

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: P838064

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-4LO-27-120-EDD**

Issue Date: 5/21/2024

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08  
Report Number: P838064  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-24-4-INS-ASY2R-LD4-4LO-27-120-EDD  
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and  
RFI grid  
Light Source: 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

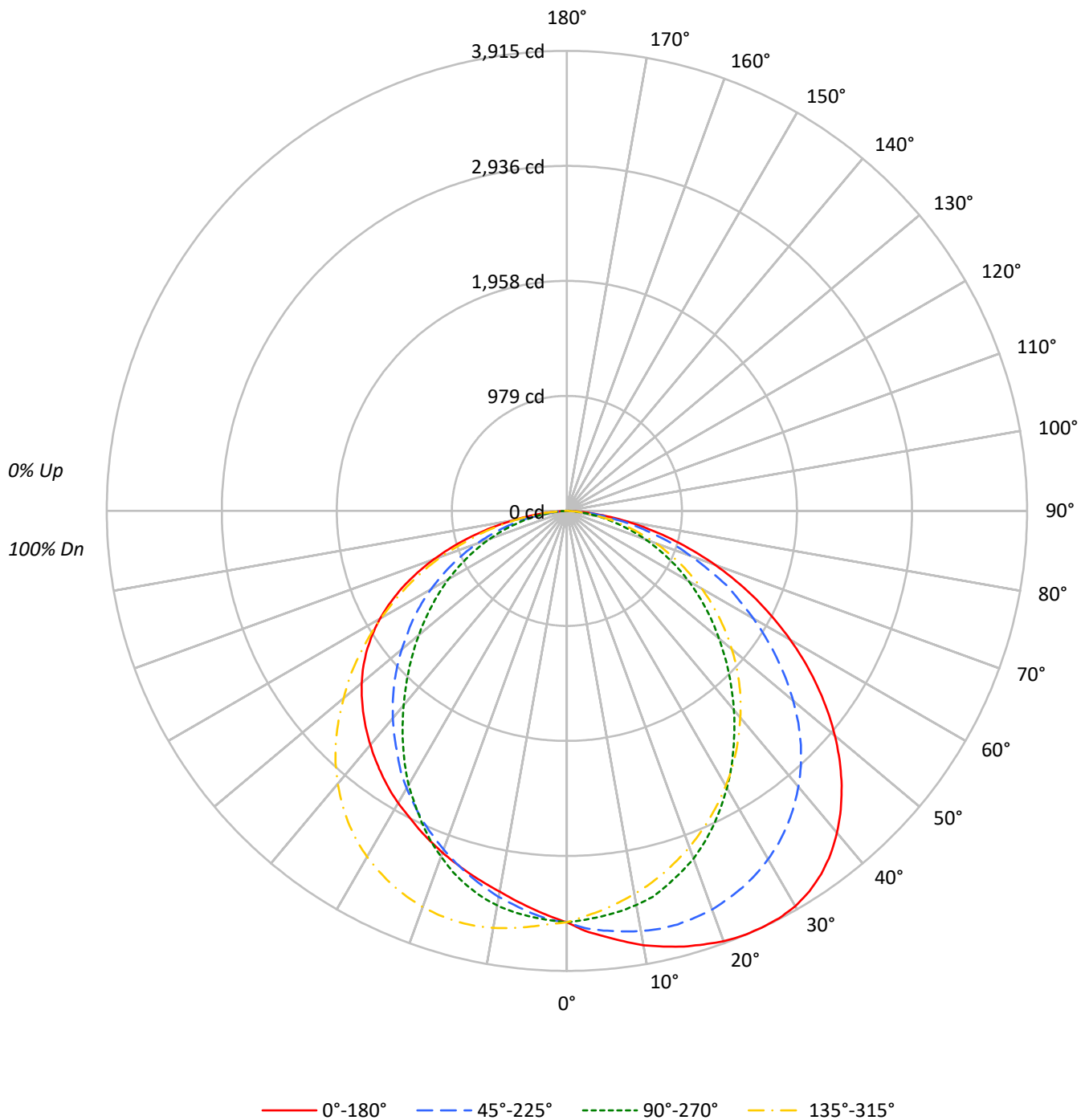
Lumens per Lamp: N/A  
Luminaire Lumens: 10271.1 lumens  
Efficiency: N/A  
Efficacy: 109.7 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 93.6  
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: 25 FT

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### Luminous Intensity Polar Plot



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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  | 89  |  | 90  |
| 2   | 99  | 91  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  |  | 82  | 77  | 73  |  | 79  |
| 3   | 90  | 79  | 71  | 65  | 88  | 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  | 74  | 62  | 53  | 47  | 59  | 52  | 46  |  | 57  | 51  | 46  |  | 56  |
| 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  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  |  | 43  | 37  | 32  |  | 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° | 270° |
|-----|------|------|------|------|
| 0°  | 4710 | 4710 | 4710 | 4710 |
| 5°  | 4909 | 4677 | 4588 | 4684 |
| 10° | 5128 | 4652 | 4495 | 4659 |
| 15° | 5348 | 4593 | 4451 | 4595 |
| 20° | 5581 | 4510 | 4432 | 4484 |
| 25° | 5812 | 4384 | 4431 | 4339 |
| 30° | 6037 | 4231 | 4461 | 4184 |
| 35° | 6197 | 4058 | 4505 | 3993 |
| 40° | 6280 | 3883 | 4568 | 3795 |
| 45° | 6292 | 3706 | 4657 | 3613 |
| 50° | 6232 | 3537 | 4771 | 3443 |
| 55° | 6103 | 3379 | 4877 | 3285 |
| 60° | 5911 | 3215 | 4942 | 3131 |
| 65° | 5647 | 3026 | 4916 | 2956 |
| 70° | 5275 | 2805 | 4742 | 2753 |
| 75° | 4746 | 2501 | 4351 | 2488 |
| 80° | 4025 | 2094 | 3657 | 2126 |
| 85° | 2799 | 1386 | 2320 | 1425 |

Classified

Scaled Data Report

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 332.4   | 3.2       |
| 10°-20°   | 962.5   | 9.4       |
| 20°-30°   | 1475.1  | 14.4      |
