

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: P191582

Luminaire Tested: **GLEON-AF-04-LED-E1-T4W-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24147)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-04-LED-E1-T4W-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26756.3 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

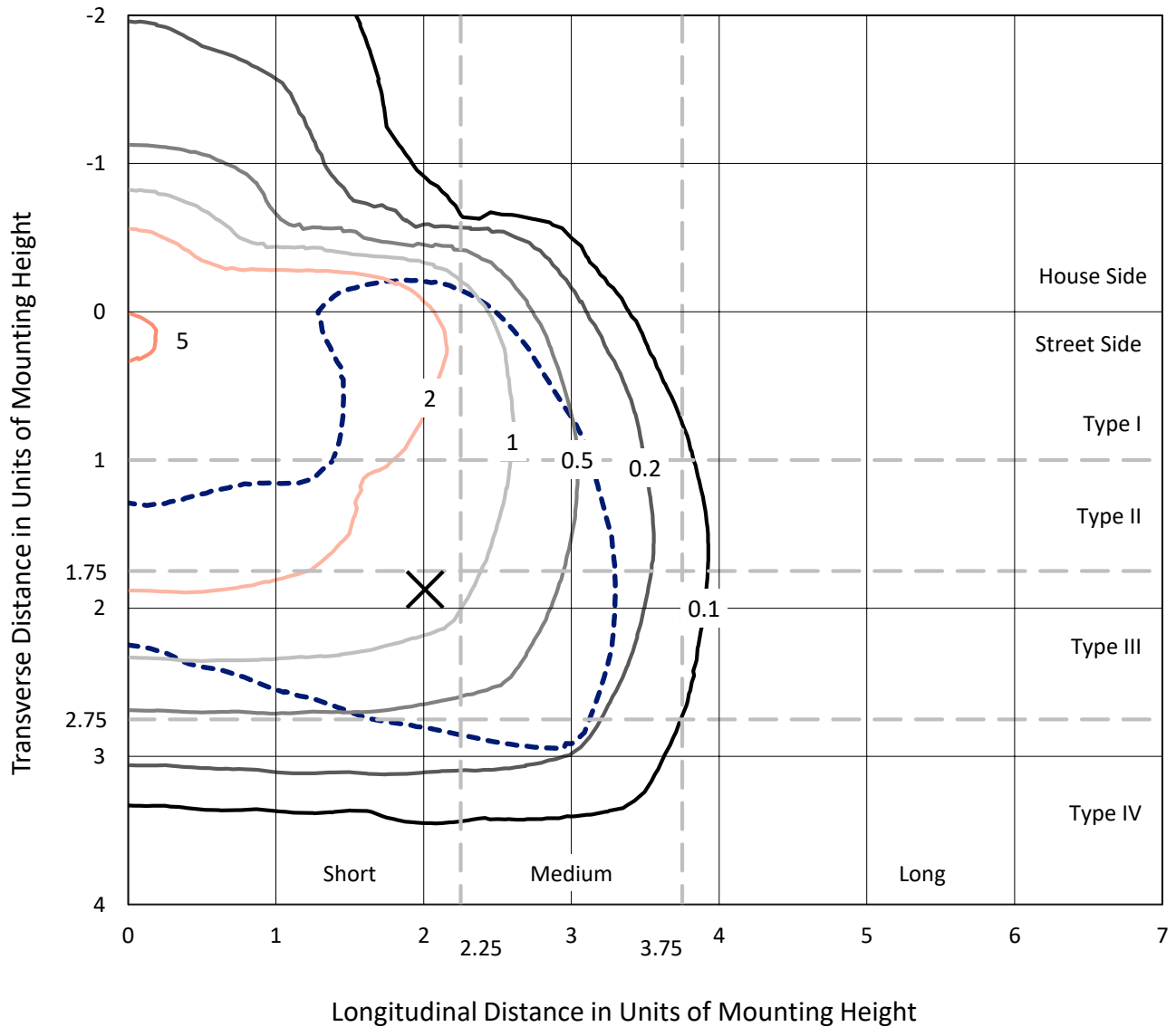
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

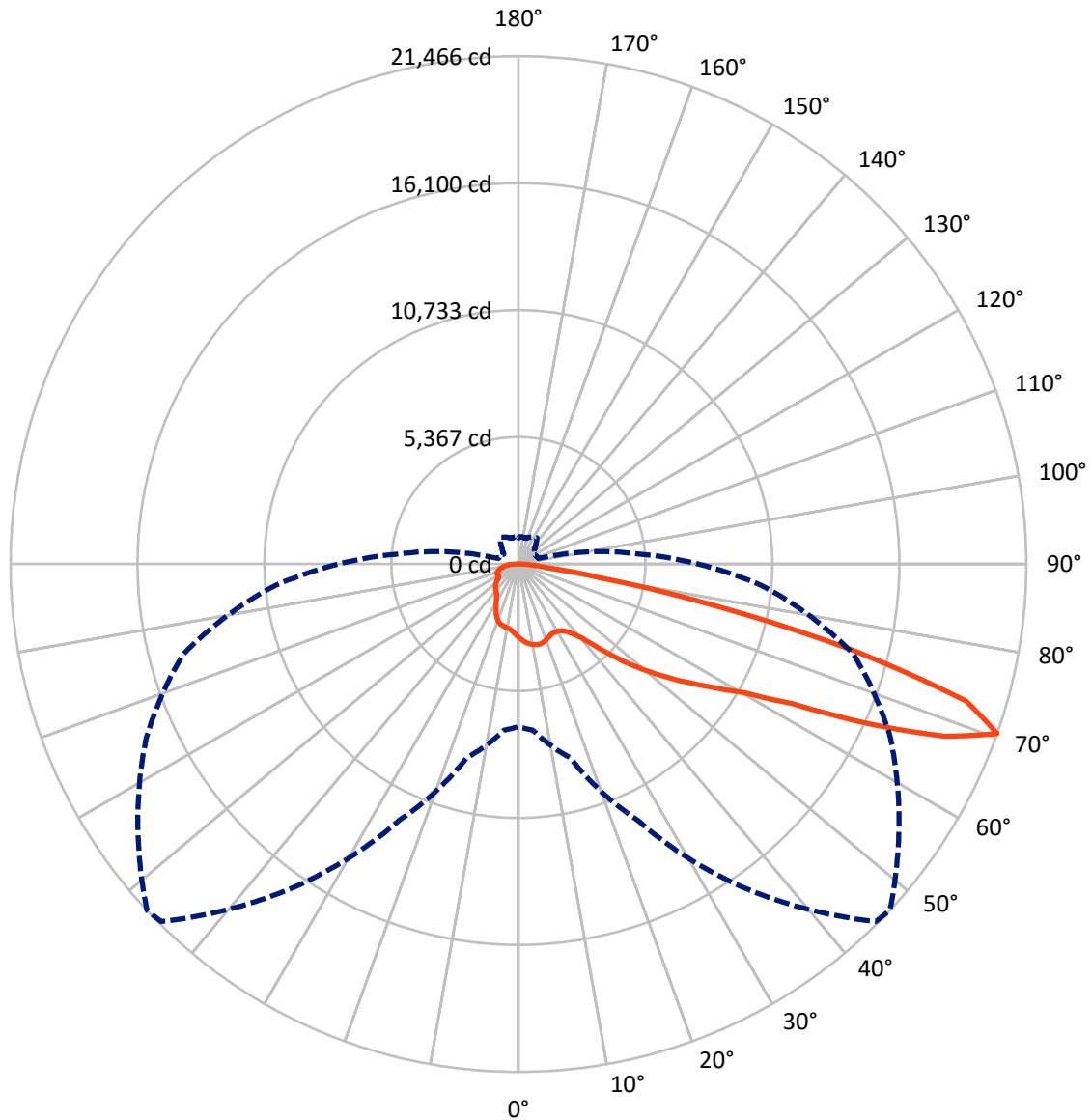
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5581.9 | 0.0 | 5581.9 |
| | % Fixture | 20.9 | 0.0 | 20.9 |
| Street Side | Lumens | 21174.4 | 0.0 | 21174.4 |
| | % Fixture | 79.1 | 0.0 | 79.1 |
| Total | Lumens | 26756.3 | 0.0 | 26756.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 297.5 | 1.1 |
| 10°-20° | 872.7 | 3.3 |
| 20°-30° | 1288.7 | 4.8 |
| 30°-40° | 1873.2 | 7.0 |
| 40°-50° | 3371.0 | 12.6 |
| 50°-60° | 5839.9 | 21.8 |
| 60°-70° | 8335.3 | 31.2 |
| 70°-80° | 4278.9 | 16.0 |
| 80°-90° | 599.0 | 2.2 |
| 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° | 26756.3 | 100.0 |
| 0°-180° | 26756.3 | 100.0 |

Coefficient of Utilization



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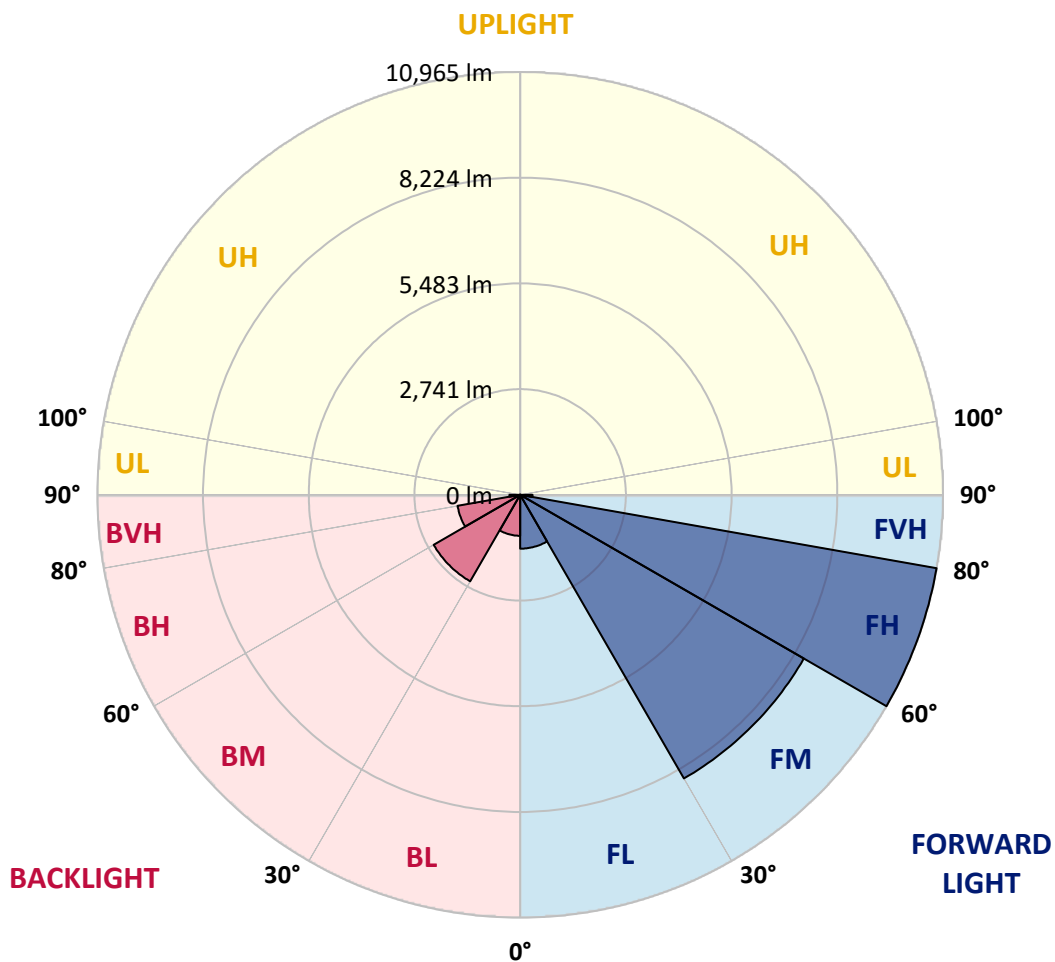
CATALOG NUMBER: GLEON-AF-04-LED-E1-T4W-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1396.1 | 5.2 | | | |
