

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: P650879

Luminaire Tested: **GALN-SA4C-840-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P650879
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4C-840-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16842.7 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

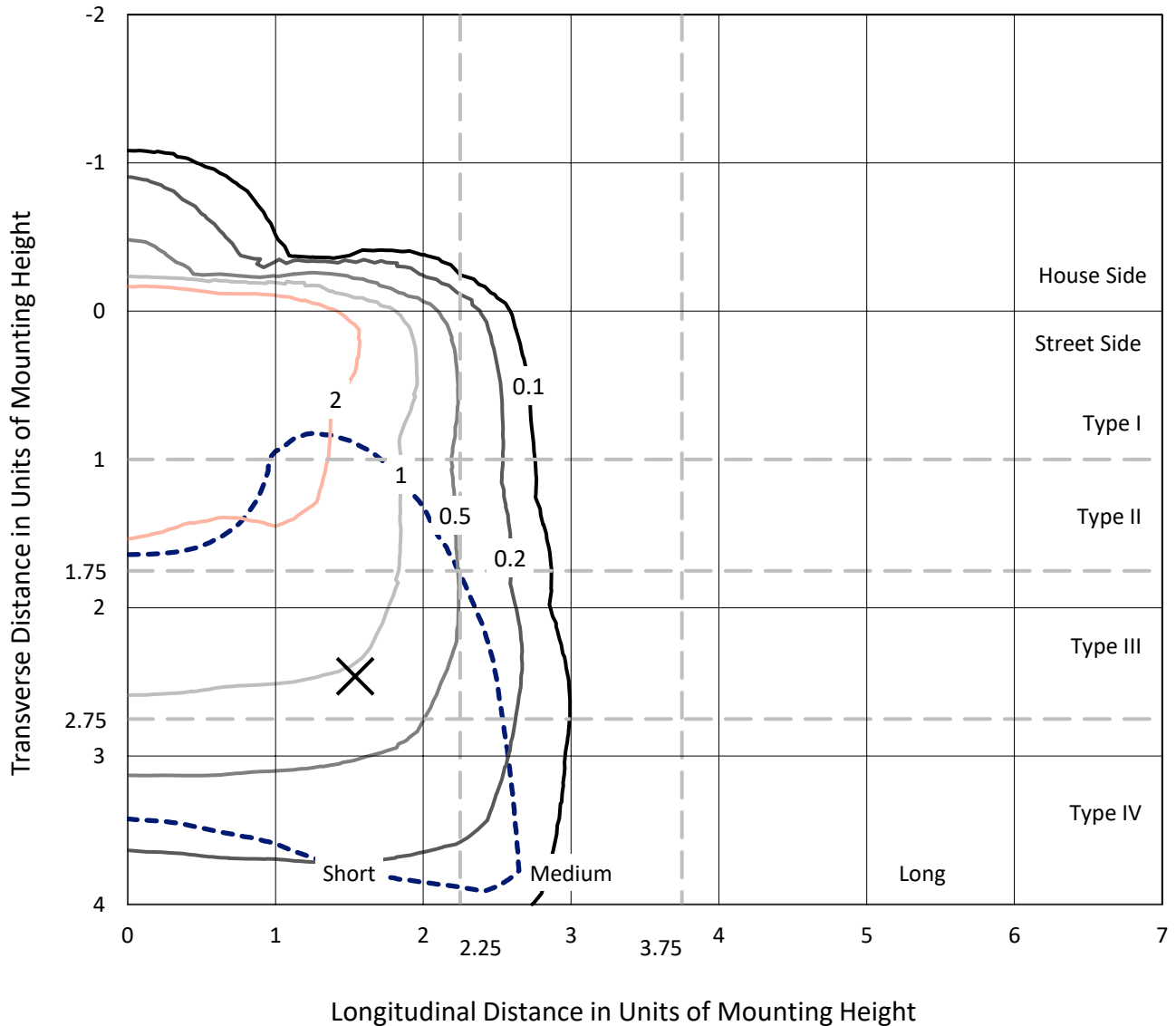
Input Watts (W): 213
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

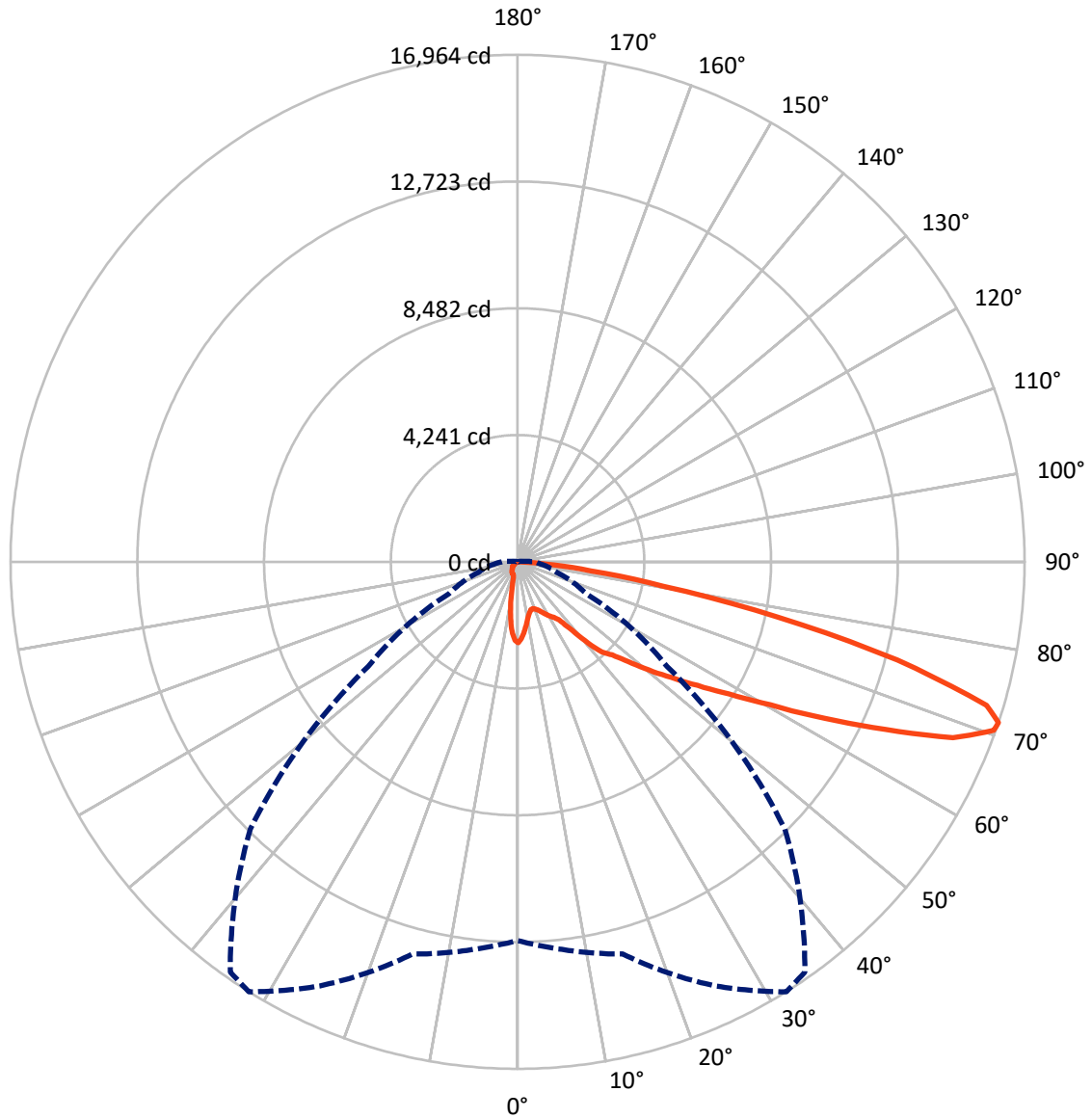
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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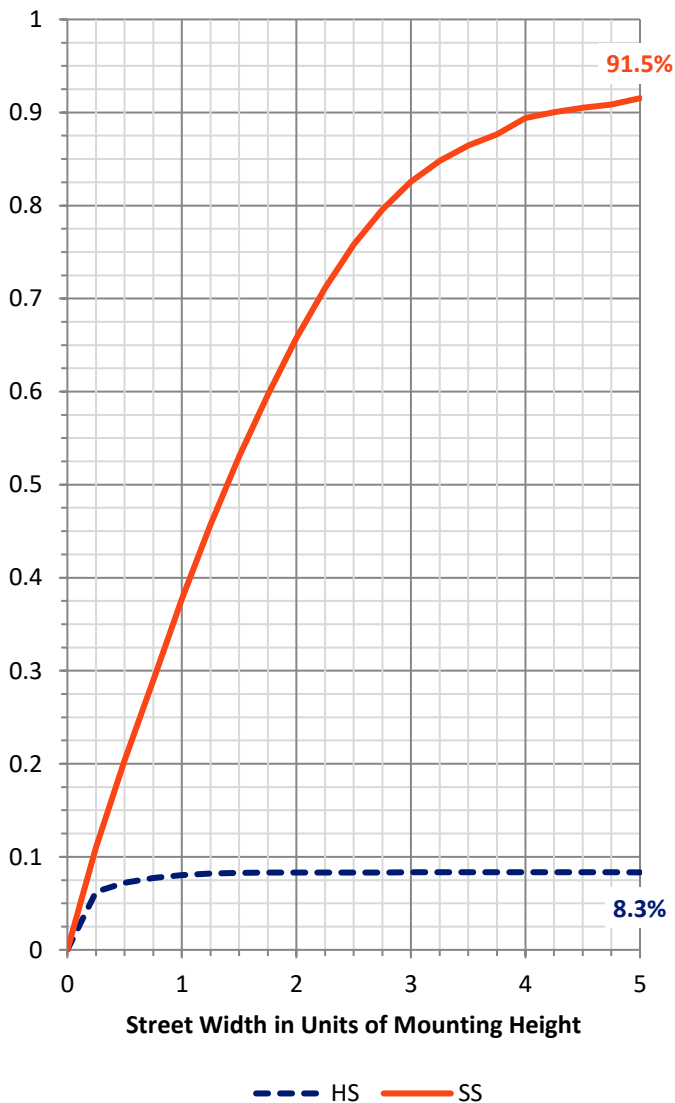
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1410.8 | 0.0 | 1410.8 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 15432.0 | 0.0 | 15432.0 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 16842.7 | 0.0 | 16842.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 220.2 | 1.3 |
| 10°-20° | 478.0 | 2.8 |
| 20°-30° | 743.6 | 4.4 |
| 30°-40° | 1238.9 | 7.4 |
| 40°-50° | 2304.5 | 13.7 |
| 50°-60° | 3700.0 | 22.0 |
| 60°-70° | 4976.6 | 29.5 |
| 70°-80° | 2952.7 | 17.5 |
| 80°-90° | 228.2 | 1.4 |
| 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° | 16842.7 | 100.0 |
| 0°-180° | 16842.7 | 100.0 |

Coefficient of Utilization



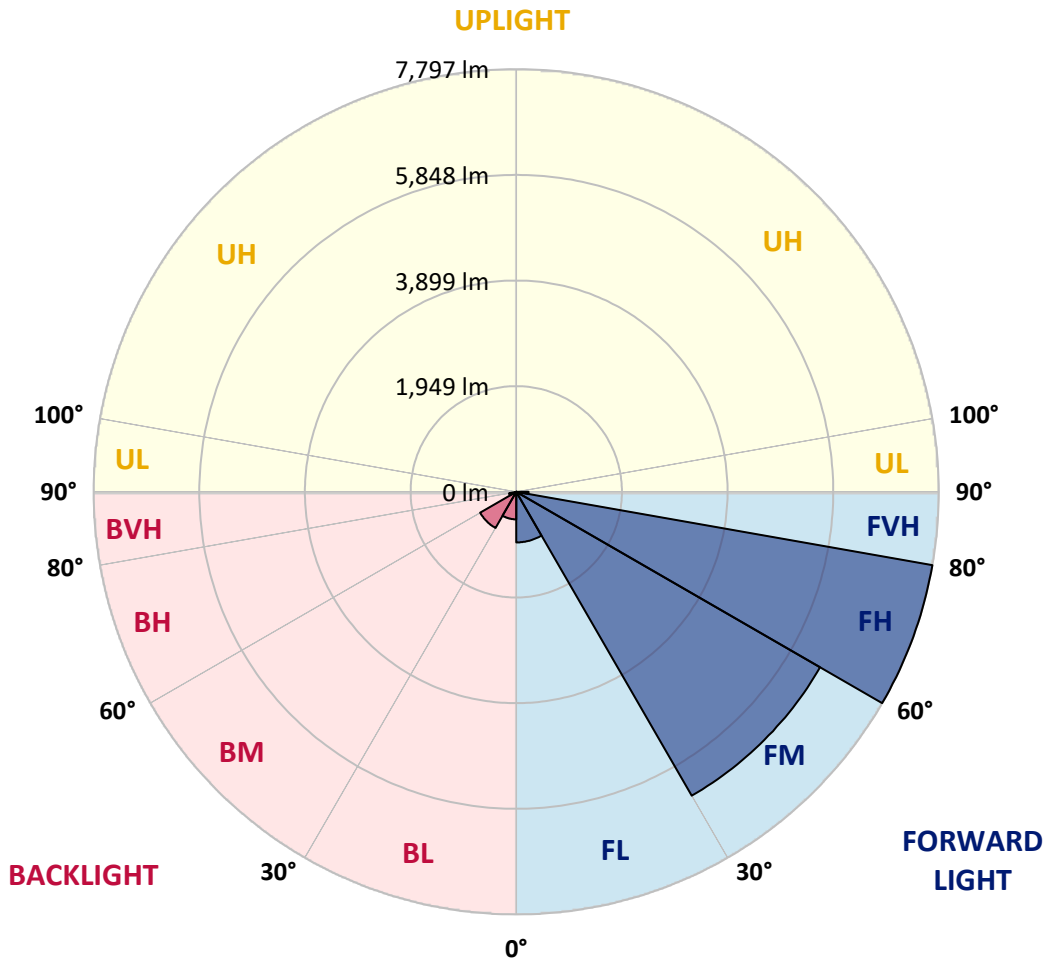