| 30°-40°   | 1793.6  | 17.5      |
| 40°-50°   | 1864.6  | 18.2      |
| 50°-60°   | 1684.3  | 16.4      |
| 60°-70°   | 1280.5  | 12.5      |
| 70°-80°   | 713.9   | 7.0       |
| 80°-90°   | 164.4   | 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°-30°    | 2770.0  | 27.0      |
| 0°-40°    | 4563.6  | 44.4      |
| 0°-60°    | 8112.4  | 79.0      |
| 0°-90°    | 10271.1 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 10271.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 90°  | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 3501 | 3501 | 3501 | 3501 | 3501 |      |
| 5°  | 3635 | 3462 | 3397 | 3468 | 3635 | 350  |
| 15° | 3839 | 3298 | 3196 | 3298 | 3839 | 1088 |
| 25° | 3915 | 2953 | 2985 | 2923 | 3915 | 1808 |
| 35° | 3773 | 2470 | 2743 | 2431 | 3773 | 2356 |
| 45° | 3306 | 1948 | 2447 | 1899 | 3306 | 2546 |
| 55° | 2602 | 1440 | 2079 | 1400 | 2602 | 2323 |
| 65° | 1774 | 951  | 1544 | 928  | 1774 | 1753 |
| 75° | 913  | 481  | 837  | 478  | 913  | 970  |
| 85° | 181  | 90   | 150  | 92   | 181  | 228  |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 |
| 2.5°  | 3578.5 | 3526.2 | 3527.0 | 3572.7 | 3537.6 | 3554.8 | 3505.8 | 3524.6 | 3518.8 | 3522.9 | 3482.9 |
| 5°    | 3634.8 | 3578.5 | 3577.6 | 3616.8 | 3577.6 | 3585.0 | 3522.9 | 3535.2 | 3517.2 | 3505.8 | 3462.5 |
| 7.5°  | 3694.4 | 3638.1 | 3632.4 | 3666.7 | 3615.2 | 3609.5 | 3540.9 | 3540.9 | 3508.2 | 3479.6 | 3438.8 |
| 10°   | 3753.2 | 3695.2 | 3687.9 | 3714.0 | 3650.3 | 3631.5 | 3548.2 | 3535.2 | 3491.9 | 3449.4 | 3405.3 |
| 12.5° | 3797.3 | 3738.5 | 3732.8 | 3749.1 | 3677.3 | 3643.0 | 3548.2 | 3522.9 | 3459.2 | 3399.6 | 3365.3 |
| 15°   | 3839.0 | 3778.5 | 3763.0 | 3771.2 | 3688.7 | 3643.0 | 3536.8 | 3497.6 | 3416.0 | 3337.6 | 3297.5 |
| 17.5° | 3868.4 | 3810.4 | 3794.9 | 3794.0 | 3694.4 | 3629.1 | 3512.3 | 3458.4 | 3360.4 | 3265.7 | 3225.7 |
| 20°   | 3897.8 | 3839.8 | 3820.2 | 3805.5 | 3692.8 | 3610.3 | 3476.4 | 3403.7 | 3289.4 | 3183.2 | 3149.7 |
| 22.5° | 3912.5 | 3852.8 | 3831.6 | 3809.6 | 3682.2 | 3576.0 | 3432.3 | 3340.0 | 3209.3 | 3082.8 | 3055.0 |
| 25°   | 3914.9 | 3853.7 | 3830.8 | 3798.9 | 3660.9 | 3535.2 | 3375.1 | 3263.2 | 3117.1 | 2976.6 | 2952.9 |
| 27.5° | 3908.4 | 3841.4 | 3818.5 | 3780.2 | 3629.1 | 3485.4 | 3307.3 | 3175.9 | 3019.1 | 2863.9 | 2838.6 |
