

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: P301198

Luminaire Tested: **GAA-AF-10-LED-U-T3R-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301198
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-10-LED-U-T3R-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48495.3 lumens
Efficiency: N/A
Efficacy: 115.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

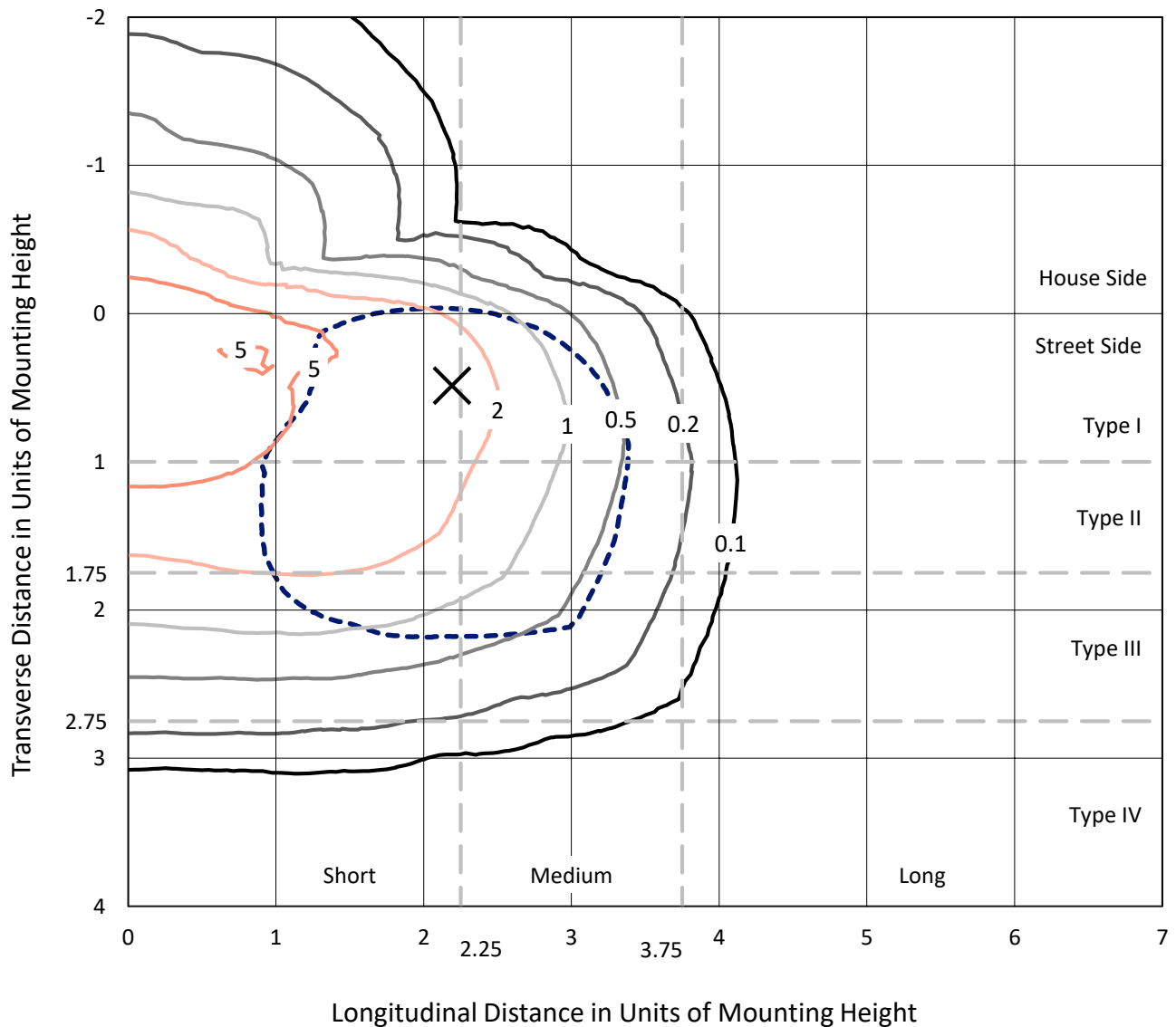
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

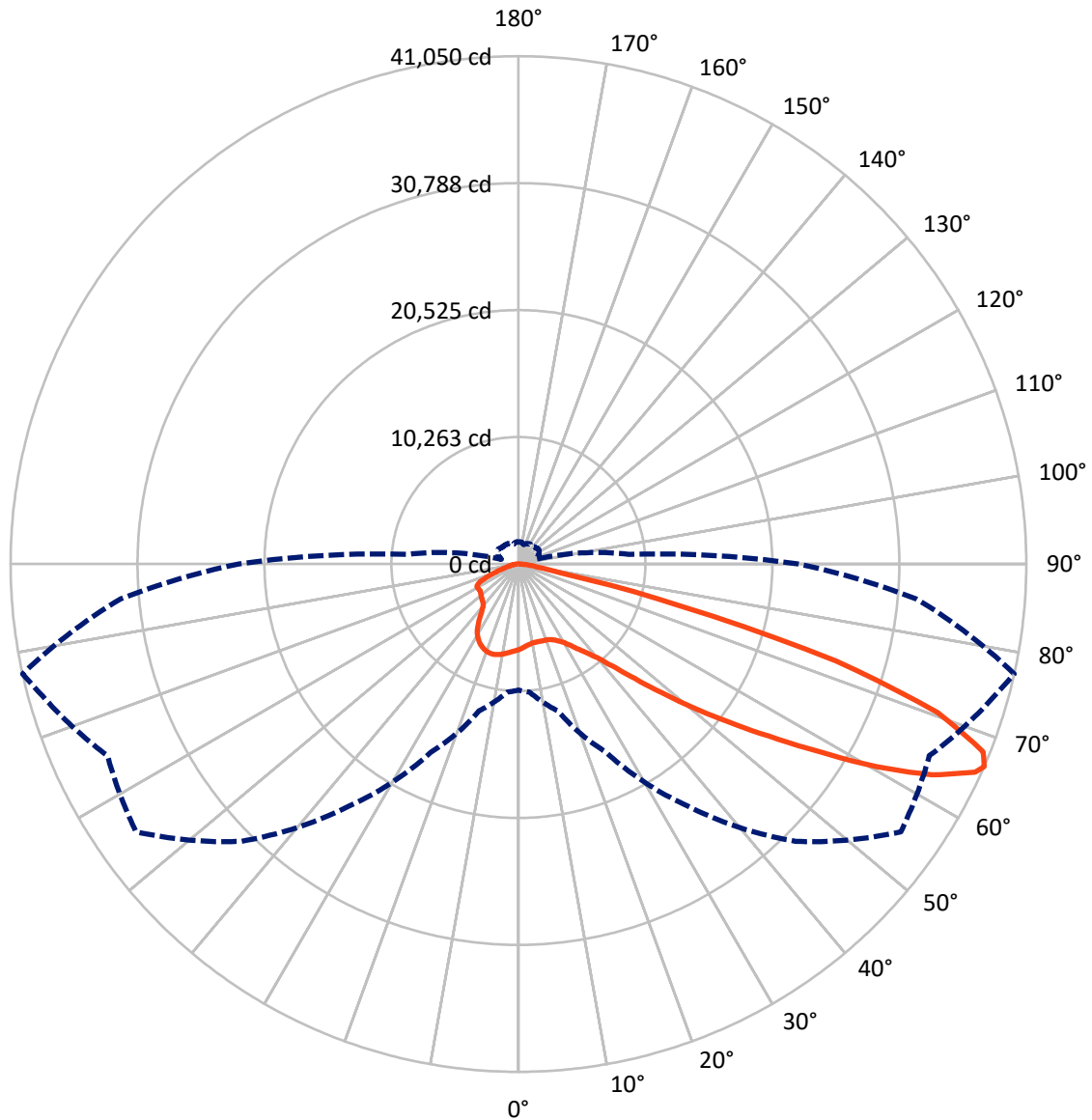
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.5 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8285.1 | 0.0 | 8285.1 |
| | % Fixture | 17.1 | 0.0 | 17.1 |
| Street Side | Lumens | 40210.1 | 0.0 | 40210.1 |
| | % Fixture | 82.9 | 0.0 | 82.9 |
| Total | Lumens | 48495.3 | 0.0 | 48495.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 617.4 | 1.3 |
| 10°-20° | 1741.9 | 3.6 |
| 20°-30° | 2972.7 | 6.1 |
| 30°-40° | 4758.8 | 9.8 |
| 40°-50° | 7351.9 | 15.2 |
| 50°-60° | 10427.6 | 21.5 |
| 60°-70° | 13949.3 | 28.8 |
| 70°-80° | 6057.9 | 12.5 |
| 80°-90° | 617.7 | 1.3 |
| 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° | 48495.3 | 100.0 |
| 0°-180° | 48495.3 | 100.0 |

Coefficient of Utilization



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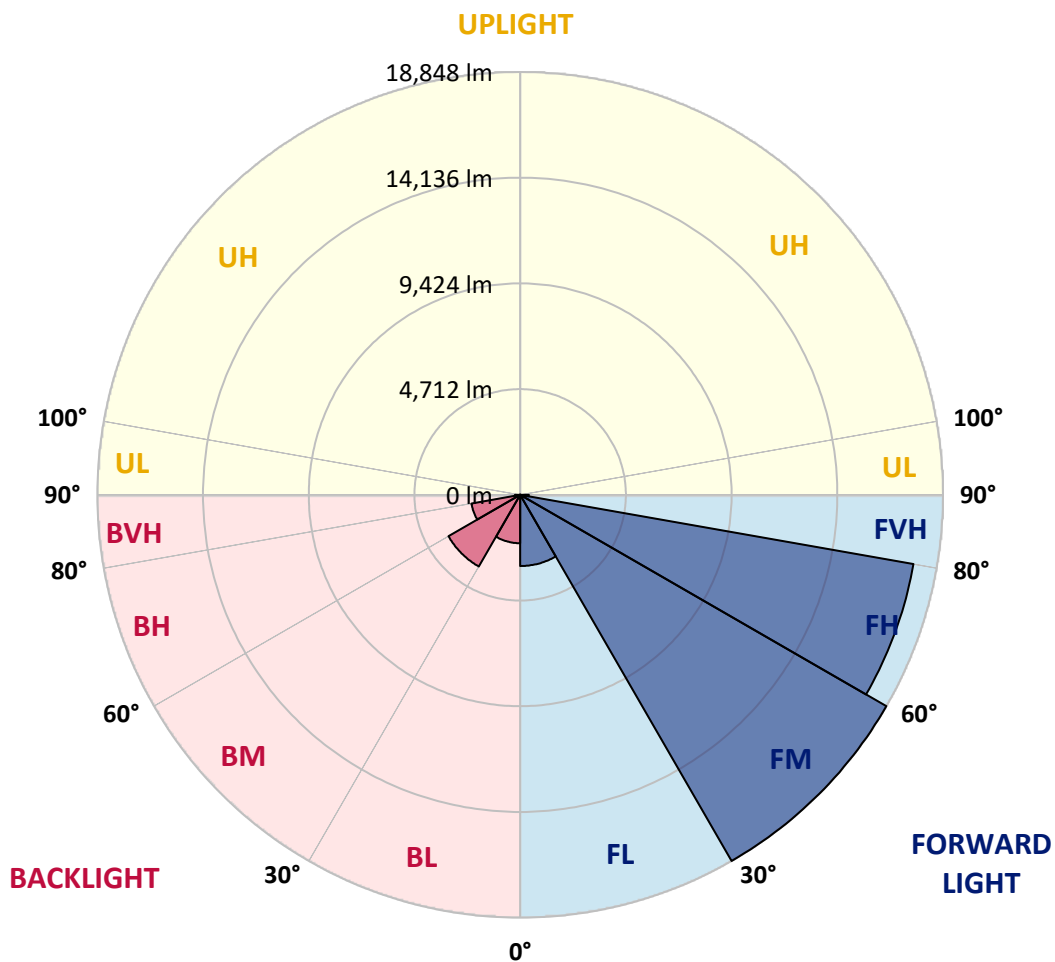
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3174.2 | 6.5 | | | |
