

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: P299144

Luminaire Tested: **GAA-AF-09-LED-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-09-LED-U-T3-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51306.8 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

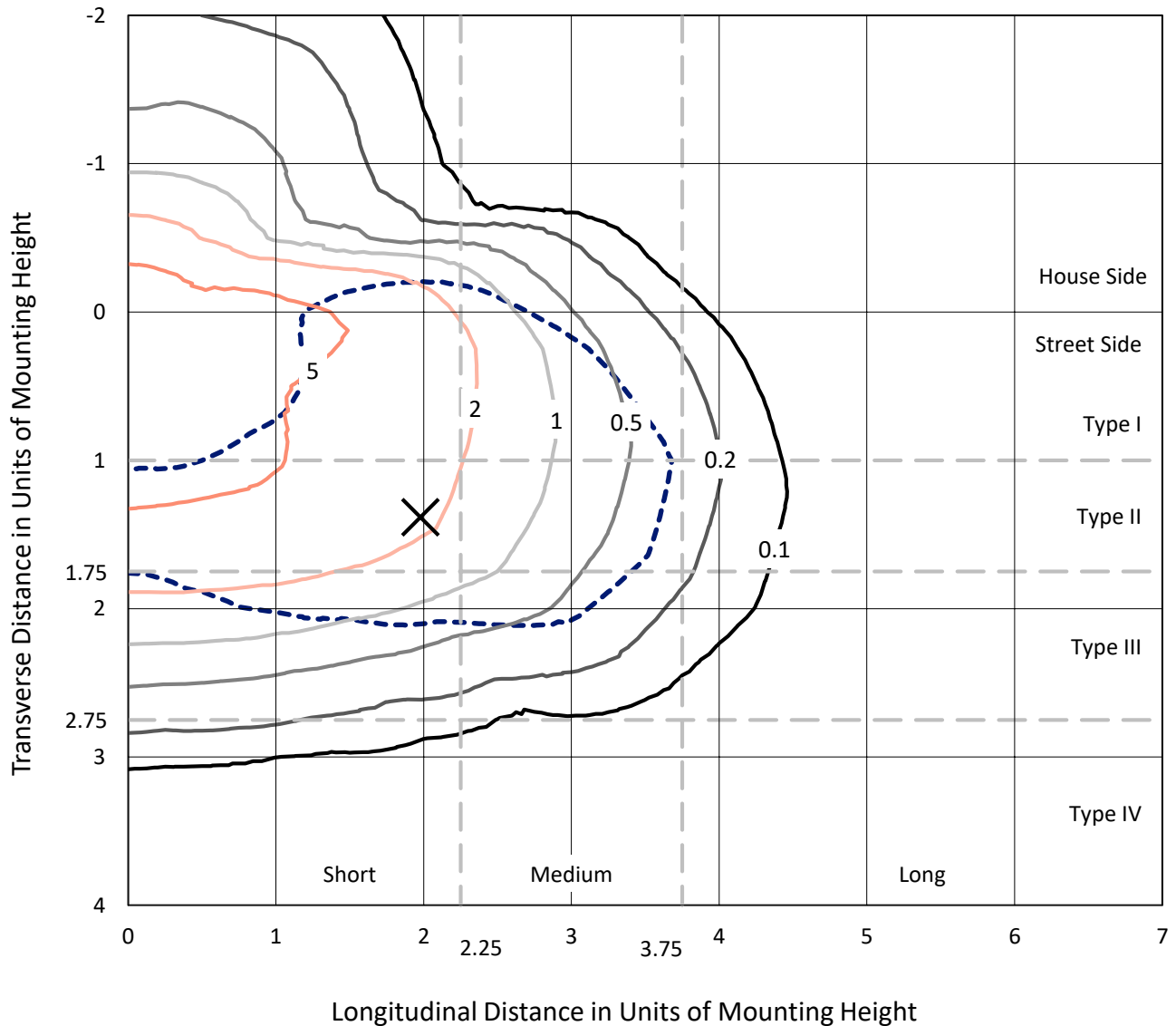
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

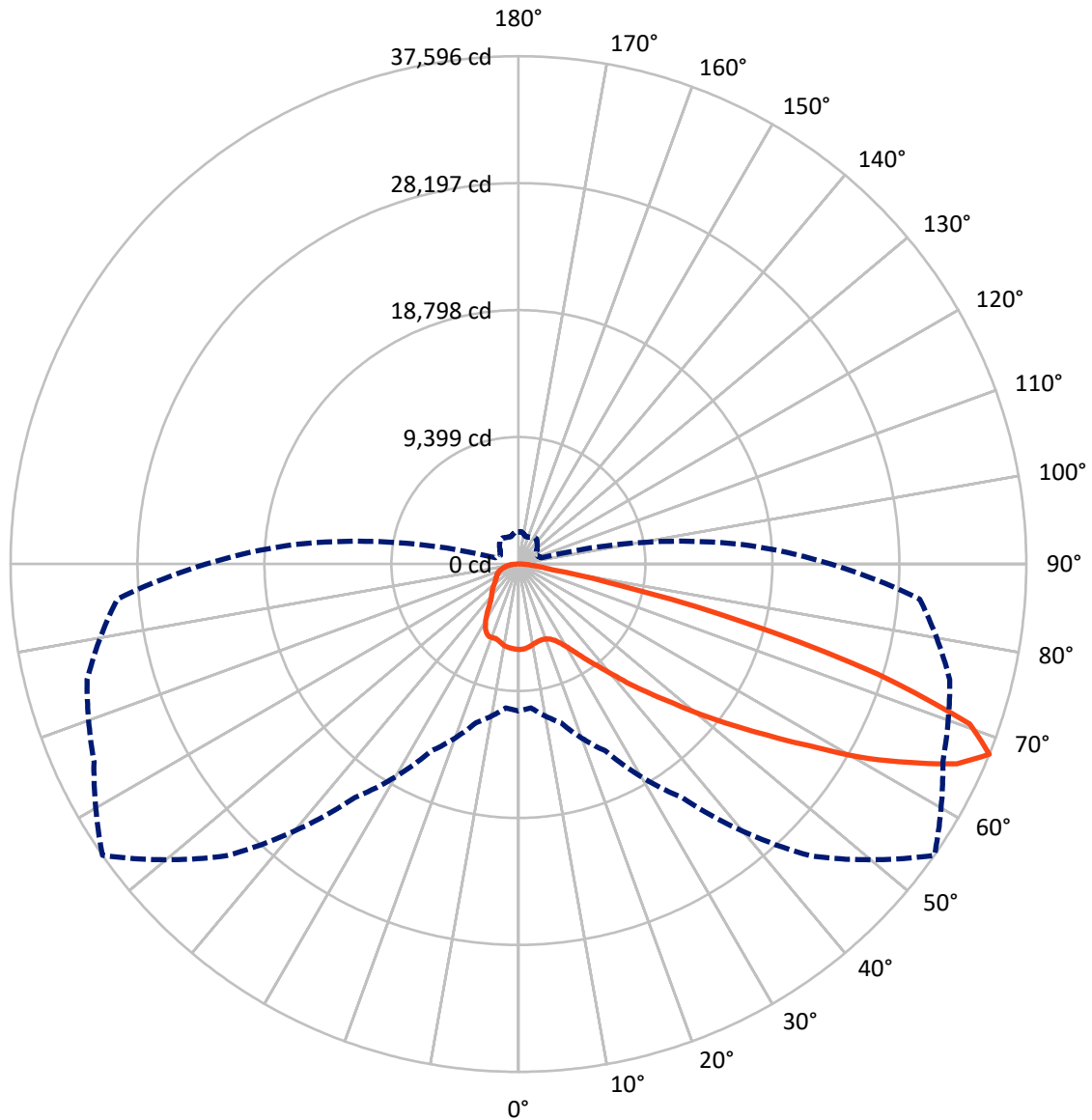


Based on 30 foot mounting height. Maximum calculated value = 7.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11083.4 | 0.0 | 11083.4 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 40223.5 | 0.0 | 40223.5 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 51306.8 | 0.0 | 51306.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 590.5 | 1.2 |
| 10°-20° | 1672.5 | 3.3 |
| 20°-30° | 2801.6 | 5.5 |
| 30°-40° | 4607.0 | 9.0 |
| 40°-50° | 7755.0 | 15.1 |
| 50°-60° | 12205.9 | 23.8 |
| 60°-70° | 14566.4 | 28.4 |
| 70°-80° | 6255.1 | 12.2 |
| 80°-90° | 852.8 | 1.7 |
| 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° | 51306.8 | 100.0 |
| 0°-180° | 51306.8 | 100.0 |

Coefficient of Utilization



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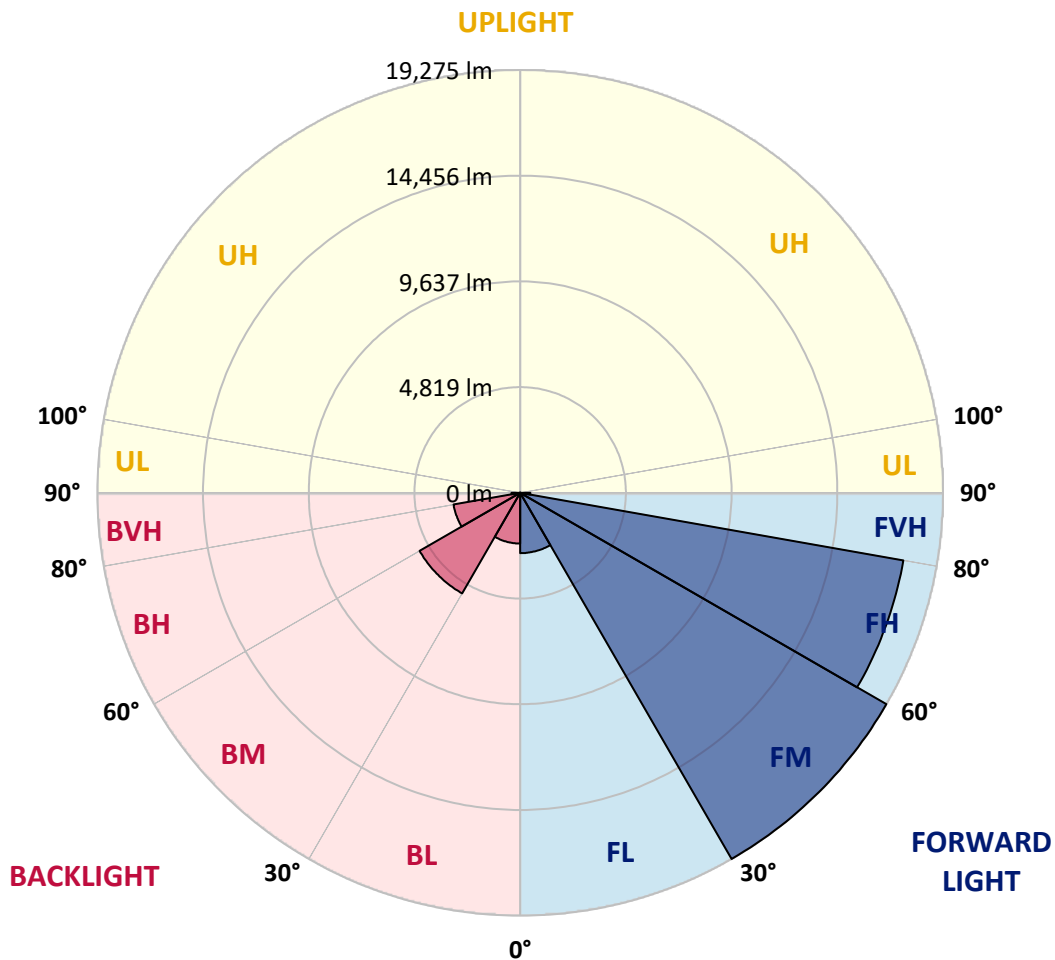
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2750.2 | 5.4 | | | |
| FM | (30°-60°) | 19274.6 | 37.6 | | | |
| FH | (60°-80°) | 17737.0 | 34.6 | | | G5 |
| FVH | (80°-90°) | 461.6 | 0.9 | | | G3/500 |
| BL | (0°-30°) | 2314.4 | 4.5 | B3/2500 | | |
| BM | (30°-60°) | 5293.3 | 10.3 | B4/8500 | | |
