

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: FAIL-SAFE

Report Number: P834287

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-3STD-50-120-EDD-90**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P834287  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-12-4-INS-ASY2-LD4-3STD-50-120-EDD-90  
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

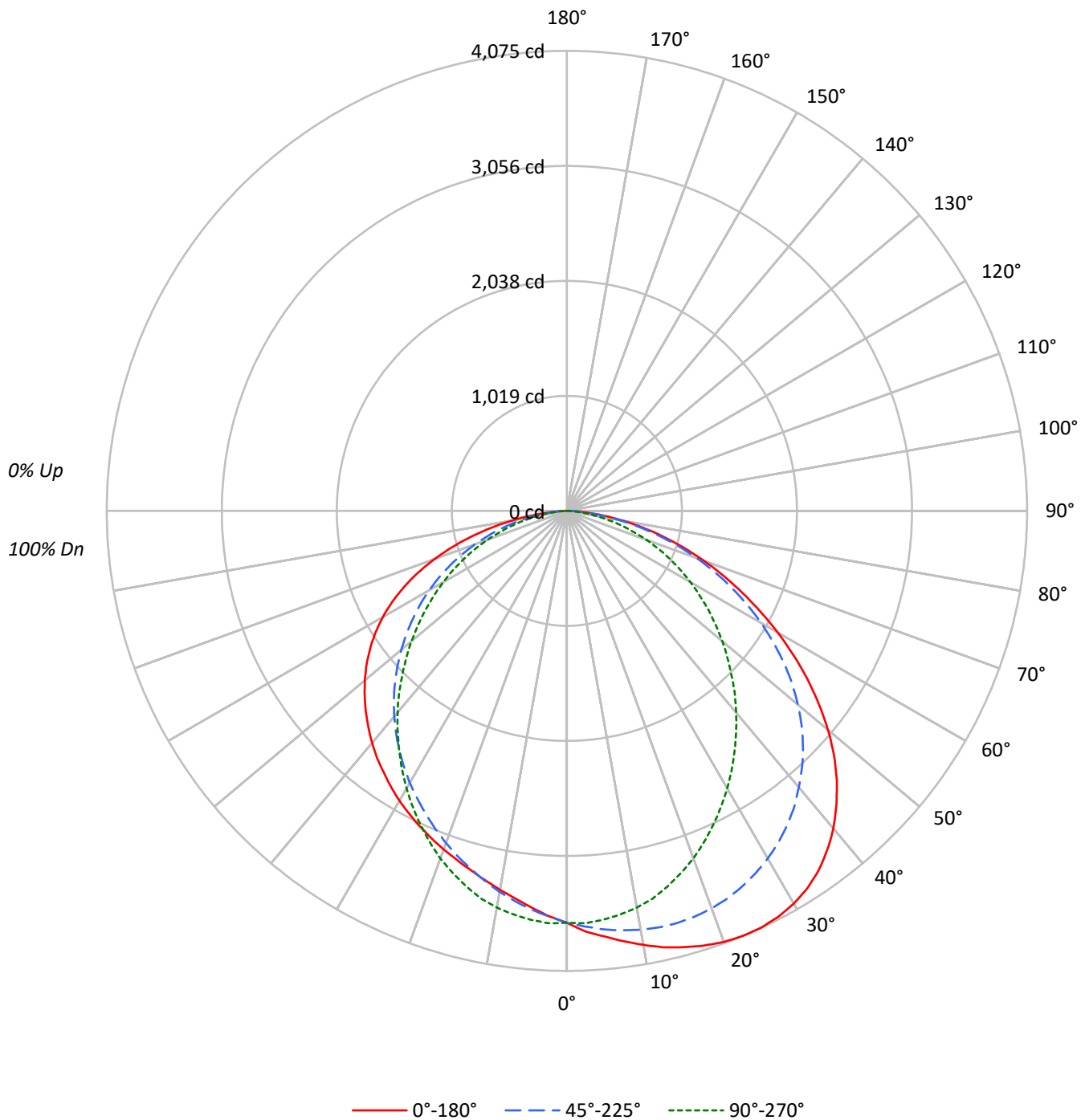
Lumens per Lamp: N/A  
Luminaire Lumens: 10730.7 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
Input Voltage (V): 120  
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: 28.75 FT

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### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  |  | 94  | 91  | 88  |  | 90  |
| 2   | 99  | 90  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  |  | 82  | 77  | 73  |  | 79  |
| 3   | 90  | 79  | 71  | 65  | 87  | 78  | 70  | 64  | 75  | 68  | 63  |  | 72  | 66  | 62  |  | 69  |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  |  | 64  | 58  | 53  |  | 62  |
| 5   | 76  | 63  | 54  | 47  | 73  | 61  | 53  | 47  | 59  | 52  | 46  |  | 57  | 51  | 46  |  | 55  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  |  | 52  | 45  | 40  |  | 50  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  |  | 47  | 40  | 35  |  | 46  |
| 8   | 60  | 46  | 38  | 32  | 59  | 46  | 38  | 32  | 44  | 37  | 32  |  | 43  | 36  | 31  |  | 42  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  |  | 40  | 33  | 28  |  | 39  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  |  | 37  | 30  | 26  |  | 36  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 90°  | 180°  |
|-----|-------|------|-------|
| 0°  | 9817  | 9817 | 9817  |
| 5°  | 10220 | 9822 | 9531  |
| 10° | 10667 | 9748 | 9310  |
| 15° | 11147 | 9592 | 9177  |
| 20° | 11634 | 9380 | 9138  |
| 25° | 12091 | 9108 | 9153  |
| 30° | 12485 | 8823 | 9212  |
| 35° | 12770 | 8508 | 9289  |
| 40° | 12899 | 8193 | 9426  |
| 45° | 12863 | 7847 | 9580  |
| 50° | 12635 | 7518 | 9777  |
| 55° | 12203 | 7172 | 9981  |
| 60° | 11608 | 6802 | 10132 |
| 65° | 10901 | 6387 | 10119 |
| 70° | 10145 | 5891 | 9818  |
