

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: P193591

Luminaire Tested: **GLEON-AF-03-LED-E1-SL2-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P193591
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
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-SL2-8030-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12282 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 166
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

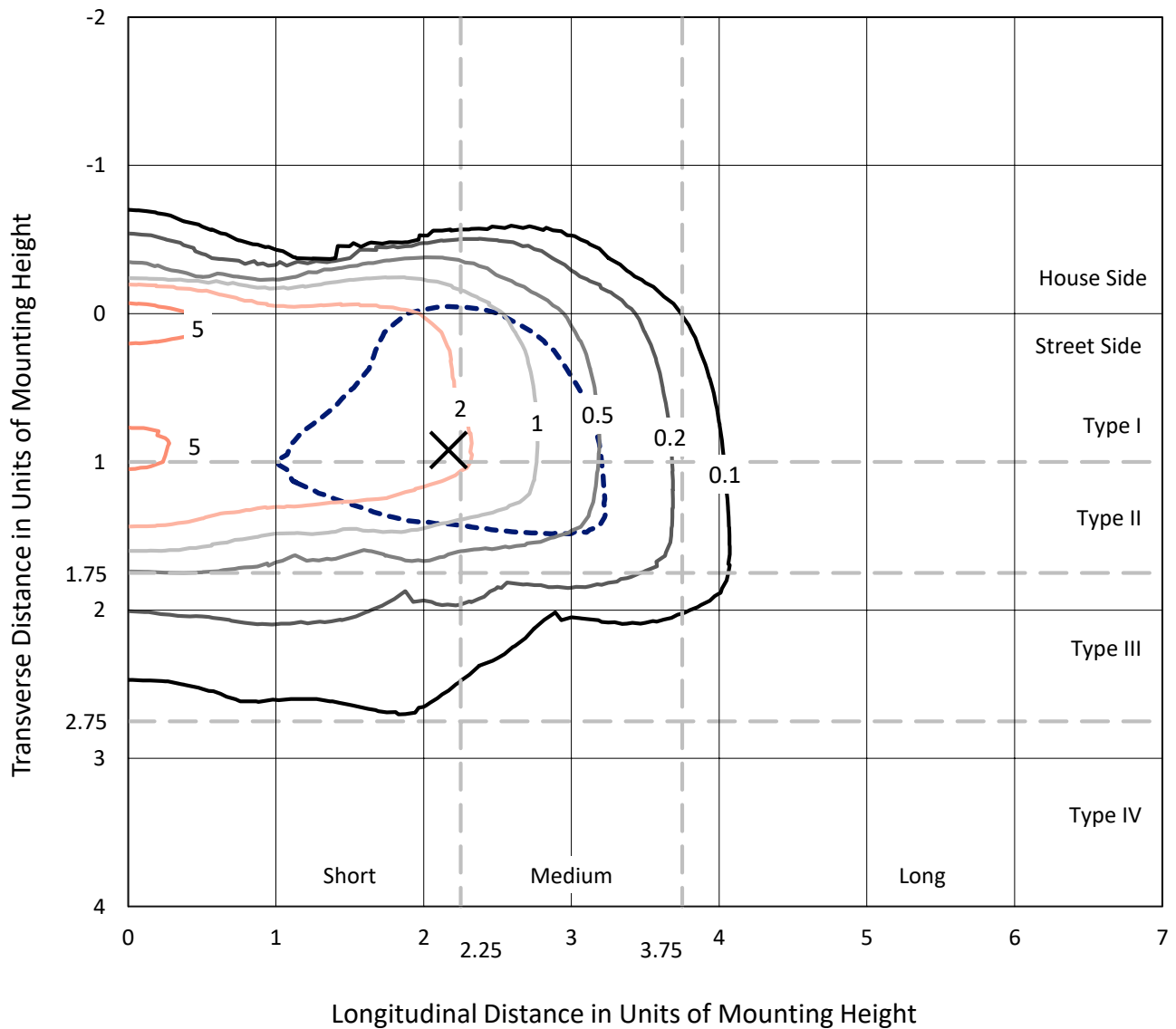


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

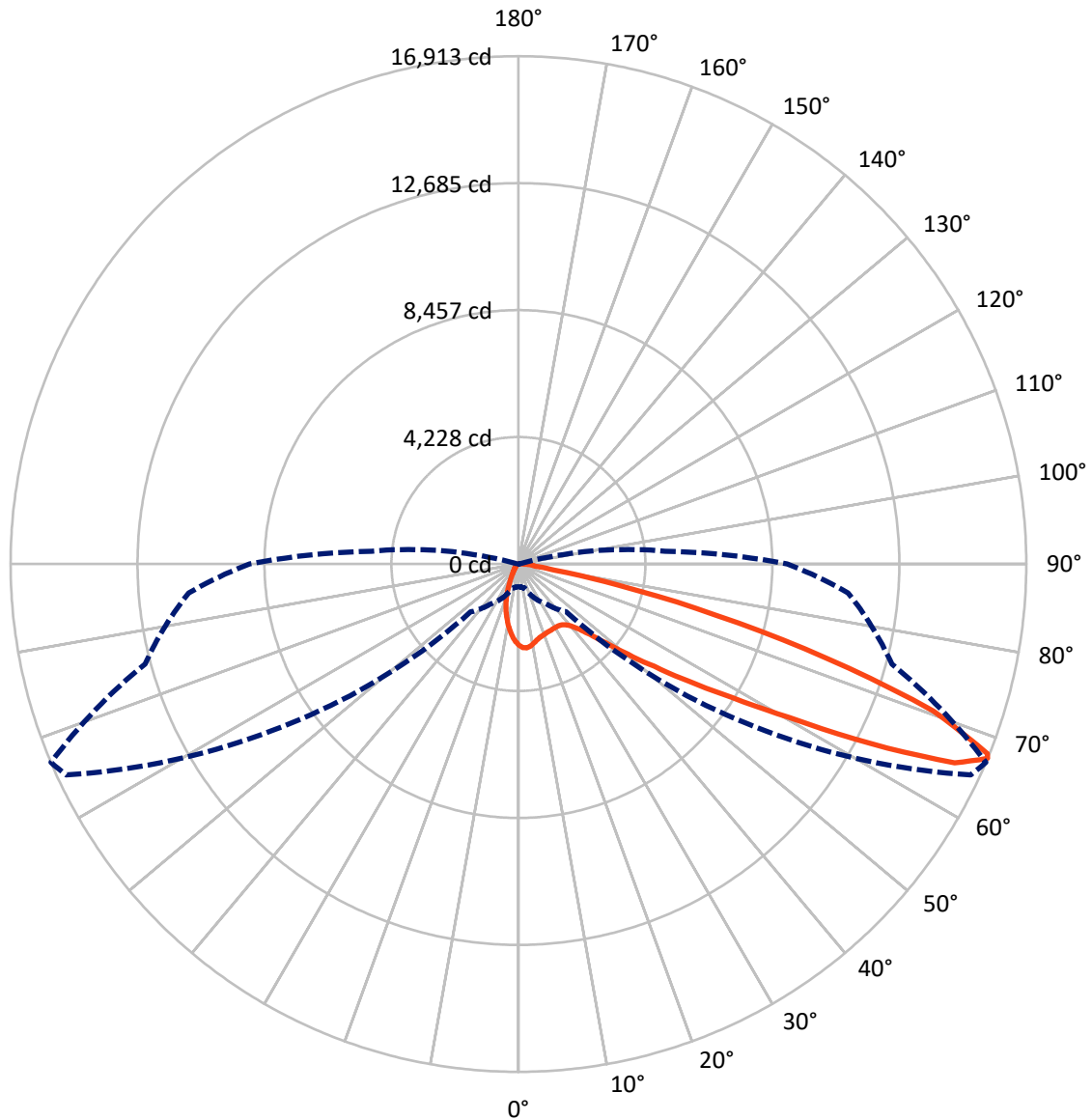


Based on 20 foot mounting height. Maximum calculated value = 6.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1275.2 | 0.0 | 1275.2 |
| | % Fixture | 10.4 | 0.0 | 10.4 |
| Street Side | Lumens | 11006.8 | 0.0 | 11006.8 |
| | % Fixture | 89.6 | 0.0 | 89.6 |
| Total | Lumens | 12282.0 | 0.0 | 12282.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 220.4 | 1.8 |
| 10°-20° | 469.1 | 3.8 |
| 20°-30° | 682.0 | 5.6 |
| 30°-40° | 1064.0 | 8.7 |
| 40°-50° | 1884.8 | 15.3 |
| 50°-60° | 2982.5 | 24.3 |
| 60°-70° | 3416.0 | 27.8 |
| 70°-80° | 1416.9 | 11.5 |
| 80°-90° | 146.4 | 1.2 |
| 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° | 12282.0 | 100.0 |
| 0°-180° | 12282.0 | 100.0 |



