

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: P458752

Luminaire Tested: **GALN-SA3A-735-U-SL2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458752
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA3A-735-U-SL2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12694 lumens
Efficiency: N/A
Efficacy: 136.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G3

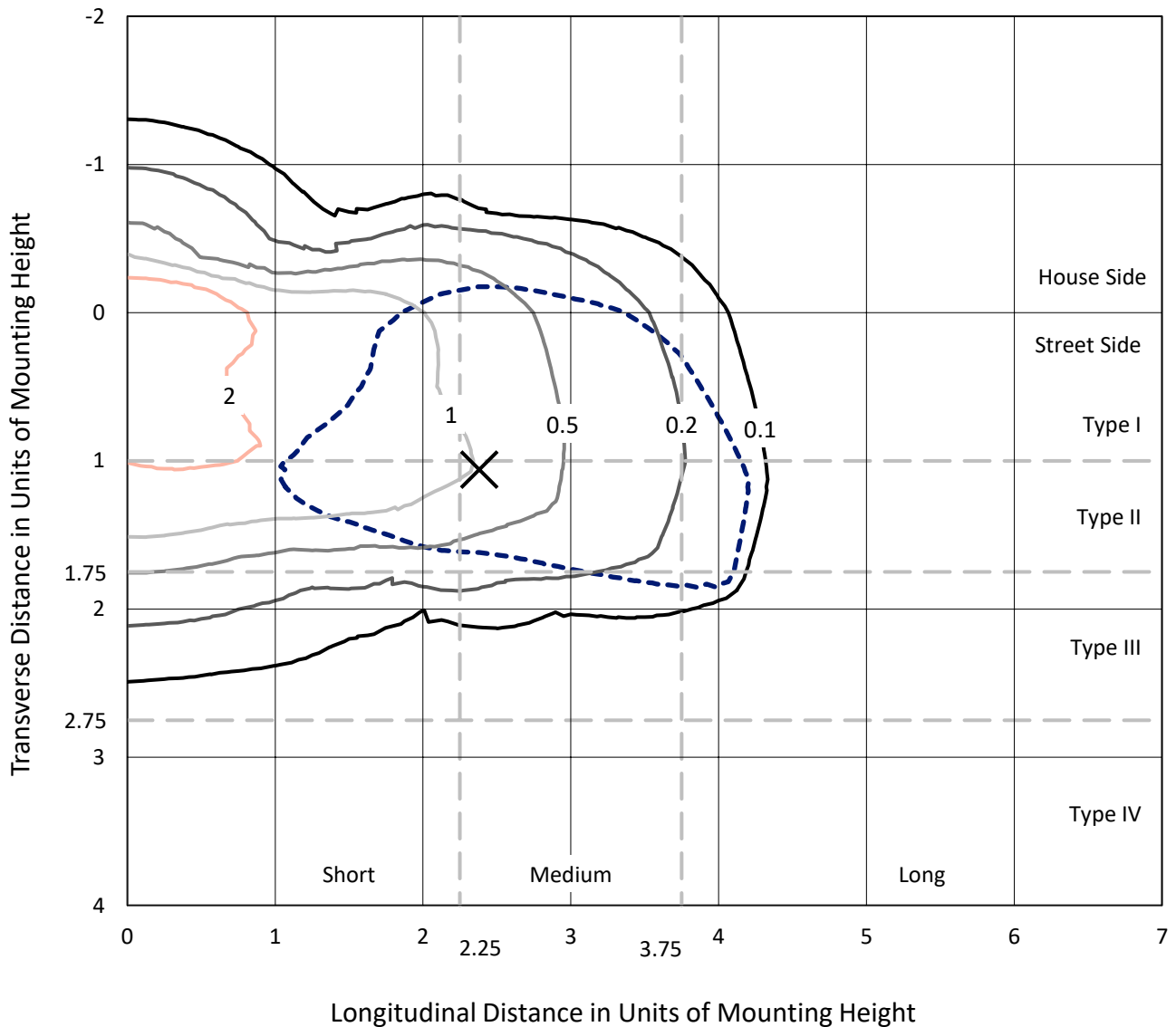
Input Watts (W): 93
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

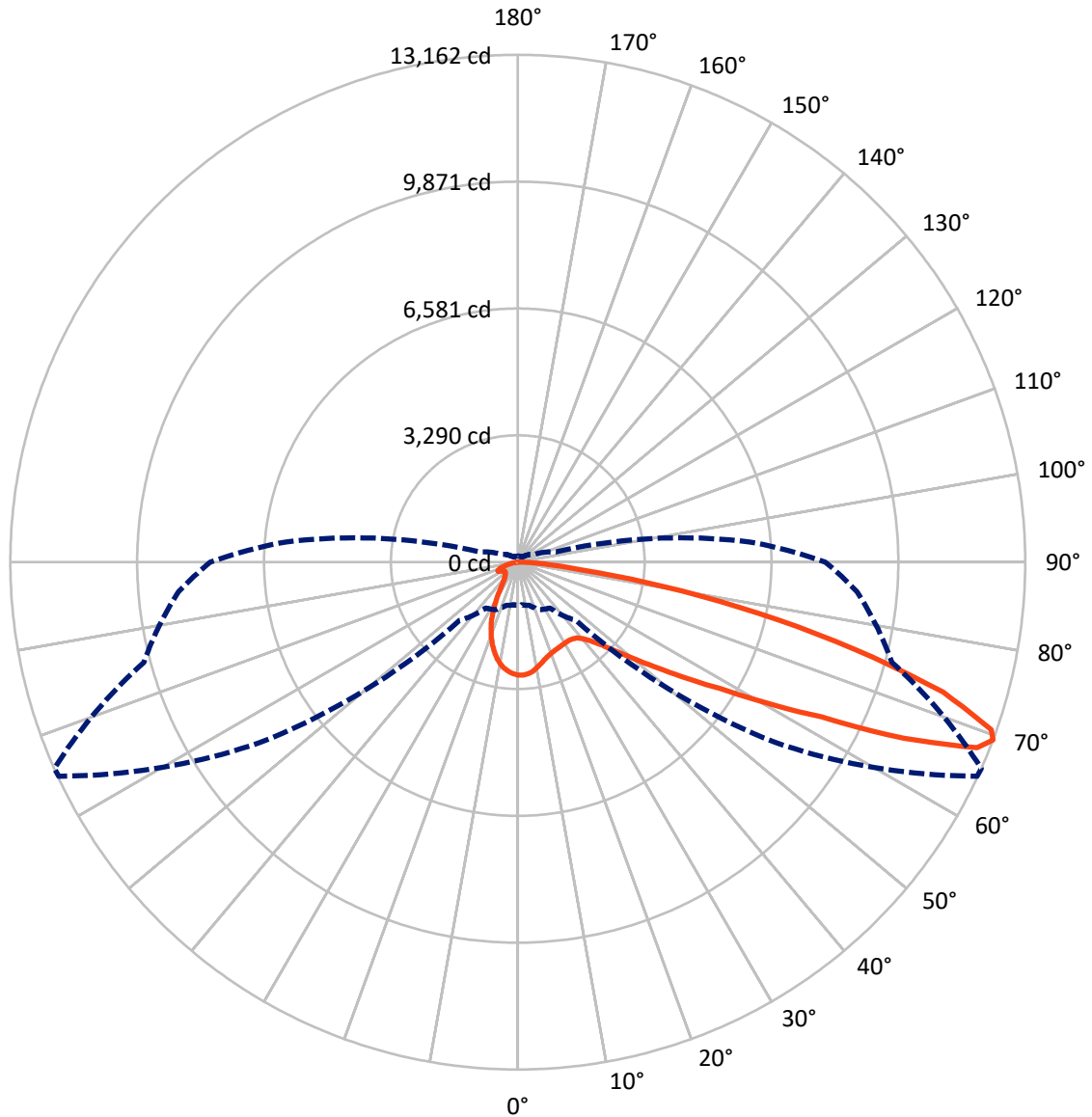
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2387.3 | 0.0 | 2387.3 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| Street Side | Lumens | 10306.8 | 0.0 | 10306.8 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| Total | Lumens | 12694.0 | 0.0 | 12694.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 254.6 | 2.0 |
| 10°-20° | 603.8 | 4.8 |
| 20°-30° | 822.0 | 6.5 |
| 30°-40° | 1104.6 | 8.7 |
| 40°-50° | 1649.3 | 13.0 |
| 50°-60° | 2623.5 | 20.7 |
| 60°-70° | 3226.8 | 25.4 |
| 70°-80° | 2099.5 | 16.5 |
| 80°-90° | 310.0 | 2.4 |
| 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° | 12694.0 | 100.0 |
| 0°-180° | 12694.0 | 100.0 |



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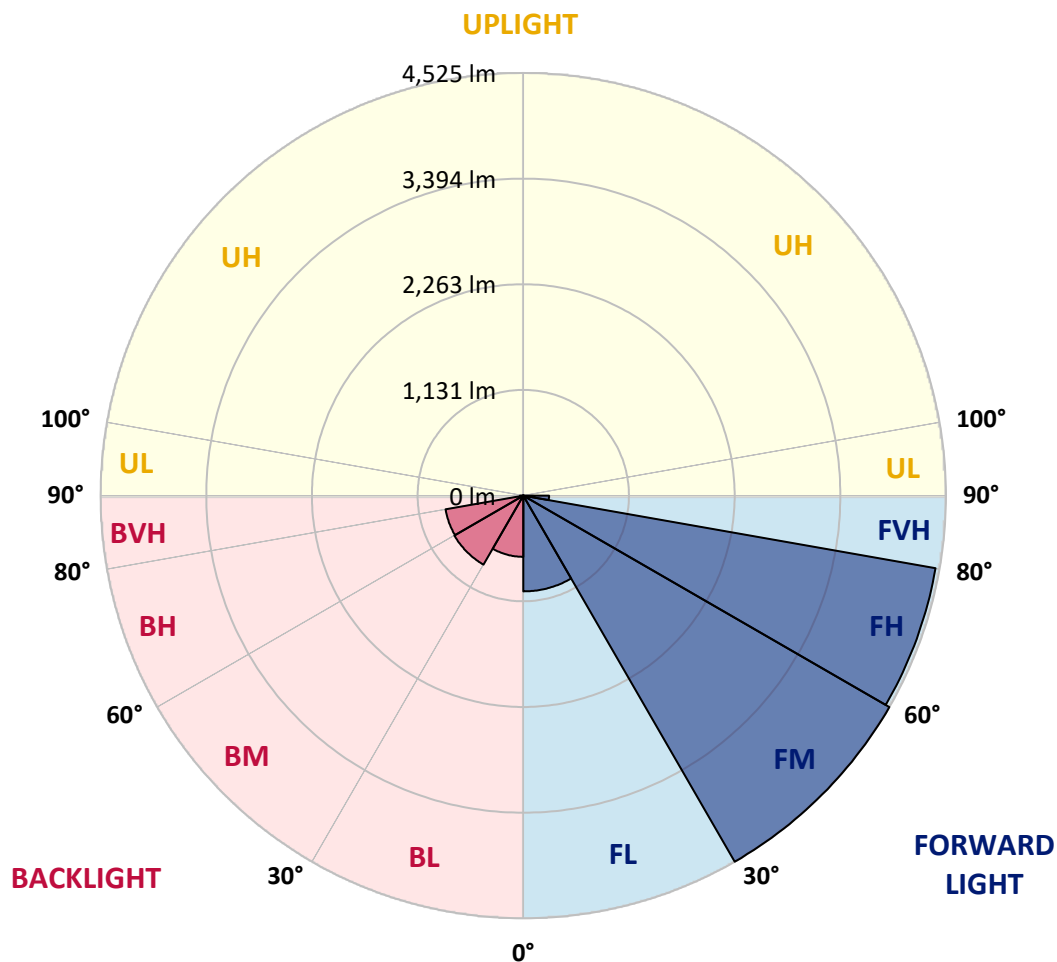
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1025.0 | 8.1 | | | |