| BH | (60°-80°) | 3084.5 | 6.0 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 391.2 | 0.8 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 |
| 2.5° | 6272.2 | 6274.7 | 6279.6 | 6299.4 | 6316.8 | 6311.8 | 6314.3 | 6304.4 | 6301.9 | 6287.0 | 6301.9 |
| 5° | 6192.9 | 6200.3 | 6202.8 | 6235.0 | 6254.8 | 6259.8 | 6252.3 | 6240.0 | 6225.1 | 6210.2 | 6217.7 |
| 7.5° | 6012.0 | 6031.8 | 6034.3 | 6078.9 | 6111.1 | 6153.2 | 6155.7 | 6158.2 | 6150.7 | 6140.8 | 6155.7 |
| 10° | 5898.0 | 5902.9 | 5900.5 | 5932.7 | 5957.4 | 6004.5 | 6031.8 | 6078.9 | 6098.7 | 6103.7 | 6113.6 |
| 12.5° | 5890.5 | 5885.6 | 5878.1 | 5878.1 | 5870.7 | 5890.5 | 5940.1 | 6007.0 | 6054.1 | 6069.0 | 6081.4 |
| 15° | 5969.8 | 5967.4 | 5942.6 | 5905.4 | 5858.3 | 5843.5 | 5885.6 | 5959.9 | 6021.9 | 6054.1 | 6066.5 |
| 17.5° | 6148.3 | 6133.4 | 6093.7 | 6009.5 | 5907.9 | 5868.2 | 5873.2 | 5935.1 | 6007.0 | 6049.1 | 6061.5 |
| 20° | 6475.4 | 6475.4 | 6391.1 | 6232.5 | 6051.6 | 5957.4 | 5912.8 | 5950.0 | 6019.4 | 6076.4 | 6093.7 |
| 22.5° | 7040.4 | 7045.4 | 6904.1 | 6643.9 | 6339.1 | 6138.4 | 6026.8 | 6019.4 | 6101.2 | 6165.6 | 6185.4 |
| 25° | 7840.8 | 7821.0 | 7622.8 | 7251.0 | 6787.6 | 6455.6 | 6262.3 | 6217.7 | 6287.0 | 6358.9 | 6383.7 |
| 27.5° | 8772.6 | 8700.8 | 8465.3 | 8016.8 | 7417.1 | 6931.4 | 6634.0 | 6562.1 | 6629.0 | 6710.8 | 6735.6 |
| 30° | 9694.5 | 9620.1 | 9340.1 | 8849.4 | 8182.8 | 7568.2 | 7142.0 | 7025.5 | 7119.7 | 7236.2 | 7251.0 |
| 32.5° | 10616.4 | 10616.4 | 10304.1 | 9731.7 | 9005.6 | 8329.0 | 7818.5 | 7679.8 | 7835.9 | 7977.1 | 8009.3 |