| FM | (30°-60°) | 8493.2 | 31.7 | | | |
| FH | (60°-80°) | 10965.5 | 41.0 | | | G4/12000 |
| FVH | (80°-90°) | 319.7 | 1.2 | | | G3/500 |
| BL | (0°-30°) | 1062.8 | 4.0 | B3/2500 | | |
| BM | (30°-60°) | 2590.9 | 9.7 | B3/5000 | | |
| BH | (60°-80°) | 1648.7 | 6.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 279.4 | 1.0 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 47° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 |
| 2.5° | 3286.8 | 3280.3 | 3277.7 | 3272.5 | 3266.0 | 3233.4 | 3226.9 | 3203.5 | 3170.9 | 3137.1 | 3102.0 |
| 5° | 3502.9 | 3501.6 | 3487.2 | 3461.3 | 3419.6 | 3348.0 | 3331.0 | 3273.7 | 3197.0 | 3122.8 | 3048.6 |
| 7.5° | 3693.0 | 3681.2 | 3653.9 | 3601.8 | 3528.9 | 3431.3 | 3407.9 | 3328.5 | 3223.0 | 3121.5 | 3021.3 |
| 10° | 3832.2 | 3825.7 | 3765.8 | 3694.3 | 3599.3 | 3491.1 | 3463.8 | 3375.3 | 3259.4 | 3130.6 | 3005.6 |
| 12.5° | 3911.7 | 3898.6 | 3829.6 | 3743.7 | 3630.5 | 3525.0 | 3497.7 | 3407.9 | 3277.7 | 3130.6 | 2983.5 |
| 15° | 3906.4 | 3897.3 | 3828.3 | 3734.6 | 3620.0 | 3527.6 | 3502.9 | 3413.1 | 3273.7 | 3117.5 | 2954.9 |
| 17.5° | 3802.3 | 3806.2 | 3747.6 | 3655.2 | 3561.5 | 3491.1 | 3469.0 | 3385.8 | 3247.8 | 3091.6 | 2921.0 |
| 20° | 3620.0 | 3638.2 | 3599.3 | 3517.2 | 3465.1 | 3417.0 | 3402.6 | 3332.4 | 3207.4 | 3053.8 | 2884.6 |
| 22.5° | 3437.8 | 3454.7 | 3439.1 | 3370.1 | 3362.3 | 3333.7 | 3325.8 | 3275.1 | 3172.3 | 3030.4 | 2862.4 |
