

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: P300888

Luminaire Tested: **GAA-AF-09-LED-U-SL4-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300888
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
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-SL4-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43779.4 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - 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

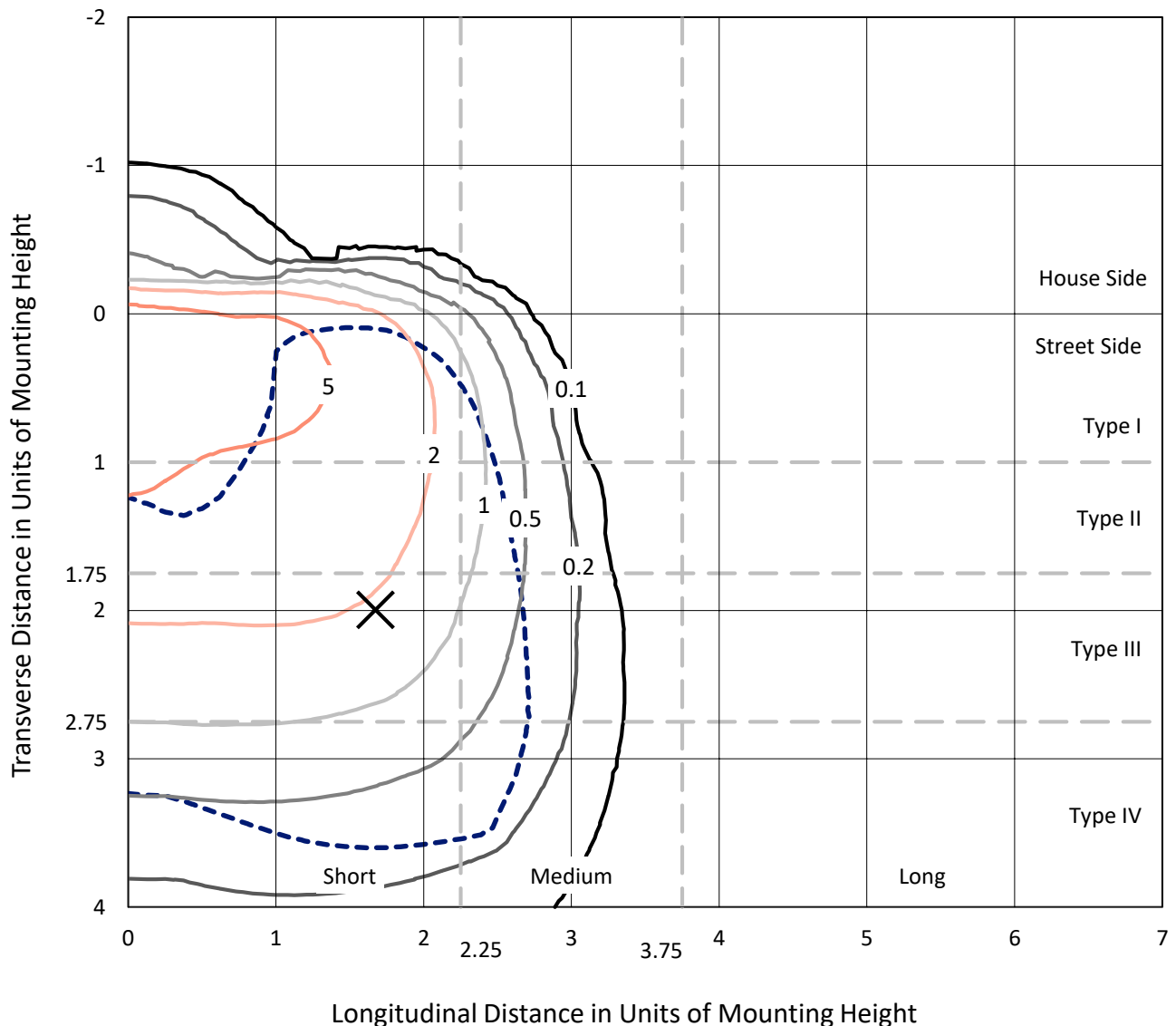


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

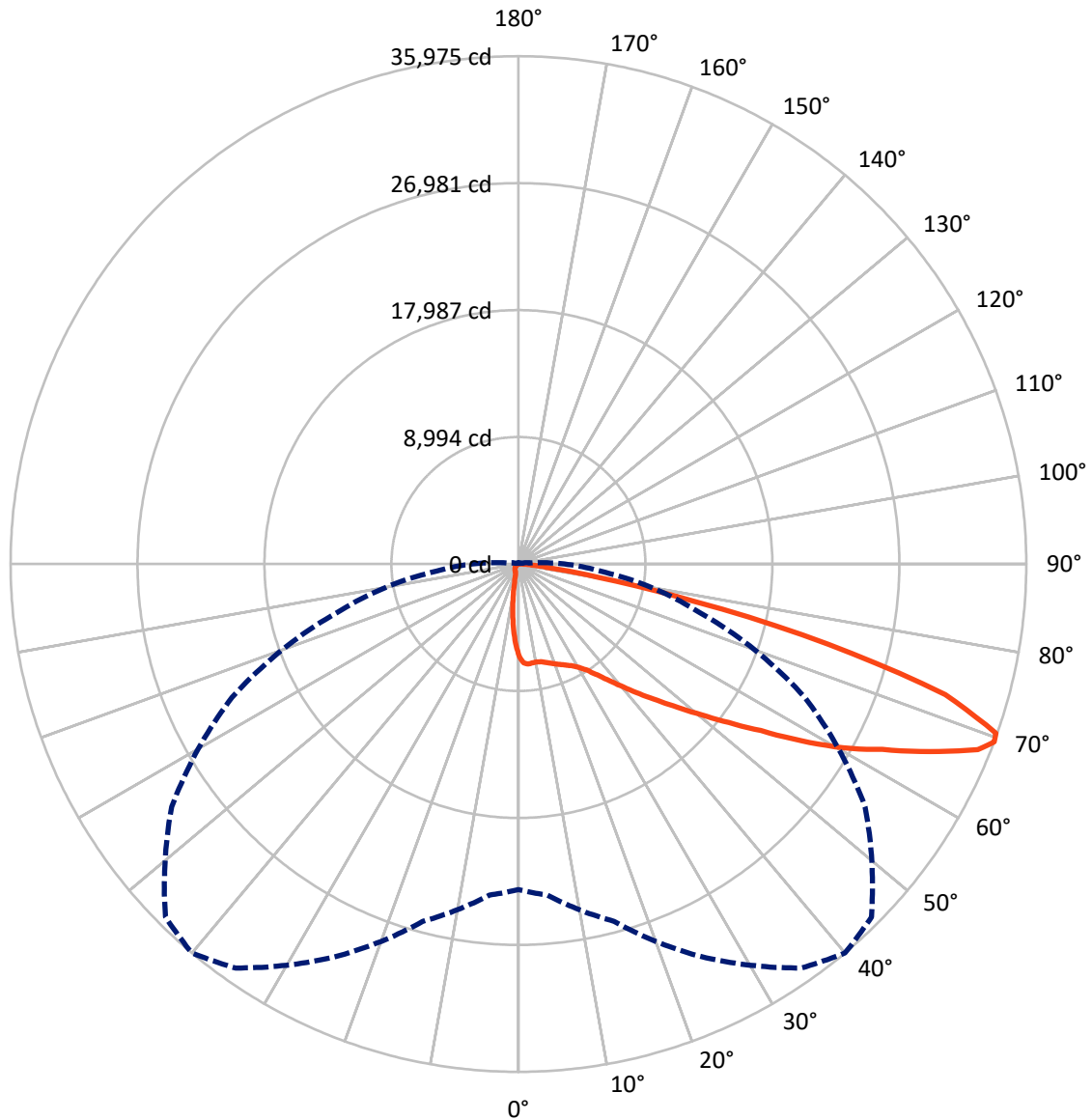


Based on 30 foot mounting height. Maximum calculated value = 8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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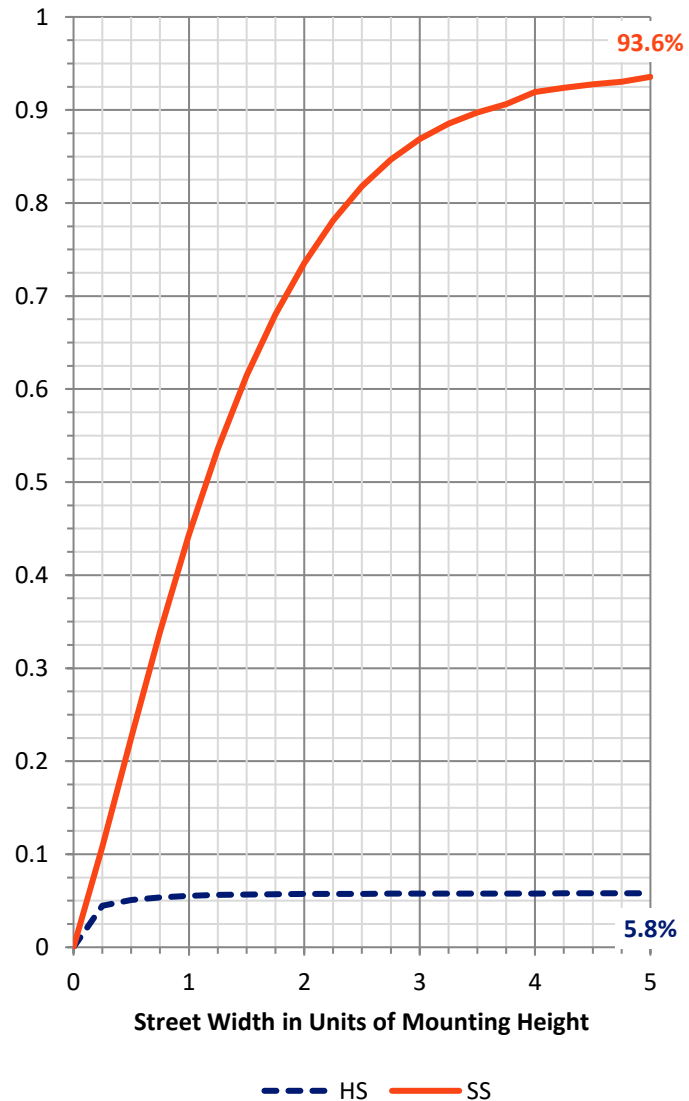
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2561.3 | 0.0 | 2561.3 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 41218.0 | 0.0 | 41218.0 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 43779.4 | 0.0 | 43779.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 530.3 | 1.2 |
| 10°-20° | 1304.2 | 3.0 |
| 20°-30° | 2196.7 | 5.0 |
| 30°-40° | 3596.1 | 8.2 |
| 40°-50° | 6226.5 | 14.2 |
| 50°-60° | 9807.3 | 22.4 |
| 60°-70° | 12808.0 | 29.3 |
| 70°-80° | 6596.7 | 15.1 |
| 80°-90° | 713.6 | 1.6 |
| 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° | 43779.4 | 100.0 |