| FM (30°-60°) | 4525.0 | 35.6 | | | |
| FH (60°-80°) | 4481.1 | 35.3 | | | G2/5000 |
| FVH (80°-90°) | 275.6 | 2.2 | | | G3/500 |
| BL (0°-30°) | 655.3 | 5.2 | B2/1000 | | |
| BM (30°-60°) | 852.4 | 6.7 | B1/1000 | | |
| BH (60°-80°) | 845.2 | 6.7 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 34.4 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0° | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 |
| 2.5° | 2828.8 | 2840.0 | 2852.7 | 2866.7 | 2893.4 | 2908.2 | 2918.7 | 2930.7 | 2932.1 | 2938.4 | 2933.5 |
| 5° | 2620.0 | 2633.3 | 2652.3 | 2679.0 | 2719.1 | 2781.7 | 2846.3 | 2899.1 | 2905.4 | 2934.9 | 2943.3 |
| 7.5° | 2445.6 | 2453.4 | 2468.8 | 2511.7 | 2568.7 | 2638.3 | 2732.5 | 2839.3 | 2854.8 | 2925.1 | 2949.7 |
| 10° | 2303.6 | 2311.4 | 2329.7 | 2373.9 | 2430.2 | 2517.3 | 2620.7 | 2761.3 | 2773.9 | 2894.8 | 2951.1 |
| 12.5° | 2197.5 | 2204.5 | 2224.2 | 2267.8 | 2332.5 | 2414.0 | 2527.9 | 2676.9 | 2695.2 | 2854.8 | 2937.7 |
| 15° | 2116.7 | 2130.0 | 2146.2 | 2182.0 | 2250.2 | 2328.9 | 2439.3 | 2599.6 | 2614.4 | 2812.6 | 2928.6 |
| 17.5° | 2082.2 | 2088.5 | 2099.8 | 2132.8 | 2182.7 | 2260.1 | 2371.1 | 2539.1 | 2556.7 | 2783.1 | 2926.5 |
| 20° | 2083.6 | 2089.9 | 2092.0 | 2110.3 | 2146.2 | 2213.0 | 2322.6 | 2491.3 | 2512.4 | 2757.1 | 2930.0 |