| 25° | 3303.7 | 3319.4 | 3316.7 | 3256.9 | 3280.3 | 3279.0 | 3272.5 | 3247.8 | 3164.4 | 3030.4 | 2866.3 |
| 27.5° | 3267.3 | 3272.5 | 3267.3 | 3212.6 | 3245.1 | 3271.2 | 3266.0 | 3262.1 | 3187.9 | 3068.1 | 2915.8 |
| 30° | 3392.2 | 3384.4 | 3344.1 | 3233.4 | 3263.4 | 3299.8 | 3294.6 | 3297.2 | 3258.2 | 3167.1 | 3026.5 |
| 32.5° | 3890.8 | 3855.6 | 3728.0 | 3417.0 | 3337.6 | 3357.1 | 3359.7 | 3402.6 | 3409.2 | 3319.4 | 3198.3 |
| 35° | 4636.6 | 4597.7 | 4432.3 | 3909.0 | 3568.0 | 3500.2 | 3500.2 | 3565.4 | 3604.4 | 3538.1 | 3465.1 |
| 37.5° | 5426.8 | 5383.9 | 5295.3 | 4591.1 | 4052.2 | 3748.9 | 3742.4 | 3788.0 | 3843.9 | 3859.6 | 3877.8 |
| 40° | 6325.0 | 6279.4 | 6304.1 | 5356.5 | 4727.8 | 4179.8 | 4087.3 | 4054.8 | 4205.8 | 4306.0 | 4451.8 |
| 42.5° | 7307.8 | 7286.9 | 7296.1 | 6209.1 | 5497.1 | 4824.1 | 4692.7 | 4524.7 | 4707.0 | 4885.3 | 5191.2 |
| 45° | 8217.7 | 8235.9 | 8226.8 | 7121.6 | 6353.6 | 5610.4 | 5471.0 | 5145.6 | 5323.9 | 5629.9 | 6128.4 |
| 47.5° | 9014.3 | 8938.9 | 9056.0 | 8118.8 | 7313.0 | 6490.3 | 6318.5 | 5882.4 | 6063.3 | 6440.8 | 7284.3 |
| 50° | 9981.4 | 9971.0 | 9799.3 | 9449.1 | 8472.8 | 7374.1 | 7149.0 | 6643.9 | 6925.1 | 7449.6 | 8740.9 |
| 52.5° | 10998.1 | 10809.3 | 10651.9 | 10483.9 | 9702.9 | 8280.2 | 8004.2 | 7402.8 | 7937.8 | 8597.8 | 10516.4 |