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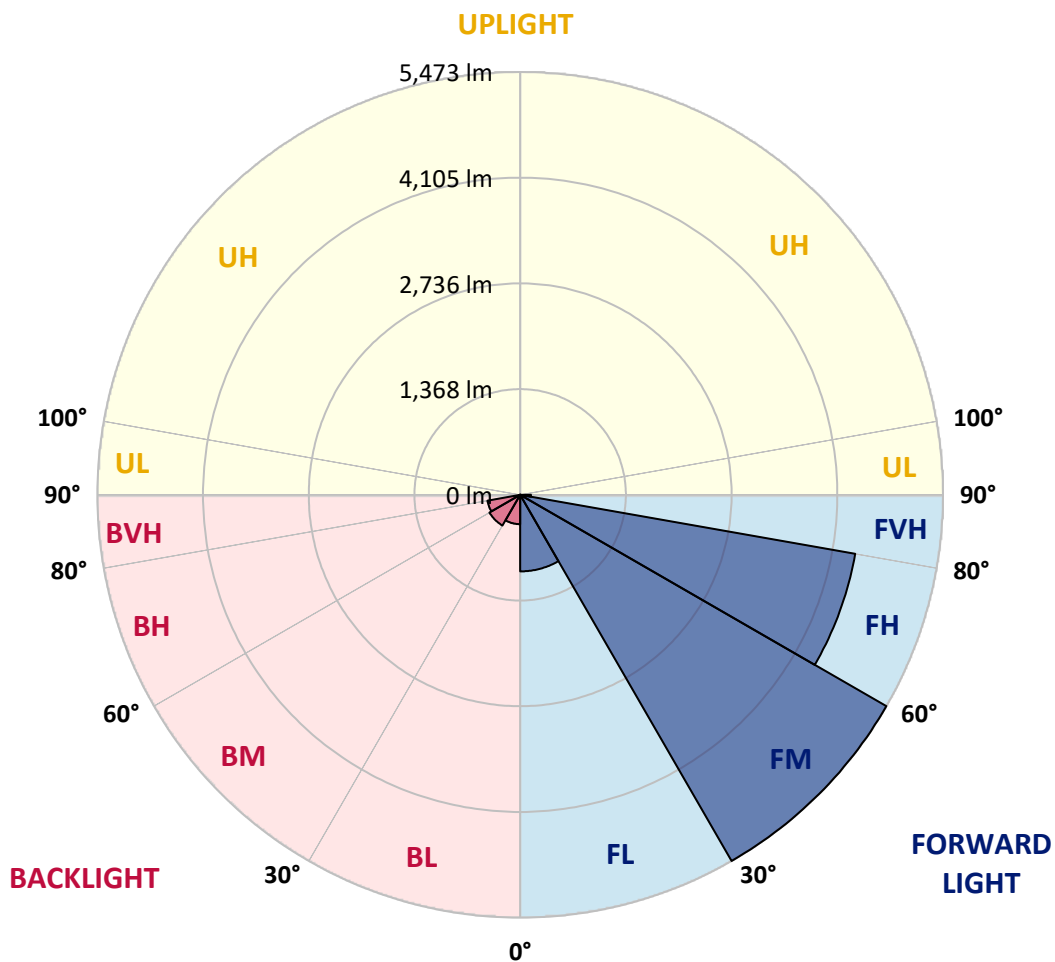
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 991.0 | 8.1 | | | |
| FM | (30°-60°) | 5472.9 | 44.6 | | | |
| FH | (60°-80°) | 4403.1 | 35.9 | | | G2/5000 |
| FVH | (80°-90°) | 139.8 | 1.1 | | | G2/225 |
| BL | (0°-30°) | 380.5 | 3.1 | B1/500 | | |
| BM | (30°-60°) | 458.3 | 3.7 | B1/1000 | | |
| BH | (60°-80°) | 429.8 | 3.5 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 6.6 | 0.1 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 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° | 2800.3 | 2806.1 | 2805.3 | 2809.6 | 2819.7 | 2820.4 | 2810.4 | 2791.0 | 2786.7 | 2761.6 | 2717.9 |
| 5° | 2582.6 | 2599.0 | 2609.1 | 2649.9 | 2695.7 | 2750.9 | 2792.5 | 2807.5 | 2805.3 | 2787.4 | 2721.5 |
| 7.5° | 2334.0 | 2350.4 | 2361.9 | 2409.9 | 2470.8 | 2565.4 | 2673.5 | 2762.4 | 2770.2 | 2789.6 | 2718.7 |
| 10° | 2168.5 | 2171.3 | 2187.1 | 2233.0 | 2296.7 | 2393.4 | 2522.4 | 2677.8 | 2701.5 | 2772.4 | 2711.5 |
| 12.5° | 2032.4 | 2034.5 | 2055.3 | 2104.7 | 2172.8 | 2270.2 | 2405.6 | 2585.4 | 2622.0 | 2750.9 | 2710.1 |
| 15° | 1935.7 | 1943.5 | 1962.2 | 2013.7 | 2086.1 | 2182.8 | 2321.8 | 2517.4 | 2561.1 | 2743.0 | 2723.0 |
| 17.5° | 1903.4 | 1912.0 | 1917.8 | 1955.0 | 2020.9 | 2115.5 | 2258.0 | 2472.9 | 2522.4 | 2747.3 | 2748.0 |