| 35° | 11719.1 | 11724.1 | 11421.7 | 10732.8 | 9952.2 | 9236.0 | 8673.5 | 8571.9 | 8807.3 | 8906.4 | 8983.3 |
| 37.5° | 13074.7 | 13101.9 | 12712.9 | 11880.2 | 11025.2 | 10271.9 | 9602.8 | 9464.0 | 9699.4 | 9969.6 | 10217.4 |
| 40° | 14539.2 | 14573.9 | 14145.2 | 13119.3 | 12264.3 | 11476.3 | 10752.7 | 10502.4 | 10893.9 | 11409.4 | 11729.0 |
| 42.5° | 15936.9 | 16115.3 | 15701.5 | 14645.8 | 13726.4 | 12911.1 | 12177.6 | 11813.3 | 12304.0 | 13082.1 | 13359.7 |
| 45° | 17956.6 | 18085.5 | 17364.3 | 16407.8 | 15542.9 | 14630.9 | 13659.5 | 13275.4 | 13961.8 | 14943.2 | 15000.2 |
| 47.5° | 19302.2 | 19205.6 | 18838.8 | 18244.1 | 17696.4 | 16843.9 | 15381.8 | 14960.5 | 15872.5 | 17027.3 | 16707.6 |
| 50° | 20018.4 | 20048.2 | 19998.6 | 20033.3 | 20053.1 | 19517.8 | 17493.2 | 16915.8 | 18003.7 | 19398.9 | 18662.9 |
| 52.5° | 20687.5 | 20489.3 | 20652.8 | 21465.7 | 22447.0 | 22248.7 | 19790.4 | 19188.2 | 20288.5 | 22030.7 | 20729.6 |
| 55° | 20672.6 | 20370.3 | 20903.1 | 22338.0 | 24466.7 | 24694.7 | 22370.2 | 21676.3 | 22704.7 | 24853.3 | 22920.3 |
| 57.5° | 19941.6 | 19956.5 | 20776.7 | 22655.2 | 25874.3 | 26994.4 | 25363.8 | 24322.9 | 25267.1 | 27713.0 | 24920.2 |
| 60° | 18935.5 | 19071.8 | 20253.8 | 22603.1 | 27001.8 | 28880.2 | 29036.4 | 27175.3 | 27777.5 | 30312.6 | 26575.6 |
| 62.5° | 17312.3 | 17456.0 | 19086.6 | 22062.9 | 26830.8 | 30696.7 | 32357.1 | 30411.7 | 30401.8 | 31888.7 | 27061.3 |
| 65° | 14752.4 | 14710.2 | 16422.6 | 20043.2 | 25396.0 | 32039.9 | 35655.5 | 33209.6 | 32379.4 | 31913.5 | 26084.9 |
