

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: P453517

Luminaire Tested: **GALN-SA4C-740-U-T3-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453517
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-13)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4C-740-U-T3-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20419 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

Input Watts (W): 213
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: 24 FT

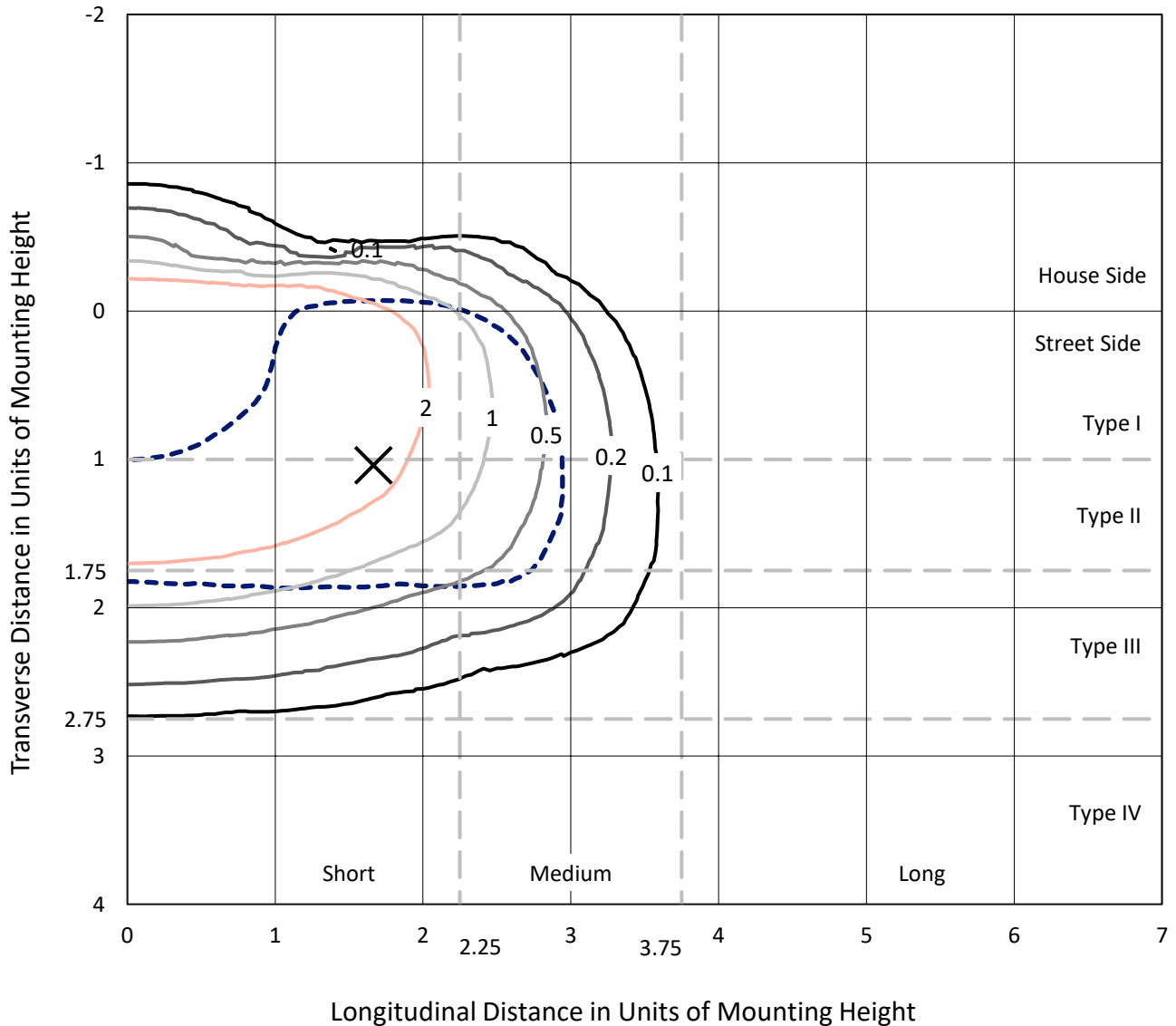




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Iso-Footcandle Lines of Horizontal Illumination

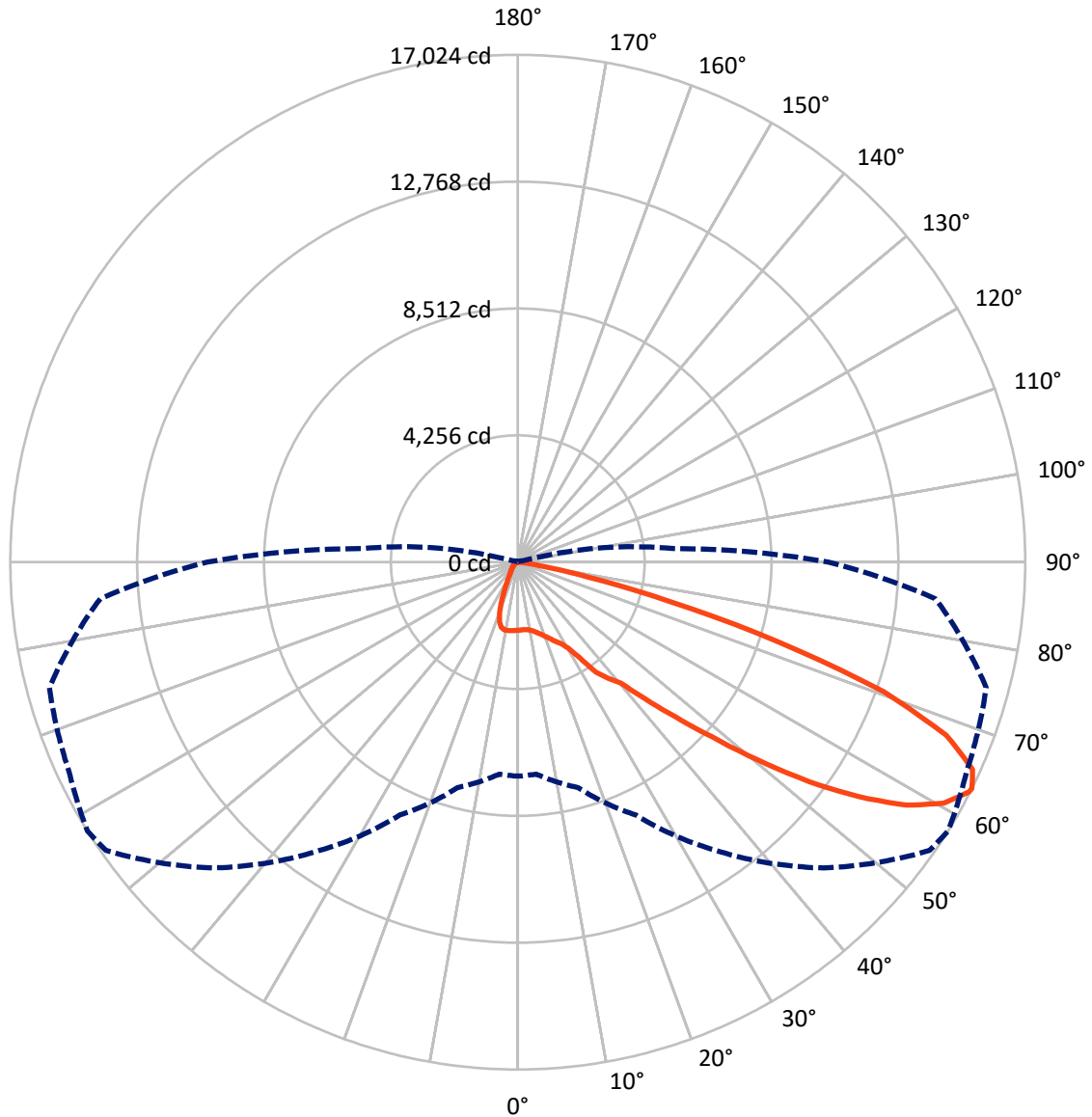
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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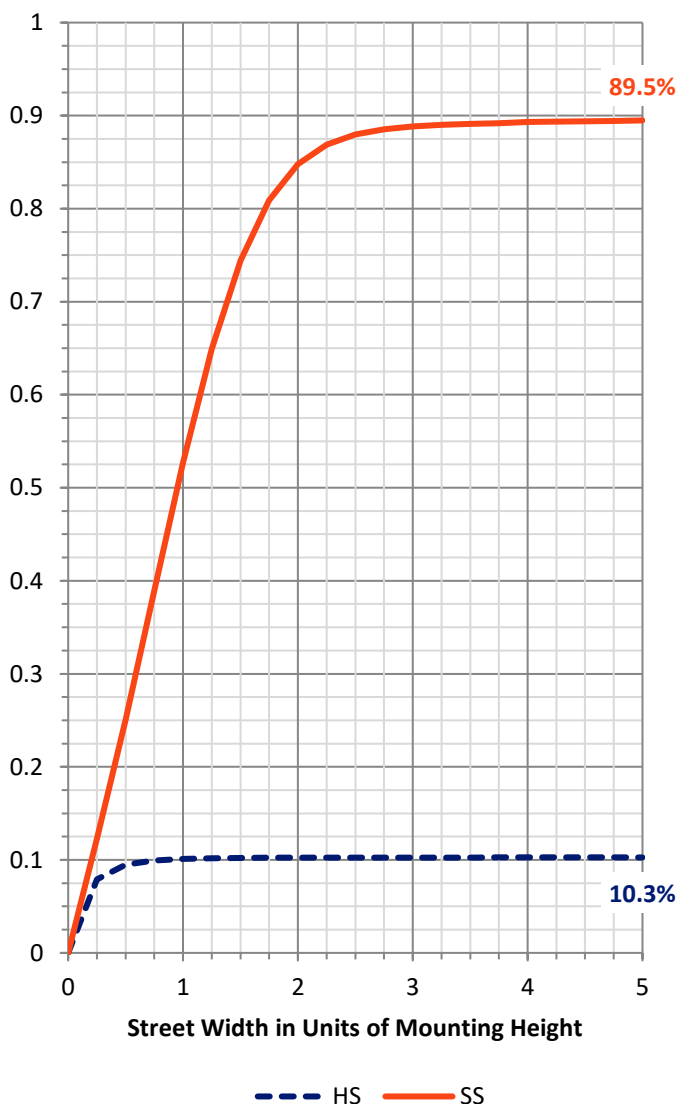
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2114.2 | 0.0 | 2114.2 |
| | % Fixture | 10.4 | 0.0 | 10.4 |
| Street Side | Lumens | 18304.7 | 0.0 | 18304.7 |
| | % Fixture | 89.6 | 0.0 | 89.6 |
| Total | Lumens | 20419.0 | 0.0 | 20419.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 214.0 | 1.0 |
| 10°-20° | 582.9 | 2.9 |
| 20°-30° | 1011.6 | 5.0 |
| 30°-40° | 1858.9 | 9.1 |
| 40°-50° | 3499.3 | 17.1 |
| 50°-60° | 5985.3 | 29.3 |
| 60°-70° | 5730.9 | 28.1 |
| 70°-80° | 1461.4 | 7.2 |
| 80°-90° | 74.7 | 0.4 |
