.9 | 3653.6 | 3799.5 | 3857.9 | 3981.1 | 3903.3 | 3815.7 | 3793.0 | 3721.7 | 3725.0 |
| 40° | 10131.0 | 5141.7 | 3566.1 | 3705.5 | 3695.8 | 3780.1 | 3530.5 | 3618.0 | 3650.4 | 3627.7 | 3631.0 |
| 42.5° | 9988.4 | 4836.9 | 3475.3 | 3575.8 | 3572.6 | 3407.3 | 3352.1 | 3426.7 | 3511.0 | 3520.7 | 3514.2 |
| 45° | 9874.9 | 4600.3 | 3381.3 | 3378.1 | 3442.9 | 3183.6 | 3167.4 | 3212.7 | 3332.7 | 3391.0 | 3387.8 |
| 47.5° | 9748.5 | 4402.5 | 3238.7 | 3147.9 | 3167.4 | 3044.2 | 3018.2 | 3037.7 | 3183.6 | 3277.6 | 3303.5 |
| 50° | 9589.6 | 4204.8 | 3060.4 | 2937.2 | 2856.1 | 2914.5 | 2921.0 | 2924.2 | 3070.1 | 3177.1 | 3199.8 |
| 52.5° | 9463.2 | 4055.6 | 2856.1 | 2765.4 | 2668.1 | 2797.8 | 2846.4 | 2852.9 | 2940.4 | 3028.0 | 3044.2 |
| 55° | 9537.7 | 3971.4 | 2655.1 | 2590.3 | 2502.8 | 2677.8 | 2771.8 | 2784.8 | 2804.3 | 2869.1 | 2878.8 |
| 57.5° | 9761.4 | 3990.8 | 2493.0 | 2408.7 | 2343.9 | 2535.2 | 2694.0 | 2703.8 | 2690.8 | 2768.6 | 2781.6 |
| 60° | 9829.5 | 3981.1 | 2373.1 | 2207.7 | 2168.8 | 2382.8 | 2580.6 | 2600.0 | 2596.8 | 2710.2 | 2732.9 |
| 62.5° | 9544.2 | 3857.9 | 2253.1 | 2039.2 | 2013.2 | 2227.2 | 2421.7 | 2499.5 | 2515.7 | 2677.8 | 2707.0 |
| 65° | 8873.1 | 3605.0 | 2094.3 | 1860.9 | 1860.9 | 2061.9 | 2269.3 | 2376.3 | 2421.7 | 2638.9 | 2671.3 |
| 67.5° | 7988.1 | 3306.8 | 1932.2 | 1708.5 | 1702.0 | 1903.0 | 2107.2 | 2217.5 | 2288.8 | 2583.8 | 2603.3 |
| 70° | 6629.7 | 2904.8 | 1731.2 | 1543.2 | 1543.2 | 1724.7 | 1909.5 | 2042.4 | 2146.2 | 2480.1 | 2480.1 |
| 72.5° | 4541.9 | 2415.2 | 1488.0 | 1355.1 | 1358.4 | 1526.9 | 1715.0 | 1864.1 | 1987.3 | 2272.6 | 2279.1 |
| 75° | 2872.3 | 1886.8 | 1222.2 | 1154.1 | 1167.1 | 1325.9 | 1520.5 | 1676.1 | 1922.5 | 2246.7 | 2256.4 |
| 77.5° | 1526.9 | 1325.9 | 972.6 | 956.4 | 972.6 | 1118.5 | 1335.7 | 1549.6 | 1928.9 | 1948.4 | 1916.0 |
| 80° | 988.8 | 940.2 | 768.3 | 735.9 | 742.4 | 901.3 | 1189.8 | 1471.8 | 1549.6 | 1569.1 | 1497.8 |
| 82.5° | 538.2 | 596.5 | 544.6 | 512.2 | 512.2 | 703.5 | 1014.7 | 1170.3 | 1112.0 | 923.9 | 881.8 |
| 85° | 230.2 | 278.8 | 282.0 | 246.4 | 236.7 | 434.4 | 680.8 | 638.7 | 593.3 | 567.3 | 560.9 |
| 87.5° | 64.8 | 90.8 | 90.8 | 68.1 | 51.9 | 120.0 | 136.2 | 38.9 | 0.0 | 3.2 | 6.5 |
| 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)