| 67.5° | 10879.0 | 10690.7 | 12160.2 | 15265.3 | 21108.8 | 30535.6 | 37595.9 | 34666.7 | 33053.4 | 29814.5 | 23101.2 |
| 70° | 5645.2 | 5456.9 | 6646.4 | 8913.9 | 13882.5 | 23832.3 | 35447.3 | 33913.3 | 31564.1 | 24992.0 | 18097.9 |
| 72.5° | 2413.7 | 2381.5 | 2864.7 | 3910.5 | 6715.8 | 13746.2 | 27794.8 | 29353.6 | 27083.6 | 18620.7 | 12442.7 |
| 75° | 1623.2 | 1613.3 | 1794.2 | 2131.2 | 3020.9 | 5578.3 | 17394.1 | 20836.2 | 19815.2 | 11545.7 | 6998.3 |
| 77.5° | 1273.8 | 1261.4 | 1367.9 | 1531.5 | 1957.7 | 2200.6 | 7719.4 | 11186.3 | 10353.7 | 5025.7 | 3063.0 |
| 80° | 996.2 | 986.3 | 1053.2 | 1142.4 | 1407.6 | 1387.8 | 2540.1 | 4450.7 | 3444.6 | 1925.5 | 1489.4 |
| 82.5° | 785.6 | 785.6 | 840.1 | 842.6 | 998.7 | 946.6 | 1325.8 | 1960.2 | 1719.8 | 1122.6 | 912.0 |
| 85° | 718.7 | 718.7 | 775.7 | 629.4 | 651.8 | 597.2 | 822.7 | 1162.2 | 1090.4 | 460.9 | 396.5 |
| 87.5° | 361.8 | 351.9 | 651.8 | 557.6 | 354.4 | 317.2 | 401.5 | 562.5 | 604.7 | 255.2 | 198.3 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 | 6326.7 |
| 2.5° | 6297.0 | 6294.5 | 6299.4 | 6301.9 | 6321.7 | 6349.0 | 6361.4 | 6378.7 | 6388.6 | 6383.7 |
| 5° | 6222.6 | 6227.6 | 6247.4 | 6262.3 | 6297.0 | 6341.6 | 6366.3 | 6386.2 | 6403.5 | 6396.1 |
| 7.5° | 6160.7 | 6173.0 | 6202.8 | 6215.2 | 6235.0 | 6247.4 | 6244.9 | 6252.3 | 6267.2 | 6249.9 |
| 10° | 6126.0 | 6140.8 | 6163.1 | 6145.8 | 6098.7 | 6031.8 | 5969.8 | 5937.6 | 5947.5 | 5935.1 |
| 12.5° | 6091.3 | 6111.1 | 6093.7 | 6012.0 | 5880.6 | 5793.9 | 5746.8 | 5751.8 | 5774.1 | 5779.0 |