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 933.5 | 5.5 | | | |
| FM (30°-60°) | 6473.7 | 38.4 | | | |
| FH (60°-80°) | 7797.4 | 46.3 | | | G4/12000 |
| FVH (80°-90°) | 227.4 | 1.3 | | | G3/500 |
| BL (0°-30°) | 508.3 | 3.0 | B2/1000 | | |
| BM (30°-60°) | 769.6 | 4.6 | B1/1000 | | |
| BH (60°-80°) | 131.9 | 0.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.9 | 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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 |
| 2.5° | 2512.1 | 2537.9 | 2534.0 | 2543.1 | 2565.0 | 2574.1 | 2598.7 | 2625.9 | 2663.3 | 2689.2 | 2706.0 |
| 5° | 2249.6 | 2269.0 | 2271.5 | 2316.9 | 2338.8 | 2363.4 | 2435.8 | 2514.7 | 2602.6 | 2672.4 | 2719.0 |
| 7.5° | 1969.0 | 1979.4 | 2000.1 | 2059.5 | 2115.1 | 2139.7 | 2249.6 | 2386.7 | 2525.0 | 2655.5 | 2739.6 |
| 10° | 1737.6 | 1749.3 | 1786.8 | 1850.1 | 1901.8 | 1934.1 | 2086.7 | 2258.7 | 2452.6 | 2646.5 | 2769.3 |
| 12.5° | 1605.7 | 1612.2 | 1626.4 | 1683.3 | 1749.3 | 1784.2 | 1948.3 | 2144.9 | 2394.4 | 2650.4 | 2819.8 |
| 15° | 1596.7 | 1594.1 | 1577.3 | 1600.6 | 1660.0 | 1696.2 | 1856.6 | 2067.3 | 2342.7 | 2663.3 | 2879.2 |
| 17.5° | 1644.6 | 1638.1 | 1598.0 | 1598.0 | 1647.1 | 1676.9 | 1817.8 | 2026.0 | 2316.9 | 2693.1 | 2963.3 |
| 20° | 1718.2 | 1707.9 | 1642.0 | 1636.8 | 1684.6 | 1715.6 | 1841.0 | 2028.5 | 2322.0 | 2748.6 | 3075.7 |
