

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: P191461

Luminaire Tested: **GLEON-AF-03-LED-E1-T3-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191461
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: MCGRAW-EDISON
Catalog Number: GLEON-AF-03-LED-E1-T3-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20396.6 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 191
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

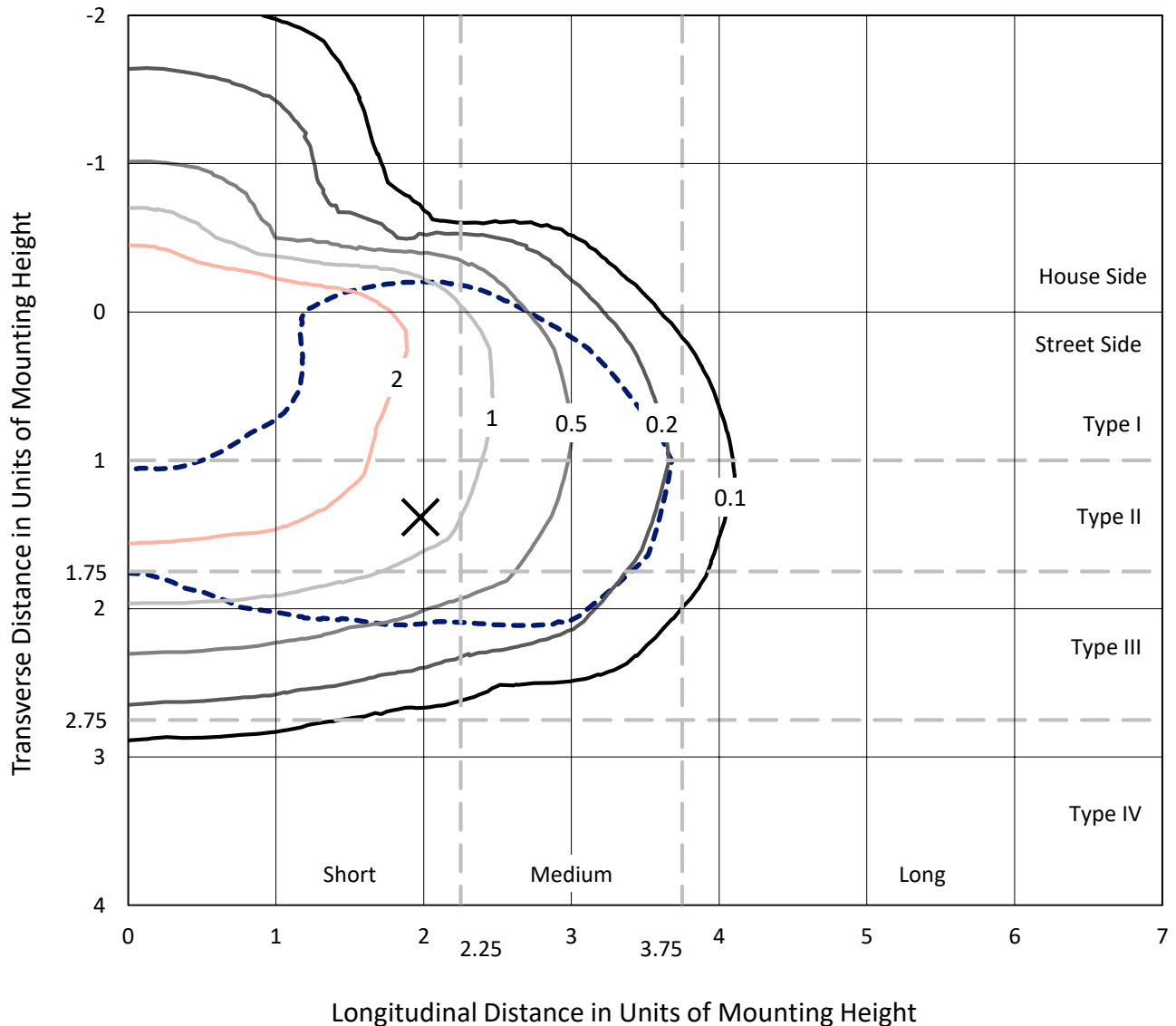


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

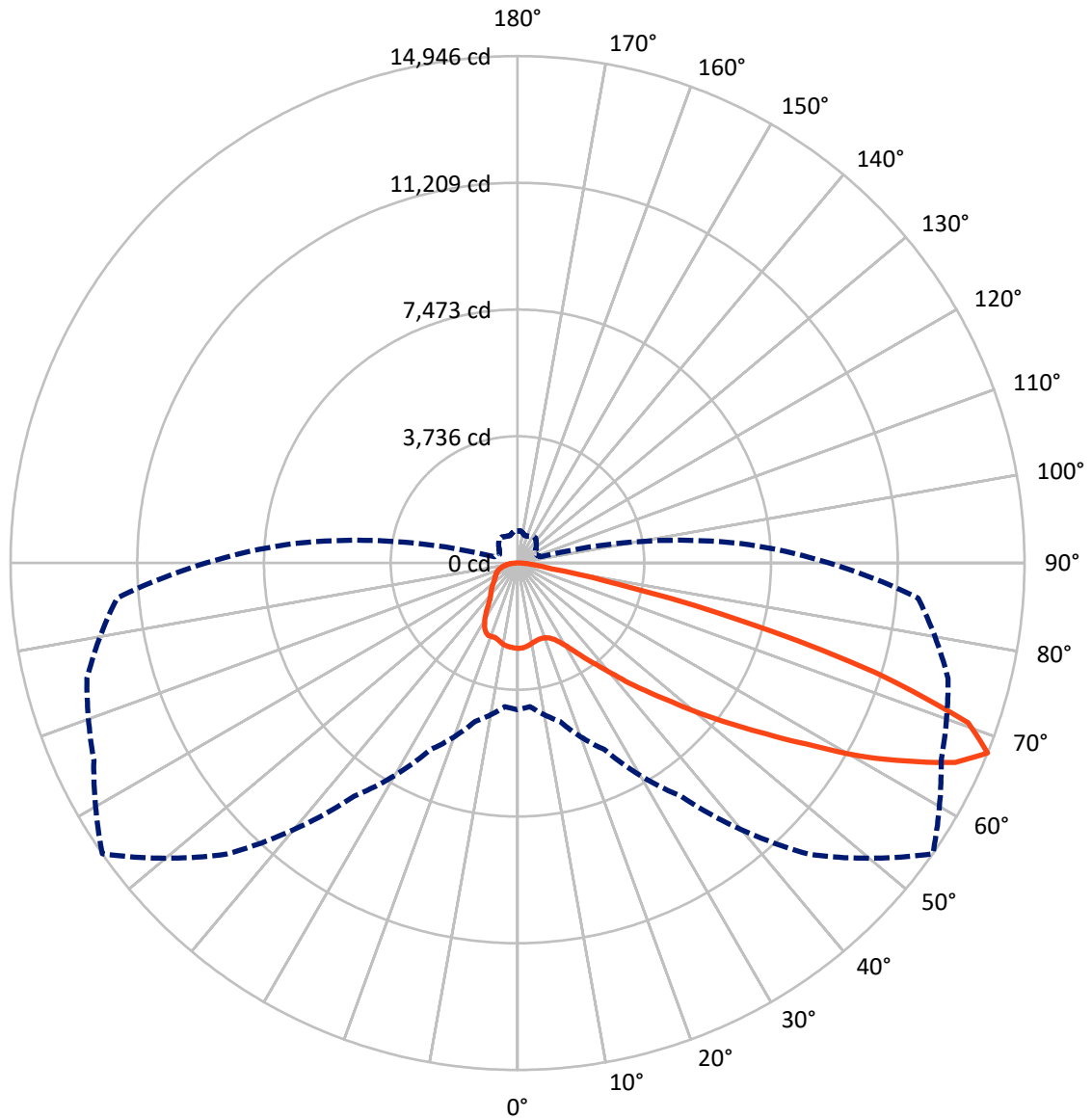


Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type III - Short - Full Cutoff

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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 | 4406.1 | 0.0 | 4406.1 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 15990.5 | 0.0 | 15990.5 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 20396.6 | 0.0 | 20396.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 234.8 | 1.2 |
| 10°-20° | 664.9 | 3.3 |
| 20°-30° | 1113.8 | 5.5 |
| 30°-40° | 1831.5 | 9.0 |
| 40°-50° | 3083.0 | 15.1 |
| 50°-60° | 4852.3 | 23.8 |
| 60°-70° | 5790.8 | 28.4 |
| 70°-80° | 2486.7 | 12.2 |
| 80°-90° | 339.0 | 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° | 20396.6 | 100.0 |
| 0°-180° | 20396.6 | 100.0 |



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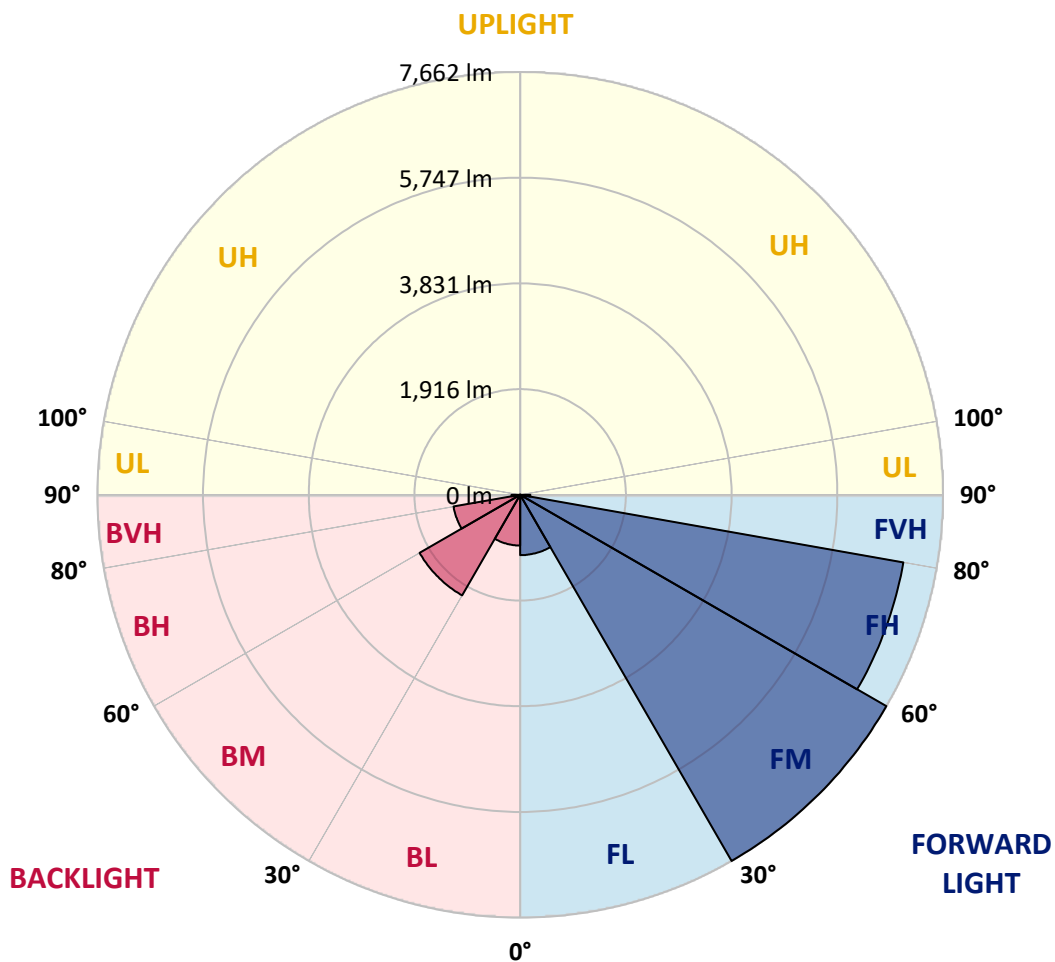
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1093.3 | 5.4 | | | |