| FM | (30°-60°) | 18847.8 | 38.9 | | | |
| FH | (60°-80°) | 17800.7 | 36.7 | | | G5 |
| FVH | (80°-90°) | 387.4 | 0.8 | | | G3/500 |
| BL | (0°-30°) | 2157.8 | 4.4 | B3/2500 | | |
| BM | (30°-60°) | 3690.5 | 7.6 | B3/5000 | | |
| BH | (60°-80°) | 2206.5 | 4.5 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 230.3 | 0.5 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77.5° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 |
| 2.5° | 6113.6 | 6154.5 | 6189.2 | 6221.1 | 6284.9 | 6390.4 | 6511.8 | 6610.3 | 6752.6 | 6780.3 | 6855.9 |
| 5° | 5552.3 | 5552.3 | 5579.4 | 5627.9 | 5714.7 | 5872.8 | 6038.0 | 6257.9 | 6567.3 | 6640.2 | 6842.1 |
| 7.5° | 5279.7 | 5281.7 | 5297.7 | 5338.6 | 5414.3 | 5558.6 | 5739.6 | 5999.1 | 6418.2 | 6539.6 | 6883.0 |
| 10° | 5380.3 | 5357.4 | 5322.7 | 5302.6 | 5313.7 | 5398.3 | 5570.4 | 5859.0 | 6326.6 | 6482.0 | 6975.3 |
| 12.5° | 5943.6 | 5900.6 | 5781.3 | 5623.1 | 5471.8 | 5410.1 | 5510.7 | 5792.4 | 6287.7 | 6468.8 | 7096.7 |
| 15° | 6864.9 | 6846.9 | 6624.2 | 6296.7 | 5930.4 | 5623.1 | 5554.4 | 5767.4 | 6291.9 | 6484.8 | 7241.0 |
| 17.5° | 8020.1 | 7994.4 | 7701.6 | 7225.0 | 6627.0 | 6028.9 | 5707.7 | 5788.2 | 6307.8 | 6511.8 | 7380.4 |
| 20° | 9186.3 | 9107.9 | 8792.3 | 8224.1 | 7456.0 | 6580.5 | 5962.3 | 5840.9 | 6328.7 | 6541.6 | 7527.5 |
| 22.5° | 10057.0 | 9992.5 | 9708.7 | 9156.5 | 8271.9 | 7220.2 | 6303.7 | 5932.5 | 6395.3 | 6629.1 | 7707.9 |