| 75° | 9211  | 5174 | 9053  |
| 80° | 7908  | 4251 | 7637  |
| 85° | 6033  | 2905 | 5243  |

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 346.0   | 3.2       |
| 10°-20°   | 999.1   | 9.3       |
| 20°-30°   | 1530.7  | 14.3      |
| 30°-40°   | 1868.0  | 17.4      |
| 40°-50°   | 1953.5  | 18.2      |
| 50°-60°   | 1768.1  | 16.5      |
| 60°-70°   | 1339.0  | 12.5      |
| 70°-80°   | 746.2   | 7.0       |
| 80°-90°   | 180.0   | 1.7       |
| 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°-30°    | 2875.8  | 26.8      |
| 0°-40°    | 4743.8  | 44.2      |
| 0°-60°    | 8465.4  | 78.9      |
| 0°-90°    | 10730.7 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 10730.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 3648 | 3648 | 3648 | 3648 | 3648 |      |
| 5°  | 3784 | 3721 | 3636 | 3547 | 3528 | 365  |
| 15° | 4001 | 3779 | 3443 | 3283 | 3294 | 1135 |
| 25° | 4072 | 3672 | 3068 | 2959 | 3083 | 1879 |
| 35° | 3887 | 3400 | 2590 | 2587 | 2828 | 2427 |
| 45° | 3380 | 2957 | 2062 | 2153 | 2517 | 2601 |
| 55° | 2601 | 2348 | 1529 | 1663 | 2127 | 2321 |
| 65° | 1712 | 1610 | 1003 | 1140 | 1589 | 1698 |
| 75° | 886  | 836  | 498  | 594  | 871  | 940  |
| 85° | 195  | 172  | 94   | 126  | 170  | 235  |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 10°    | 20°    | 22.5°  | 30°    | 40°    | 45°    | 50°    | 60°    | 67.5°  | 70°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 |
| 2.5°  | 3728.5 | 3711.0 | 3696.6 | 3702.2 | 3705.4 | 3694.2 | 3684.7 | 3686.3 | 3676.7 | 3695.0 | 3652.0 |
| 5°    | 3783.5 | 3767.6 | 3750.9 | 3757.2 | 3750.9 | 3734.1 | 3720.6 | 3716.6 | 3691.0 | 3701.4 | 3657.6 |
| 7.5°  | 3844.9 | 3827.4 | 3802.7 | 3809.9 | 3796.3 | 3765.2 | 3747.7 | 3737.3 | 3698.2 | 3699.0 | 3650.4 |
| 10°   | 3903.9 | 3888.8 | 3855.3 | 3860.1 | 3835.4 | 3793.9 | 3766.0 | 3751.6 | 3696.6 | 3688.7 | 3638.4 |
| 12.5° | 3959.0 | 3938.2 | 3902.4 | 3904.7 | 3868.9 | 3813.8 | 3778.0 | 3757.2 | 3685.5 | 3661.5 | 3612.1 |
| 15°   | 4001.2 | 3981.3 | 3938.2 | 3937.4 | 3891.2 | 3819.4 | 3778.8 | 3750.1 | 3659.2 | 3621.7 | 3569.8 |
| 17.5° | 4037.1 | 4018.8 | 3965.3 | 3963.8 | 3907.9 | 3817.0 | 3768.4 | 3732.5 | 3620.9 | 3574.6 | 3517.2 |