| 22.5° | 1811.3 | 1799.7 | 1700.2 | 1702.7 | 1754.4 | 1785.4 | 1908.3 | 2075.1 | 2354.3 | 2817.2 | 3196.0 |
| 25° | 1932.9 | 1919.9 | 1802.3 | 1797.1 | 1851.4 | 1878.5 | 2007.8 | 2157.8 | 2399.5 | 2902.5 | 3353.7 |
| 27.5° | 2094.4 | 2067.3 | 1926.4 | 1918.7 | 1976.8 | 2011.7 | 2128.1 | 2269.0 | 2479.8 | 3020.1 | 3565.8 |
| 30° | 2227.6 | 2197.9 | 2063.4 | 2042.7 | 2104.8 | 2131.9 | 2252.2 | 2419.0 | 2637.5 | 3225.7 | 3859.3 |
| 32.5° | 2402.1 | 2358.2 | 2200.5 | 2146.1 | 2212.1 | 2247.0 | 2431.9 | 2698.3 | 2871.5 | 3442.9 | 4208.3 |
| 35° | 2795.2 | 2768.1 | 2575.4 | 2385.3 | 2381.5 | 2425.4 | 2696.9 | 2980.1 | 3112.0 | 3781.6 | 4684.1 |
| 37.5° | 3357.6 | 3338.2 | 3133.9 | 2879.2 | 2805.6 | 2784.9 | 3018.9 | 3290.3 | 3496.0 | 4247.0 | 5237.4 |
| 40° | 4010.5 | 3965.2 | 3777.8 | 3561.9 | 3466.2 | 3405.5 | 3399.0 | 3752.0 | 3997.5 | 4879.3 | 5814.1 |
| 42.5° | 4478.5 | 4395.7 | 4168.2 | 4152.7 | 4132.0 | 4068.7 | 3885.1 | 4426.8 | 4645.3 | 5559.3 | 6430.8 |
| 45° | 4969.8 | 4844.4 | 4505.7 | 4447.5 | 4439.7 | 4435.9 | 4619.4 | 5225.8 | 5351.2 | 6296.3 | 7064.2 |
| 47.5° | 5351.2 | 5251.6 | 4973.7 | 4947.9 | 4980.1 | 5068.0 | 5590.4 | 6074.0 | 6048.1 | 6953.1 | 7595.7 |
| 50° | 5859.3 | 5784.3 | 5475.3 | 5524.4 | 5691.2 | 5834.8 | 6685.4 | 6998.3 | 6620.8 | 7470.2 | 7982.2 |
