

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: McGRAW-EDISON

Report Number: P193797

Luminaire Tested: **GLEON-AF-09-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P193797
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24294)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-09-LED-E1-SL4-8030
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41262 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

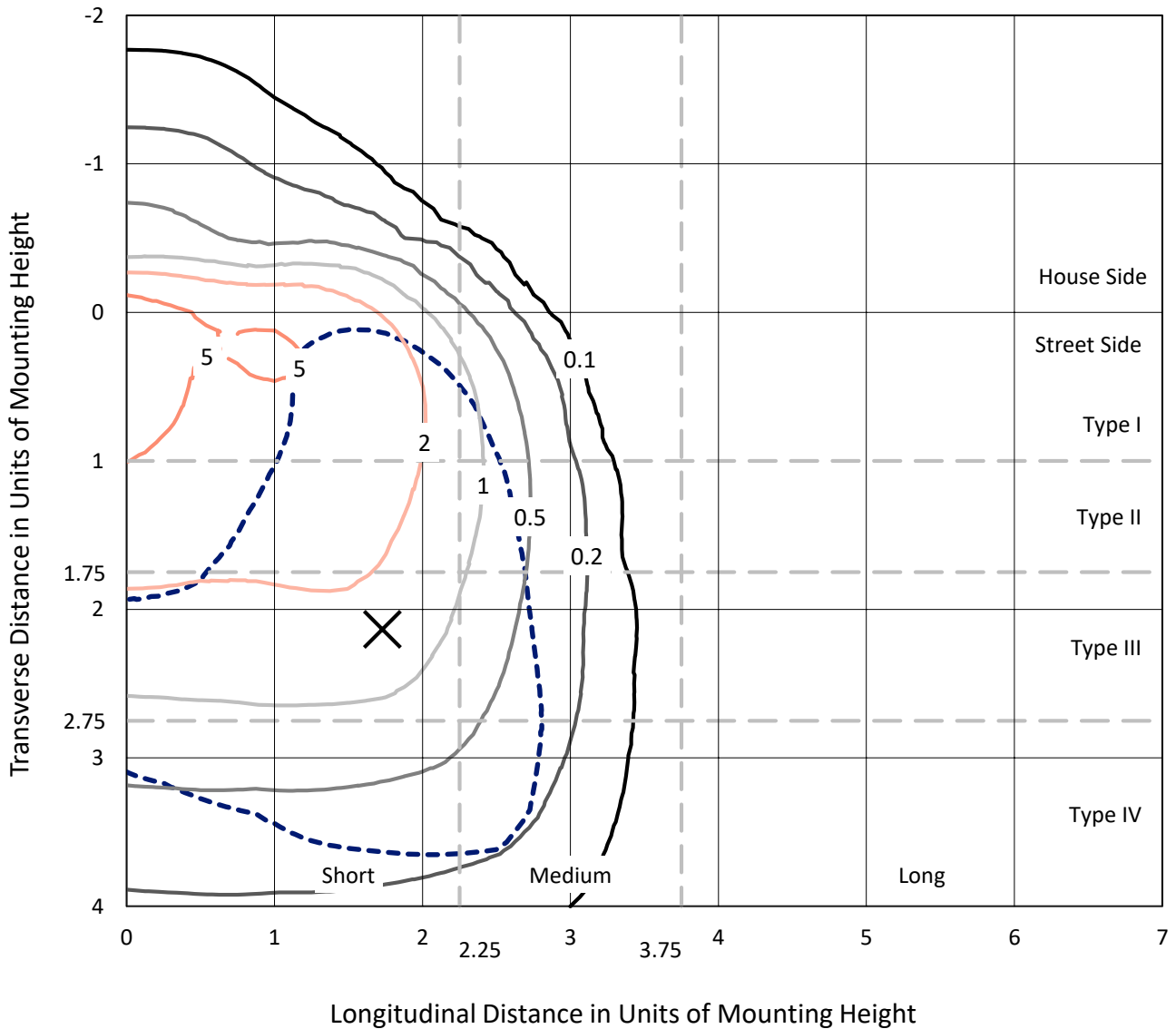
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

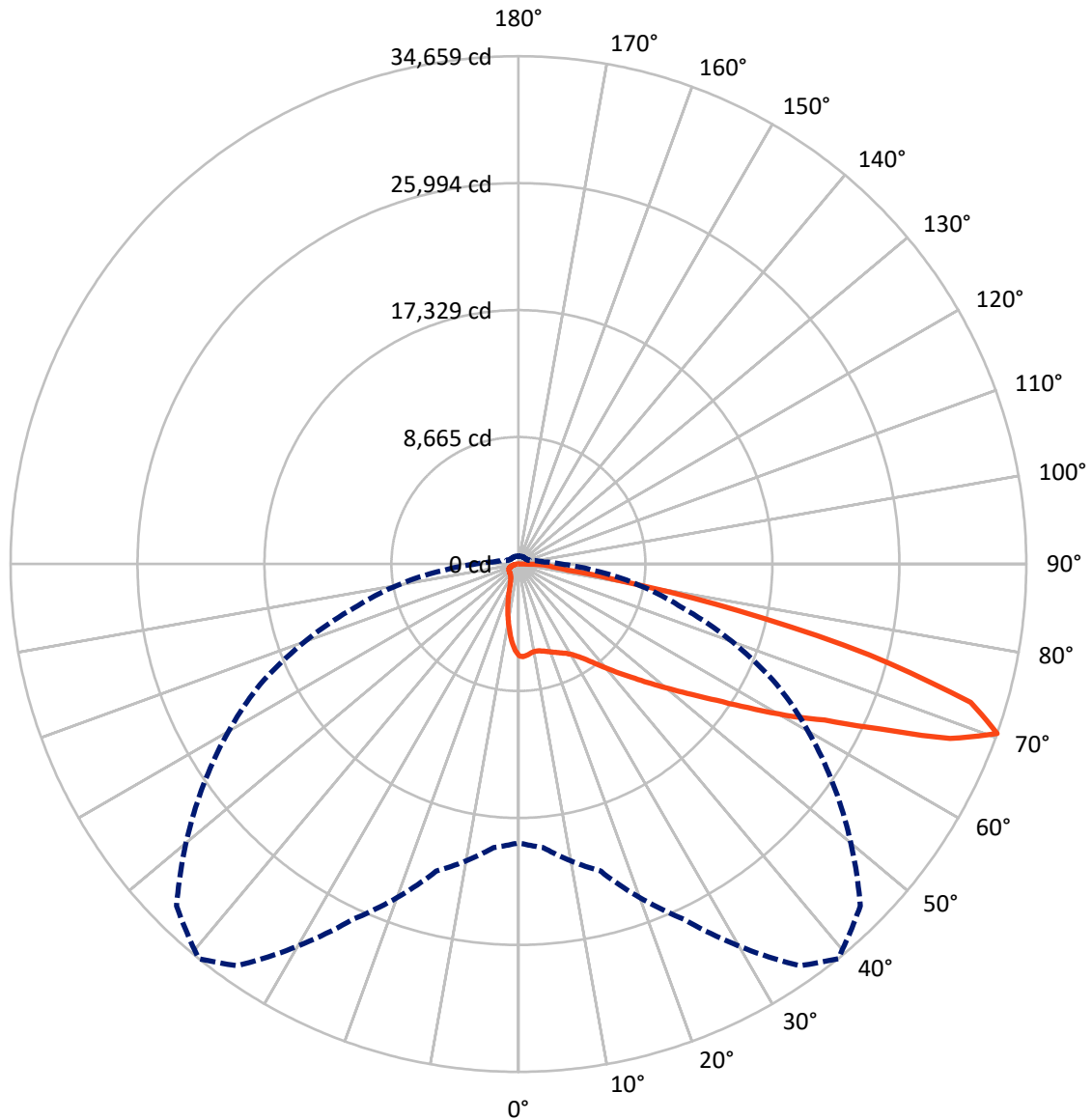
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4692.9 | 0.0 | 4692.9 |
| | % Fixture | 11.4 | 0.0 | 11.4 |
| Street Side | Lumens | 36569.1 | 0.0 | 36569.1 |
| | % Fixture | 88.6 | 0.0 | 88.6 |
| Total | Lumens | 41262.0 | 0.0 | 41262.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 537.6 | 1.3 |
| 10°-20° | 1343.8 | 3.3 |
| 20°-30° | 2092.3 | 5.1 |
| 30°-40° | 3259.4 | 7.9 |
| 40°-50° | 5472.0 | 13.3 |
| 50°-60° | 8692.7 | 21.1 |
| 60°-70° | 11595.1 | 28.1 |
| 70°-80° | 7002.0 | 17.0 |
| 80°-90° | 1267.3 | 3.1 |
| 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° | 41262.0 | 100.0 |
| 0°-180° | 41262.0 | 100.0 |



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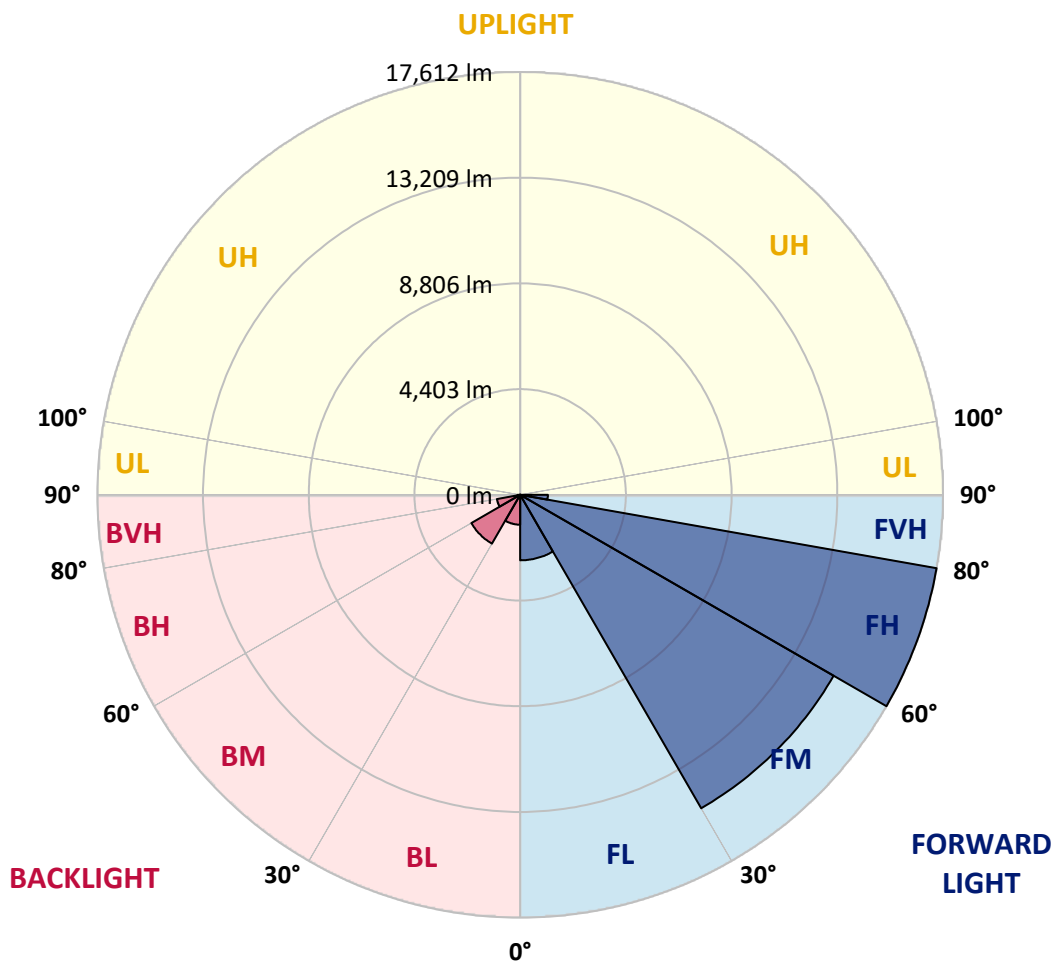
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2728.7 | 6.6 | | | |
