

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: P193762

Luminaire Tested: **GLEON-AF-04-LED-E1-SL4-8030-1200-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P193762
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-04-LED-E1-SL4-8030-1200-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17444 lumens
Efficiency: N/A
Efficacy: 67.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

Input Watts (W): 258
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

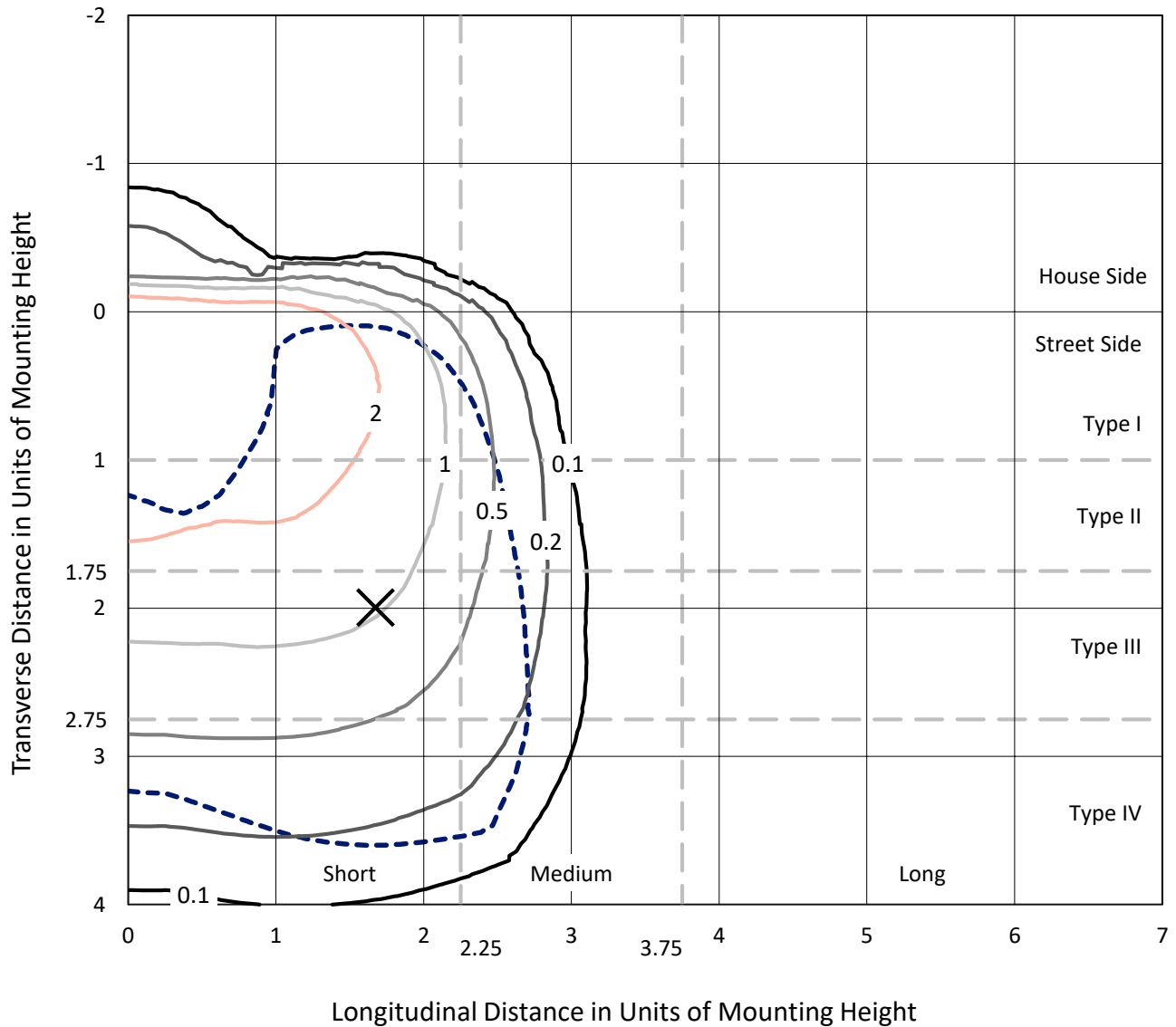


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

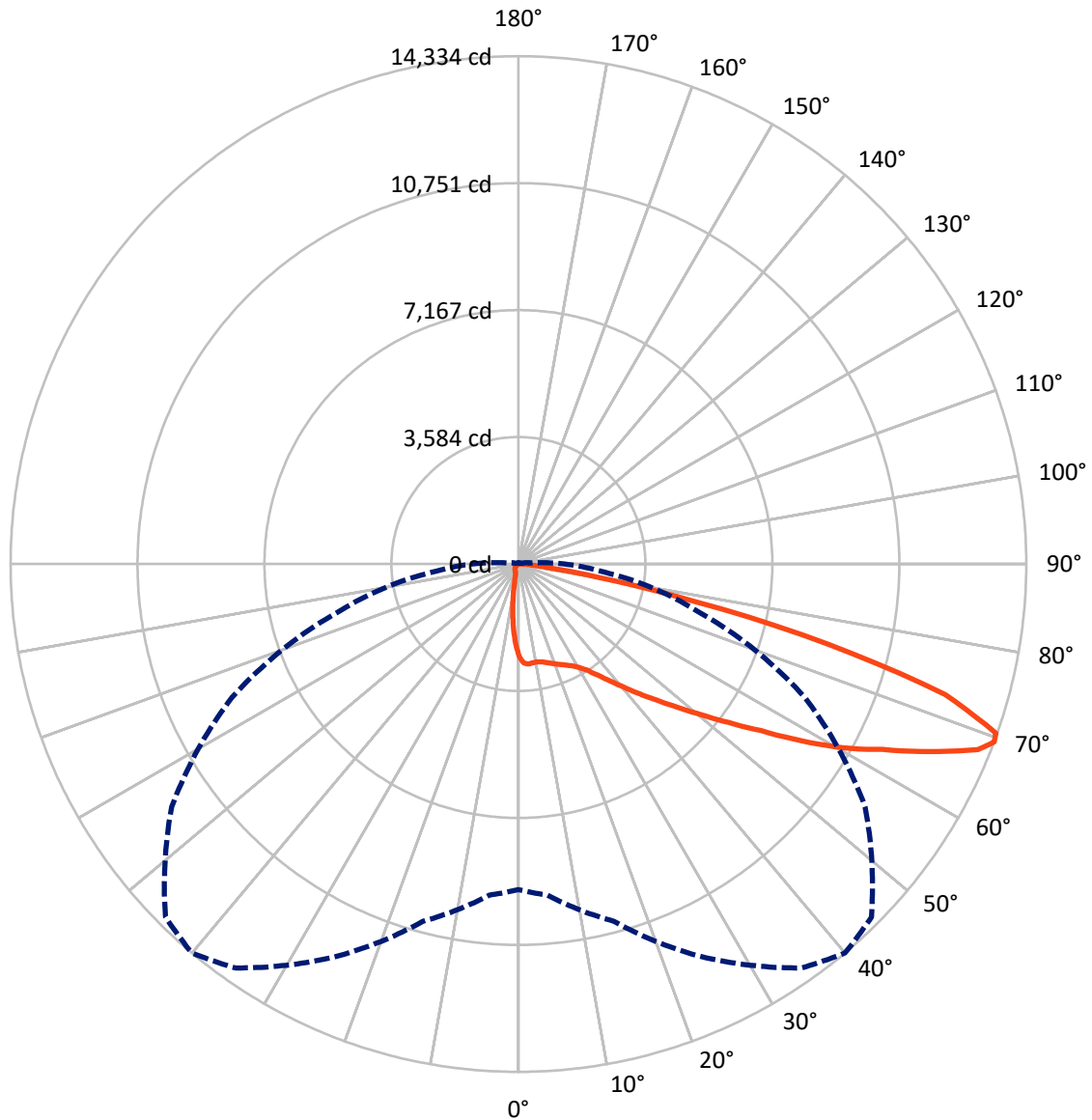


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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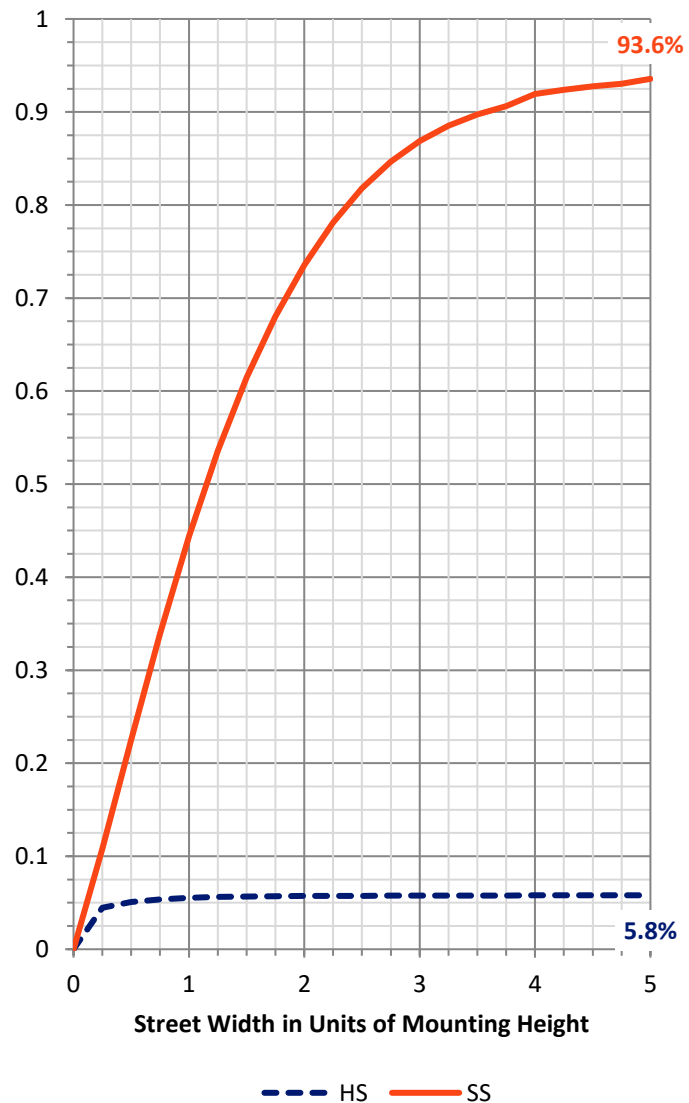
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1020.6 | 0.0 | 1020.6 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 16423.4 | 0.0 | 16423.4 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 17444.0 | 0.0 | 17444.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 211.3 | 1.2 |
| 10°-20° | 519.7 | 3.0 |
| 20°-30° | 875.3 | 5.0 |
| 30°-40° | 1432.9 | 8.2 |
| 40°-50° | 2481.0 | 14.2 |
| 50°-60° | 3907.8 | 22.4 |
| 60°-70° | 5103.4 | 29.3 |
| 70°-80° | 2628.5 | 15.1 |
| 80°-90° | 284.3 | 1.6 |
| 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° | 17444.0 | 100.0 |