| 52.5° | 6459.2 | 6320.9 | 6033.8 | 6167.0 | 6423.0 | 6662.1 | 7847.7 | 7807.7 | 7022.9 | 7859.4 | 8270.5 |
| 55° | 6979.0 | 6880.6 | 6782.4 | 6920.8 | 7303.4 | 7602.1 | 8897.5 | 8414.0 | 7315.1 | 8172.2 | 8397.2 |
| 57.5° | 7858.1 | 7834.8 | 7734.0 | 7874.9 | 8339.0 | 8649.3 | 9837.5 | 8884.7 | 7502.6 | 8335.2 | 8248.5 |
| 60° | 9158.7 | 9121.2 | 8933.8 | 9113.5 | 9718.5 | 10206.0 | 10703.7 | 9307.4 | 7545.2 | 8271.8 | 7820.6 |
| 62.5° | 10723.1 | 10595.1 | 10434.8 | 10699.8 | 11529.9 | 11744.5 | 11519.5 | 9558.2 | 7386.2 | 7767.6 | 6788.9 |
| 65° | 12184.1 | 12052.2 | 12056.1 | 12614.6 | 13518.3 | 13664.4 | 12471.0 | 9520.7 | 6920.8 | 6504.5 | 5007.3 |
| 67.5° | 13302.3 | 13280.4 | 13438.2 | 14528.0 | 15709.7 | 15608.9 | 13321.8 | 8959.6 | 5541.3 | 4216.1 | 2660.8 |
| 70° | 13359.3 | 13401.9 | 13854.5 | 15694.2 | 16894.0 | 16733.6 | 13249.4 | 7282.7 | 3454.6 | 1939.3 | 1048.6 |
| 71° | 12671.4 | 12958.5 | 13584.3 | 15658.0 | 16963.8 | 16755.7 | 12639.1 | 6099.8 | 2534.0 | 1352.3 | 756.3 |
| 72.5° | 10798.1 | 10949.3 | 12301.7 | 14736.2 | 16411.8 | 15967.0 | 11091.5 | 4275.6 | 1622.5 | 827.5 | 434.4 |
| 75° | 5947.2 | 6319.5 | 8238.2 | 11560.9 | 13126.6 | 12736.1 | 7228.5 | 2031.1 | 809.4 | 452.5 | 179.7 |
| 77.5° | 2831.4 | 2759.0 | 4019.6 | 6875.5 | 8900.1 | 8879.4 | 3642.0 | 902.4 | 471.9 | 306.4 | 90.5 |