| FM | (30°-60°) | 15075.5 | 36.5 | | | |
| FH | (60°-80°) | 17611.8 | 42.7 | | | G5 |
| FVH | (80°-90°) | 1153.0 | 2.8 | | | G5 |
| BL | (0°-30°) | 1244.9 | 3.0 | B3/2500 | | |
| BM | (30°-60°) | 2348.5 | 5.7 | B2/2500 | | |
| BH | (60°-80°) | 985.2 | 2.4 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 114.2 | 0.3 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 |
| 2.5° | 6385.9 | 6383.8 | 6367.0 | 6354.4 | 6343.9 | 6339.7 | 6348.1 | 6316.7 | 6289.4 | 6255.8 | 6220.2 |
| 5° | 6337.6 | 6335.5 | 6308.3 | 6283.1 | 6257.9 | 6249.5 | 6247.4 | 6190.8 | 6157.2 | 6106.9 | 6039.7 |
| 7.5° | 6285.2 | 6274.7 | 6239.0 | 6197.1 | 6153.0 | 6132.0 | 6111.1 | 6037.6 | 5999.9 | 5949.5 | 5871.9 |
| 10° | 6230.6 | 6218.1 | 6184.5 | 6142.5 | 6100.6 | 6069.1 | 6033.4 | 5962.1 | 5922.3 | 5884.5 | 5794.3 |
| 12.5° | 6174.0 | 6163.5 | 6155.1 | 6136.2 | 6106.9 | 6079.6 | 6052.3 | 5991.5 | 5949.5 | 5905.5 | 5800.6 |
| 15° | 6165.6 | 6161.4 | 6180.3 | 6192.9 | 6176.1 | 6159.3 | 6129.9 | 6077.5 | 6033.4 | 5989.4 | 5853.0 |
| 17.5° | 6232.7 | 6230.6 | 6278.9 | 6312.5 | 6304.1 | 6274.7 | 6234.8 | 6176.1 | 6140.4 | 6102.7 | 5932.7 |
| 20° | 6379.6 | 6390.1 | 6448.8 | 6492.9 | 6450.9 | 6409.0 | 6343.9 | 6262.1 | 6243.2 | 6226.4 | 6014.6 |
| 22.5° | 6656.5 | 6667.0 | 6709.0 | 6725.7 | 6616.7 | 6555.8 | 6465.6 | 6360.7 | 6348.1 | 6360.7 | 6113.2 |