| 22.5° | 2131.4 | 2132.1 | 2124.4 | 2118.1 | 2132.1 | 2187.7 | 2288.2 | 2455.5 | 2480.1 | 2745.8 | 2932.8 |
| 25° | 2205.2 | 2217.9 | 2206.6 | 2177.1 | 2151.1 | 2177.8 | 2274.8 | 2435.8 | 2459.0 | 2729.6 | 2929.3 |
| 27.5° | 2324.7 | 2326.8 | 2317.7 | 2277.6 | 2210.1 | 2190.5 | 2269.2 | 2421.0 | 2440.7 | 2717.7 | 2911.7 |
| 30° | 2485.0 | 2478.7 | 2470.2 | 2426.0 | 2319.8 | 2239.0 | 2281.1 | 2407.7 | 2428.1 | 2700.1 | 2890.6 |
| 32.5° | 2647.4 | 2667.1 | 2659.3 | 2607.3 | 2469.5 | 2333.2 | 2319.8 | 2406.3 | 2423.1 | 2686.8 | 2867.4 |
| 35° | 2819.6 | 2828.8 | 2865.3 | 2838.6 | 2697.3 | 2485.7 | 2392.2 | 2428.1 | 2441.4 | 2687.5 | 2851.3 |
| 37.5° | 2954.6 | 2979.2 | 3065.0 | 3088.2 | 2955.3 | 2687.5 | 2509.6 | 2489.9 | 2495.6 | 2721.9 | 2857.6 |
| 40° | 3117.7 | 3159.9 | 3270.2 | 3365.1 | 3278.0 | 2949.7 | 2709.3 | 2604.5 | 2611.5 | 2804.9 | 2899.1 |
| 42.5° | 3324.4 | 3353.9 | 3502.2 | 3630.9 | 3616.8 | 3296.2 | 2951.1 | 2792.2 | 2795.7 | 2970.1 | 3015.1 |
| 45° | 3566.2 | 3608.4 | 3775.0 | 3968.3 | 4001.3 | 3688.5 | 3300.5 | 3076.2 | 3074.1 | 3226.6 | 3231.6 |
| 47.5° | 3875.5 | 3901.5 | 4066.7 | 4277.6 | 4411.2 | 4181.3 | 3724.4 | 3483.9 | 3461.4 | 3600.6 | 3560.6 |
| 50° | 4160.2 | 4201.0 | 4326.1 | 4556.7 | 4889.2 | 4758.4 | 4281.8 | 4012.6 | 3959.8 | 4089.9 | 4022.4 |
| 52.5° | 4279.7 | 4322.6 | 4428.0 | 4714.1 | 5299.0 | 5505.0 | 4989.7 | 4643.1 | 4555.3 | 4655.1 | 4630.5 |