| 55° | 11206.3 | 11121.7 | 11317.0 | 11599.4 | 10888.8 | 9221.3 | 8899.8 | 8354.3 | 9078.1 | 9909.8 | 12564.1 |
| 57.5° | 11651.5 | 11650.3 | 12053.7 | 12557.5 | 12109.8 | 10219.7 | 9895.5 | 9503.7 | 10360.2 | 11413.4 | 14737.9 |
| 60° | 11952.3 | 12036.9 | 12786.7 | 13764.2 | 13308.6 | 11373.0 | 11074.9 | 10830.2 | 11818.2 | 13093.9 | 16763.3 |
| 62.5° | 12109.8 | 12224.3 | 13247.4 | 14253.7 | 15003.4 | 13293.0 | 12995.0 | 12642.1 | 13747.3 | 14937.0 | 17947.9 |
| 65° | 11455.0 | 11680.2 | 13175.8 | 14676.7 | 16487.4 | 16405.4 | 16271.3 | 15651.7 | 16159.3 | 16393.7 | 17519.7 |
| 67.5° | 9643.1 | 9873.4 | 11615.1 | 14282.3 | 17547.0 | 19407.1 | 19435.8 | 18377.4 | 17643.3 | 16518.6 | 14730.1 |
| 70° | 6870.4 | 7051.3 | 8492.3 | 11974.4 | 16739.9 | 21368.7 | 21466.4 | 19633.6 | 17347.8 | 14649.4 | 10291.3 |
| 72.5° | 3262.1 | 3372.7 | 4736.9 | 7793.4 | 13283.9 | 19579.0 | 19767.7 | 18029.9 | 14751.0 | 10845.8 | 5614.3 |
| 75° | 1198.9 | 1232.8 | 1601.1 | 3315.5 | 7704.8 | 14438.5 | 14661.1 | 12924.6 | 9778.4 | 5399.4 | 2138.7 |
| 77.5° | 718.5 | 740.7 | 898.2 | 1399.3 | 3030.4 | 8252.8 | 8582.1 | 7029.2 | 4273.5 | 2009.8 | 1051.8 |
| 80° | 502.5 | 518.1 | 644.4 | 870.8 | 1431.8 | 3145.0 | 3437.8 | 2869.0 | 1702.6 | 1271.7 | 765.4 |
| 82.5° | 339.7 | 347.6 | 453.0 | 588.4 | 951.5 | 1123.4 | 1211.9 | 1275.6 | 1148.1 | 946.3 | 485.5 |