| 0°-180° | 43779.4 | 100.0 |



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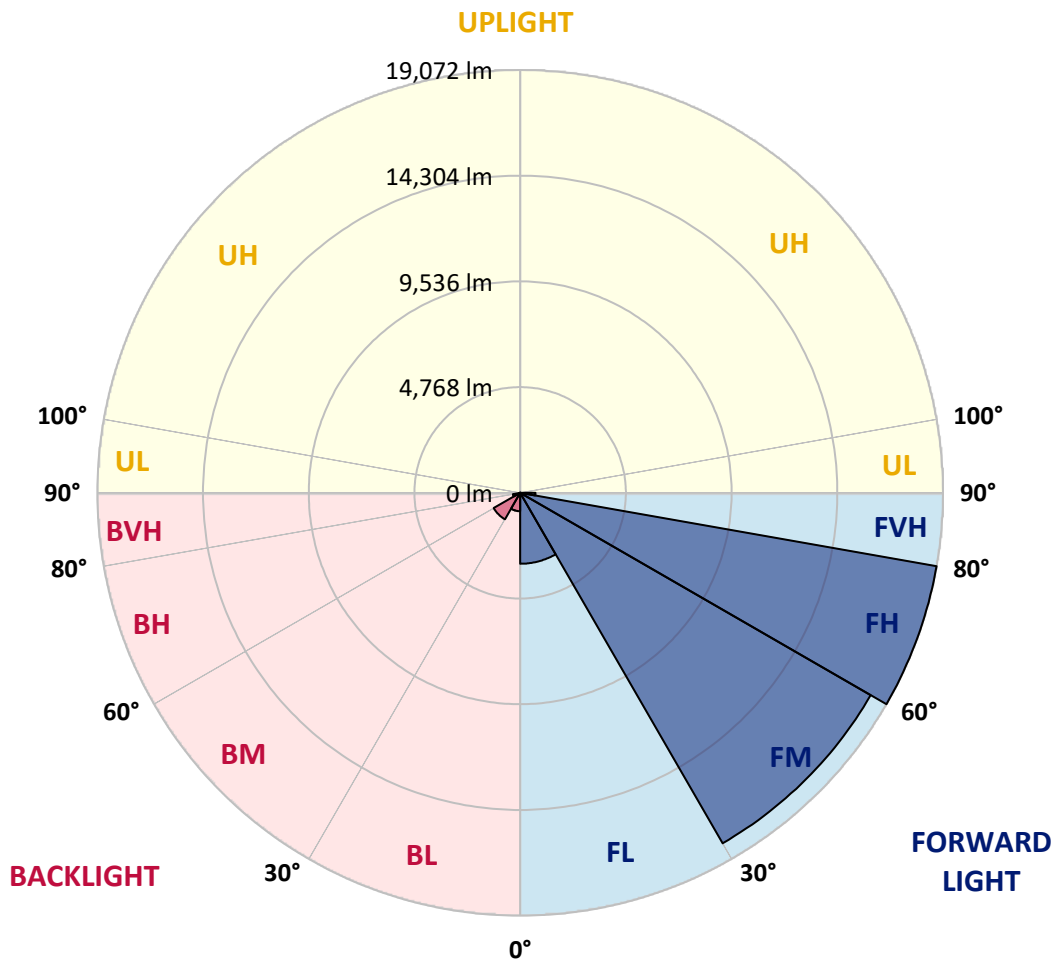
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 3201.5 | 7.3 | | | |
| FM | (30°-60°) | 18253.3 | 41.7 | | | |
| FH | (60°-80°) | 19072.1 | 43.6 | | | G5 |
| FVH | (80°-90°) | 691.2 | 1.6 | | | G4/750 |
| BL | (0°-30°) | 829.7 | 1.9 | B2/1000 | | |
| BM | (30°-60°) | 1376.7 | 3.1 | B2/2500 | | |
| BH | (60°-80°) | 332.6 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 22.4 | 0.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 |
| 2.5° | 7181.9 | 7142.8 | 7119.4 | 7088.1 | 7049.0 | 7015.1 | 7002.1 | 6905.7 | 6814.5 | 6689.4 | 6546.1 |
| 5° | 7314.8 | 7301.8 | 7260.1 | 7218.4 | 7171.5 | 7119.4 | 7090.7 | 6976.1 | 6845.8 | 6663.3 | 6413.2 |
| 7.5° | 7327.9 | 7312.2 | 7260.1 | 7202.8 | 7137.6 | 7075.1 | 7025.6 | 6910.9 | 6791.0 | 6606.0 | 6301.1 |
| 10° | 7307.0 | 7288.8 | 7249.7 | 7187.1 | 7106.4 | 7046.4 | 6996.9 | 6887.5 | 6785.8 | 6619.0 | 6280.3 |
| 12.5° | 7283.6 | 7265.3 | 7247.1 | 7215.8 | 7145.4 | 7103.7 | 7062.1 | 6957.8 | 6866.6 | 6725.9 | 6355.8 |
| 15° | 7307.0 | 7296.6 | 7317.4 | 7304.4 | 7265.3 | 7228.8 | 7187.1 | 7093.3 | 7009.9 | 6892.7 | 6494.0 |
| 17.5° | 7406.0 | 7406.0 | 7471.2 | 7479.0 | 7442.5 | 7390.4 | 7330.5 | 7236.6 | 7166.3 | 7067.3 | 6658.1 |