| 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° | 20419.0 | 100.0 |
| 0°-180° | 20419.0 | 100.0 |

Coefficient of Utilization



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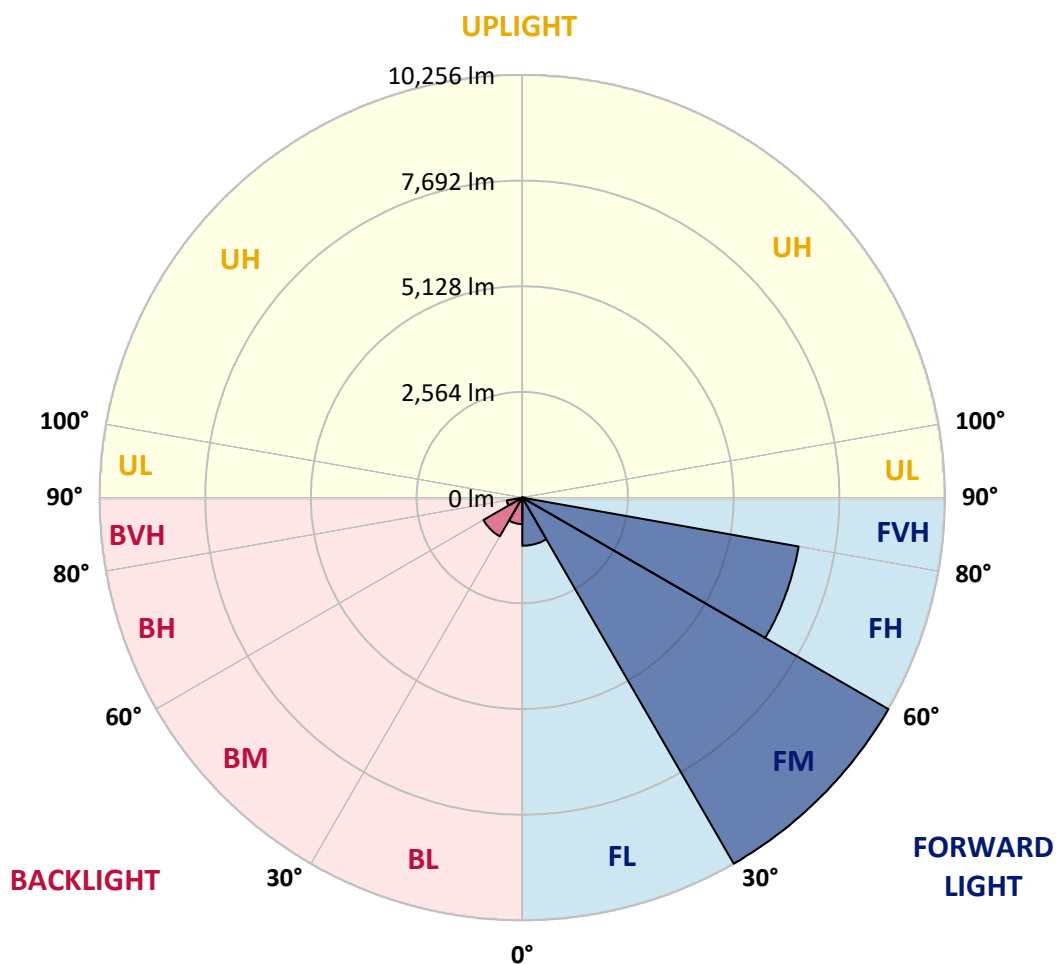
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1167.2 | 5.7 | | | |
| FM (30°-60°) | 10256.1 | 50.2 | | | |
| FH (60°-80°) | 6809.6 | 33.3 | | | G3/7500 |
| FVH (80°-90°) | 71.8 | 0.4 | | | G1/100 |
| BL (0°-30°) | 641.2 | 3.1 | B2/1000 | | |
| BM (30°-60°) | 1087.5 | 5.3 | B2/2500 | | |
| BH (60°-80°) | 382.7 | 1.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.9 | 0.0 | | | G0/10 |
| 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 Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 58° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 |
| 2.5° | 2229.1 | 2236.8 | 2244.5 | 2247.6 | 2258.3 | 2269.1 | 2276.8 | 2275.2 | 2287.5 | 2293.7 | 2293.7 |
| 5° | 2139.9 | 2139.9 | 2159.9 | 2178.4 | 2209.1 | 2239.9 | 2269.1 | 2275.2 | 2298.3 | 2319.8 | 2327.5 |
| 7.5° | 2064.6 | 2069.2 | 2084.6 | 2118.4 | 2159.9 | 2213.7 | 2272.2 | 2286.0 | 2326.0 | 2373.6 | 2393.6 |
| 10° | 2029.3 | 2032.3 | 2052.3 | 2087.7 | 2139.9 | 2213.7 | 2295.2 | 2321.3 | 2382.8 | 2458.2 | 2485.8 |
| 12.5° | 2021.6 | 2026.2 | 2046.2 | 2086.1 | 2146.1 | 2235.3 | 2345.9 | 2373.6 | 2462.8 | 2559.6 | 2601.1 |
| 15° | 2035.4 | 2038.5 | 2058.5 | 2101.5 | 2167.6 | 2273.7 | 2413.6 | 2452.0 | 2558.1 | 2670.3 | 2724.1 |