| 0°-180° | 17444.0 | 100.0 |

Coefficient of Utilization



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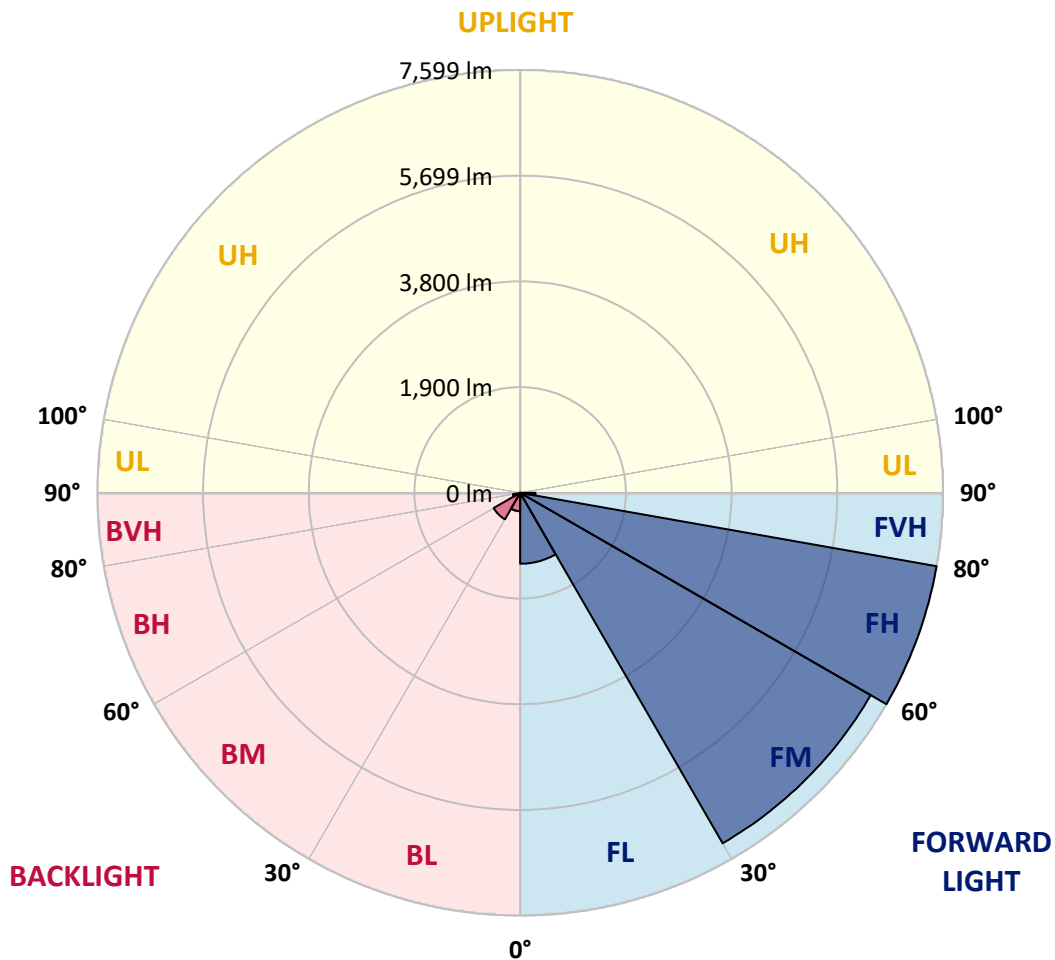
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1275.7 | 7.3 | | | |
| FM | (30°-60°) | 7273.1 | 41.7 | | | |
| FH | (60°-80°) | 7599.3 | 43.6 | | | G4/12000 |
| FVH | (80°-90°) | 275.4 | 1.6 | | | G3/500 |
| BL | (0°-30°) | 330.6 | 1.9 | B1/500 | | |
| BM | (30°-60°) | 548.5 | 3.1 | B1/1000 | | |
| BH | (60°-80°) | 132.5 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 8.9 | 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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 |
| 2.5° | 2861.7 | 2846.1 | 2836.7 | 2824.3 | 2808.7 | 2795.2 | 2790.0 | 2751.6 | 2715.2 | 2665.4 | 2608.3 |
| 5° | 2914.6 | 2909.4 | 2892.8 | 2876.2 | 2857.5 | 2836.7 | 2825.3 | 2779.6 | 2727.7 | 2655.0 | 2555.3 |
| 7.5° | 2919.8 | 2913.6 | 2892.8 | 2870.0 | 2844.0 | 2819.1 | 2799.4 | 2753.7 | 2705.9 | 2632.2 | 2510.7 |
| 10° | 2911.5 | 2904.2 | 2888.7 | 2863.7 | 2831.5 | 2807.7 | 2787.9 | 2744.3 | 2703.8 | 2637.4 | 2502.4 |
| 12.5° | 2902.1 | 2894.9 | 2887.6 | 2875.2 | 2847.1 | 2830.5 | 2813.9 | 2772.4 | 2736.0 | 2679.9 | 2532.5 |
| 15° | 2911.5 | 2907.3 | 2915.6 | 2910.5 | 2894.9 | 2880.3 | 2863.7 | 2826.4 | 2793.1 | 2746.4 | 2587.5 |