| 20° | 1937.1 | 1943.5 | 1930.6 | 1940.0 | 1980.8 | 2065.3 | 2204.3 | 2435.0 | 2493.7 | 2752.3 | 2780.3 |
| 22.5° | 2062.5 | 2065.3 | 2030.2 | 1989.4 | 1982.2 | 2028.8 | 2162.0 | 2404.9 | 2467.9 | 2765.9 | 2818.2 |
| 25° | 2277.4 | 2272.4 | 2215.0 | 2126.9 | 2043.8 | 2022.3 | 2137.0 | 2386.3 | 2455.0 | 2780.3 | 2857.6 |
| 27.5° | 2536.7 | 2543.9 | 2465.1 | 2336.8 | 2178.5 | 2065.3 | 2133.4 | 2378.4 | 2449.3 | 2790.3 | 2892.0 |
| 30° | 2851.9 | 2861.9 | 2771.7 | 2610.5 | 2383.4 | 2171.3 | 2166.3 | 2377.0 | 2445.7 | 2783.9 | 2894.9 |
| 32.5° | 3173.6 | 3185.7 | 3114.8 | 2948.6 | 2657.1 | 2349.0 | 2240.8 | 2392.7 | 2452.9 | 2761.6 | 2878.4 |
| 35° | 3510.3 | 3527.5 | 3480.2 | 3337.6 | 3028.1 | 2605.5 | 2371.9 | 2440.7 | 2486.6 | 2759.5 | 2861.9 |
| 37.5° | 3975.2 | 3991.0 | 3902.1 | 3751.0 | 3477.3 | 2949.3 | 2582.6 | 2531.0 | 2566.1 | 2793.9 | 2866.2 |
| 40° | 4669.4 | 4667.2 | 4438.0 | 4206.6 | 3970.9 | 3386.3 | 2878.4 | 2694.3 | 2712.2 | 2897.8 | 2919.3 |
| 42.5° | 5425.9 | 5422.3 | 5083.4 | 4731.7 | 4518.9 | 3924.3 | 3267.4 | 2976.6 | 2964.4 | 3089.0 | 3056.8 |
| 45° | 6009.0 | 6008.3 | 5731.8 | 5335.6 | 5178.7 | 4541.9 | 3770.3 | 3369.1 | 3350.5 | 3399.9 | 3310.4 |
| 47.5° | 6257.6 | 6261.9 | 6122.9 | 5844.2 | 5910.1 | 5377.2 | 4404.3 | 3937.9 | 3910.0 | 3889.9 | 3753.8 |
