

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: P834213

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-2HI-35-120-EDD**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P834213  
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-LD4-2HI-35-120-EDD  
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

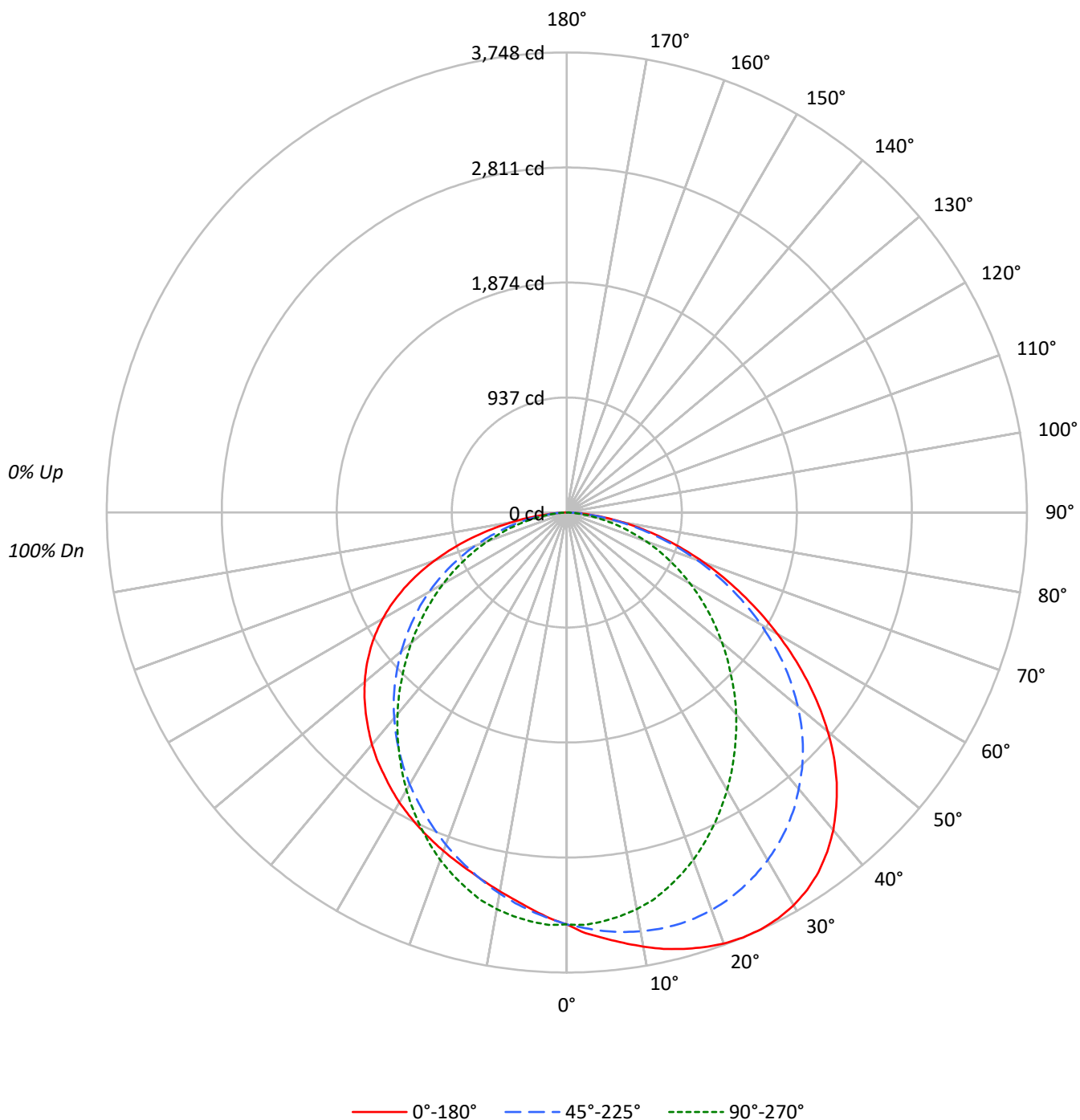
Lumens per Lamp: N/A  
Luminaire Lumens: 9871.3 lumens  
Efficiency: N/A  
Efficacy: 112.2 lumens/watt  
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 88  
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