| 17.5° | 2084.6 | 2081.5 | 2095.4 | 2130.7 | 2204.5 | 2321.3 | 2495.1 | 2541.2 | 2665.7 | 2819.4 | 2854.8 |
| 20° | 2293.7 | 2273.7 | 2261.4 | 2230.6 | 2259.9 | 2389.0 | 2593.4 | 2661.1 | 2814.8 | 2971.6 | 2996.2 |
| 22.5° | 2744.1 | 2699.5 | 2611.9 | 2492.0 | 2399.7 | 2481.2 | 2711.8 | 2790.2 | 2988.5 | 3142.3 | 3142.3 |
| 25° | 3317.5 | 3260.6 | 3173.0 | 2911.7 | 2685.7 | 2633.4 | 2845.6 | 2944.0 | 3177.6 | 3332.9 | 3282.2 |
| 27.5° | 4035.4 | 3990.9 | 3820.2 | 3515.8 | 3169.9 | 2899.4 | 3000.8 | 3091.5 | 3345.2 | 3532.7 | 3426.7 |
| 30° | 4619.6 | 4598.1 | 4458.2 | 4186.1 | 3804.9 | 3409.8 | 3289.9 | 3349.8 | 3568.1 | 3784.9 | 3675.7 |
| 32.5° | 5113.1 | 5113.1 | 4970.1 | 4716.5 | 4359.8 | 4009.3 | 3780.3 | 3823.3 | 4032.4 | 4283.0 | 4080.0 |
| 35° | 5655.8 | 5637.3 | 5522.0 | 5280.7 | 4881.0 | 4572.0 | 4478.2 | 4536.6 | 4725.7 | 4911.7 | 4412.1 |
| 37.5° | 6226.1 | 6220.0 | 6100.1 | 5866.4 | 5540.5 | 5151.5 | 4931.7 | 4947.1 | 5043.9 | 5157.7 | 4801.0 |
| 40° | 6845.7 | 6854.9 | 6698.1 | 6553.6 | 6246.1 | 5847.9 | 5426.7 | 5329.9 | 5420.6 | 5741.9 | 5519.0 |
| 42.5° | 7577.4 | 7555.9 | 7488.3 | 7291.5 | 7044.0 | 6805.7 | 6299.9 | 6264.6 | 6344.5 | 6688.9 | 6447.5 |
| 45° | 8427.6 | 8458.3 | 8341.5 | 8232.3 | 8066.3 | 7868.0 | 7445.2 | 7383.7 | 7471.3 | 8006.3 | 7663.5 |