| 50° | 6064.2 | 6072.8 | 6084.2 | 6029.8 | 6446.7 | 6499.7 | 5254.7 | 4739.6 | 4726.0 | 4636.4 | 4423.6 |
| 52.5° | 5432.3 | 5476.0 | 5610.7 | 5783.3 | 6633.0 | 7577.2 | 6587.8 | 5735.3 | 5662.3 | 5567.0 | 5332.7 |
| 55° | 4367.8 | 4415.8 | 4671.5 | 5090.6 | 6355.7 | 8284.9 | 8456.2 | 7019.1 | 6897.3 | 6612.9 | 6274.8 |
| 57.5° | 2890.6 | 2965.1 | 3336.2 | 3869.2 | 5550.5 | 8398.8 | 10320.2 | 8800.7 | 8376.6 | 7597.9 | 7216.8 |
| 60° | 1592.5 | 1664.2 | 2066.8 | 2549.6 | 4008.9 | 7835.8 | 11573.8 | 11120.4 | 10371.0 | 8699.0 | 8360.9 |
| 62.5° | 980.7 | 1019.4 | 1316.7 | 1765.9 | 2404.2 | 6184.5 | 11833.2 | 14035.3 | 13167.8 | 10116.7 | 9742.8 |
| 65° | 780.9 | 797.3 | 942.8 | 1443.5 | 1723.6 | 3678.6 | 10995.7 | 16257.5 | 15968.1 | 11833.2 | 10980.0 |
| 67° | 757.9 | 764.4 | 833.2 | 1239.3 | 1624.8 | 2255.2 | 9211.9 | 16619.3 | 16913.0 | 12871.9 | 11018.6 |
| 67.5° | 762.9 | 770.1 | 835.3 | 1182.7 | 1621.9 | 2072.5 | 8597.3 | 16476.8 | 16847.8 | 12954.3 | 10847.4 |
| 70° | 735.7 | 757.9 | 956.4 | 1182.0 | 1542.4 | 1722.2 | 5148.6 | 14276.0 | 14662.2 | 12036.6 | 9204.1 |
| 72.5° | 260.8 | 262.2 | 413.4 | 956.4 | 1677.0 | 1740.8 | 2585.4 | 10465.6 | 10751.4 | 9207.6 | 6635.8 |
| 75° | 154.7 | 131.8 | 137.5 | 272.2 | 1602.5 | 1690.7 | 1491.5 | 6687.4 | 6794.2 | 5276.1 | 3360.5 |