| 20° | 7638.0 | 7630.1 | 7713.5 | 7729.2 | 7640.6 | 7559.8 | 7471.2 | 7356.5 | 7301.8 | 7239.3 | 6819.7 |
| 22.5° | 8036.7 | 8000.2 | 8049.7 | 8034.1 | 7859.5 | 7734.4 | 7624.9 | 7484.2 | 7455.5 | 7426.9 | 6999.5 |
| 25° | 8555.2 | 8534.4 | 8568.3 | 8414.5 | 8107.0 | 7937.6 | 7807.3 | 7648.4 | 7648.4 | 7677.0 | 7202.8 |
| 27.5° | 9308.4 | 9230.2 | 9115.5 | 8844.5 | 8383.3 | 8167.0 | 8026.2 | 7856.9 | 7901.2 | 8008.0 | 7471.2 |
| 30° | 10079.7 | 9993.7 | 9730.5 | 9313.6 | 8719.4 | 8492.7 | 8328.5 | 8151.3 | 8255.6 | 8451.0 | 7830.8 |
| 32.5° | 10840.6 | 10744.2 | 10371.6 | 9845.2 | 9201.5 | 8974.8 | 8815.8 | 8620.4 | 8795.0 | 9123.3 | 8357.2 |
| 35° | 11578.1 | 11492.1 | 11062.1 | 10441.9 | 9842.6 | 9654.9 | 9509.0 | 9339.6 | 9563.7 | 10022.4 | 9099.9 |
| 37.5° | 12406.8 | 12313.0 | 11789.2 | 11116.9 | 10621.7 | 10486.2 | 10379.4 | 10210.0 | 10600.9 | 11273.2 | 10134.4 |
| 40° | 13425.7 | 13266.8 | 12560.5 | 11890.8 | 11523.4 | 11458.2 | 11385.3 | 11361.8 | 11969.0 | 12899.3 | 11513.0 |
| 42.5° | 14593.2 | 14332.6 | 13368.4 | 12706.5 | 12513.6 | 12560.5 | 12542.3 | 12646.5 | 13681.1 | 14921.5 | 13191.2 |
| 45° | 15760.6 | 15424.5 | 14267.4 | 13576.9 | 13602.9 | 13767.1 | 13868.7 | 14285.7 | 15825.8 | 17240.8 | 14997.1 |
| 47.5° | 16750.9 | 16419.9 | 15130.0 | 14517.6 | 14830.3 | 15153.4 | 15429.7 | 16219.3 | 18030.4 | 19523.6 | 16401.7 |
| 50° | 17597.8 | 17285.1 | 16044.7 | 15552.1 | 16255.7 | 16776.9 | 17225.1 | 18395.2 | 20401.8 | 21261.7 | 17386.7 |