| 47.5° | 9279.2 | 9250.0 | 9325.3 | 9305.4 | 9394.5 | 9246.9 | 8873.4 | 8747.3 | 8957.9 | 9465.2 | 8961.0 |
| 50° | 9928.0 | 9960.3 | 10117.1 | 10346.1 | 10728.9 | 10811.9 | 10453.7 | 10410.7 | 10504.5 | 10830.4 | 10121.7 |
| 52.5° | 10349.2 | 10456.8 | 10702.8 | 11291.6 | 11981.8 | 12518.3 | 12246.2 | 12223.2 | 12184.8 | 12272.4 | 11231.6 |
| 55° | 10624.4 | 10733.5 | 11054.8 | 11921.9 | 13110.2 | 13981.9 | 13995.7 | 13897.3 | 13643.7 | 13580.6 | 12269.3 |
| 57.5° | 10455.3 | 10476.8 | 10934.9 | 12094.0 | 13735.9 | 15025.7 | 15477.7 | 15379.3 | 14910.4 | 14672.1 | 13185.5 |
| 60° | 9397.6 | 9442.2 | 10080.2 | 11442.2 | 13463.8 | 15367.0 | 16460.0 | 16415.4 | 15902.0 | 15632.9 | 13898.9 |
| 62.5° | 7523.6 | 7652.7 | 8309.2 | 9828.0 | 12198.6 | 14792.0 | 16858.2 | 16984.2 | 16584.5 | 16214.1 | 14123.3 |
| 63° | 7179.3 | 7137.7 | 7831.1 | 9357.6 | 11863.5 | 14507.6 | 16864.3 | 17024.2 | 16615.3 | 16269.4 | 14061.8 |
| 65° | 5314.5 | 5439.0 | 5889.5 | 7379.1 | 9872.6 | 13184.0 | 16484.6 | 16767.5 | 16501.5 | 16025.0 | 13380.8 |
| 67.5° | 2983.9 | 2977.8 | 3475.9 | 4828.7 | 6910.2 | 10341.5 | 14905.8 | 15503.8 | 15448.5 | 14380.0 | 11091.7 |
| 70° | 1460.4 | 1483.5 | 1688.0 | 2502.7 | 4007.8 | 7134.7 | 12386.1 | 13031.8 | 13051.8 | 11294.6 | 7669.7 |
| 72.5° | 661.0 | 671.8 | 817.9 | 1219.1 | 2060.0 | 3798.7 | 8535.2 | 9151.6 | 9037.9 | 7197.7 | 4235.3 |