| 85° | 222.6 | 230.4 | 307.2 | 387.9 | 605.3 | 580.5 | 593.6 | 751.1 | 838.3 | 643.0 | 269.4 |
| 87.5° | 127.6 | 132.8 | 184.8 | 206.9 | 296.8 | 246.0 | 248.6 | 395.7 | 536.3 | 433.4 | 164.0 |
| 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° | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 | 3104.6 |
| 2.5° | 3092.9 | 3075.9 | 3038.2 | 3014.7 | 2992.6 | 2987.4 | 2978.3 | 2977.0 | 2975.7 | 2975.7 | 2971.8 |
| 5° | 3023.8 | 2995.2 | 2936.7 | 2904.1 | 2876.7 | 2874.2 | 2872.9 | 2879.4 | 2882.0 | 2884.6 | 2880.6 |
| 7.5° | 2979.7 | 2940.6 | 2867.6 | 2820.8 | 2788.3 | 2780.5 | 2793.5 | 2823.4 | 2842.9 | 2850.8 | 2846.9 |
| 10° | 2952.2 | 2904.1 | 2819.5 | 2768.7 | 2741.4 | 2737.5 | 2754.4 | 2789.6 | 2829.9 | 2845.5 | 2844.2 |
| 12.5° | 2921.0 | 2866.3 | 2776.5 | 2723.2 | 2707.5 | 2715.3 | 2737.5 | 2770.0 | 2811.7 | 2836.4 | 2837.7 |
| 15° | 2889.7 | 2826.0 | 2733.5 | 2686.7 | 2680.2 | 2690.7 | 2711.4 | 2736.2 | 2768.7 | 2793.5 | 2796.0 |
| 17.5° | 2852.0 | 2785.6 | 2693.2 | 2645.0 | 2639.8 | 2645.0 | 2646.4 | 2659.4 | 2680.2 | 2703.7 | 2710.1 |
| 20° | 2811.7 | 2744.0 | 2647.7 | 2599.5 | 2576.1 | 2555.2 | 2531.8 | 2534.5 | 2540.9 | 2564.3 | 2569.6 |
| 22.5° | 2783.0 | 2715.3 | 2612.5 | 2546.1 | 2483.6 | 2421.1 | 2374.3 | 2367.8 | 2370.4 | 2389.9 | 2396.5 |
| 25° | 2785.6 | 2714.1 | 2603.4 | 2488.8 | 2352.2 | 2251.9 | 2189.4 | 2179.1 | 2177.8 | 2192.1 | 2201.2 |