| 55° | 4072.3 | 4127.9 | 4226.3 | 4574.2 | 5479.0 | 6366.1 | 5944.3 | 5372.1 | 5308.1 | 5265.3 | 5272.3 |
| 57.5° | 3514.9 | 3567.6 | 3700.4 | 4084.3 | 5263.9 | 6991.1 | 7307.4 | 6309.2 | 6172.1 | 5974.6 | 6008.3 |
| 60° | 2675.5 | 2708.6 | 2777.4 | 3202.7 | 4626.3 | 7153.5 | 8855.4 | 7493.7 | 7406.5 | 6681.1 | 6705.0 |
| 62.5° | 1900.1 | 1937.4 | 1985.2 | 2197.5 | 3386.9 | 6695.8 | 10067.3 | 9147.8 | 8836.4 | 7412.9 | 7389.7 |
| 65° | 1543.0 | 1517.7 | 1575.4 | 1674.5 | 1987.3 | 5189.3 | 10340.0 | 11443.7 | 11014.9 | 8376.6 | 8054.7 |
| 67.5° | 1268.9 | 1242.2 | 1299.1 | 1475.5 | 1511.4 | 3012.2 | 9357.3 | 12934.0 | 12848.2 | 9424.8 | 8730.2 |
| 69° | 1123.4 | 1109.3 | 1159.2 | 1360.3 | 1450.9 | 2139.1 | 8151.7 | 13141.4 | 13161.8 | 10042.7 | 8834.3 |
| 70° | 1012.3 | 1017.9 | 1066.4 | 1301.9 | 1423.5 | 1763.8 | 6967.2 | 12855.3 | 13028.2 | 10351.3 | 8721.8 |
| 72.5° | 745.2 | 757.1 | 824.6 | 1078.4 | 1397.5 | 1496.6 | 4146.1 | 11228.6 | 11534.4 | 10369.6 | 7978.7 |
| 75° | 520.9 | 515.3 | 575.0 | 811.9 | 1320.2 | 1483.3 | 2435.1 | 8683.8 | 9030.4 | 8962.9 | 6704.3 |
| 77.5° | 340.9 | 350.1 | 397.9 | 573.6 | 1110.7 | 1472.0 | 1587.3 | 6160.9 | 6385.8 | 5994.3 | 3965.5 |
| 80° | 240.4 | 239.7 | 266.4 | 391.6 | 823.9 | 1414.4 | 1299.8 | 3883.2 | 3826.3 | 2355.7 | 1176.1 |