| 52.5° | 18291.0 | 18082.5 | 16993.2 | 16737.8 | 17884.4 | 18648.0 | 19304.7 | 20706.7 | 22502.1 | 22674.1 | 18152.9 |
| 55° | 18965.9 | 18817.4 | 18012.1 | 18147.6 | 19797.2 | 20837.0 | 21668.2 | 23158.8 | 24310.7 | 23852.0 | 18887.7 |
| 57.5° | 19742.5 | 19607.0 | 19174.4 | 19935.3 | 22311.9 | 23620.1 | 24526.9 | 25332.2 | 25902.9 | 25055.9 | 19580.9 |
| 60° | 20534.7 | 20456.5 | 20466.9 | 21921.0 | 25199.3 | 26455.3 | 26955.7 | 27164.1 | 27466.4 | 26189.5 | 19620.0 |
| 62.5° | 21290.4 | 21438.9 | 21944.5 | 24130.8 | 27964.2 | 28928.3 | 29181.1 | 29387.0 | 29032.6 | 26369.3 | 18126.8 |
| 65° | 22569.9 | 22812.2 | 24018.8 | 27088.6 | 31005.3 | 32037.2 | 32297.8 | 31591.6 | 29280.1 | 24044.8 | 14744.3 |
| 67.5° | 23195.3 | 23638.3 | 25790.8 | 29845.6 | 33955.2 | 35101.8 | 35005.4 | 31734.9 | 26275.5 | 18335.3 | 9462.1 |
| 69° | 23065.0 | 23536.7 | 26199.9 | 30690.0 | 34935.0 | 35974.8 | 35362.4 | 29981.1 | 22384.9 | 13282.4 | 5808.6 |
| 70° | 22549.0 | 23025.9 | 25988.9 | 30658.7 | 35060.1 | 35883.6 | 34700.5 | 27815.6 | 18926.8 | 9712.3 | 3632.7 |
| 72.5° | 18830.4 | 19242.1 | 23072.8 | 27711.4 | 32297.8 | 31628.1 | 29030.0 | 19270.8 | 9222.4 | 2645.0 | 818.3 |
| 75° | 11591.1 | 11820.5 | 16555.4 | 20876.0 | 24394.0 | 22674.1 | 19341.2 | 9587.2 | 2749.2 | 747.9 | 453.4 |