| 30°   | 3885.5 | 3817.7 | 3795.7 | 3745.9 | 3584.2 | 3424.1 | 3233.0 | 3078.7 | 2910.5 | 2745.5 | 2723.5 |
| 32.5° | 3839.8 | 3773.6 | 3755.7 | 3705.9 | 3535.2 | 3353.1 | 3146.5 | 2974.2 | 2790.4 | 2632.8 | 2600.1 |
| 35°   | 3772.8 | 3706.7 | 3695.2 | 3643.0 | 3466.6 | 3268.1 | 3051.7 | 2859.8 | 2663.0 | 2502.1 | 2470.3 |
| 37.5° | 3685.4 | 3629.9 | 3612.8 | 3561.3 | 3385.7 | 3171.8 | 2943.1 | 2735.7 | 2533.2 | 2360.1 | 2340.5 |
| 40°   | 3575.2 | 3522.9 | 3509.9 | 3464.1 | 3291.8 | 3064.8 | 2825.5 | 2607.5 | 2399.2 | 2238.4 | 2210.6 |
| 42.5° | 3449.4 | 3400.4 | 3393.1 | 3345.7 | 3175.9 | 2946.4 | 2698.1 | 2474.4 | 2259.6 | 2104.4 | 2076.7 |
| 45°   | 3306.5 | 3259.2 | 3257.5 | 3212.6 | 3049.3 | 2814.9 | 2564.2 | 2339.6 | 2123.2 | 1962.4 | 1947.7 |
| 47.5° | 3148.9 | 3106.4 | 3106.4 | 3064.8 | 2908.0 | 2670.4 | 2426.2 | 2199.2 | 1986.0 | 1843.9 | 1817.8 |
| 50°   | 2977.4 | 2937.4 | 2925.2 | 2904.7 | 2752.0 | 2512.8 | 2280.8 | 2062.0 | 1850.5 | 1714.9 | 1689.6 |
| 52.5° | 2794.5 | 2760.2 | 2768.4 | 2730.8 | 2583.0 | 2348.6 | 2133.8 | 1907.6 | 1714.1 | 1590.8 | 1565.5 |
| 55°   | 2601.8 | 2552.8 | 2560.1 | 2546.2 | 2406.6 | 2179.6 | 1968.9 | 1780.2 | 1580.2 | 1464.2 | 1440.5 |
| 57.5° | 2401.7 | 2338.0 | 2364.1 | 2356.0 | 2218.8 | 2006.5 | 1817.8 | 1635.7 | 1447.1 | 1340.1 | 1317.2 |
| 60°   | 2196.7 | 2135.5 | 2162.4 | 2155.1 | 2026.1 | 1833.3 | 1661.8 | 1492.8 | 1314.8 | 1217.6 | 1194.7 |
| 62.5° | 1986.0 | 1929.7 | 1954.2 | 1948.5 | 1830.1 | 1656.1 | 1506.7 | 1351.5 | 1181.7 | 1094.3 | 1073.0 |
| 65°   | 1773.7 | 1719.8 | 1741.9 | 1737.8 | 1628.4 | 1496.1 | 1347.4 | 1205.3 | 1047.7 | 971.8  | 950.6  |
| 67.5° | 1556.5 | 1506.7 | 1527.1 | 1527.1 | 1426.6 | 1300.1 | 1187.4 | 1057.5 | 916.3  | 850.9  | 831.3  |
| 70°   | 1340.9 | 1294.4 | 1312.3 | 1310.7 | 1225.8 | 1122.9 | 1025.7 | 909.7  | 783.1  | 729.2  | 712.9  |
| 72.5° | 1123.7 | 1082.8 | 1099.2 | 1097.5 | 1026.5 | 960.4  | 864.0  | 763.5  | 653.3  | 610.0  | 595.3  |
| 75°   | 913.0  | 874.6  | 890.1  | 888.5  | 830.5  | 768.4  | 703.9  | 620.6  | 525.9  | 495.7  | 481.0  |
| 77.5° | 712.1  | 672.9  | 686.0  | 686.0  | 643.5  | 598.6  | 547.1  | 482.6  | 415.7  | 383.0  | 372.4  |
| 80°   | 519.4  | 500.6  | 494.1  | 494.9  | 466.3  | 436.9  | 410.8  | 348.7  | 299.7  | 277.7  | 270.3  |