| 80° | 809.4 | 910.2 | 1538.5 | 3268.4 | 4941.4 | 4995.6 | 1398.9 | 435.7 | 327.1 | 239.2 | 46.5 |
| 82.5° | 244.4 | 249.5 | 565.0 | 1445.4 | 2457.7 | 2316.9 | 524.9 | 222.4 | 235.3 | 190.1 | 27.2 |
| 85° | 42.6 | 53.0 | 166.8 | 509.4 | 937.3 | 711.1 | 131.9 | 106.1 | 155.2 | 125.4 | 15.5 |
| 87.5° | 2.6 | 3.9 | 55.6 | 58.2 | 82.8 | 47.9 | 23.3 | 15.5 | 33.6 | 33.6 | 9.1 |
| 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° | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 | 2708.6 |
| 2.5° | 2717.6 | 2725.3 | 2720.2 | 2708.6 | 2689.2 | 2665.9 | 2634.9 | 2609.0 | 2587.0 | 2575.4 | 2589.6 |
| 5° | 2734.4 | 2744.8 | 2719.0 | 2660.8 | 2572.8 | 2477.2 | 2368.5 | 2284.5 | 2218.6 | 2197.9 | 2190.1 |
| 7.5° | 2760.2 | 2766.7 | 2696.9 | 2567.7 | 2381.5 | 2155.2 | 1957.4 | 1790.7 | 1661.3 | 1622.5 | 1565.7 |
| 10° | 2793.9 | 2790.0 | 2658.1 | 2417.7 | 2090.6 | 1750.5 | 1444.2 | 1216.6 | 1044.6 | 982.6 | 977.4 |
| 12.5° | 2845.6 | 2824.9 | 2609.0 | 2213.4 | 1744.1 | 1299.3 | 920.6 | 720.1 | 611.5 | 575.3 | 567.6 |
| 15° | 2910.3 | 2861.2 | 2531.4 | 1974.2 | 1335.5 | 839.1 | 567.6 | 506.8 | 492.6 | 490.0 | 487.4 |
| 17.5° | 2986.6 | 2908.9 | 2429.3 | 1680.7 | 938.6 | 544.3 | 474.5 | 473.2 | 474.5 | 471.9 | 470.6 |
| 20° | 3090.0 | 2959.4 | 2307.8 | 1333.0 | 620.6 | 458.9 | 452.5 | 452.5 | 453.8 | 452.5 | 452.5 |