| 82.5° | 137.8 | 147.6 | 178.6 | 275.6 | 551.1 | 1245.0 | 1195.8 | 1857.3 | 1695.6 | 671.3 | 397.2 |
| 85° | 76.6 | 80.1 | 106.1 | 166.6 | 322.0 | 937.8 | 1043.9 | 845.0 | 797.2 | 280.5 | 170.8 |
| 87.5° | 24.6 | 26.7 | 44.3 | 84.4 | 146.2 | 442.9 | 591.2 | 390.2 | 359.9 | 101.2 | 68.9 |
| 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° | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 | 2931.4 |
| 2.5° | 2935.6 | 2944.1 | 2921.6 | 2899.8 | 2880.1 | 2852.7 | 2828.1 | 2807.7 | 2793.6 | 2791.5 | 2784.5 |
| 5° | 2945.5 | 2946.2 | 2903.3 | 2845.6 | 2789.4 | 2727.5 | 2663.6 | 2617.9 | 2575.0 | 2551.1 | 2539.1 |
| 7.5° | 2952.5 | 2946.2 | 2868.8 | 2775.3 | 2667.1 | 2554.6 | 2442.1 | 2352.1 | 2282.6 | 2255.1 | 2265.7 |
| 10° | 2949.7 | 2930.0 | 2816.8 | 2667.1 | 2509.6 | 2341.6 | 2179.9 | 2053.4 | 1937.4 | 1877.6 | 1879.0 |
| 12.5° | 2934.2 | 2901.9 | 2739.5 | 2545.5 | 2314.2 | 2089.2 | 1841.8 | 1671.0 | 1536.7 | 1457.3 | 1432.7 |
| 15° | 2920.9 | 2864.6 | 2648.8 | 2380.3 | 2092.8 | 1771.5 | 1469.9 | 1259.0 | 1146.5 | 1084.0 | 1083.3 |
| 17.5° | 2906.8 | 2828.8 | 2549.7 | 2205.2 | 1838.3 | 1424.9 | 1108.6 | 947.6 | 894.9 | 901.2 | 890.7 |
| 20° | 2892.0 | 2786.6 | 2446.3 | 2010.5 | 1528.3 | 1062.9 | 830.2 | 764.8 | 779.6 | 808.4 | 812.6 |
| 22.5° | 2875.2 | 2741.6 | 2335.3 | 1796.1 | 1202.1 | 800.0 | 673.4 | 663.6 | 701.6 | 746.6 | 752.9 |