| 82.5° | 341.4  | 325.8  | 319.3  | 320.9  | 304.6  | 286.6  | 270.3  | 227.0  | 194.4  | 181.3  | 177.2  |
| 85°   | 181.3  | 169.9  | 164.1  | 168.2  | 165.0  | 155.2  | 147.0  | 117.6  | 97.2   | 92.3   | 89.8   |
| 87.5° | 57.2   | 49.8   | 45.7   | 60.4   | 51.4   | 45.7   | 44.1   | 35.1   | 26.9   | 26.9   | 26.1   |
| 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):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   | 185°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 |
| 2.5°  | 3496.0 | 3496.0 | 3464.1 | 3456.8 | 3453.5 | 3457.6 | 3425.7 | 3420.0 | 3465.8 | 3450.2 | 3415.1 |
| 5°    | 3468.2 | 3466.6 | 3421.7 | 3413.5 | 3413.5 | 3408.6 | 3372.7 | 3364.5 | 3410.2 | 3397.2 | 3358.8 |
| 7.5°  | 3433.9 | 3429.0 | 3375.9 | 3370.2 | 3362.1 | 3358.8 | 3318.8 | 3313.1 | 3352.3 | 3344.1 | 3308.2 |
| 10°   | 3392.3 | 3387.4 | 3324.5 | 3320.4 | 3311.4 | 3304.9 | 3267.3 | 3263.2 | 3303.3 | 3290.2 | 3261.6 |
| 12.5° | 3337.6 | 3328.6 | 3264.1 | 3260.0 | 3252.6 | 3250.2 | 3213.4 | 3211.8 | 3255.9 | 3242.8 | 3212.6 |
| 15°   | 3265.7 | 3258.3 | 3186.5 | 3188.1 | 3188.9 | 3188.9 | 3159.5 | 3157.9 | 3201.2 | 3195.5 | 3162.8 |
| 17.5° | 3186.5 | 3176.7 | 3108.1 | 3113.0 | 3118.7 | 3125.2 | 3102.4 | 3106.4 | 3152.2 | 3144.8 | 3115.4 |
| 20°   | 3096.6 | 3086.8 | 3019.9 | 3033.8 | 3046.0 | 3059.1 | 3044.4 | 3055.8 | 3098.3 | 3095.0 | 3073.0 |
| 22.5° | 2996.2 | 2986.4 | 2924.3 | 2945.6 | 2966.0 | 2990.5 | 2984.0 | 2997.0 | 3041.9 | 3041.1 | 3021.5 |
| 25°   | 2873.7 | 2876.2 | 2821.4 | 2847.6 | 2881.9 | 2916.2 | 2918.6 | 2939.9 | 2989.7 | 2984.8 | 2966.8 |
| 27.5° | 2759.4 | 2762.6 | 2704.7 | 2748.8 | 2794.5 | 2838.6 | 2849.2 | 2878.6 | 2929.2 | 2925.2 | 2909.6 |
| 30°   | 2639.3 | 2643.4 | 2587.1 | 2647.5 | 2703.0 | 2756.9 | 2779.8 | 2819.8 | 2871.3 | 2871.3 | 2854.9 |
| 32.5° | 2514.4 | 2521.7 | 2462.9 | 2543.8 | 2608.3 | 2671.2 | 2711.2 | 2752.8 | 2811.6 | 2810.0 | 2796.1 |
| 35°   | 2386.2 | 2394.3 | 2340.5 | 2443.3 | 2507.9 | 2584.6 | 2634.4 | 2690.0 | 2742.2 | 2743.0 | 2732.4 |
| 37.5° | 2255.5 | 2265.3 | 2216.3 | 2329.0 | 2402.5 | 2493.2 | 2556.9 | 2612.4 | 2670.4 | 2673.6 | 2663.8 |
| 40°   | 2125.7 | 2136.3 | 2093.8 | 2202.4 | 2295.5 | 2396.8 | 2470.3 | 2535.6 | 2599.3 | 2601.0 | 2594.4 |
| 42.5° | 1995.8 | 2007.3 | 1975.4 | 2081.6 | 2186.9 | 2295.5 | 2382.1 | 2456.4 | 2521.7 | 2525.8 | 2518.5 |