| 25° | 7088.7 | 7078.2 | 7071.9 | 7009.0 | 6809.7 | 6715.3 | 6599.9 | 6490.8 | 6497.1 | 6553.7 | 6251.6 |
| 27.5° | 7661.4 | 7604.7 | 7516.6 | 7327.8 | 7011.0 | 6906.2 | 6765.6 | 6664.9 | 6704.8 | 6813.9 | 6459.3 |
| 30° | 8255.1 | 8192.1 | 7988.7 | 7680.3 | 7275.4 | 7160.0 | 7002.7 | 6889.4 | 6994.3 | 7166.3 | 6736.2 |
| 32.5° | 8804.7 | 8796.3 | 8498.4 | 8101.9 | 7640.4 | 7539.7 | 7382.4 | 7254.4 | 7424.3 | 7686.6 | 7151.6 |
| 35° | 9404.7 | 9423.6 | 9067.0 | 8590.7 | 8133.4 | 8028.5 | 7915.2 | 7818.7 | 8045.3 | 8406.1 | 7753.7 |
| 37.5° | 10046.7 | 10084.4 | 9662.7 | 9125.7 | 8695.6 | 8651.6 | 8584.4 | 8542.5 | 8892.8 | 9392.1 | 8594.9 |
| 40° | 10904.7 | 10866.9 | 10281.6 | 9729.9 | 9385.8 | 9383.7 | 9362.8 | 9413.1 | 9996.3 | 10680.2 | 9675.3 |
| 42.5° | 11823.5 | 11712.4 | 10938.2 | 10378.1 | 10143.2 | 10214.5 | 10256.4 | 10462.0 | 11324.3 | 12245.2 | 10992.8 |
| 45° | 12813.7 | 12564.1 | 11620.0 | 11064.1 | 10984.4 | 11135.4 | 11278.1 | 11724.9 | 12887.2 | 14026.3 | 12436.1 |
| 47.5° | 13604.6 | 13363.4 | 12324.9 | 11783.7 | 11957.8 | 12186.5 | 12461.3 | 13168.3 | 14636.8 | 15866.1 | 13860.6 |
| 50° | 14227.7 | 14070.3 | 13036.1 | 12622.8 | 13029.8 | 13382.3 | 13831.2 | 14802.5 | 16457.7 | 17657.7 | 15180.1 |
| 52.5° | 14831.9 | 14714.4 | 13753.6 | 13482.9 | 14288.5 | 14775.2 | 15385.7 | 16556.3 | 18324.8 | 19419.9 | 16289.9 |