| 20°   | 4062.6 | 4044.3 | 3984.5 | 3978.9 | 3911.9 | 3805.1 | 3746.9 | 3701.4 | 3570.6 | 3515.6 | 3451.8 |
| 22.5° | 4074.6 | 4056.2 | 3988.5 | 3980.5 | 3902.4 | 3781.2 | 3715.8 | 3662.3 | 3513.2 | 3441.5 | 3375.3 |
| 25°   | 4072.2 | 4054.7 | 3978.1 | 3970.1 | 3884.0 | 3745.3 | 3671.9 | 3610.5 | 3440.7 | 3356.2 | 3290.8 |
| 27.5° | 4052.3 | 4038.7 | 3958.2 | 3947.8 | 3850.5 | 3696.6 | 3618.5 | 3550.7 | 3360.1 | 3266.0 | 3195.1 |
| 30°   | 4018.0 | 4007.6 | 3922.3 | 3912.7 | 3809.1 | 3643.2 | 3556.3 | 3478.1 | 3273.2 | 3167.2 | 3095.4 |
| 32.5° | 3963.0 | 3953.4 | 3867.3 | 3858.5 | 3753.2 | 3574.6 | 3483.7 | 3403.2 | 3178.3 | 3061.1 | 2989.4 |
| 35°   | 3887.2 | 3881.6 | 3797.9 | 3788.3 | 3681.5 | 3496.5 | 3400.0 | 3311.5 | 3079.5 | 2947.1 | 2878.5 |
| 37.5° | 3787.5 | 3787.5 | 3707.0 | 3696.6 | 3592.2 | 3400.8 | 3305.9 | 3211.8 | 2967.8 | 2827.5 | 2759.7 |
| 40°   | 3671.9 | 3682.3 | 3600.1 | 3589.8 | 3488.5 | 3297.9 | 3194.3 | 3095.4 | 2847.4 | 2701.5 | 2635.3 |
| 42.5° | 3533.2 | 3542.7 | 3474.2 | 3464.6 | 3369.7 | 3179.1 | 3082.7 | 2975.0 | 2721.4 | 2573.1 | 2504.6 |
| 45°   | 3380.1 | 3392.8 | 3331.4 | 3324.3 | 3235.7 | 3049.2 | 2956.7 | 2847.4 | 2589.9 | 2439.2 | 2372.2 |
| 47.5° | 3209.4 | 3226.2 | 3172.8 | 3168.8 | 3086.6 | 2916.0 | 2819.5 | 2708.7 | 2451.9 | 2299.6 | 2236.6 |
| 50°   | 3018.1 | 3042.0 | 2998.1 | 2998.1 | 2924.8 | 2754.9 | 2671.2 | 2560.4 | 2308.4 | 2156.1 | 2093.9 |
| 52.5° | 2813.1 | 2843.4 | 2810.7 | 2811.5 | 2751.7 | 2599.4 | 2512.5 | 2404.1 | 2158.5 | 2008.6 | 1951.2 |
| 55°   | 2601.0 | 2630.5 | 2609.8 | 2613.0 | 2566.0 | 2427.2 | 2348.3 | 2240.6 | 2005.4 | 1859.5 | 1805.3 |
| 57.5° | 2379.4 | 2411.3 | 2397.7 | 2404.1 | 2371.4 | 2247.0 | 2164.9 | 2070.8 | 1847.5 | 1703.2 | 1656.9 |
| 60°   | 2156.9 | 2187.2 | 2180.0 | 2188.8 | 2168.1 | 2060.4 | 1985.5 | 1888.2 | 1688.8 | 1550.1 | 1509.4 |
| 62.5° | 1932.0 | 1959.9 | 1958.4 | 1967.9 | 1956.8 | 1867.5 | 1800.5 | 1717.5 | 1524.6 | 1397.0 | 1359.5 |
| 65°   | 1712.0 | 1735.9 | 1734.3 | 1744.7 | 1742.3 | 1670.5 | 1609.9 | 1534.1 | 1360.3 | 1243.1 | 1210.4 |
| 67.5° | 1498.3 | 1518.2 | 1512.6 | 1524.6 | 1527.8 | 1470.4 | 1417.7 | 1350.0 | 1204.0 | 1090.0 | 1062.1 |