| 45°   | 1869.3 | 1879.1 | 1856.2 | 1972.2 | 2073.4 | 2191.8 | 2291.5 | 2375.6 | 2441.7 | 2447.4 | 2445.0 |
| 47.5° | 1743.5 | 1752.5 | 1732.1 | 1838.2 | 1955.0 | 2080.8 | 2195.9 | 2289.0 | 2359.2 | 2365.8 | 2364.1 |
| 50°   | 1620.2 | 1627.5 | 1605.5 | 1716.5 | 1832.5 | 1966.4 | 2086.5 | 2194.3 | 2272.7 | 2279.2 | 2278.4 |
| 52.5° | 1497.7 | 1505.0 | 1486.3 | 1603.0 | 1708.4 | 1849.7 | 1980.3 | 2097.1 | 2174.7 | 2184.5 | 2186.1 |
| 55°   | 1379.3 | 1382.5 | 1367.8 | 1479.7 | 1581.8 | 1729.6 | 1879.9 | 1993.4 | 2071.0 | 2079.1 | 2084.0 |
| 57.5° | 1260.9 | 1261.7 | 1249.4 | 1356.4 | 1454.4 | 1605.5 | 1763.1 | 1882.3 | 1955.8 | 1964.0 | 1971.3 |
| 60°   | 1143.3 | 1142.5 | 1128.6 | 1232.3 | 1326.2 | 1475.6 | 1639.8 | 1758.2 | 1829.2 | 1836.6 | 1846.4 |
| 62.5° | 1026.5 | 1024.1 | 1011.8 | 1107.3 | 1195.5 | 1343.4 | 1508.3 | 1622.6 | 1690.4 | 1695.3 | 1708.4 |
| 65°   | 910.5  | 908.1  | 896.7  | 984.9  | 1064.9 | 1206.2 | 1367.8 | 1476.5 | 1537.7 | 1544.2 | 1541.8 |
| 67.5° | 796.2  | 791.3  | 782.3  | 861.5  | 934.2  | 1064.9 | 1220.0 | 1323.8 | 1374.4 | 1380.1 | 1395.6 |
| 70°   | 681.9  | 676.2  | 655.8  | 739.9  | 803.6  | 920.3  | 1064.9 | 1157.2 | 1199.6 | 1205.3 | 1202.9 |
| 72.5° | 569.2  | 563.5  | 541.4  | 619.0  | 672.9  | 775.0  | 904.0  | 980.8  | 1017.5 | 1022.4 | 1022.4 |
| 75°   | 459.8  | 456.5  | 442.6  | 501.4  | 546.3  | 629.6  | 739.0  | 802.7  | 831.3  | 837.0  | 835.4  |
| 77.5° | 354.4  | 352.0  | 338.1  | 388.7  | 423.8  | 485.9  | 574.1  | 623.9  | 645.1  | 651.7  | 665.6  |
| 80°   | 254.0  | 253.2  | 231.1  | 280.9  | 296.4  | 348.7  | 413.2  | 451.6  | 463.0  | 472.0  | 481.8  |
| 82.5° | 162.5  | 163.3  | 141.3  | 183.7  | 190.3  | 223.8  | 263.8  | 287.5  | 295.6  | 303.0  | 310.3  |
| 85°   | 79.2   | 82.5   | 70.2   | 97.2   | 98.0   | 115.1  | 132.3  | 141.3  | 144.5  | 150.3  | 156.8  |
| 87.5° | 20.4   | 23.7   | 13.1   | 27.8   | 24.5   | 31.8   | 36.7   | 39.2   | 38.4   | 42.5   | 44.9   |
| 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):**

|       | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   | 285°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 |
| 2.5°  | 3426.6 | 3452.7 | 3439.6 | 3482.1 | 3498.4 | 3472.3 | 3518.0 | 3518.8 | 3486.2 | 3524.6 | 3545.8 |