| 17.5° | 2951.0 | 2951.0 | 2976.9 | 2980.0 | 2965.5 | 2944.7 | 2920.8 | 2883.5 | 2855.4 | 2816.0 | 2652.9 |
| 20° | 3043.4 | 3040.2 | 3073.5 | 3079.7 | 3044.4 | 3012.2 | 2976.9 | 2931.2 | 2909.4 | 2884.5 | 2717.3 |
| 22.5° | 3202.2 | 3187.7 | 3207.4 | 3201.2 | 3131.6 | 3081.8 | 3038.2 | 2982.1 | 2970.7 | 2959.3 | 2789.0 |
| 25° | 3408.9 | 3400.6 | 3414.0 | 3352.8 | 3230.3 | 3162.8 | 3110.9 | 3047.5 | 3047.5 | 3058.9 | 2870.0 |
| 27.5° | 3708.9 | 3677.8 | 3632.1 | 3524.1 | 3340.3 | 3254.1 | 3198.1 | 3130.6 | 3148.2 | 3190.8 | 2976.9 |
| 30° | 4016.3 | 3982.0 | 3877.1 | 3711.0 | 3474.3 | 3383.9 | 3318.5 | 3247.9 | 3289.4 | 3367.3 | 3120.2 |
| 32.5° | 4319.5 | 4281.1 | 4132.6 | 3922.8 | 3666.4 | 3576.0 | 3512.7 | 3434.8 | 3504.4 | 3635.2 | 3329.9 |
| 35° | 4613.3 | 4579.1 | 4407.7 | 4160.6 | 3921.8 | 3847.0 | 3788.9 | 3721.4 | 3810.7 | 3993.4 | 3625.9 |
| 37.5° | 4943.5 | 4906.1 | 4697.4 | 4429.5 | 4232.3 | 4178.3 | 4135.7 | 4068.2 | 4224.0 | 4491.8 | 4038.1 |
| 40° | 5349.5 | 5286.2 | 5004.8 | 4737.9 | 4591.5 | 4565.6 | 4536.5 | 4527.1 | 4769.1 | 5139.8 | 4587.4 |
| 42.5° | 5814.7 | 5710.8 | 5326.7 | 5062.9 | 4986.1 | 5004.8 | 4997.5 | 5039.0 | 5451.3 | 5945.5 | 5256.1 |
| 45° | 6279.9 | 6145.9 | 5684.9 | 5409.7 | 5420.1 | 5485.5 | 5526.0 | 5692.2 | 6305.8 | 6869.6 | 5975.6 |
| 47.5° | 6674.4 | 6542.6 | 6028.6 | 5784.6 | 5909.2 | 6037.9 | 6148.0 | 6462.6 | 7184.2 | 7779.2 | 6535.3 |