| 77.5° | 106.7 | 93.1 | 96.0 | 120.4 | 610.4 | 1667.0 | 1184.9 | 3487.3 | 3373.4 | 1850.4 | 715.7 |
| 80° | 60.9 | 53.7 | 57.3 | 105.3 | 222.1 | 1555.3 | 1117.6 | 1414.1 | 1205.7 | 313.8 | 197.7 |
| 82.5° | 32.2 | 27.2 | 33.0 | 86.7 | 154.7 | 969.3 | 1119.7 | 683.4 | 541.6 | 106.0 | 134.7 |
| 85° | 11.5 | 9.3 | 15.8 | 59.5 | 103.2 | 297.3 | 1038.0 | 574.5 | 451.3 | 51.6 | 102.4 |
| 87.5° | 2.1 | 2.1 | 6.4 | 24.4 | 41.6 | 91.0 | 613.9 | 341.0 | 228.5 | 30.8 | 70.2 |
| 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° | 2700.0 | 2669.2 | 2627.7 | 2576.8 | 2516.6 | 2463.6 | 2424.2 | 2383.4 | 2374.8 | 2360.5 | 2358.3 |
| 5° | 2682.1 | 2629.1 | 2526.0 | 2407.8 | 2281.7 | 2167.8 | 2075.4 | 1993.0 | 1956.4 | 1924.9 | 1921.3 |
| 7.5° | 2655.6 | 2576.1 | 2400.6 | 2210.0 | 2013.0 | 1833.9 | 1682.1 | 1574.6 | 1475.7 | 1428.5 | 1421.3 |
| 10° | 2624.8 | 2510.9 | 2259.5 | 1995.1 | 1722.9 | 1470.0 | 1244.4 | 1055.2 | 940.6 | 872.6 | 864.0 |
| 12.5° | 2596.2 | 2447.2 | 2115.5 | 1772.3 | 1410.6 | 1072.4 | 782.3 | 601.8 | 481.4 | 432.7 | 427.0 |
| 15° | 2582.6 | 2395.6 | 1980.8 | 1544.5 | 1083.9 | 682.7 | 427.7 | 331.0 | 291.6 | 280.1 | 279.4 |
| 17.5° | 2581.1 | 2351.9 | 1849.0 | 1308.8 | 759.4 | 396.9 | 278.7 | 254.3 | 246.4 | 243.6 | 243.6 |
| 20° | 2580.4 | 2310.3 | 1717.2 | 1064.5 | 482.1 | 264.3 | 232.1 | 226.4 | 220.6 | 217.1 | 217.1 |