| 27.5° | 2836.4 | 2764.8 | 2637.3 | 2430.3 | 2209.0 | 2060.6 | 1994.2 | 1986.4 | 1976.0 | 1979.9 | 1990.4 |
| 30° | 2949.7 | 2883.3 | 2719.3 | 2370.4 | 2054.1 | 1873.1 | 1804.2 | 1796.3 | 1782.1 | 1775.5 | 1783.3 |
| 32.5° | 3134.5 | 3079.8 | 2839.0 | 2313.1 | 1899.2 | 1713.0 | 1642.8 | 1625.9 | 1616.7 | 1608.9 | 1615.4 |
| 35° | 3441.7 | 3418.3 | 2999.1 | 2250.7 | 1762.5 | 1589.4 | 1525.6 | 1499.5 | 1486.6 | 1500.9 | 1511.3 |
| 37.5° | 3923.3 | 3936.3 | 3208.7 | 2153.0 | 1657.1 | 1507.4 | 1454.0 | 1424.0 | 1404.5 | 1416.3 | 1427.9 |
| 40° | 4605.4 | 4614.5 | 3440.4 | 2015.0 | 1565.9 | 1459.2 | 1402.0 | 1374.6 | 1347.2 | 1326.5 | 1325.1 |
| 42.5° | 5501.0 | 5408.5 | 3668.2 | 1865.4 | 1460.5 | 1429.3 | 1365.5 | 1331.7 | 1289.9 | 1232.8 | 1221.0 |
| 45° | 6563.2 | 6239.1 | 3841.3 | 1693.5 | 1342.0 | 1392.8 | 1325.1 | 1278.3 | 1213.2 | 1150.7 | 1144.2 |
| 47.5° | 7786.8 | 7130.7 | 3926.0 | 1515.2 | 1231.4 | 1339.5 | 1275.6 | 1201.5 | 1119.4 | 1088.2 | 1084.3 |
| 50° | 9281.1 | 8189.0 | 3966.3 | 1342.0 | 1135.1 | 1269.2 | 1204.1 | 1116.9 | 1047.9 | 1041.4 | 1037.5 |
| 52.5° | 10982.5 | 9462.1 | 3979.3 | 1200.1 | 1055.7 | 1178.0 | 1145.5 | 1060.9 | 1006.2 | 1011.4 | 1011.4 |
| 55° | 12763.3 | 10776.8 | 3802.3 | 1097.3 | 982.7 | 1084.3 | 1106.4 | 1038.8 | 993.2 | 1014.1 | 1021.8 |