| 25° | 10822.3 | 10826.4 | 10544.8 | 10011.2 | 9096.8 | 7898.7 | 6743.5 | 6177.4 | 6564.5 | 6807.4 | 7955.6 |
| 27.5° | 11768.6 | 11713.8 | 11450.1 | 10920.8 | 9912.7 | 8583.4 | 7275.0 | 6514.6 | 6817.1 | 7062.0 | 8280.9 |
| 30° | 12900.1 | 12861.3 | 12556.7 | 11956.6 | 10817.4 | 9318.8 | 7882.0 | 6905.9 | 7142.5 | 7396.4 | 8706.9 |
| 32.5° | 14231.5 | 14213.5 | 13897.1 | 13124.9 | 11862.2 | 10185.4 | 8595.2 | 7424.1 | 7628.1 | 7891.7 | 9318.8 |
| 35° | 15794.6 | 15796.7 | 15423.4 | 14495.1 | 13005.6 | 11193.4 | 9403.5 | 8090.9 | 8219.2 | 8493.9 | 10048.0 |
| 37.5° | 16756.8 | 16873.4 | 16734.0 | 15787.6 | 14300.2 | 12320.8 | 10453.2 | 8975.4 | 8892.9 | 9170.4 | 10829.2 |
| 40° | 16962.9 | 17105.1 | 17547.1 | 17066.3 | 15748.8 | 13562.7 | 11383.5 | 9825.3 | 9722.6 | 10061.2 | 11835.2 |
| 42.5° | 16674.3 | 16871.3 | 17806.5 | 18145.1 | 17286.2 | 15093.2 | 12634.4 | 11088.0 | 10957.5 | 11413.4 | 13086.1 |
| 45° | 16502.2 | 16649.3 | 17730.9 | 18707.1 | 18619.6 | 16823.5 | 14227.3 | 12673.3 | 12625.4 | 13223.4 | 14529.8 |
| 47.5° | 16204.6 | 16337.8 | 17377.8 | 18837.5 | 19403.6 | 18408.7 | 16140.8 | 14612.4 | 14706.0 | 15490.0 | 16158.8 |
| 50° | 16364.9 | 16419.7 | 16983.7 | 18505.2 | 19630.5 | 19570.8 | 18278.3 | 16857.4 | 17178.7 | 18156.9 | 18003.6 |
| 52.5° | 16342.0 | 16484.2 | 16937.9 | 17959.9 | 19660.3 | 20288.2 | 20383.9 | 19362.0 | 20038.4 | 21161.0 | 20049.5 |