| 22.5° | 2588.3 | 2273.1 | 1579.6 | 815.2 | 303.7 | 214.2 | 204.2 | 198.4 | 191.3 | 186.3 | 185.5 |
| 25° | 2596.2 | 2244.4 | 1439.2 | 580.3 | 219.9 | 186.3 | 176.2 | 168.3 | 158.3 | 151.9 | 151.2 |
| 27.5° | 2597.6 | 2208.6 | 1288.8 | 388.3 | 184.1 | 162.6 | 149.7 | 137.5 | 126.1 | 119.6 | 118.9 |
| 30° | 2576.1 | 2148.4 | 1121.9 | 262.2 | 162.6 | 141.1 | 123.9 | 111.0 | 100.3 | 95.3 | 95.3 |
| 32.5° | 2533.8 | 2073.9 | 938.5 | 197.7 | 144.7 | 121.1 | 102.4 | 90.3 | 83.1 | 81.0 | 80.2 |
| 35° | 2495.9 | 1993.7 | 750.1 | 167.6 | 129.7 | 102.4 | 83.8 | 75.9 | 71.6 | 70.9 | 70.2 |
| 37.5° | 2473.7 | 1929.2 | 573.1 | 151.9 | 115.3 | 86.0 | 70.9 | 65.2 | 63.0 | 61.6 | 62.3 |
| 40° | 2490.9 | 1875.5 | 423.4 | 139.0 | 101.0 | 71.6 | 60.2 | 57.3 | 55.2 | 54.4 | 54.4 |
| 42.5° | 2566.1 | 1866.2 | 314.5 | 127.5 | 87.4 | 59.5 | 52.3 | 50.1 | 48.7 | 48.0 | 48.7 |
| 45° | 2763.8 | 1923.5 | 244.3 | 116.8 | 73.8 | 50.1 | 44.4 | 43.7 | 43.0 | 43.0 | 43.0 |
| 47.5° | 3061.1 | 2041.7 | 203.5 | 104.6 | 61.6 | 43.0 | 38.7 | 38.0 | 37.3 | 38.0 | 38.0 |
| 50° | 3564.7 | 2258.0 | 182.0 | 92.4 | 50.9 | 36.5 | 33.0 | 33.0 | 33.0 | 33.0 | 33.7 |
| 52.5° | 4330.5 | 2683.6 | 167.6 | 80.2 | 41.6 | 30.8 | 27.9 | 27.9 | 28.7 | 28.7 | 29.4 |