| 55° | 15377.3 | 15293.4 | 14525.6 | 14555.0 | 15769.6 | 16403.2 | 17171.0 | 18553.5 | 20359.7 | 20991.2 | 17229.7 |
| 57.5° | 15992.0 | 15885.0 | 15406.7 | 15899.7 | 17672.4 | 18494.7 | 19493.3 | 20798.2 | 22268.8 | 22388.4 | 17945.1 |
| 60° | 16610.9 | 16518.6 | 16384.3 | 17452.1 | 20089.1 | 20953.4 | 21899.6 | 22973.7 | 24205.1 | 23473.0 | 17903.1 |
| 62.5° | 17147.9 | 17158.4 | 17395.5 | 19082.1 | 22455.5 | 23456.2 | 24610.0 | 25671.5 | 25956.8 | 23661.8 | 16579.4 |
| 65° | 18058.4 | 18224.1 | 18931.1 | 21389.8 | 25786.9 | 27125.3 | 28541.4 | 28371.5 | 26441.4 | 21897.5 | 13741.0 |
| 67.5° | 19140.9 | 19432.5 | 20865.3 | 24465.2 | 29997.3 | 31774.2 | 32321.7 | 28981.9 | 24500.9 | 17800.3 | 9794.9 |
| 70° | 19031.8 | 19432.5 | 21700.3 | 26758.2 | 33467.2 | 34658.8 | 32997.2 | 26229.5 | 19455.6 | 11628.4 | 5202.7 |
| 72.5° | 16900.4 | 17473.1 | 19998.9 | 25707.2 | 32374.2 | 32269.3 | 28646.3 | 19554.2 | 11559.2 | 4669.8 | 2032.8 |
| 75° | 12880.9 | 13459.9 | 15633.3 | 20309.4 | 25587.6 | 24706.5 | 20326.2 | 10801.9 | 4386.6 | 1854.5 | 1281.8 |
| 77.5° | 7409.6 | 7858.6 | 9536.9 | 12455.0 | 16233.2 | 15329.1 | 11313.8 | 4804.1 | 2135.6 | 1292.3 | 1000.7 |
| 80° | 4137.0 | 4386.6 | 5406.2 | 6318.8 | 7955.1 | 7292.2 | 5062.1 | 2985.3 | 1594.4 | 937.7 | 772.0 |