| 15° | 6071.4 | 6078.9 | 6004.5 | 5850.9 | 5717.1 | 5704.7 | 5729.5 | 5724.5 | 5727.0 | 5727.0 |
| 17.5° | 6071.4 | 6051.6 | 5912.8 | 5759.2 | 5702.2 | 5679.9 | 5603.1 | 5506.4 | 5464.3 | 5449.4 |
| 20° | 6103.7 | 6051.6 | 5883.1 | 5781.5 | 5657.6 | 5466.8 | 5263.6 | 5085.1 | 5005.8 | 4983.5 |
| 22.5° | 6200.3 | 6111.1 | 5967.4 | 5791.4 | 5439.5 | 5119.8 | 4797.7 | 4584.6 | 4440.8 | 4416.0 |
| 25° | 6396.1 | 6297.0 | 6133.4 | 5660.1 | 5092.6 | 4636.6 | 4269.8 | 4031.9 | 3888.2 | 3868.4 |
| 27.5° | 6738.1 | 6673.6 | 6222.6 | 5370.1 | 4631.6 | 4143.5 | 3803.9 | 3620.6 | 3514.0 | 3506.6 |
| 30° | 7253.5 | 7221.3 | 6178.0 | 4941.4 | 4064.1 | 3665.2 | 3501.6 | 3395.1 | 3315.8 | 3313.3 |
| 32.5° | 8076.3 | 7816.1 | 6031.8 | 4418.5 | 3546.2 | 3325.7 | 3258.8 | 3194.3 | 3132.4 | 3132.4 |
| 35° | 9134.4 | 8296.8 | 5754.2 | 3858.5 | 3231.5 | 3137.3 | 3053.1 | 2951.5 | 2869.7 | 2864.7 |
| 37.5° | 10378.5 | 8594.2 | 5256.1 | 3407.4 | 3082.8 | 3010.9 | 2887.0 | 2735.9 | 2592.1 | 2567.4 |
| 40° | 11634.9 | 8683.4 | 4554.8 | 3129.9 | 2988.6 | 2884.6 | 2733.4 | 2555.0 | 2416.2 | 2408.8 |
| 42.5° | 12787.2 | 8512.4 | 3811.4 | 2939.1 | 2894.5 | 2755.7 | 2597.1 | 2438.5 | 2329.5 | 2327.0 |
| 45° | 13753.7 | 8068.8 | 3186.9 | 2758.2 | 2795.3 | 2639.2 | 2498.0 | 2369.1 | 2284.8 | 2267.5 |
| 47.5° | 14663.2 | 7441.9 | 2748.3 | 2567.4 | 2696.2 | 2574.8 | 2455.8 | 2334.4 | 2252.6 | 2240.2 |
| 50° | 15718.8 | 6765.3 | 2441.0 | 2381.5 | 2609.5 | 2552.5 | 2490.5 | 2364.1 | 2227.8 | 2213.0 |