| 77.5° | 6123.9 | 6228.2 | 9063.4 | 12305.2 | 15463.5 | 12795.1 | 9912.9 | 3739.5 | 1266.5 | 469.1 | 328.3 |
| 80° | 3619.6 | 3697.8 | 4880.9 | 5626.2 | 6692.0 | 5589.7 | 3963.6 | 2295.8 | 906.9 | 294.5 | 291.9 |
| 82.5° | 2071.7 | 2121.2 | 3538.8 | 3127.1 | 2637.2 | 2251.5 | 1972.7 | 2175.9 | 544.6 | 198.1 | 302.3 |
| 85° | 760.9 | 771.4 | 1990.9 | 2379.2 | 1568.8 | 932.9 | 979.8 | 1803.3 | 145.9 | 125.1 | 237.1 |
| 87.5° | 354.4 | 346.6 | 1024.1 | 1456.7 | 917.3 | 591.5 | 763.5 | 396.1 | 57.3 | 80.8 | 65.1 |
| 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° | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 | 6540.9 |
| 2.5° | 6462.7 | 6366.3 | 6191.7 | 6011.9 | 5829.4 | 5688.7 | 5550.6 | 5441.2 | 5404.7 | 5336.9 | 5342.1 |
| 5° | 6264.6 | 6087.4 | 5722.6 | 5352.6 | 4966.9 | 4649.0 | 4349.3 | 4106.9 | 3989.7 | 3869.8 | 3869.8 |
| 7.5° | 6092.6 | 5834.7 | 5264.0 | 4662.0 | 4039.2 | 3515.4 | 3043.7 | 2689.3 | 2493.9 | 2337.5 | 2334.9 |
| 10° | 6027.5 | 5678.3 | 4880.9 | 4018.3 | 3150.6 | 2436.5 | 1876.3 | 1516.6 | 1331.6 | 1211.8 | 1206.5 |
| 12.5° | 6056.2 | 5623.6 | 4586.4 | 3424.2 | 2334.9 | 1566.2 | 1086.7 | 854.7 | 776.6 | 740.1 | 740.1 |
| 15° | 6139.6 | 5607.9 | 4292.0 | 2843.1 | 1649.5 | 979.8 | 721.8 | 659.3 | 654.1 | 654.1 | 654.1 |
| 17.5° | 6241.2 | 5613.2 | 3989.7 | 2277.6 | 1123.2 | 701.0 | 622.8 | 615.0 | 620.2 | 620.2 | 620.2 |
| 20° | 6345.4 | 5615.8 | 3663.9 | 1753.8 | 792.2 | 609.8 | 586.3 | 583.7 | 588.9 | 588.9 | 591.5 |