| 50° | 7011.9 | 6887.3 | 6393.0 | 6196.8 | 6477.1 | 6684.8 | 6863.4 | 7329.6 | 8129.1 | 8471.8 | 6927.8 |
| 52.5° | 7288.1 | 7205.0 | 6771.0 | 6669.2 | 7126.1 | 7430.3 | 7692.0 | 8250.6 | 8966.0 | 9034.6 | 7233.0 |
| 55° | 7557.0 | 7497.8 | 7177.0 | 7231.0 | 7888.2 | 8302.5 | 8633.8 | 9227.7 | 9686.6 | 9503.9 | 7525.9 |
| 57.5° | 7866.4 | 7812.4 | 7640.1 | 7943.3 | 8890.2 | 9411.5 | 9772.8 | 10093.7 | 10321.1 | 9983.6 | 7802.1 |
| 60° | 8182.1 | 8150.9 | 8155.1 | 8734.5 | 10040.7 | 10541.2 | 10740.5 | 10823.6 | 10944.1 | 10435.3 | 7817.6 |
| 62.5° | 8483.2 | 8542.4 | 8743.8 | 9615.0 | 11142.4 | 11526.6 | 11627.3 | 11709.3 | 11568.1 | 10506.9 | 7222.7 |
| 65° | 8993.0 | 9089.6 | 9570.3 | 10793.5 | 12354.1 | 12765.3 | 12869.1 | 12587.7 | 11666.7 | 9580.7 | 5874.9 |
| 67.5° | 9242.2 | 9418.7 | 10276.4 | 11892.1 | 13529.5 | 13986.4 | 13948.0 | 12644.9 | 10469.5 | 7305.7 | 3770.2 |
| 69° | 9190.3 | 9378.3 | 10439.4 | 12228.5 | 13919.9 | 14334.2 | 14090.2 | 11946.1 | 8919.3 | 5292.4 | 2314.5 |
| 70° | 8984.7 | 9174.7 | 10355.3 | 12216.0 | 13969.8 | 14297.9 | 13826.5 | 11083.2 | 7541.4 | 3869.9 | 1447.4 |
| 72.5° | 7503.0 | 7667.1 | 9193.4 | 11041.7 | 12869.1 | 12602.3 | 11567.1 | 7678.5 | 3674.7 | 1053.9 | 326.0 |
| 75° | 4618.5 | 4709.9 | 6596.5 | 8318.1 | 9719.9 | 9034.6 | 7706.5 | 3820.0 | 1095.4 | 298.0 | 180.7 |