| 52.5° | 16997.6 | 6180.5 | 2200.6 | 2217.9 | 2542.6 | 2582.2 | 2579.7 | 2448.4 | 2210.5 | 2190.7 |
| 55° | 18425.0 | 5531.2 | 2019.7 | 2084.1 | 2515.3 | 2636.7 | 2602.0 | 2527.7 | 2225.4 | 2195.6 |
| 57.5° | 19830.1 | 4772.9 | 1893.3 | 1982.5 | 2475.7 | 2631.8 | 2495.5 | 2388.9 | 2260.1 | 2217.9 |
| 60° | 20883.3 | 3754.4 | 1796.7 | 1893.3 | 2388.9 | 2550.0 | 2379.0 | 2237.8 | 2252.6 | 2220.4 |
| 62.5° | 20952.7 | 2901.9 | 1680.2 | 1816.5 | 2257.6 | 2468.2 | 2302.2 | 2170.9 | 2284.8 | 2255.1 |
| 65° | 19721.0 | 2193.2 | 1568.7 | 1724.8 | 2116.3 | 2416.2 | 2227.8 | 2133.7 | 2351.8 | 2319.5 |
| 67.5° | 16603.5 | 1764.4 | 1474.5 | 1630.6 | 1975.1 | 2307.1 | 2160.9 | 2099.0 | 2411.2 | 2354.2 |
| 70° | 11986.8 | 1504.2 | 1382.8 | 1516.6 | 1848.7 | 2183.2 | 2101.5 | 2037.0 | 2250.2 | 2160.9 |
| 72.5° | 7379.9 | 1303.5 | 1278.7 | 1365.5 | 1752.0 | 2054.4 | 2012.2 | 1920.6 | 2027.1 | 1955.3 |
| 75° | 3685.0 | 1130.0 | 1162.2 | 1216.8 | 1615.7 | 1908.2 | 1863.6 | 1771.9 | 1786.7 | 1771.9 |
| 77.5° | 1764.4 | 966.5 | 1026.0 | 1068.1 | 1439.8 | 1742.1 | 1695.0 | 1600.9 | 1583.5 | 1586.0 |
| 80° | 1117.6 | 807.9 | 864.9 | 894.6 | 1286.2 | 1548.8 | 1501.8 | 1407.6 | 1605.8 | 1489.4 |
| 82.5° | 698.8 | 656.7 | 671.6 | 726.1 | 1120.1 | 1348.1 | 1286.2 | 1201.9 | 1447.2 | 1144.9 |
| 85° | 386.6 | 458.5 | 478.3 | 525.4 | 862.4 | 1127.6 | 1065.6 | 959.0 | 859.9 | 845.0 |
| 87.5° | 230.5 | 272.6 | 280.0 | 314.7 | 579.9 | 815.3 | 721.1 | 684.0 | 567.5 | 565.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)