| 70°   | 1289.4 | 1302.9 | 1295.7 | 1303.7 | 1310.9 | 1267.8 | 1223.2 | 1163.4 | 1037.4 | 936.9  | 913.8  |
| 72.5° | 1084.4 | 1094.0 | 1082.8 | 1090.8 | 1097.2 | 1066.1 | 1029.4 | 977.6  | 873.1  | 786.2  | 767.1  |
| 75°   | 885.9  | 899.4  | 876.3  | 884.3  | 889.1  | 858.0  | 836.4  | 794.2  | 704.1  | 637.1  | 624.3  |
| 77.5° | 693.7  | 701.7  | 688.9  | 685.7  | 688.9  | 666.6  | 649.9  | 617.2  | 549.4  | 494.4  | 486.4  |
| 80°   | 510.3  | 515.1  | 502.3  | 499.2  | 501.5  | 485.6  | 472.8  | 448.9  | 401.1  | 359.6  | 356.4  |
| 82.5° | 342.1  | 344.5  | 333.3  | 330.1  | 331.7  | 326.9  | 311.8  | 295.0  | 272.7  | 237.6  | 236.8  |
| 85°   | 195.4  | 195.4  | 187.4  | 184.2  | 185.8  | 177.8  | 172.2  | 163.5  | 154.7  | 130.8  | 132.4  |
| 87.5° | 71.8   | 71.8   | 67.8   | 67.0   | 75.0   | 66.2   | 63.8   | 59.8   | 62.2   | 49.4   | 52.6   |
| 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):**

|       | 80°    | 90°    | 100°   | 110°   | 112.5° | 120°   | 130°   | 135°   | 140°   | 150°   | 157.5° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 | 3648.0 |
| 2.5°  | 3663.9 | 3656.0 | 3648.8 | 3624.1 | 3634.4 | 3608.9 | 3607.3 | 3597.8 | 3590.6 | 3577.0 | 3594.6 |
| 5°    | 3652.0 | 3636.0 | 3615.3 | 3585.8 | 3594.6 | 3564.3 | 3557.9 | 3546.7 | 3537.2 | 3519.6 | 3533.2 |
| 7.5°  | 3632.8 | 3606.5 | 3573.8 | 3536.4 | 3548.3 | 3510.8 | 3501.3 | 3489.3 | 3481.3 | 3460.6 | 3472.6 |
| 10°   | 3604.9 | 3567.5 | 3529.2 | 3483.7 | 3492.5 | 3451.8 | 3439.9 | 3427.1 | 3419.9 | 3401.6 | 3413.6 |
| 12.5° | 3561.9 | 3516.4 | 3464.6 | 3415.2 | 3424.7 | 3386.5 | 3370.5 | 3356.9 | 3354.6 | 3339.4 | 3353.8 |
| 15°   | 3506.1 | 3443.1 | 3389.6 | 3337.0 | 3348.2 | 3303.5 | 3296.3 | 3282.8 | 3286.8 | 3276.4 | 3294.0 |
| 17.5° | 3435.1 | 3362.5 | 3304.3 | 3247.7 | 3258.9 | 3221.4 | 3215.8 | 3209.4 | 3213.4 | 3211.8 | 3231.0 |
| 20°   | 3355.4 | 3275.6 | 3208.6 | 3152.8 | 3159.2 | 3129.7 | 3132.1 | 3130.5 | 3138.5 | 3147.2 | 3173.6 |
| 22.5° | 3265.2 | 3175.1 | 3105.0 | 3047.6 | 3057.1 | 3031.6 | 3042.8 | 3046.0 | 3059.5 | 3079.5 | 3113.0 |