| FM (30°-60°) | 7662.5 | 37.6 | | | |
| FH (60°-80°) | 7051.2 | 34.6 | | | G3/7500 |
| FVH (80°-90°) | 183.5 | 0.9 | | | G2/225 |
| BL (0°-30°) | 920.1 | 4.5 | B2/1000 | | |
| BM (30°-60°) | 2104.3 | 10.3 | B2/2500 | | |
| BH (60°-80°) | 1226.2 | 6.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 155.5 | 0.8 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 |
| 2.5° | 2493.4 | 2494.5 | 2496.4 | 2504.3 | 2511.1 | 2509.2 | 2510.2 | 2506.2 | 2505.3 | 2499.4 | 2505.3 |
| 5° | 2461.9 | 2464.9 | 2465.8 | 2478.7 | 2486.6 | 2488.5 | 2485.6 | 2480.7 | 2474.7 | 2468.8 | 2471.8 |
| 7.5° | 2390.0 | 2397.9 | 2398.9 | 2416.6 | 2429.4 | 2446.2 | 2447.1 | 2448.1 | 2445.2 | 2441.3 | 2447.1 |
| 10° | 2344.7 | 2346.6 | 2345.6 | 2358.5 | 2368.3 | 2387.1 | 2397.9 | 2416.6 | 2424.5 | 2426.4 | 2430.4 |
| 12.5° | 2341.7 | 2339.8 | 2336.8 | 2336.8 | 2333.9 | 2341.7 | 2361.5 | 2388.1 | 2406.8 | 2412.6 | 2417.6 |
| 15° | 2373.2 | 2372.3 | 2362.4 | 2347.7 | 2329.0 | 2323.0 | 2339.8 | 2369.4 | 2393.9 | 2406.8 | 2411.7 |
| 17.5° | 2444.2 | 2438.3 | 2422.6 | 2389.0 | 2348.6 | 2332.8 | 2334.9 | 2359.4 | 2388.1 | 2404.8 | 2409.7 |
| 20° | 2574.3 | 2574.3 | 2540.7 | 2477.7 | 2405.8 | 2368.3 | 2350.6 | 2365.4 | 2393.0 | 2415.6 | 2422.6 |
| 22.5° | 2798.9 | 2800.8 | 2744.7 | 2641.3 | 2520.0 | 2440.2 | 2396.0 | 2393.0 | 2425.5 | 2451.1 | 2459.0 |
| 25° | 3117.0 | 3109.2 | 3030.4 | 2882.6 | 2698.3 | 2566.4 | 2489.6 | 2471.8 | 2499.4 | 2527.9 | 2537.7 |
| 27.5° | 3487.4 | 3458.9 | 3365.3 | 3187.0 | 2948.6 | 2755.5 | 2637.3 | 2608.7 | 2635.3 | 2667.9 | 2677.7 |