| 55° | 13212.3 | 13473.2 | 16399.6 | 17822.5 | 19765.1 | 20991.0 | 22258.5 | 22001.8 | 23261.7 | 24570.2 | 22359.1 |
| 57.5° | 12616.4 | 12781.5 | 14403.6 | 18111.1 | 20324.3 | 22334.1 | 24343.3 | 24907.4 | 27015.1 | 28534.4 | 25173.1 |
| 60° | 12499.1 | 12703.1 | 14382.7 | 18464.2 | 21458.6 | 24522.3 | 27434.8 | 28424.8 | 31582.2 | 33245.9 | 28435.9 |
| 62.5° | 12134.9 | 12354.8 | 14247.5 | 18417.8 | 23069.5 | 27549.3 | 31392.1 | 32164.3 | 35912.8 | 37530.7 | 31165.3 |
| 65° | 10980.4 | 11186.5 | 13145.7 | 17678.2 | 24156.0 | 30780.2 | 36075.1 | 35592.3 | 39331.7 | 40547.9 | 32525.8 |
| 66° | 10189.5 | 10391.4 | 12277.1 | 16807.5 | 23903.5 | 31696.7 | 37734.7 | 36653.1 | 40097.0 | 41050.2 | 32260.0 |
| 67.5° | 8743.7 | 8901.9 | 10590.5 | 14857.3 | 22563.1 | 31953.4 | 39129.8 | 37450.2 | 40176.8 | 40513.9 | 30741.4 |
| 70° | 5524.6 | 5570.4 | 6883.0 | 10256.1 | 17080.2 | 27711.6 | 37005.5 | 35470.9 | 36864.0 | 35951.6 | 25771.1 |
| 72.5° | 2397.0 | 2381.1 | 3304.5 | 5217.2 | 9669.9 | 18594.7 | 29934.5 | 29267.8 | 28917.4 | 26836.8 | 18040.3 |
| 75° | 1333.4 | 1352.2 | 1716.4 | 2422.0 | 3929.6 | 9133.6 | 19581.9 | 18739.0 | 15821.6 | 13500.9 | 8180.4 |
| 77.5° | 1069.8 | 1095.5 | 1422.9 | 1718.5 | 1764.3 | 3185.1 | 9163.4 | 7456.0 | 4488.8 | 3602.1 | 2272.8 |
| 80° | 845.7 | 891.5 | 1241.9 | 1338.3 | 1189.1 | 1312.6 | 2960.4 | 2367.2 | 1776.1 | 1629.0 | 1178.0 |
| 82.5° | 668.8 | 701.4 | 1065.6 | 1012.9 | 831.8 | 884.6 | 1418.1 | 1382.0 | 1155.1 | 1051.8 | 680.6 |