| 55° | 5183.7 | 3248.1 | 154.7 | 68.1 | 35.1 | 25.8 | 22.9 | 23.6 | 24.4 | 25.1 | 25.1 |
| 57.5° | 6109.3 | 3873.5 | 144.0 | 55.9 | 30.1 | 20.8 | 19.3 | 20.1 | 20.8 | 22.2 | 22.2 |
| 60° | 7226.1 | 4550.4 | 128.2 | 43.7 | 25.1 | 16.5 | 15.0 | 16.5 | 18.6 | 20.1 | 20.8 |
| 62.5° | 8452.6 | 5205.2 | 108.2 | 34.4 | 20.8 | 12.9 | 12.2 | 15.0 | 17.9 | 19.3 | 20.1 |
| 65° | 9290.7 | 5410.8 | 83.1 | 27.9 | 15.8 | 9.3 | 10.0 | 13.6 | 17.2 | 19.3 | 19.3 |
| 67° | 8951.2 | 4905.8 | 68.1 | 23.6 | 12.9 | 7.2 | 9.3 | 13.6 | 17.2 | 18.6 | 19.3 |
| 67.5° | 8715.5 | 4708.1 | 65.2 | 22.9 | 12.2 | 7.2 | 9.3 | 13.6 | 17.2 | 19.3 | 19.3 |
| 70° | 7091.5 | 3536.8 | 54.4 | 17.2 | 10.0 | 6.4 | 7.9 | 12.9 | 16.5 | 18.6 | 18.6 |
| 72.5° | 4927.3 | 2180.7 | 48.7 | 12.2 | 8.6 | 5.7 | 7.2 | 12.2 | 15.8 | 17.9 | 18.6 |
| 75° | 2342.6 | 789.5 | 41.6 | 9.3 | 7.9 | 5.0 | 6.4 | 12.2 | 15.8 | 17.9 | 17.9 |
| 77.5° | 477.8 | 183.4 | 33.7 | 7.9 | 6.4 | 5.0 | 5.7 | 11.5 | 15.0 | 17.2 | 17.2 |
| 80° | 156.9 | 70.9 | 25.1 | 7.2 | 6.4 | 5.0 | 5.7 | 10.7 | 15.0 | 16.5 | 17.2 |
| 82.5° | 113.2 | 35.8 | 16.5 | 7.2 | 6.4 | 5.0 | 5.0 | 10.7 | 14.3 | 16.5 | 16.5 |
| 85° | 86.7 | 25.1 | 10.7 | 7.2 | 6.4 | 5.0 | 5.0 | 10.0 | 13.6 | 15.8 | 15.8 |
| 87.5° | 57.3 | 10.0 | 8.6 | 7.2 | 6.4 | 5.0 | 5.0 | 10.0 | 12.9 | 15.0 | 15.8 |
| 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)