| 77.5° | 2440.1 | 2481.6 | 3611.3 | 4903.0 | 6161.5 | 5098.2 | 3949.8 | 1490.0 | 504.6 | 186.9 | 130.8 |
| 80° | 1442.2 | 1473.4 | 1944.8 | 2241.8 | 2666.4 | 2227.2 | 1579.3 | 914.8 | 361.3 | 117.3 | 116.3 |
| 82.5° | 825.5 | 845.2 | 1410.1 | 1246.0 | 1050.8 | 897.1 | 786.0 | 867.0 | 217.0 | 78.9 | 120.4 |
| 85° | 303.2 | 307.3 | 793.3 | 948.0 | 625.1 | 371.7 | 390.4 | 718.5 | 58.1 | 49.8 | 94.5 |
| 87.5° | 141.2 | 138.1 | 408.1 | 580.4 | 365.5 | 235.7 | 304.2 | 157.8 | 22.8 | 32.2 | 26.0 |
| 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° | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 | 2606.2 |
| 2.5° | 2575.1 | 2536.7 | 2467.1 | 2395.4 | 2322.8 | 2266.7 | 2211.7 | 2168.0 | 2153.5 | 2126.5 | 2128.6 |
| 5° | 2496.2 | 2425.6 | 2280.2 | 2132.7 | 1979.1 | 1852.4 | 1733.0 | 1636.4 | 1589.7 | 1541.9 | 1541.9 |
| 7.5° | 2427.6 | 2324.8 | 2097.4 | 1857.6 | 1609.4 | 1400.7 | 1212.8 | 1071.6 | 993.7 | 931.4 | 930.3 |
| 10° | 2401.7 | 2262.5 | 1944.8 | 1601.1 | 1255.3 | 970.8 | 747.6 | 604.3 | 530.6 | 482.8 | 480.7 |
| 12.5° | 2413.1 | 2240.7 | 1827.5 | 1364.4 | 930.3 | 624.0 | 433.0 | 340.6 | 309.4 | 294.9 | 294.9 |
| 15° | 2446.3 | 2234.5 | 1710.1 | 1132.8 | 657.3 | 390.4 | 287.6 | 262.7 | 260.6 | 260.6 | 260.6 |
| 17.5° | 2486.8 | 2236.6 | 1589.7 | 907.5 | 447.5 | 279.3 | 248.2 | 245.0 | 247.1 | 247.1 | 247.1 |