| 82.5° | 3270.6 | 3492.9 | 4371.9 | 3985.9 | 3633.5 | 3352.4 | 2907.6 | 2658.0 | 1273.4 | 591.6 | 461.5 |
| 85° | 2857.3 | 3069.2 | 3700.6 | 3138.4 | 2481.8 | 2276.2 | 2362.2 | 2616.0 | 990.2 | 356.6 | 394.4 |
| 87.5° | 2647.5 | 2930.7 | 3297.8 | 2418.8 | 1932.1 | 1711.9 | 2179.7 | 2867.8 | 318.9 | 222.4 | 159.4 |
| 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° | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 | 6264.2 |
| 2.5° | 6188.7 | 6155.1 | 6100.6 | 6052.3 | 5976.8 | 5936.9 | 5892.9 | 5861.4 | 5836.2 | 5815.3 | 5848.8 |
| 5° | 5997.8 | 5934.8 | 5819.5 | 5695.7 | 5548.8 | 5433.5 | 5337.0 | 5246.7 | 5183.8 | 5141.9 | 5171.2 |
| 7.5° | 5817.4 | 5714.6 | 5534.2 | 5309.7 | 5057.9 | 4844.0 | 4667.7 | 4512.5 | 4405.5 | 4336.3 | 4363.5 |
| 10° | 5714.6 | 5586.6 | 5307.6 | 4955.1 | 4583.8 | 4250.3 | 3973.3 | 3734.2 | 3568.5 | 3474.1 | 3488.7 |
| 12.5° | 5689.4 | 5523.7 | 5137.7 | 4653.1 | 4145.4 | 3681.7 | 3291.5 | 2960.1 | 2727.2 | 2605.5 | 2609.7 |
| 15° | 5708.3 | 5496.4 | 4978.2 | 4363.5 | 3721.6 | 3136.3 | 2649.6 | 2246.8 | 1976.2 | 1837.7 | 1835.6 |
| 17.5° | 5739.7 | 5475.4 | 4810.4 | 4051.0 | 3291.5 | 2611.8 | 2068.5 | 1674.1 | 1434.9 | 1323.7 | 1315.4 |
| 20° | 5773.3 | 5441.8 | 4621.6 | 3713.2 | 2844.7 | 2125.1 | 1619.5 | 1311.2 | 1160.1 | 1099.3 | 1095.1 |
| 22.5° | 5821.6 | 5412.5 | 4426.5 | 3356.6 | 2406.2 | 1730.7 | 1332.1 | 1124.5 | 1044.7 | 1013.3 | 1009.1 |