| 25° | 2849.1 | 2685.4 | 2195.4 | 1571.8 | 927.2 | 644.6 | 589.8 | 596.8 | 634.1 | 672.0 | 676.3 |
| 27.5° | 2812.6 | 2615.8 | 2054.1 | 1292.1 | 696.6 | 553.2 | 539.2 | 548.3 | 566.6 | 589.8 | 595.4 |
| 30° | 2763.4 | 2537.0 | 1891.7 | 1050.2 | 558.2 | 507.5 | 501.9 | 506.8 | 517.4 | 527.2 | 530.0 |
| 32.5° | 2714.2 | 2461.1 | 1727.9 | 804.2 | 497.7 | 477.3 | 471.7 | 471.7 | 471.7 | 473.1 | 473.8 |
| 35° | 2668.5 | 2389.4 | 1552.2 | 626.3 | 466.1 | 453.4 | 445.7 | 437.2 | 435.8 | 430.9 | 430.9 |
| 37.5° | 2643.2 | 2324.0 | 1365.2 | 524.4 | 442.9 | 433.7 | 423.2 | 409.1 | 401.4 | 402.1 | 400.7 |
| 40° | 2648.1 | 2281.1 | 1195.1 | 466.8 | 423.9 | 414.1 | 397.9 | 381.7 | 376.8 | 376.8 | 375.4 |
| 42.5° | 2703.6 | 2267.1 | 1032.0 | 436.5 | 405.6 | 394.4 | 374.0 | 359.2 | 356.4 | 355.7 | 357.1 |
| 45° | 2831.6 | 2301.5 | 885.7 | 416.9 | 390.2 | 373.3 | 352.9 | 339.5 | 336.7 | 336.7 | 336.0 |
| 47.5° | 3081.1 | 2413.3 | 781.0 | 404.2 | 378.9 | 357.1 | 336.0 | 322.7 | 317.7 | 316.3 | 316.3 |
| 50° | 3469.2 | 2655.8 | 703.0 | 393.0 | 364.8 | 342.3 | 320.6 | 305.1 | 297.4 | 296.7 | 296.0 |
| 52.5° | 4008.4 | 3034.0 | 672.7 | 384.5 | 349.4 | 326.9 | 303.0 | 288.2 | 278.4 | 276.3 | 274.9 |
| 55° | 4638.9 | 3562.0 | 714.2 | 378.2 | 333.2 | 309.3 | 284.7 | 269.2 | 260.1 | 255.9 | 255.2 |
| 57.5° | 5369.3 | 4196.0 | 871.7 | 369.8 | 318.4 | 290.3 | 266.4 | 251.0 | 241.1 | 236.2 | 234.8 |