| 25°   | 3164.0 | 3067.5 | 2994.1 | 2939.9 | 2948.7 | 2931.9 | 2951.1 | 2959.1 | 2980.6 | 3014.1 | 3048.4 |
| 27.5° | 3057.9 | 2955.9 | 2877.7 | 2825.9 | 2842.6 | 2825.9 | 2854.6 | 2870.5 | 2903.2 | 2939.9 | 2982.2 |
| 30°   | 2945.5 | 2839.5 | 2758.9 | 2712.7 | 2728.6 | 2713.5 | 2759.7 | 2781.2 | 2813.9 | 2864.2 | 2914.4 |
| 32.5° | 2827.5 | 2715.9 | 2636.9 | 2601.0 | 2612.2 | 2609.8 | 2661.6 | 2685.6 | 2729.4 | 2786.8 | 2840.2 |
| 35°   | 2706.3 | 2589.9 | 2510.1 | 2479.8 | 2493.4 | 2496.6 | 2558.8 | 2586.7 | 2634.5 | 2703.9 | 2761.3 |
| 37.5° | 2581.1 | 2462.3 | 2384.2 | 2359.4 | 2371.4 | 2383.4 | 2455.9 | 2483.8 | 2538.0 | 2613.8 | 2676.8 |
| 40°   | 2451.1 | 2332.3 | 2255.8 | 2235.8 | 2247.8 | 2260.6 | 2339.5 | 2377.8 | 2436.8 | 2518.9 | 2587.5 |
| 42.5° | 2319.6 | 2200.8 | 2126.6 | 2112.2 | 2124.2 | 2148.9 | 2232.6 | 2268.5 | 2330.7 | 2421.6 | 2497.4 |
| 45°   | 2185.6 | 2062.0 | 1997.4 | 1986.3 | 1999.0 | 2027.7 | 2109.9 | 2152.9 | 2219.1 | 2318.8 | 2400.1 |
| 47.5° | 2050.1 | 1929.6 | 1868.2 | 1861.1 | 1873.8 | 1905.7 | 1996.6 | 2035.7 | 2105.9 | 2211.9 | 2299.6 |
| 50°   | 1912.9 | 1795.7 | 1736.7 | 1734.3 | 1746.3 | 1780.5 | 1867.5 | 1913.7 | 1986.3 | 2105.1 | 2195.2 |
| 52.5° | 1774.2 | 1661.7 | 1608.3 | 1608.3 | 1619.5 | 1654.6 | 1742.3 | 1790.1 | 1865.1 | 1990.2 | 2089.9 |
| 55°   | 1635.4 | 1528.6 | 1477.5 | 1481.5 | 1497.5 | 1527.8 | 1613.1 | 1663.3 | 1739.1 | 1869.0 | 1974.3 |
| 57.5° | 1496.7 | 1395.4 | 1349.2 | 1354.7 | 1369.9 | 1400.2 | 1483.9 | 1540.5 | 1609.1 | 1743.9 | 1851.5 |
| 60°   | 1359.5 | 1263.8 | 1223.2 | 1229.6 | 1243.1 | 1273.4 | 1360.3 | 1409.0 | 1477.5 | 1614.7 | 1722.3 |
| 62.5° | 1220.8 | 1133.9 | 1095.6 | 1103.6 | 1115.5 | 1145.8 | 1228.0 | 1275.0 | 1342.8 | 1477.5 | 1586.0 |
| 65°   | 1083.6 | 1003.1 | 970.4  | 978.4  | 989.5  | 1017.5 | 1094.8 | 1140.2 | 1204.8 | 1336.4 | 1440.1 |
| 67.5° | 948.1  | 874.7  | 847.6  | 855.6  | 864.4  | 890.7  | 954.5  | 1003.9 | 1064.5 | 1189.7 | 1287.8 |
| 70°   | 814.1  | 748.7  | 724.8  | 732.8  | 740.8  | 764.7  | 820.5  | 865.9  | 921.8  | 1036.6 | 1127.5 |
| 72.5° | 681.8  | 618.0  | 606.0  | 613.2  | 619.6  | 640.3  | 693.7  | 729.6  | 778.2  | 880.3  | 958.4  |