| 25° | 5899.2 | 5397.8 | 4218.8 | 2985.3 | 2011.8 | 1447.5 | 1160.1 | 1032.1 | 986.0 | 965.0 | 962.9 |
| 27.5° | 6029.3 | 5418.8 | 4023.7 | 2624.4 | 1690.9 | 1256.6 | 1063.6 | 986.0 | 952.4 | 933.5 | 931.5 |
| 30° | 6197.1 | 5483.8 | 3818.1 | 2282.5 | 1441.2 | 1126.6 | 1004.9 | 954.5 | 927.3 | 908.4 | 908.4 |
| 32.5° | 6476.1 | 5592.9 | 3602.0 | 1986.7 | 1262.9 | 1036.3 | 960.8 | 927.3 | 904.2 | 889.5 | 887.4 |
| 35° | 6887.3 | 5798.5 | 3400.6 | 1741.2 | 1134.9 | 971.3 | 923.1 | 897.9 | 881.1 | 872.7 | 872.7 |
| 37.5° | 7485.2 | 6123.7 | 3222.3 | 1565.0 | 1057.3 | 927.3 | 887.4 | 868.5 | 858.0 | 858.0 | 858.0 |
| 40° | 8288.6 | 6572.6 | 3077.6 | 1447.5 | 1013.3 | 895.8 | 860.1 | 845.4 | 839.1 | 841.2 | 841.2 |
| 42.5° | 9280.9 | 7155.8 | 2981.1 | 1365.7 | 992.3 | 876.9 | 841.2 | 828.7 | 822.4 | 820.3 | 822.4 |
| 45° | 10411.7 | 7818.7 | 2970.6 | 1304.9 | 971.3 | 864.3 | 828.7 | 816.1 | 803.5 | 795.1 | 795.1 |
| 47.5° | 11511.0 | 8492.1 | 3056.6 | 1283.9 | 948.2 | 849.6 | 818.2 | 805.6 | 786.7 | 767.8 | 767.8 |
| 50° | 12482.3 | 9064.9 | 3172.0 | 1292.3 | 939.8 | 828.7 | 801.4 | 795.1 | 765.7 | 744.7 | 742.6 |
| 52.5° | 13254.3 | 9505.4 | 3266.4 | 1317.5 | 948.2 | 814.0 | 780.4 | 782.5 | 751.0 | 728.0 | 725.9 |
| 55° | 13873.2 | 9794.9 | 3241.2 | 1342.6 | 967.1 | 805.6 | 761.5 | 765.7 | 740.5 | 717.5 | 717.5 |