| 30° | 3854.0 | 3824.4 | 3713.1 | 3518.0 | 3253.0 | 3008.7 | 2839.2 | 2793.0 | 2830.4 | 2876.6 | 2882.6 |
| 32.5° | 4220.5 | 4220.5 | 4096.3 | 3868.7 | 3580.1 | 3311.2 | 3108.2 | 3053.0 | 3115.1 | 3171.2 | 3184.0 |
| 35° | 4658.8 | 4660.8 | 4540.7 | 4266.7 | 3956.5 | 3671.7 | 3448.1 | 3407.7 | 3501.3 | 3540.6 | 3571.2 |
| 37.5° | 5197.7 | 5208.6 | 5053.9 | 4722.9 | 4383.0 | 4083.5 | 3817.6 | 3762.3 | 3855.9 | 3963.3 | 4061.8 |
| 40° | 5780.0 | 5793.8 | 5623.4 | 5215.4 | 4875.6 | 4562.3 | 4274.6 | 4175.2 | 4330.8 | 4535.7 | 4662.8 |
| 42.5° | 6335.5 | 6406.5 | 6242.0 | 5822.3 | 5456.8 | 5132.8 | 4841.1 | 4696.3 | 4891.3 | 5200.7 | 5311.1 |
| 45° | 7138.5 | 7189.7 | 6903.1 | 6522.7 | 6178.9 | 5816.4 | 5430.2 | 5277.5 | 5550.4 | 5940.6 | 5963.2 |
| 47.5° | 7673.5 | 7635.0 | 7489.2 | 7252.8 | 7035.0 | 6696.1 | 6114.9 | 5947.4 | 6310.0 | 6769.1 | 6642.0 |
| 50° | 7958.1 | 7970.0 | 7950.3 | 7964.1 | 7972.0 | 7759.2 | 6954.3 | 6724.8 | 7157.2 | 7711.8 | 7419.3 |
| 52.5° | 8224.1 | 8145.3 | 8210.4 | 8533.5 | 8923.6 | 8844.8 | 7867.5 | 7628.1 | 8065.6 | 8758.1 | 8240.9 |
| 55° | 8218.3 | 8098.1 | 8309.8 | 8880.2 | 9726.5 | 9817.2 | 8893.1 | 8617.2 | 9026.1 | 9880.2 | 9111.8 |
| 57.5° | 7927.7 | 7933.5 | 8259.6 | 9006.4 | 10286.1 | 10731.4 | 10083.1 | 9669.4 | 10044.8 | 11017.1 | 9906.8 |
| 60° | 7527.7 | 7581.8 | 8051.7 | 8985.7 | 10734.3 | 11481.1 | 11543.2 | 10803.3 | 11042.8 | 12050.6 | 10564.9 |
| 62.5° | 6882.3 | 6939.5 | 7587.7 | 8770.9 | 10666.4 | 12203.2 | 12863.3 | 12089.9 | 12086.0 | 12677.1 | 10758.0 |