| 85° | 481.5 | 540.5 | 875.5 | 763.2 | 545.3 | 596.0 | 941.5 | 902.6 | 661.9 | 540.5 | 300.4 |
| 87.5° | 197.0 | 256.7 | 618.9 | 506.5 | 304.6 | 277.5 | 469.7 | 441.9 | 313.6 | 228.9 | 149.2 |
| 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° | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 | 6910.7 |
| 2.5° | 6903.8 | 6958.6 | 7030.1 | 7073.8 | 7096.7 | 7112.6 | 7137.6 | 7135.5 | 7142.5 | 7144.5 | 7153.6 |
| 5° | 6949.6 | 7041.2 | 7144.5 | 7172.3 | 7172.3 | 7146.6 | 7121.6 | 7080.0 | 7064.1 | 7059.9 | 7064.1 |
| 7.5° | 7068.9 | 7169.5 | 7259.0 | 7227.1 | 7158.4 | 7057.1 | 6926.7 | 6812.2 | 6750.5 | 6729.7 | 6725.5 |
| 10° | 7220.2 | 7341.6 | 7378.3 | 7256.9 | 7055.0 | 6812.2 | 6553.4 | 6365.4 | 6257.9 | 6228.1 | 6219.0 |
| 12.5° | 7403.3 | 7517.8 | 7467.8 | 7211.1 | 6837.2 | 6445.9 | 6087.9 | 5788.2 | 5563.4 | 5492.7 | 5487.8 |
| 15° | 7605.2 | 7694.7 | 7517.8 | 7068.9 | 6511.8 | 5934.6 | 5297.7 | 4780.1 | 4500.5 | 4411.0 | 4404.1 |
| 17.5° | 7793.2 | 7839.0 | 7488.0 | 6821.2 | 6033.1 | 5098.6 | 4252.9 | 3853.9 | 3758.2 | 3781.1 | 3785.3 |
| 20° | 7953.5 | 7953.5 | 7387.4 | 6466.0 | 5279.7 | 3996.2 | 3462.0 | 3455.7 | 3524.4 | 3593.1 | 3607.0 |
| 22.5° | 8129.7 | 8024.3 | 7211.1 | 5964.4 | 4211.2 | 3269.8 | 3192.1 | 3255.9 | 3333.6 | 3409.2 | 3421.0 |
| 25° | 8347.6 | 8081.8 | 6965.5 | 5204.0 | 3310.7 | 2969.4 | 2999.2 | 3051.9 | 3090.8 | 3139.4 | 3146.3 |