| 75° | 349.0 | 372.0 | 450.4 | 613.4 | 993.1 | 1566.5 | 4642.7 | 5239.2 | 5000.9 | 3288.3 | 1558.8 |
| 77.5° | 258.3 | 266.0 | 305.9 | 390.5 | 531.9 | 610.3 | 2003.1 | 2382.8 | 2232.2 | 1189.9 | 516.5 |
| 80° | 189.1 | 195.2 | 227.5 | 276.7 | 335.1 | 310.5 | 754.8 | 865.5 | 776.3 | 404.3 | 158.3 |
| 82.5° | 115.3 | 116.8 | 166.0 | 206.0 | 210.6 | 173.7 | 249.0 | 267.5 | 279.8 | 227.5 | 86.1 |
| 85° | 41.5 | 52.3 | 112.2 | 149.1 | 124.5 | 87.6 | 104.5 | 115.3 | 126.1 | 144.5 | 50.7 |
| 87.5° | 4.6 | 6.1 | 53.8 | 72.3 | 35.4 | 32.3 | 38.4 | 43.0 | 46.1 | 53.8 | 24.6 |
| 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° | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 | 2286.0 |
| 2.5° | 2299.8 | 2306.0 | 2301.4 | 2293.7 | 2292.1 | 2287.5 | 2278.3 | 2278.3 | 2278.3 | 2281.4 | 2278.3 |
| 5° | 2333.6 | 2338.3 | 2327.5 | 2312.1 | 2295.2 | 2273.7 | 2250.6 | 2236.8 | 2235.3 | 2232.2 | 2224.5 |
| 7.5° | 2398.2 | 2404.4 | 2379.8 | 2342.9 | 2296.7 | 2244.5 | 2195.3 | 2149.2 | 2127.6 | 2110.7 | 2110.7 |
| 10° | 2492.0 | 2498.1 | 2448.9 | 2382.8 | 2290.6 | 2184.5 | 2067.7 | 1961.6 | 1878.6 | 1840.2 | 1830.9 |
| 12.5° | 2604.2 | 2607.3 | 2525.8 | 2410.5 | 2258.3 | 2053.9 | 1804.8 | 1572.7 | 1411.3 | 1337.5 | 1329.8 |
| 15° | 2727.2 | 2705.7 | 2598.1 | 2421.3 | 2166.1 | 1784.8 | 1354.4 | 1070.0 | 902.4 | 853.2 | 871.7 |
| 17.5° | 2851.7 | 2811.7 | 2653.4 | 2404.4 | 1958.5 | 1354.4 | 910.1 | 730.2 | 678.0 | 664.1 | 664.1 |