| 57.5° | 14398.1 | 11941.8 | 3245.1 | 1017.9 | 913.8 | 1012.7 | 1092.1 | 1059.6 | 1028.4 | 1113.0 | 1118.2 |
| 60° | 15653.0 | 12630.5 | 2423.8 | 946.3 | 863.1 | 988.0 | 1129.8 | 1139.0 | 1146.8 | 1348.6 | 1375.9 |
| 62.5° | 15915.9 | 12401.3 | 1666.2 | 890.4 | 839.6 | 1008.8 | 1198.9 | 1200.1 | 1191.0 | 1331.7 | 1348.6 |
| 65° | 14709.2 | 10952.5 | 1211.9 | 859.1 | 820.1 | 1046.6 | 1257.4 | 1230.1 | 1170.3 | 1276.9 | 1245.7 |
| 67.5° | 11681.5 | 8251.5 | 1008.8 | 835.6 | 791.5 | 1043.9 | 1319.9 | 1257.4 | 1158.5 | 1251.0 | 1200.1 |
| 70° | 7582.4 | 4989.4 | 898.2 | 816.2 | 757.6 | 994.5 | 1356.3 | 1254.9 | 1124.6 | 1163.7 | 1103.9 |
| 72.5° | 3699.4 | 2231.2 | 824.0 | 787.6 | 722.4 | 925.5 | 1355.1 | 1231.4 | 1089.5 | 1086.9 | 1054.4 |
| 75° | 1447.5 | 1021.8 | 756.3 | 744.6 | 662.6 | 847.4 | 1318.6 | 1197.6 | 1047.9 | 1006.2 | 994.5 |
| 77.5° | 847.4 | 729.0 | 670.3 | 680.8 | 591.0 | 769.3 | 1265.3 | 1139.0 | 990.6 | 941.1 | 928.1 |
| 80° | 617.0 | 545.4 | 571.4 | 588.4 | 505.0 | 691.2 | 1193.7 | 1067.3 | 926.8 | 951.5 | 933.3 |
| 82.5° | 395.7 | 351.5 | 463.4 | 480.4 | 420.4 | 611.8 | 1115.5 | 991.9 | 837.0 | 760.2 | 741.9 |
| 85° | 201.7 | 222.6 | 344.9 | 365.8 | 324.2 | 502.5 | 1020.5 | 891.7 | 735.5 | 632.6 | 643.0 |
| 87.5° | 113.2 | 152.3 | 220.0 | 246.0 | 229.1 | 386.6 | 827.9 | 735.5 | 600.1 | 488.2 | 429.5 |
| 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)