| 5°    | 3373.5 | 3400.4 | 3392.3 | 3436.4 | 3456.8 | 3433.9 | 3489.4 | 3500.1 | 3468.2 | 3511.5 | 3545.8 |
| 7.5°  | 3319.6 | 3351.4 | 3340.8 | 3385.7 | 3410.2 | 3392.3 | 3451.9 | 3469.0 | 3444.5 | 3491.9 | 3537.6 |
| 10°   | 3273.0 | 3300.0 | 3288.6 | 3335.9 | 3357.2 | 3342.5 | 3401.3 | 3433.1 | 3410.2 | 3468.2 | 3522.9 |
| 12.5° | 3227.3 | 3249.4 | 3236.3 | 3275.5 | 3295.9 | 3277.1 | 3349.0 | 3378.4 | 3362.1 | 3422.5 | 3492.7 |
| 15°   | 3168.5 | 3193.0 | 3175.0 | 3210.2 | 3225.7 | 3209.3 | 3268.1 | 3318.8 | 3298.4 | 3364.5 | 3442.1 |
| 17.5° | 3123.6 | 3137.5 | 3113.0 | 3140.7 | 3149.7 | 3127.7 | 3187.3 | 3237.1 | 3222.4 | 3294.3 | 3384.1 |
| 20°   | 3073.8 | 3085.2 | 3050.9 | 3066.4 | 3065.6 | 3037.9 | 3092.6 | 3141.6 | 3131.8 | 3211.0 | 3313.1 |
| 22.5° | 3018.3 | 3024.0 | 2984.0 | 2987.2 | 2985.6 | 2939.9 | 2988.9 | 3038.7 | 3034.6 | 3114.6 | 3228.9 |
| 25°   | 2959.5 | 2960.3 | 2908.8 | 2907.2 | 2889.2 | 2835.3 | 2878.6 | 2935.0 | 2922.7 | 3009.3 | 3129.3 |
| 27.5° | 2901.5 | 2893.3 | 2831.2 | 2816.5 | 2788.0 | 2723.5 | 2761.8 | 2812.5 | 2805.1 | 2890.0 | 3023.2 |
| 30°   | 2839.4 | 2828.8 | 2752.8 | 2725.9 | 2684.3 | 2609.9 | 2641.8 | 2689.2 | 2693.2 | 2767.5 | 2907.2 |
| 32.5° | 2780.6 | 2753.7 | 2669.6 | 2630.4 | 2578.1 | 2491.5 | 2508.7 | 2556.9 | 2563.4 | 2638.5 | 2782.2 |
| 35°   | 2704.7 | 2686.7 | 2583.0 | 2516.0 | 2464.6 | 2369.9 | 2387.8 | 2421.3 | 2431.1 | 2504.6 | 2650.8 |
| 37.5° | 2632.8 | 2604.2 | 2494.0 | 2412.3 | 2346.2 | 2246.5 | 2251.4 | 2285.7 | 2295.5 | 2369.9 | 2514.4 |
| 40°   | 2558.5 | 2517.7 | 2399.2 | 2303.7 | 2227.8 | 2123.2 | 2117.5 | 2153.4 | 2160.8 | 2233.5 | 2364.1 |
| 42.5° | 2479.3 | 2430.3 | 2297.2 | 2192.6 | 2105.3 | 1999.1 | 1987.7 | 2018.7 | 2026.9 | 2097.9 | 2226.1 |
| 45°   | 2399.2 | 2340.5 | 2192.6 | 2078.3 | 1982.8 | 1874.2 | 1862.7 | 1886.4 | 1898.7 | 1965.6 | 2088.9 |
| 47.5° | 2314.3 | 2245.7 | 2084.8 | 1957.5 | 1858.6 | 1750.0 | 1736.1 | 1759.8 | 1769.6 | 1835.8 | 1952.6 |
| 50°   | 2225.3 | 2142.0 | 1973.8 | 1833.3 | 1735.3 | 1628.4 | 1607.9 | 1635.7 | 1644.7 | 1706.8 | 1821.1 |
| 52.5° | 2127.3 | 2035.0 | 1855.4 | 1708.4 | 1610.4 | 1508.3 | 1483.8 | 1510.8 | 1521.4 | 1581.8 | 1687.2 |
| 55°   | 2023.6 | 1924.0 | 1736.1 | 1593.2 | 1487.1 | 1387.4 | 1367.0 | 1377.6 | 1400.5 | 1457.7 | 1555.7 |