| 22.5° | 6473.1 | 5628.8 | 3338.2 | 1310.8 | 654.1 | 575.9 | 557.7 | 557.7 | 560.3 | 560.3 | 557.7 |
| 25° | 6619.0 | 5654.9 | 2999.4 | 972.0 | 596.8 | 552.5 | 536.8 | 534.2 | 536.8 | 534.2 | 531.6 |
| 27.5° | 6801.5 | 5691.3 | 2621.6 | 760.9 | 570.7 | 529.0 | 516.0 | 516.0 | 513.4 | 510.8 | 508.2 |
| 30° | 7030.8 | 5733.0 | 2196.8 | 646.3 | 544.6 | 508.2 | 495.1 | 492.5 | 489.9 | 484.7 | 484.7 |
| 32.5° | 7380.0 | 5824.2 | 1777.2 | 586.3 | 516.0 | 479.5 | 469.1 | 469.1 | 463.9 | 458.6 | 456.0 |
| 35° | 7916.8 | 6004.0 | 1402.0 | 549.8 | 484.7 | 448.2 | 435.2 | 435.2 | 430.0 | 427.4 | 424.8 |
| 37.5° | 8659.5 | 6277.7 | 1089.3 | 516.0 | 453.4 | 414.3 | 401.3 | 398.7 | 393.5 | 388.3 | 385.7 |
| 40° | 9647.1 | 6616.4 | 857.3 | 484.7 | 422.2 | 380.5 | 370.0 | 364.8 | 354.4 | 346.6 | 346.6 |
| 42.5° | 10887.5 | 7002.1 | 695.8 | 450.8 | 385.7 | 349.2 | 341.4 | 333.6 | 315.3 | 307.5 | 304.9 |
| 45° | 12185.3 | 7348.7 | 588.9 | 411.7 | 349.2 | 317.9 | 312.7 | 299.7 | 276.2 | 268.4 | 268.4 |
| 47.5° | 13120.8 | 7429.5 | 518.6 | 375.3 | 315.3 | 284.0 | 281.4 | 258.0 | 237.1 | 231.9 | 229.3 |
| 50° | 13704.5 | 7270.5 | 461.2 | 338.8 | 284.0 | 252.8 | 245.0 | 216.3 | 203.3 | 198.1 | 195.4 |
| 52.5° | 14098.0 | 6986.5 | 414.3 | 307.5 | 255.4 | 224.1 | 205.9 | 185.0 | 174.6 | 169.4 | 169.4 |