| 22.5° | 3199.8 | 3018.9 | 2157.8 | 1017.5 | 468.0 | 435.7 | 434.4 | 437.0 | 439.6 | 438.2 | 438.2 |
| 25° | 3335.6 | 3096.4 | 1960.0 | 696.9 | 418.9 | 416.3 | 417.6 | 422.8 | 427.9 | 429.2 | 427.9 |
| 27.5° | 3532.1 | 3192.1 | 1747.9 | 479.6 | 384.0 | 386.6 | 399.5 | 412.4 | 420.2 | 421.5 | 421.5 |
| 30° | 3753.2 | 3298.1 | 1471.3 | 389.1 | 355.6 | 355.6 | 371.0 | 395.6 | 412.4 | 415.0 | 416.3 |
| 32.5° | 4037.6 | 3420.9 | 1164.9 | 350.4 | 328.4 | 325.8 | 340.0 | 369.8 | 400.8 | 409.8 | 409.8 |
| 35° | 4389.3 | 3565.8 | 866.2 | 325.8 | 309.0 | 302.5 | 310.3 | 334.9 | 374.9 | 400.8 | 403.3 |
| 37.5° | 4801.8 | 3702.8 | 633.5 | 303.9 | 290.9 | 281.8 | 287.0 | 306.4 | 338.8 | 377.5 | 387.9 |
| 40° | 5183.2 | 3824.3 | 473.2 | 285.7 | 272.8 | 266.3 | 270.2 | 279.3 | 306.4 | 342.6 | 349.1 |
| 42.5° | 5599.5 | 3918.7 | 376.3 | 266.3 | 254.7 | 252.1 | 252.1 | 256.0 | 274.1 | 294.8 | 296.0 |
| 45° | 6014.4 | 3952.3 | 315.5 | 243.0 | 235.3 | 237.9 | 236.6 | 234.1 | 241.8 | 239.2 | 239.2 |
| 47.5° | 6310.5 | 3912.2 | 261.1 | 221.1 | 221.1 | 225.0 | 218.5 | 209.4 | 205.5 | 190.1 | 191.3 |
| 50° | 6513.5 | 3766.2 | 214.6 | 195.2 | 205.5 | 210.8 | 197.8 | 183.6 | 169.4 | 152.6 | 148.7 |
| 52.5° | 6597.6 | 3506.3 | 175.9 | 161.6 | 182.3 | 188.7 | 173.2 | 156.4 | 134.5 | 120.3 | 116.4 |