| 20° | 2968.6 | 2913.2 | 2693.4 | 2330.6 | 1598.8 | 933.1 | 674.9 | 631.8 | 622.6 | 613.4 | 614.9 |
| 22.5° | 3085.4 | 3000.8 | 2728.7 | 2166.1 | 1191.4 | 667.2 | 604.2 | 590.3 | 578.0 | 565.7 | 564.2 |
| 25° | 3199.2 | 3082.3 | 2742.6 | 1861.7 | 811.7 | 573.4 | 551.9 | 533.4 | 508.9 | 495.0 | 491.9 |
| 27.5° | 3317.5 | 3180.7 | 2733.3 | 1477.4 | 591.9 | 513.5 | 491.9 | 465.8 | 436.6 | 412.0 | 412.0 |
| 30° | 3545.0 | 3368.3 | 2701.1 | 1062.3 | 498.1 | 452.0 | 424.3 | 382.8 | 350.5 | 325.9 | 324.4 |
| 32.5° | 3855.6 | 3612.7 | 2590.4 | 747.1 | 442.7 | 398.2 | 356.7 | 310.5 | 276.7 | 258.3 | 258.3 |
| 35° | 4132.3 | 3858.7 | 2382.8 | 550.4 | 398.2 | 345.9 | 295.2 | 250.6 | 224.4 | 212.1 | 207.5 |
| 37.5° | 4553.5 | 4218.4 | 2096.9 | 447.4 | 355.1 | 299.8 | 247.5 | 206.0 | 184.5 | 175.3 | 175.3 |
| 40° | 5185.4 | 4658.1 | 1746.4 | 392.0 | 313.6 | 255.2 | 206.0 | 173.7 | 156.8 | 146.0 | 146.0 |
| 42.5° | 5969.4 | 5196.1 | 1391.3 | 352.0 | 275.2 | 219.8 | 172.2 | 147.6 | 132.2 | 124.5 | 123.0 |
| 45° | 6956.3 | 5763.4 | 1071.5 | 315.1 | 244.4 | 187.6 | 146.0 | 124.5 | 109.1 | 104.5 | 106.1 |
| 47.5° | 7986.3 | 6263.0 | 830.1 | 282.9 | 212.1 | 158.3 | 124.5 | 107.6 | 96.9 | 90.7 | 90.7 |
| 50° | 8865.7 | 6607.4 | 630.3 | 246.0 | 187.6 | 133.7 | 109.1 | 96.9 | 87.6 | 84.6 | 83.0 |
| 52.5° | 9600.5 | 6707.3 | 482.7 | 213.7 | 164.5 | 115.3 | 96.9 | 87.6 | 79.9 | 75.3 | 75.3 |