| 27.5° | 8590.4 | 8154.7 | 6642.9 | 4156.4 | 2873.6 | 2782.1 | 2804.9 | 2823.0 | 2818.1 | 2836.9 | 2841.0 |
| 30° | 8881.1 | 8240.0 | 6200.3 | 3249.0 | 2692.6 | 2621.1 | 2580.2 | 2564.2 | 2564.2 | 2594.0 | 2605.1 |
| 32.5° | 9271.0 | 8365.6 | 5565.5 | 2784.1 | 2605.1 | 2506.6 | 2374.1 | 2314.4 | 2337.3 | 2437.9 | 2460.8 |
| 35° | 9699.7 | 8500.9 | 4706.6 | 2626.0 | 2587.1 | 2453.9 | 2247.8 | 2137.5 | 2140.3 | 2234.0 | 2263.8 |
| 37.5° | 10166.6 | 8672.9 | 3764.4 | 2596.1 | 2628.0 | 2456.7 | 2181.2 | 2030.0 | 1968.3 | 1968.3 | 1980.0 |
| 40° | 10764.7 | 8849.2 | 3047.8 | 2616.9 | 2715.5 | 2483.7 | 2147.2 | 1945.4 | 1771.2 | 1776.1 | 1785.1 |
| 42.5° | 11543.8 | 9000.4 | 2662.7 | 2659.9 | 2820.9 | 2520.5 | 2144.5 | 1833.0 | 1681.7 | 1785.1 | 1878.8 |
| 45° | 12410.3 | 9076.0 | 2492.7 | 2699.5 | 2905.5 | 2543.4 | 2108.4 | 1814.9 | 1693.5 | 2000.2 | 2179.2 |
| 47.5° | 13406.6 | 9032.3 | 2399.1 | 2712.7 | 2926.4 | 2543.4 | 2066.8 | 1858.6 | 1773.3 | 2316.5 | 2525.4 |
| 50° | 14500.0 | 8906.7 | 2307.5 | 2685.6 | 2919.4 | 2538.5 | 2105.6 | 1901.6 | 1803.1 | 2371.3 | 2515.6 |
| 52.5° | 15785.6 | 8801.3 | 2211.1 | 2626.0 | 2870.9 | 2513.6 | 2151.4 | 1883.6 | 1709.5 | 2156.3 | 2256.9 |
| 55° | 17251.5 | 8831.1 | 2103.5 | 2541.3 | 2795.2 | 2465.7 | 2135.5 | 1810.1 | 1611.0 | 1899.6 | 1961.3 |
| 57.5° | 19126.1 | 9186.3 | 1975.2 | 2433.8 | 2692.6 | 2385.2 | 2078.6 | 1776.1 | 1581.1 | 1723.3 | 1760.1 |