| 65° | 5864.7 | 5847.9 | 6528.7 | 7968.0 | 10096.0 | 12737.2 | 14174.5 | 13202.2 | 12872.2 | 12686.9 | 10369.9 |
| 67.5° | 4324.8 | 4250.0 | 4834.2 | 6068.7 | 8391.7 | 12139.2 | 14945.9 | 13781.5 | 13140.1 | 11852.5 | 9183.7 |
| 70° | 2244.3 | 2169.4 | 2642.2 | 3543.6 | 5518.9 | 9474.4 | 14091.8 | 13482.0 | 12548.0 | 9935.4 | 7194.6 |
| 72.5° | 959.5 | 946.7 | 1138.9 | 1554.6 | 2669.8 | 5464.7 | 11049.6 | 11669.3 | 10766.9 | 7402.5 | 4946.5 |
| 75° | 645.3 | 641.4 | 713.3 | 847.2 | 1200.9 | 2217.7 | 6914.8 | 8283.2 | 7877.3 | 4589.9 | 2782.1 |
| 77.5° | 506.4 | 501.5 | 543.8 | 608.9 | 778.3 | 874.8 | 3068.8 | 4447.1 | 4116.0 | 1997.9 | 1217.6 |
| 80° | 396.1 | 392.1 | 418.7 | 454.2 | 559.6 | 551.7 | 1009.8 | 1769.4 | 1369.4 | 765.5 | 592.1 |
| 82.5° | 312.3 | 312.3 | 334.0 | 334.9 | 397.0 | 376.3 | 527.0 | 779.3 | 683.7 | 446.3 | 362.5 |
| 85° | 285.7 | 285.7 | 308.3 | 250.2 | 259.1 | 237.4 | 327.0 | 462.1 | 433.4 | 183.2 | 157.6 |
| 87.5° | 143.8 | 139.9 | 259.1 | 221.7 | 140.9 | 126.1 | 159.6 | 223.6 | 240.4 | 101.5 | 78.8 |
| 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° | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 | 2515.1 |
| 2.5° | 2503.3 | 2502.3 | 2504.3 | 2505.3 | 2513.2 | 2524.0 | 2528.9 | 2535.8 | 2539.8 | 2537.7 |
| 5° | 2473.7 | 2475.7 | 2483.6 | 2489.6 | 2503.3 | 2521.1 | 2530.9 | 2538.8 | 2545.7 | 2542.7 |
| 7.5° | 2449.1 | 2454.1 | 2465.8 | 2470.8 | 2478.7 | 2483.6 | 2482.6 | 2485.6 | 2491.5 | 2484.5 |