| 55° | 14413.4 | 6585.2 | 367.4 | 278.8 | 231.9 | 200.7 | 174.6 | 159.0 | 148.5 | 143.3 | 143.3 |
| 57.5° | 14502.0 | 6040.5 | 320.5 | 255.4 | 208.5 | 177.2 | 148.5 | 138.1 | 125.1 | 122.5 | 122.5 |
| 60° | 13858.3 | 5058.1 | 284.0 | 226.7 | 187.6 | 153.7 | 130.3 | 117.3 | 104.2 | 101.6 | 99.0 |
| 62.5° | 12161.8 | 3914.1 | 250.2 | 200.7 | 164.2 | 132.9 | 112.1 | 96.4 | 86.0 | 86.0 | 86.0 |
| 65° | 9277.1 | 2624.2 | 218.9 | 174.6 | 143.3 | 112.1 | 96.4 | 78.2 | 73.0 | 73.0 | 75.6 |
| 67.5° | 5553.2 | 1428.0 | 187.6 | 148.5 | 122.5 | 93.8 | 80.8 | 67.8 | 65.1 | 67.8 | 67.8 |
| 69° | 3254.8 | 839.1 | 169.4 | 132.9 | 106.8 | 83.4 | 70.4 | 59.9 | 65.1 | 67.8 | 67.8 |
| 70° | 2009.2 | 565.5 | 156.4 | 119.9 | 96.4 | 75.6 | 65.1 | 57.3 | 62.5 | 65.1 | 65.1 |
| 72.5° | 560.3 | 291.9 | 125.1 | 93.8 | 78.2 | 62.5 | 52.1 | 52.1 | 59.9 | 62.5 | 62.5 |
| 75° | 364.8 | 216.3 | 96.4 | 70.4 | 59.9 | 49.5 | 44.3 | 49.5 | 57.3 | 59.9 | 59.9 |
| 77.5° | 302.3 | 177.2 | 78.2 | 57.3 | 49.5 | 46.9 | 41.7 | 44.3 | 52.1 | 54.7 | 54.7 |
| 80° | 276.2 | 125.1 | 62.5 | 52.1 | 44.3 | 41.7 | 39.1 | 36.5 | 46.9 | 49.5 | 49.5 |
| 82.5° | 263.2 | 99.0 | 54.7 | 46.9 | 41.7 | 36.5 | 33.9 | 36.5 | 41.7 | 44.3 | 46.9 |
| 85° | 164.2 | 65.1 | 49.5 | 44.3 | 36.5 | 33.9 | 33.9 | 33.9 | 39.1 | 41.7 | 41.7 |
| 87.5° | 59.9 | 52.1 | 44.3 | 36.5 | 31.3 | 31.3 | 31.3 | 31.3 | 33.9 | 39.1 | 39.1 |
| 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)