| 57.5° | 1906.8 | 1808.0 | 1610.4 | 1465.0 | 1363.0 | 1267.4 | 1250.3 | 1260.1 | 1281.3 | 1336.8 | 1425.0 |
| 60°   | 1782.7 | 1678.2 | 1482.2 | 1336.8 | 1238.0 | 1147.4 | 1131.8 | 1140.8 | 1163.7 | 1214.3 | 1296.0 |
| 62.5° | 1660.2 | 1542.6 | 1349.9 | 1205.3 | 1115.5 | 1031.4 | 1027.3 | 1024.1 | 1045.3 | 1094.3 | 1166.1 |
| 65°   | 1511.6 | 1398.9 | 1211.9 | 1074.7 | 993.0  | 917.1  | 900.7  | 908.1  | 928.5  | 973.4  | 1048.5 |
| 67.5° | 1352.3 | 1250.3 | 1070.6 | 944.0  | 871.3  | 803.6  | 789.7  | 792.9  | 814.2  | 853.4  | 918.7  |
| 70°   | 1183.3 | 1093.5 | 926.1  | 812.5  | 751.3  | 687.6  | 678.6  | 679.4  | 699.8  | 734.1  | 791.3  |
| 72.5° | 1006.1 | 925.2  | 779.9  | 682.7  | 632.1  | 586.3  | 578.2  | 568.4  | 587.2  | 616.6  | 665.6  |
| 75°   | 825.6  | 754.6  | 634.5  | 555.3  | 515.3  | 476.9  | 469.6  | 459.8  | 478.5  | 503.9  | 542.2  |
| 77.5° | 643.5  | 586.3  | 493.2  | 432.0  | 401.0  | 372.4  | 365.8  | 355.2  | 374.0  | 392.8  | 423.0  |
| 80°   | 465.5  | 423.8  | 368.3  | 303.8  | 293.2  | 274.4  | 267.9  | 256.4  | 274.4  | 286.6  | 309.5  |
| 82.5° | 300.5  | 272.8  | 240.9  | 196.0  | 194.4  | 180.5  | 177.2  | 164.1  | 180.5  | 187.8  | 205.0  |
| 85°   | 151.9  | 138.8  | 130.7  | 99.6   | 102.9  | 93.9   | 93.1   | 79.2   | 92.3   | 95.5   | 105.3  |
| 87.5° | 43.3   | 45.7   | 40.8   | 24.5   | 31.0   | 29.4   | 29.4   | 21.2   | 29.4   | 29.4   | 33.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P838064

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-4LO-27-120-EDD

**CANDELA DISTRIBUTION (continued):**

|       | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 | 3500.9 |
| 2.5°  | 3504.1 | 3518.0 | 3521.3 | 3520.5 | 3529.5 | 3578.5 | 3562.1 | 3578.5 |
| 5°    | 3512.3 | 3543.3 | 3551.5 | 3562.9 | 3577.6 | 3633.2 | 3615.2 | 3634.8 |
| 7.5°  | 3517.2 | 3563.8 | 3581.7 | 3603.8 | 3627.5 | 3689.5 | 3674.8 | 3694.4 |
| 10°   | 3517.2 | 3577.6 | 3603.8 | 3640.5 | 3672.4 | 3744.2 | 3730.4 | 3753.2 |
| 12.5° | 3502.5 | 3580.1 | 3616.8 | 3668.3 | 3709.1 | 3786.7 | 3781.0 | 3797.3 |
| 15°   | 3472.3 | 3567.8 | 3618.5 | 3684.6 | 3735.3 | 3821.8 | 3819.4 | 3839.0 |
| 17.5° | 3431.5 | 3546.6 | 3607.9 | 3691.2 | 3754.9 | 3852.0 | 3857.7 | 3868.4 |
| 20°   | 3380.0 | 3506.6 | 3586.6 | 3688.7 | 3768.7 | 3875.7 | 3883.1 | 3897.8 |