TEST NUMBER: P834213

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-2HI-35-120-EDD

### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834213

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-2HI-35-120-EDD

**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°  | 9030  | 9030 | 9030 |
| 5°  | 9402  | 9035 | 8768 |
| 10° | 9813  | 8967 | 8564 |
| 15° | 10254 | 8824 | 8442 |
| 20° | 10702 | 8629 | 8406 |
| 25° | 11123 | 8378 | 8420 |
| 30° | 11485 | 8116 | 8474 |
| 35° | 11747 | 7827 | 8544 |
| 40° | 11866 | 7537 | 8671 |
| 45° | 11833 | 7219 | 8813 |
| 50° | 11623 | 6916 | 8995 |
| 55° | 11226 | 6597 | 9181 |
| 60° | 10679 | 6257 | 9320 |
| 65° | 10028 | 5876 | 9308 |
| 70° | 9332  | 5419 | 9032 |
| 75° | 8473  | 4759 | 8328 |
| 80° | 7274  | 3910 | 7025 |
| 85° | 5548  | 2674 | 4823 |

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834213

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-2HI-35-120-EDD

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 318.3  | 3.2       |
| 10°-20°   | 919.1  | 9.3       |
| 20°-30°   | 1408.1 | 14.3      |
| 30°-40°   | 1718.4 | 17.4      |
| 40°-50°   | 1797.1 | 18.2      |
| 50°-60°   | 1626.5 | 16.5      |
| 60°-70°   | 1231.8 | 12.5      |
| 70°-80°   | 686.5  | 7.0       |
| 80°-90°   | 165.6  | 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°    | 2645.5 | 26.8      |
| 0°-40°    | 4363.9 | 44.2      |
| 0°-60°    | 7787.4 | 78.9      |
| 0°-90°    | 9871.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 9871.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 3356 | 3356 | 3356 | 3356 | 3356 |      |
| 5°  | 3480 | 3423 | 3345 | 3263 | 3246 | 336  |
| 15° | 3681 | 3476 | 3167 | 3020 | 3030 | 1044 |
| 25° | 3746 | 3378 | 2822 | 2722 | 2836 | 1728 |
| 35° | 3576 | 3128 | 2382 | 2380 | 2601 | 2233 |
| 45° | 3109 | 2720 | 1897 | 1980 | 2316 | 2392 |
| 55° | 2393 | 2160 | 1406 | 1530 | 1957 | 2135 |
| 65° | 1575 | 1481 | 923  | 1049 | 1462 | 1562 |
| 75° | 815  | 770  | 458  | 546  | 801  | 864  |
| 85° | 180  | 158  | 87   | 116  | 156  | 216  |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834213