| 55° | 6543.2 | 3185.6 | 146.1 | 131.9 | 153.8 | 161.6 | 146.1 | 126.7 | 102.1 | 86.6 | 84.0 |
| 57.5° | 6304.1 | 2803.0 | 124.1 | 104.7 | 122.8 | 128.0 | 117.7 | 97.0 | 72.4 | 56.9 | 56.9 |
| 60° | 5890.4 | 2407.4 | 100.8 | 82.8 | 91.8 | 99.6 | 89.2 | 69.8 | 49.1 | 34.9 | 32.3 |
| 62.5° | 5051.3 | 1954.8 | 81.5 | 64.7 | 64.7 | 71.1 | 62.1 | 50.5 | 31.0 | 18.1 | 16.8 |
| 65° | 3647.2 | 1340.7 | 64.7 | 47.9 | 46.5 | 46.5 | 38.8 | 33.6 | 18.1 | 7.7 | 5.1 |
| 67.5° | 1982.0 | 756.3 | 51.7 | 36.2 | 32.3 | 31.0 | 24.6 | 19.4 | 7.7 | 1.3 | 0.0 |
| 70° | 779.6 | 290.9 | 40.1 | 24.6 | 20.7 | 19.4 | 13.0 | 9.1 | 5.1 | 0.0 | 0.0 |
| 71° | 528.8 | 200.4 | 34.9 | 20.7 | 16.8 | 14.2 | 10.3 | 7.7 | 3.9 | 0.0 | 0.0 |
| 72.5° | 302.5 | 124.1 | 27.2 | 15.5 | 13.0 | 10.3 | 7.7 | 5.1 | 3.9 | 0.0 | 0.0 |
| 75° | 131.9 | 63.3 | 16.8 | 11.6 | 9.1 | 6.5 | 5.1 | 3.9 | 1.3 | 0.0 | 0.0 |
| 77.5° | 67.2 | 34.9 | 11.6 | 9.1 | 5.1 | 3.9 | 2.6 | 1.3 | 0.0 | 0.0 | 0.0 |
| 80° | 37.5 | 18.1 | 7.7 | 5.1 | 3.9 | 2.6 | 1.3 | 1.3 | 0.0 | 0.0 | 0.0 |
| 82.5° | 20.7 | 10.3 | 3.9 | 2.6 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 13.0 | 6.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.5 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 1.3 | 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)