| 60° | 6025.2 | 4847.7 | 1146.5 | 364.8 | 305.8 | 269.9 | 245.3 | 231.3 | 222.1 | 217.2 | 216.5 |
| 62.5° | 6745.7 | 5469.1 | 1474.8 | 378.2 | 300.2 | 250.3 | 225.7 | 213.0 | 205.3 | 200.3 | 200.3 |
| 65° | 7515.5 | 6091.3 | 1692.1 | 423.2 | 308.6 | 234.8 | 204.6 | 194.0 | 187.0 | 183.5 | 182.8 |
| 67.5° | 8034.3 | 6306.4 | 1394.0 | 469.6 | 329.7 | 217.9 | 184.2 | 175.7 | 171.5 | 168.0 | 168.0 |
| 69° | 7978.0 | 6034.3 | 1028.4 | 481.5 | 336.0 | 209.5 | 172.9 | 166.6 | 161.0 | 159.6 | 158.2 |
| 70° | 7800.2 | 5724.3 | 861.8 | 473.8 | 331.1 | 201.8 | 165.9 | 158.2 | 153.2 | 151.8 | 151.1 |
| 72.5° | 6947.5 | 4964.4 | 641.8 | 411.9 | 281.9 | 175.0 | 146.9 | 139.9 | 135.7 | 133.6 | 133.6 |
| 75° | 5772.1 | 4057.6 | 501.2 | 327.6 | 220.7 | 147.6 | 125.8 | 120.2 | 116.7 | 115.3 | 114.6 |
| 77.5° | 3235.1 | 2265.7 | 359.9 | 256.6 | 167.3 | 119.5 | 105.4 | 100.5 | 97.0 | 95.6 | 95.6 |
| 80° | 901.2 | 647.4 | 211.6 | 169.4 | 113.9 | 90.7 | 83.7 | 80.1 | 75.2 | 71.7 | 73.8 |
| 82.5° | 339.5 | 280.5 | 120.9 | 101.9 | 72.4 | 60.5 | 58.3 | 55.5 | 53.4 | 48.5 | 48.5 |
| 85° | 165.2 | 136.4 | 77.3 | 54.1 | 40.1 | 31.6 | 30.2 | 28.8 | 27.4 | 23.9 | 24.6 |
| 87.5° | 56.9 | 60.5 | 33.7 | 19.7 | 12.0 | 7.7 | 6.3 | 3.5 | 3.5 | 3.5 | 3.5 |
| 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)