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-2HI-35-120-EDD

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 10°    | 20°    | 22.5°  | 30°    | 40°    | 45°    | 50°    | 60°    | 67.5°  | 70°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 |
| 2.5°  | 3429.9 | 3413.8 | 3400.6 | 3405.7 | 3408.6 | 3398.4 | 3389.6 | 3391.0 | 3382.2 | 3399.1 | 3359.5 |
| 5°    | 3480.5 | 3465.9 | 3450.5 | 3456.3 | 3450.5 | 3435.0 | 3422.6 | 3418.9 | 3395.4 | 3405.0 | 3364.6 |
| 7.5°  | 3537.0 | 3520.9 | 3498.1 | 3504.7 | 3492.3 | 3463.7 | 3447.5 | 3438.0 | 3402.0 | 3402.8 | 3358.0 |
| 10°   | 3591.3 | 3577.4 | 3546.5 | 3550.9 | 3528.2 | 3490.1 | 3464.4 | 3451.2 | 3400.6 | 3393.2 | 3347.0 |
| 12.5° | 3641.9 | 3622.8 | 3589.8 | 3592.0 | 3559.0 | 3508.4 | 3475.4 | 3456.3 | 3390.3 | 3368.3 | 3322.8 |
| 15°   | 3680.8 | 3662.4 | 3622.8 | 3622.1 | 3579.6 | 3513.5 | 3476.1 | 3449.7 | 3366.1 | 3331.6 | 3283.9 |
| 17.5° | 3713.8 | 3696.9 | 3647.8 | 3646.3 | 3595.0 | 3511.3 | 3466.6 | 3433.6 | 3330.9 | 3288.3 | 3235.5 |
| 20°   | 3737.3 | 3720.4 | 3665.4 | 3660.2 | 3598.6 | 3500.3 | 3446.8 | 3405.0 | 3284.7 | 3234.1 | 3175.4 |
| 22.5° | 3748.3 | 3731.4 | 3669.0 | 3661.7 | 3589.8 | 3478.3 | 3418.2 | 3369.0 | 3231.9 | 3165.8 | 3105.0 |
| 25°   | 3746.1 | 3729.9 | 3659.5 | 3652.2 | 3572.9 | 3445.3 | 3377.8 | 3321.4 | 3165.1 | 3087.4 | 3027.2 |
| 27.5° | 3727.7 | 3715.3 | 3641.2 | 3631.6 | 3542.1 | 3400.6 | 3328.7 | 3266.3 | 3091.0 | 3004.5 | 2939.2 |
| 30°   | 3696.2 | 3686.6 | 3608.2 | 3599.4 | 3504.0 | 3351.4 | 3271.5 | 3199.6 | 3011.1 | 2913.5 | 2847.5 |
| 32.5° | 3645.6 | 3636.8 | 3557.5 | 3549.5 | 3452.7 | 3288.3 | 3204.7 | 3130.6 | 2923.8 | 2816.0 | 2749.9 |
| 35°   | 3575.9 | 3570.7 | 3493.7 | 3484.9 | 3386.6 | 3216.5 | 3127.7 | 3046.3 | 2832.8 | 2711.1 | 2648.0 |
| 37.5° | 3484.2 | 3484.2 | 3410.1 | 3400.6 | 3304.5 | 3128.4 | 3041.2 | 2954.6 | 2730.1 | 2601.0 | 2538.7 |
| 40°   | 3377.8 | 3387.4 | 3311.8 | 3302.3 | 3209.1 | 3033.8 | 2938.5 | 2847.5 | 2619.4 | 2485.1 | 2424.3 |
| 42.5° | 3250.2 | 3259.0 | 3195.9 | 3187.1 | 3099.8 | 2924.5 | 2835.8 | 2736.7 | 2503.5 | 2367.1 | 2304.0 |
| 45°   | 3109.4 | 3121.1 | 3064.6 | 3058.0 | 2976.6 | 2805.0 | 2719.9 | 2619.4 | 2382.5 | 2243.8 | 2182.2 |
| 47.5° | 2952.4 | 2967.8 | 2918.7 | 2915.0 | 2839.4 | 2682.5 | 2593.7 | 2491.7 | 2255.6 | 2115.5 | 2057.5 |
| 50°   | 2776.4 | 2798.4 | 2758.0 | 2758.0 | 2690.5 | 2534.3 | 2457.3 | 2355.3 | 2123.5 | 1983.4 | 1926.2 |
| 52.5° | 2587.8 | 2615.7 | 2585.6 | 2586.4 | 2531.4 | 2391.3 | 2311.3 | 2211.5 | 1985.6 | 1847.7 | 1794.9 |
| 55°   | 2392.7 | 2419.9 | 2400.8 | 2403.7 | 2360.4 | 2232.8 | 2160.2 | 2061.2 | 1844.8 | 1710.6 | 1660.7 |
| 57.5° | 2188.8 | 2218.1 | 2205.7 | 2211.5 | 2181.5 | 2067.0 | 1991.5 | 1904.9 | 1699.6 | 1566.8 | 1524.2 |