| 10° | 2435.3 | 2441.3 | 2450.1 | 2443.2 | 2424.5 | 2397.9 | 2373.2 | 2360.5 | 2364.3 | 2359.4 |
| 12.5° | 2421.5 | 2429.4 | 2422.6 | 2390.0 | 2337.7 | 2303.3 | 2284.6 | 2286.6 | 2295.4 | 2297.4 |
| 15° | 2413.7 | 2416.6 | 2387.1 | 2326.0 | 2272.8 | 2267.9 | 2277.7 | 2275.8 | 2276.7 | 2276.7 |
| 17.5° | 2413.7 | 2405.8 | 2350.6 | 2289.6 | 2266.9 | 2258.0 | 2227.5 | 2189.0 | 2172.3 | 2166.4 |
| 20° | 2426.4 | 2405.8 | 2338.8 | 2298.4 | 2249.2 | 2173.3 | 2092.4 | 2021.6 | 1990.0 | 1981.1 |
| 22.5° | 2464.9 | 2429.4 | 2372.3 | 2302.4 | 2162.4 | 2035.4 | 1907.3 | 1822.6 | 1765.4 | 1755.6 |
| 25° | 2542.7 | 2503.3 | 2438.3 | 2250.1 | 2024.5 | 1843.3 | 1697.5 | 1602.9 | 1545.7 | 1537.8 |
| 27.5° | 2678.7 | 2653.0 | 2473.7 | 2134.9 | 1841.3 | 1647.2 | 1512.2 | 1439.3 | 1396.9 | 1394.0 |
| 30° | 2883.6 | 2870.8 | 2456.0 | 1964.4 | 1615.6 | 1457.1 | 1392.0 | 1349.7 | 1318.2 | 1317.2 |
| 32.5° | 3210.6 | 3107.2 | 2397.9 | 1756.5 | 1409.7 | 1322.1 | 1295.5 | 1269.9 | 1245.2 | 1245.2 |
| 35° | 3631.3 | 3298.3 | 2287.5 | 1533.9 | 1284.6 | 1247.2 | 1213.7 | 1173.3 | 1140.8 | 1138.9 |
| 37.5° | 4125.9 | 3416.6 | 2089.6 | 1354.6 | 1225.5 | 1197.0 | 1147.8 | 1087.6 | 1030.5 | 1020.6 |
| 40° | 4625.4 | 3452.0 | 1810.7 | 1244.2 | 1188.2 | 1146.7 | 1086.7 | 1015.7 | 960.6 | 957.6 |
| 42.5° | 5083.5 | 3384.0 | 1515.2 | 1168.4 | 1150.7 | 1095.5 | 1032.5 | 969.5 | 926.1 | 925.1 |
| 45° | 5467.7 | 3207.7 | 1266.9 | 1096.5 | 1111.2 | 1049.2 | 993.1 | 941.8 | 908.3 | 901.4 |
| 47.5° | 5829.2 | 2958.5 | 1092.5 | 1020.6 | 1071.8 | 1023.6 | 976.3 | 928.0 | 895.5 | 890.6 |