| 60° | 21217.9 | 9804.5 | 1814.9 | 2325.5 | 2564.2 | 2256.9 | 2034.9 | 1792.0 | 1595.0 | 1709.5 | 1727.5 |
| 62.5° | 22753.2 | 10164.6 | 1677.6 | 2167.4 | 2390.1 | 2114.6 | 1980.0 | 1812.2 | 1631.8 | 1757.3 | 1753.2 |
| 65° | 23170.1 | 9573.5 | 1505.5 | 1936.3 | 2154.2 | 1966.2 | 1910.7 | 1835.0 | 1647.7 | 1796.2 | 1776.1 |
| 66° | 22586.0 | 8936.6 | 1429.9 | 1828.8 | 2034.9 | 1892.6 | 1876.7 | 1833.0 | 1640.8 | 1801.1 | 1766.4 |
| 67.5° | 21167.9 | 7630.2 | 1299.4 | 1670.6 | 1844.8 | 1783.0 | 1821.9 | 1812.2 | 1622.1 | 1796.2 | 1748.3 |
| 70° | 17263.3 | 5206.1 | 1111.4 | 1391.0 | 1535.3 | 1569.3 | 1716.4 | 1739.3 | 1562.4 | 1716.4 | 1611.0 |
| 72.5° | 12062.0 | 3171.3 | 983.1 | 1079.5 | 1241.9 | 1338.3 | 1572.1 | 1638.0 | 1482.6 | 1498.6 | 1398.0 |
| 75° | 5829.1 | 1684.5 | 891.5 | 836.7 | 964.4 | 1118.4 | 1398.0 | 1500.6 | 1356.3 | 1253.7 | 1216.9 |
| 77.5° | 1817.0 | 1028.9 | 756.2 | 673.7 | 756.2 | 902.6 | 1168.3 | 1315.4 | 1207.9 | 1049.7 | 1035.8 |
| 80° | 976.1 | 756.2 | 582.1 | 540.5 | 598.0 | 708.3 | 918.6 | 1097.6 | 1037.9 | 941.5 | 840.9 |
| 82.5° | 643.8 | 490.5 | 430.8 | 419.0 | 455.8 | 540.5 | 682.7 | 909.5 | 909.5 | 806.9 | 586.9 |
| 85° | 332.3 | 300.4 | 295.5 | 295.5 | 318.4 | 360.1 | 464.8 | 701.4 | 747.2 | 426.0 | 353.1 |
| 87.5° | 165.1 | 172.1 | 160.3 | 167.2 | 179.0 | 176.2 | 222.0 | 353.1 | 421.8 | 258.8 | 215.1 |
| 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)