| 60°   | 1984.2 | 2012.0 | 2005.4 | 2013.5 | 1994.4 | 1895.4 | 1826.5 | 1737.0 | 1553.6 | 1426.0 | 1388.5 |
| 62.5° | 1777.3 | 1803.0 | 1801.5 | 1810.3 | 1800.0 | 1717.9 | 1656.3 | 1580.0 | 1402.5 | 1285.1 | 1250.6 |
| 65°   | 1574.9 | 1596.9 | 1595.4 | 1604.9 | 1602.7 | 1536.7 | 1481.0 | 1411.3 | 1251.4 | 1143.5 | 1113.5 |
| 67.5° | 1378.3 | 1396.6 | 1391.5 | 1402.5 | 1405.4 | 1352.6 | 1304.2 | 1241.8 | 1107.6 | 1002.7 | 977.0  |
| 70°   | 1186.1 | 1198.6 | 1192.0 | 1199.3 | 1205.9 | 1166.3 | 1125.2 | 1070.2 | 954.3  | 861.9  | 840.6  |
| 72.5° | 997.6  | 1006.4 | 996.1  | 1003.4 | 1009.3 | 980.7  | 947.0  | 899.3  | 803.2  | 723.2  | 705.6  |
| 75°   | 814.9  | 827.4  | 806.1  | 813.5  | 817.9  | 789.3  | 769.5  | 730.6  | 647.7  | 586.1  | 574.3  |
| 77.5° | 638.2  | 645.5  | 633.8  | 630.8  | 633.8  | 613.2  | 597.8  | 567.7  | 505.4  | 454.8  | 447.4  |
| 80°   | 469.4  | 473.9  | 462.1  | 459.2  | 461.4  | 446.7  | 435.0  | 413.0  | 369.0  | 330.8  | 327.9  |
| 82.5° | 314.7  | 316.9  | 306.6  | 303.7  | 305.1  | 300.7  | 286.8  | 271.4  | 250.9  | 218.6  | 217.9  |
| 85°   | 179.7  | 179.7  | 172.4  | 169.4  | 170.9  | 163.6  | 158.4  | 150.4  | 142.3  | 120.3  | 121.8  |
| 87.5° | 66.0   | 66.0   | 62.3   | 61.6   | 69.0   | 60.9   | 58.7   | 55.0   | 57.2   | 45.5   | 48.4   |
| 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°    | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 | 3355.8 |
| 2.5°  | 3370.5 | 3363.2 | 3356.6 | 3333.8 | 3343.4 | 3319.9 | 3318.4 | 3309.6 | 3303.0 | 3290.5 | 3306.7 |
| 5°    | 3359.5 | 3344.8 | 3325.8 | 3298.6 | 3306.7 | 3278.8 | 3272.9 | 3262.7 | 3253.9 | 3237.7 | 3250.2 |
| 7.5°  | 3341.9 | 3317.7 | 3287.6 | 3253.1 | 3264.1 | 3229.7 | 3220.9 | 3209.9 | 3202.5 | 3183.5 | 3194.5 |
| 10°   | 3316.2 | 3281.7 | 3246.5 | 3204.7 | 3212.8 | 3175.4 | 3164.4 | 3152.6 | 3146.0 | 3129.2 | 3140.2 |
| 12.5° | 3276.6 | 3234.8 | 3187.1 | 3141.6 | 3150.4 | 3115.2 | 3100.6 | 3088.1 | 3085.9 | 3072.0 | 3085.2 |
| 15°   | 3225.3 | 3167.3 | 3118.2 | 3069.8 | 3080.0 | 3039.0 | 3032.3 | 3019.9 | 3023.5 | 3014.0 | 3030.1 |
| 17.5° | 3160.0 | 3093.2 | 3039.7 | 2987.6 | 2997.9 | 2963.4 | 2958.3 | 2952.4 | 2956.1 | 2954.6 | 2972.2 |
| 20°   | 3086.6 | 3013.3 | 2951.7 | 2900.3 | 2906.2 | 2879.0 | 2881.2 | 2879.8 | 2887.1 | 2895.2 | 2919.4 |
| 22.5° | 3003.7 | 2920.9 | 2856.3 | 2803.5 | 2812.3 | 2788.8 | 2799.1 | 2802.0 | 2814.5 | 2832.8 | 2863.6 |
| 25°   | 2910.6 | 2821.8 | 2754.3 | 2704.5 | 2712.5 | 2697.1 | 2714.7 | 2722.1 | 2741.9 | 2772.7 | 2804.2 |
| 27.5° | 2813.0 | 2719.1 | 2647.3 | 2599.6 | 2615.0 | 2599.6 | 2626.0 | 2640.7 | 2670.7 | 2704.5 | 2743.3 |