| 75°   | 552.6  | 497.6  | 489.6  | 496.8  | 502.3  | 518.3  | 562.9  | 594.0  | 634.7  | 723.2  | 787.0  |
| 77.5° | 428.2  | 381.9  | 378.8  | 384.3  | 389.9  | 401.1  | 436.2  | 468.9  | 500.8  | 566.1  | 622.7  |
| 80°   | 311.8  | 274.3  | 274.3  | 279.9  | 278.3  | 291.8  | 316.6  | 342.9  | 366.0  | 413.0  | 454.5  |
| 82.5° | 205.7  | 176.2  | 180.2  | 184.2  | 186.6  | 192.2  | 207.3  | 227.3  | 241.6  | 270.3  | 297.4  |
| 85°   | 114.0  | 94.1   | 98.1   | 101.3  | 99.7   | 106.1  | 114.0  | 126.0  | 133.2  | 146.7  | 161.1  |
| 87.5° | 42.3   | 35.1   | 35.9   | 38.3   | 39.9   | 43.1   | 43.1   | 50.2   | 51.0   | 52.6   | 55.8   |
| 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):**

|       | 160°   | 170°   | 180°   |
|-------|--------|--------|--------|
| 0°    | 3648.0 | 3648.0 | 3648.0 |
| 2.5°  | 3561.1 | 3580.2 | 3594.6 |
| 5°    | 3499.7 | 3515.6 | 3528.4 |
| 7.5°  | 3439.9 | 3454.2 | 3465.4 |
| 10°   | 3383.3 | 3399.2 | 3407.2 |
| 12.5° | 3325.1 | 3343.4 | 3349.8 |
| 15°   | 3267.6 | 3286.0 | 3294.0 |
| 17.5° | 3208.6 | 3232.6 | 3241.3 |
| 20°   | 3153.6 | 3183.9 | 3191.1 |
| 22.5° | 3097.8 | 3128.9 | 3137.7 |
| 25°   | 3037.2 | 3073.9 | 3082.7 |
| 27.5° | 2972.6 | 3016.5 | 3025.2 |
| 30°   | 2908.0 | 2955.9 | 2964.6 |
| 32.5° | 2838.7 | 2890.5 | 2898.5 |
| 35°   | 2766.1 | 2817.9 | 2827.5 |
| 37.5° | 2685.6 | 2742.2 | 2761.3 |
| 40°   | 2601.8 | 2663.2 | 2683.2 |
| 42.5° | 2514.1 | 2581.1 | 2601.8 |
| 45°   | 2420.0 | 2493.4 | 2517.3 |
| 47.5° | 2325.1 | 2408.1 | 2428.8 |
| 50°   | 2222.3 | 2310.8 | 2335.5 |
| 52.5° | 2114.6 | 2211.1 | 2235.8 |
| 55°   | 2003.0 | 2100.3 | 2127.4 |
| 57.5° | 1881.8 | 1982.3 | 2011.0 |
| 60°   | 1755.0 | 1855.5 | 1882.6 |
| 62.5° | 1625.0 | 1716.0 | 1742.3 |
| 65°   | 1479.9 | 1565.2 | 1589.2 |
| 67.5° | 1326.0 | 1404.2 | 1424.1 |
| 70°   | 1162.6 | 1230.3 | 1247.9 |
| 72.5° | 991.9  | 1039.0 | 1062.1 |
| 75°   | 815.7  | 853.2  | 870.7  |
| 77.5° | 638.7  | 665.0  | 679.4  |
| 80°   | 465.7  | 480.8  | 492.8  |
| 82.5° | 304.6  | 311.0  | 319.7  |
| 85°   | 164.3  | 164.3  | 169.8  |
| 87.5° | 55.8   | 53.4   | 55.8   |
| 90°   | 0.0    | 0.0    | 0.0    |

(END OF REPORT)