| 20° | 2528.3 | 2237.6 | 1459.9 | 698.8 | 315.7 | 243.0 | 233.6 | 232.6 | 234.7 | 234.7 | 235.7 |
| 22.5° | 2579.2 | 2242.8 | 1330.1 | 522.3 | 260.6 | 229.5 | 222.2 | 222.2 | 223.2 | 223.2 | 222.2 |
| 25° | 2637.4 | 2253.2 | 1195.1 | 387.3 | 237.8 | 220.1 | 213.9 | 212.9 | 213.9 | 212.9 | 211.8 |
| 27.5° | 2710.1 | 2267.7 | 1044.6 | 303.2 | 227.4 | 210.8 | 205.6 | 205.6 | 204.6 | 203.5 | 202.5 |
| 30° | 2801.4 | 2284.3 | 875.3 | 257.5 | 217.0 | 202.5 | 197.3 | 196.2 | 195.2 | 193.1 | 193.1 |
| 32.5° | 2940.6 | 2320.7 | 708.1 | 233.6 | 205.6 | 191.1 | 186.9 | 186.9 | 184.8 | 182.7 | 181.7 |
| 35° | 3154.5 | 2392.3 | 558.6 | 219.1 | 193.1 | 178.6 | 173.4 | 173.4 | 171.3 | 170.3 | 169.2 |
| 37.5° | 3450.4 | 2501.4 | 434.0 | 205.6 | 180.7 | 165.1 | 159.9 | 158.9 | 156.8 | 154.7 | 153.7 |
| 40° | 3843.9 | 2636.3 | 341.6 | 193.1 | 168.2 | 151.6 | 147.4 | 145.4 | 141.2 | 138.1 | 138.1 |
| 42.5° | 4338.2 | 2790.0 | 277.2 | 179.6 | 153.7 | 139.1 | 136.0 | 132.9 | 125.6 | 122.5 | 121.5 |
| 45° | 4855.3 | 2928.1 | 234.7 | 164.1 | 139.1 | 126.7 | 124.6 | 119.4 | 110.1 | 106.9 | 106.9 |
| 47.5° | 5228.0 | 2960.3 | 206.6 | 149.5 | 125.6 | 113.2 | 112.1 | 102.8 | 94.5 | 92.4 | 91.4 |
| 50° | 5460.6 | 2897.0 | 183.8 | 135.0 | 113.2 | 100.7 | 97.6 | 86.2 | 81.0 | 78.9 | 77.9 |
| 52.5° | 5617.4 | 2783.8 | 165.1 | 122.5 | 101.8 | 89.3 | 82.0 | 73.7 | 69.6 | 67.5 | 67.5 |