| 30°   | 2709.6 | 2612.0 | 2538.0 | 2495.4 | 2510.1 | 2496.1 | 2538.7 | 2558.5 | 2588.6 | 2634.8 | 2681.0 |
| 32.5° | 2601.0 | 2498.4 | 2425.7 | 2392.7 | 2403.0 | 2400.8 | 2448.5 | 2470.5 | 2510.8 | 2563.6 | 2612.8 |
| 35°   | 2489.5 | 2382.5 | 2309.1 | 2281.2 | 2293.7 | 2296.6 | 2353.8 | 2379.5 | 2423.5 | 2487.3 | 2540.2 |
| 37.5° | 2374.4 | 2265.1 | 2193.2 | 2170.5 | 2181.5 | 2192.5 | 2259.2 | 2284.9 | 2334.8 | 2404.5 | 2462.4 |
| 40°   | 2254.8 | 2145.5 | 2075.1 | 2056.8 | 2067.8 | 2079.5 | 2152.1 | 2187.3 | 2241.6 | 2317.2 | 2380.3 |
| 42.5° | 2133.8 | 2024.5 | 1956.3 | 1943.1 | 1954.1 | 1976.8 | 2053.8 | 2086.8 | 2144.1 | 2227.7 | 2297.4 |
| 45°   | 2010.6 | 1896.9 | 1837.5 | 1827.2 | 1838.9 | 1865.3 | 1940.9 | 1980.5 | 2041.4 | 2133.1 | 2207.9 |
| 47.5° | 1885.9 | 1775.1 | 1718.6 | 1712.0 | 1723.8 | 1753.1 | 1836.7 | 1872.7 | 1937.2 | 2034.8 | 2115.5 |
| 50°   | 1759.7 | 1651.9 | 1597.6 | 1595.4 | 1606.4 | 1637.9 | 1717.9 | 1760.4 | 1827.2 | 1936.5 | 2019.4 |
| 52.5° | 1632.1 | 1528.6 | 1479.5 | 1479.5 | 1489.8 | 1522.0 | 1602.7 | 1646.7 | 1715.7 | 1830.9 | 1922.5 |
| 55°   | 1504.4 | 1406.1 | 1359.2 | 1362.9 | 1377.5 | 1405.4 | 1483.9 | 1530.1 | 1599.8 | 1719.4 | 1816.2 |
| 57.5° | 1376.8 | 1283.7 | 1241.1 | 1246.2 | 1260.2 | 1288.1 | 1365.1 | 1417.2 | 1480.2 | 1604.2 | 1703.2 |
| 60°   | 1250.6 | 1162.6 | 1125.2 | 1131.1 | 1143.5 | 1171.4 | 1251.4 | 1296.1 | 1359.2 | 1485.4 | 1584.4 |
| 62.5° | 1123.0 | 1043.1 | 1007.8 | 1015.2 | 1026.2 | 1054.1 | 1129.6 | 1172.9 | 1235.2 | 1359.2 | 1459.0 |
| 65°   | 996.8  | 922.8  | 892.7  | 900.0  | 910.3  | 936.0  | 1007.1 | 1048.9 | 1108.3 | 1229.4 | 1324.7 |
| 67.5° | 872.1  | 804.7  | 779.7  | 787.1  | 795.1  | 819.3  | 878.0  | 923.5  | 979.2  | 1094.4 | 1184.6 |
| 70°   | 748.9  | 688.8  | 666.8  | 674.1  | 681.4  | 703.4  | 754.8  | 796.6  | 847.9  | 953.6  | 1037.2 |
| 72.5° | 627.2  | 568.5  | 557.5  | 564.1  | 569.9  | 589.0  | 638.2  | 671.2  | 715.9  | 809.8  | 881.7  |
| 75°   | 508.3  | 457.7  | 450.4  | 457.0  | 462.1  | 476.8  | 517.9  | 546.5  | 583.9  | 665.3  | 724.0  |
| 77.5° | 393.9  | 351.4  | 348.4  | 353.6  | 358.7  | 369.0  | 401.2  | 431.3  | 460.6  | 520.8  | 572.9  |
| 80°   | 286.8  | 252.3  | 252.3  | 257.5  | 256.0  | 268.5  | 291.2  | 315.4  | 336.7  | 380.0  | 418.1  |
| 82.5° | 189.2  | 162.1  | 165.8  | 169.4  | 171.6  | 176.8  | 190.7  | 209.1  | 222.3  | 248.7  | 273.6  |
| 85°   | 104.9  | 86.6   | 90.2   | 93.2   | 91.7   | 97.6   | 104.9  | 115.9  | 122.5  | 135.0  | 148.2  |
| 87.5° | 38.9   | 32.3   | 33.0   | 35.2   | 36.7   | 39.6   | 39.6   | 46.2   | 46.9   | 48.4   | 51.3   |
| 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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Peachtree City, GA 30269