| 57.5° | 14143.8 | 9687.9 | 2962.2 | 1321.7 | 981.8 | 807.7 | 746.8 | 763.6 | 742.6 | 721.7 | 721.7 |
| 60° | 13562.7 | 8737.6 | 2439.8 | 1229.3 | 962.9 | 801.4 | 740.5 | 772.0 | 769.9 | 748.9 | 746.8 |
| 62.5° | 11804.7 | 7036.2 | 1892.3 | 1093.0 | 897.9 | 769.9 | 723.8 | 769.9 | 793.0 | 786.7 | 784.6 |
| 65° | 9098.4 | 5011.8 | 1445.4 | 946.1 | 809.8 | 717.5 | 679.7 | 721.7 | 753.1 | 761.5 | 759.4 |
| 67.5° | 5905.5 | 3071.3 | 1114.0 | 807.7 | 711.2 | 656.6 | 623.1 | 641.9 | 648.2 | 648.2 | 644.0 |
| 70° | 2903.4 | 1653.1 | 887.4 | 679.7 | 610.5 | 591.6 | 572.7 | 562.2 | 551.7 | 543.3 | 543.3 |
| 72.5° | 1432.8 | 1080.4 | 730.1 | 574.8 | 526.6 | 518.2 | 514.0 | 501.4 | 493.0 | 482.5 | 478.3 |
| 75° | 1059.4 | 879.0 | 621.0 | 484.6 | 453.1 | 444.7 | 453.1 | 442.6 | 440.6 | 432.2 | 428.0 |
| 77.5° | 870.6 | 748.9 | 535.0 | 415.4 | 388.1 | 373.4 | 386.0 | 388.1 | 390.2 | 377.6 | 373.4 |
| 80° | 707.0 | 633.6 | 446.8 | 344.0 | 318.9 | 308.4 | 316.8 | 333.6 | 337.8 | 318.9 | 310.5 |
| 82.5° | 509.8 | 518.2 | 360.8 | 268.5 | 247.5 | 239.2 | 255.9 | 276.9 | 281.1 | 253.8 | 247.5 |
| 85° | 428.0 | 432.2 | 276.9 | 190.9 | 169.9 | 157.3 | 184.6 | 205.6 | 220.3 | 193.0 | 186.7 |
| 87.5° | 178.3 | 253.8 | 159.4 | 107.0 | 94.4 | 81.8 | 98.6 | 109.1 | 132.2 | 121.7 | 119.6 |
| 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)