| 22.5° | 3312.2 | 3458.4 | 3554.8 | 3678.1 | 3770.4 | 3885.5 | 3898.6 | 3912.5 |
| 25°   | 3232.2 | 3400.4 | 3513.1 | 3657.7 | 3762.2 | 3884.7 | 3902.7 | 3914.9 |
| 27.5° | 3140.7 | 3325.3 | 3460.0 | 3625.0 | 3739.3 | 3871.6 | 3893.7 | 3908.4 |
| 30°   | 3034.6 | 3245.3 | 3399.6 | 3582.5 | 3708.3 | 3847.1 | 3870.8 | 3885.5 |
| 32.5° | 2925.2 | 3157.1 | 3327.8 | 3527.8 | 3663.4 | 3807.9 | 3828.3 | 3839.8 |
| 35°   | 2805.9 | 3050.1 | 3241.2 | 3457.6 | 3605.4 | 3745.1 | 3760.6 | 3772.8 |
| 37.5° | 2676.1 | 2934.1 | 3142.4 | 3378.4 | 3523.7 | 3657.7 | 3671.6 | 3685.4 |
| 40°   | 2542.2 | 2812.5 | 3031.3 | 3281.2 | 3426.6 | 3550.7 | 3565.4 | 3575.2 |
| 42.5° | 2407.4 | 2677.7 | 2912.9 | 3166.9 | 3311.4 | 3430.6 | 3439.6 | 3449.4 |
| 45°   | 2271.0 | 2538.1 | 2779.8 | 3040.3 | 3183.2 | 3295.1 | 3298.4 | 3306.5 |
| 47.5° | 2132.2 | 2393.5 | 2633.6 | 2895.8 | 3037.0 | 3139.1 | 3142.4 | 3148.9 |
| 50°   | 1992.6 | 2249.0 | 2477.6 | 2739.8 | 2877.8 | 2985.6 | 2970.9 | 2977.4 |
| 52.5° | 1855.4 | 2097.1 | 2330.7 | 2571.6 | 2707.9 | 2803.5 | 2807.6 | 2794.5 |
| 55°   | 1720.6 | 1948.5 | 2163.2 | 2395.2 | 2525.0 | 2599.3 | 2596.9 | 2601.8 |
| 57.5° | 1584.3 | 1798.2 | 1995.0 | 2207.3 | 2333.9 | 2404.1 | 2418.8 | 2401.7 |
| 60°   | 1445.4 | 1646.3 | 1822.7 | 2014.6 | 2137.1 | 2195.9 | 2213.1 | 2196.7 |
| 62.5° | 1307.4 | 1492.0 | 1652.0 | 1819.4 | 1933.0 | 2005.6 | 2004.0 | 1986.0 |
| 65°   | 1169.4 | 1336.8 | 1479.7 | 1621.8 | 1720.6 | 1793.3 | 1790.0 | 1773.7 |
| 67.5° | 1042.0 | 1180.0 | 1308.2 | 1423.4 | 1509.1 | 1558.9 | 1576.1 | 1556.5 |
| 70°   | 901.6  | 1020.8 | 1133.5 | 1225.8 | 1296.8 | 1341.7 | 1358.1 | 1340.9 |
| 72.5° | 761.1  | 862.4  | 941.6  | 1030.6 | 1085.3 | 1122.9 | 1140.0 | 1123.7 |
| 75°   | 622.3  | 705.6  | 770.1  | 839.5  | 877.9  | 909.7  | 929.3  | 913.0  |
| 77.5° | 487.5  | 552.0  | 603.5  | 654.1  | 698.2  | 705.6  | 722.7  | 712.1  |
| 80°   | 359.3  | 405.9  | 443.4  | 476.9  | 508.8  | 512.0  | 525.9  | 519.4  |
| 82.5° | 239.3  | 270.3  | 280.1  | 315.2  | 335.6  | 332.4  | 346.2  | 341.4  |
| 85°   | 126.6  | 145.4  | 162.5  | 173.1  | 184.6  | 173.9  | 186.2  | 181.3  |
| 87.5° | 42.5   | 44.9   | 39.2   | 55.5   | 61.2   | 52.3   | 59.6   | 57.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)