TEST NUMBER: P834213

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-2HI-35-120-EDD

**CANDELA DISTRIBUTION (continued):**

|       | 160°   | 170°   | 180°   |
|-------|--------|--------|--------|
| 0°    | 3355.8 | 3355.8 | 3355.8 |
| 2.5°  | 3275.9 | 3293.5 | 3306.7 |
| 5°    | 3219.4 | 3234.1 | 3245.8 |
| 7.5°  | 3164.4 | 3177.6 | 3187.9 |
| 10°   | 3112.3 | 3127.0 | 3134.3 |
| 12.5° | 3058.8 | 3075.6 | 3081.5 |
| 15°   | 3005.9 | 3022.8 | 3030.1 |
| 17.5° | 2951.7 | 2973.7 | 2981.7 |
| 20°   | 2901.0 | 2928.9 | 2935.5 |
| 22.5° | 2849.7 | 2878.3 | 2886.4 |
| 25°   | 2794.0 | 2827.7 | 2835.8 |
| 27.5° | 2734.5 | 2774.9 | 2783.0 |
| 30°   | 2675.1 | 2719.1 | 2727.2 |
| 32.5° | 2611.3 | 2659.0 | 2666.3 |
| 35°   | 2544.6 | 2592.2 | 2601.0 |
| 37.5° | 2470.5 | 2522.6 | 2540.2 |
| 40°   | 2393.5 | 2449.9 | 2468.3 |
| 42.5° | 2312.8 | 2374.4 | 2393.5 |
| 45°   | 2226.2 | 2293.7 | 2315.7 |
| 47.5° | 2138.9 | 2215.2 | 2234.3 |
| 50°   | 2044.3 | 2125.7 | 2148.5 |
| 52.5° | 1945.3 | 2034.0 | 2056.8 |
| 55°   | 1842.6 | 1932.1 | 1957.0 |
| 57.5° | 1731.1 | 1823.5 | 1849.9 |
| 60°   | 1614.5 | 1706.9 | 1731.8 |
| 62.5° | 1494.9 | 1578.5 | 1602.7 |
| 65°   | 1361.4 | 1439.9 | 1461.9 |
| 67.5° | 1219.8 | 1291.7 | 1310.1 |
| 70°   | 1069.5 | 1131.8 | 1148.0 |
| 72.5° | 912.5  | 955.8  | 977.0  |
| 75°   | 750.4  | 784.9  | 801.0  |
| 77.5° | 587.5  | 611.8  | 625.0  |
| 80°   | 428.4  | 442.3  | 453.3  |
| 82.5° | 280.2  | 286.1  | 294.1  |
| 85°   | 151.1  | 151.1  | 156.2  |
| 87.5° | 51.3   | 49.1   | 51.3   |
| 90°   | 0.0    | 0.0    | 0.0    |

(END OF REPORT)