| 50° | 6248.9 | 2689.5 | 970.4 | 946.7 | 1037.4 | 1014.8 | 990.1 | 939.9 | 885.7 | 879.7 |
| 52.5° | 6757.2 | 2457.0 | 874.8 | 881.7 | 1010.8 | 1026.5 | 1025.5 | 973.3 | 878.8 | 870.8 |
| 55° | 7324.7 | 2198.9 | 802.9 | 828.5 | 999.9 | 1048.2 | 1034.4 | 1004.8 | 884.6 | 872.9 |
| 57.5° | 7883.3 | 1897.5 | 752.7 | 788.1 | 984.2 | 1046.3 | 992.1 | 949.7 | 898.5 | 881.7 |
| 60° | 8302.0 | 1492.5 | 714.2 | 752.7 | 949.7 | 1013.7 | 945.7 | 889.6 | 895.5 | 882.7 |
| 62.5° | 8329.6 | 1153.6 | 668.0 | 722.1 | 897.4 | 981.2 | 915.2 | 863.0 | 908.3 | 896.5 |
| 65° | 7839.9 | 871.9 | 623.6 | 685.7 | 841.4 | 960.6 | 885.7 | 848.2 | 934.9 | 922.1 |
| 67.5° | 6600.6 | 701.4 | 586.2 | 648.2 | 785.2 | 917.2 | 859.1 | 834.4 | 958.6 | 935.9 |
| 70° | 4765.2 | 598.0 | 549.7 | 602.9 | 734.9 | 868.0 | 835.4 | 809.8 | 894.6 | 859.1 |
| 72.5° | 2933.8 | 518.2 | 508.3 | 542.8 | 696.5 | 816.7 | 799.9 | 763.5 | 805.9 | 777.3 |
| 75° | 1465.0 | 449.3 | 462.1 | 483.8 | 642.3 | 758.6 | 740.8 | 704.4 | 710.3 | 704.4 |
| 77.5° | 701.4 | 384.2 | 407.9 | 424.6 | 572.3 | 692.5 | 673.8 | 636.4 | 629.5 | 630.5 |
| 80° | 444.3 | 321.2 | 343.8 | 355.7 | 511.3 | 615.7 | 597.0 | 559.6 | 638.4 | 592.1 |
| 82.5° | 277.8 | 261.1 | 267.0 | 288.7 | 445.3 | 535.9 | 511.3 | 477.8 | 575.3 | 455.1 |
| 85° | 153.6 | 182.3 | 190.2 | 208.9 | 342.8 | 448.3 | 423.6 | 381.3 | 341.9 | 335.9 |
| 87.5° | 91.7 | 108.3 | 111.3 | 125.1 | 230.6 | 324.1 | 286.7 | 271.9 | 225.6 | 224.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)