| 55° | 10226.2 | 6619.7 | 378.2 | 179.9 | 138.4 | 99.9 | 86.1 | 78.4 | 69.2 | 64.6 | 63.0 |
| 57.5° | 10592.1 | 6338.3 | 289.0 | 149.1 | 112.2 | 83.0 | 75.3 | 66.1 | 55.3 | 47.7 | 47.7 |
| 60° | 10776.6 | 5929.4 | 221.4 | 123.0 | 86.1 | 66.1 | 61.5 | 49.2 | 38.4 | 32.3 | 30.7 |
| 62.5° | 10555.2 | 5386.7 | 167.6 | 96.9 | 64.6 | 49.2 | 41.5 | 35.4 | 24.6 | 18.4 | 18.4 |
| 63° | 10418.4 | 5229.9 | 161.4 | 92.2 | 60.0 | 46.1 | 38.4 | 32.3 | 21.5 | 16.9 | 15.4 |
| 65° | 9497.5 | 4545.8 | 132.2 | 73.8 | 47.7 | 32.3 | 26.1 | 23.1 | 15.4 | 7.7 | 6.1 |
| 67.5° | 7542.1 | 3477.4 | 104.5 | 55.3 | 33.8 | 23.1 | 15.4 | 13.8 | 4.6 | 0.0 | 0.0 |
| 70° | 5099.3 | 2246.0 | 81.5 | 40.0 | 23.1 | 13.8 | 7.7 | 6.1 | 1.5 | 0.0 | 0.0 |
| 72.5° | 2659.6 | 1151.4 | 63.0 | 29.2 | 13.8 | 9.2 | 4.6 | 1.5 | 0.0 | 0.0 | 0.0 |
| 75° | 940.8 | 392.0 | 46.1 | 18.4 | 9.2 | 4.6 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 284.4 | 146.0 | 29.2 | 13.8 | 6.1 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 99.9 | 53.8 | 16.9 | 9.2 | 4.6 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 49.2 | 26.1 | 10.8 | 7.7 | 4.6 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 27.7 | 16.9 | 9.2 | 7.7 | 4.6 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 20.0 | 12.3 | 9.2 | 7.7 | 6.1 | 3.1 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)