| 55° | 5743.0 | 2623.9 | 146.4 | 111.1 | 92.4 | 80.0 | 69.6 | 63.3 | 59.2 | 57.1 | 57.1 |
| 57.5° | 5778.3 | 2406.9 | 127.7 | 101.8 | 83.1 | 70.6 | 59.2 | 55.0 | 49.8 | 48.8 | 48.8 |
| 60° | 5521.9 | 2015.4 | 113.2 | 90.3 | 74.8 | 61.3 | 51.9 | 46.7 | 41.5 | 40.5 | 39.5 |
| 62.5° | 4845.9 | 1559.6 | 99.7 | 80.0 | 65.4 | 53.0 | 44.6 | 38.4 | 34.3 | 34.3 | 34.3 |
| 65° | 3696.5 | 1045.6 | 87.2 | 69.6 | 57.1 | 44.6 | 38.4 | 31.2 | 29.1 | 29.1 | 30.1 |
| 67.5° | 2212.7 | 569.0 | 74.8 | 59.2 | 48.8 | 37.4 | 32.2 | 27.0 | 26.0 | 27.0 | 27.0 |
| 69° | 1296.9 | 334.3 | 67.5 | 53.0 | 42.6 | 33.2 | 28.0 | 23.9 | 26.0 | 27.0 | 27.0 |
| 70° | 800.6 | 225.3 | 62.3 | 47.8 | 38.4 | 30.1 | 26.0 | 22.8 | 24.9 | 26.0 | 26.0 |
| 72.5° | 223.2 | 116.3 | 49.8 | 37.4 | 31.2 | 24.9 | 20.8 | 20.8 | 23.9 | 24.9 | 24.9 |
| 75° | 145.4 | 86.2 | 38.4 | 28.0 | 23.9 | 19.7 | 17.7 | 19.7 | 22.8 | 23.9 | 23.9 |
| 77.5° | 120.4 | 70.6 | 31.2 | 22.8 | 19.7 | 18.7 | 16.6 | 17.7 | 20.8 | 21.8 | 21.8 |
| 80° | 110.1 | 49.8 | 24.9 | 20.8 | 17.7 | 16.6 | 15.6 | 14.5 | 18.7 | 19.7 | 19.7 |
| 82.5° | 104.9 | 39.5 | 21.8 | 18.7 | 16.6 | 14.5 | 13.5 | 14.5 | 16.6 | 17.7 | 18.7 |
| 85° | 65.4 | 26.0 | 19.7 | 17.7 | 14.5 | 13.5 | 13.5 | 13.5 | 15.6 | 16.6 | 16.6 |
| 87.5° | 23.9 | 20.8 | 17.7 | 14.5 | 12.5 | 12.5 | 12.5 | 12.5 | 13.5 | 15.6 | 15.6 |
| 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)