

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



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: P838045

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-3HI-20-120-EDD**

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P838045  
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-LD4-3HI-20-120-EDD  
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and RFI grid  
Light Source: 2000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

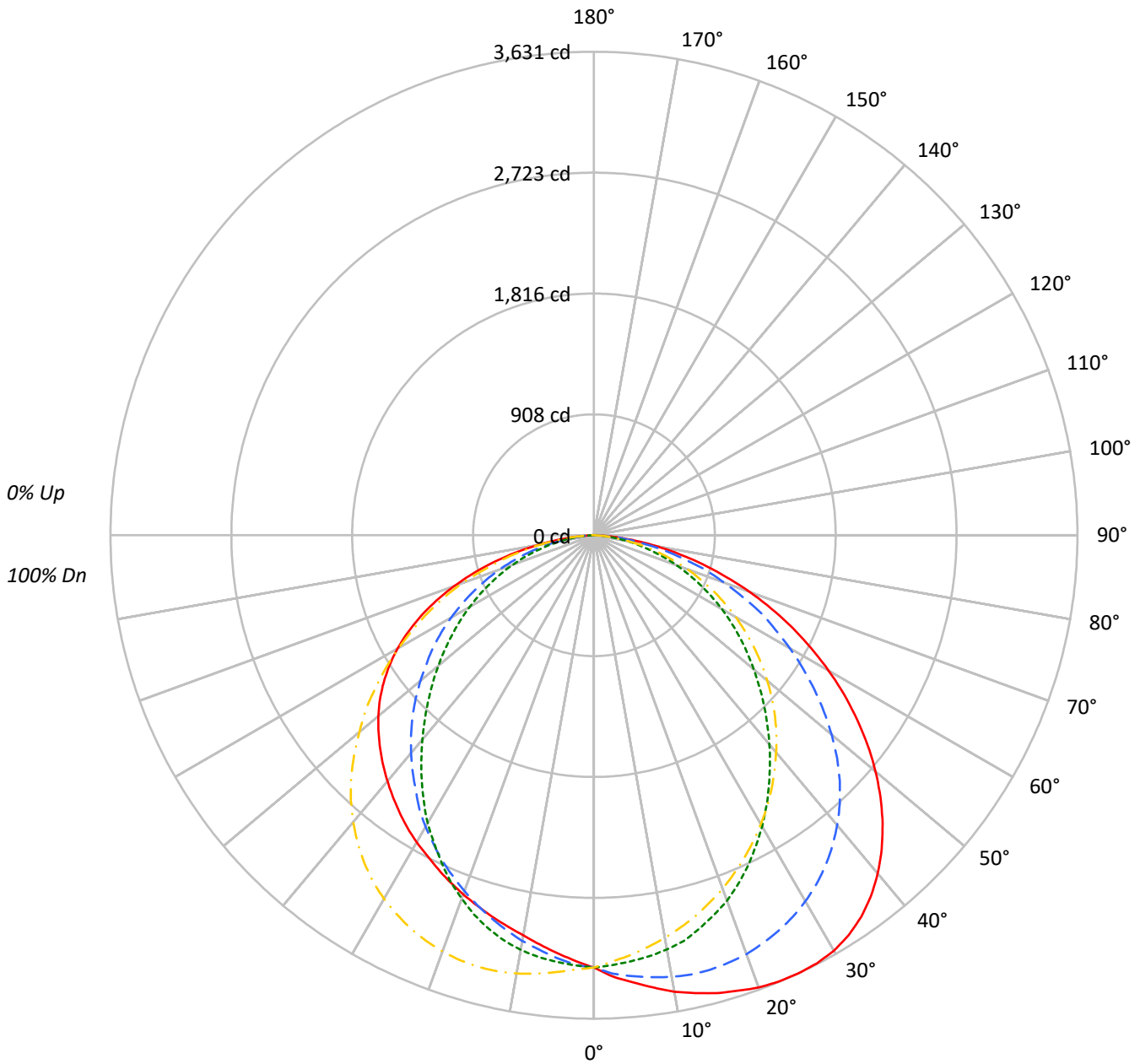
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9525.5 lumens  
Efficiency: N/A  
Efficacy: 72.2 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): 132  
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

TEST NUMBER: P838045  
CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-20-120-EDD

### Luminous Intensity Polar Plot



— 0°-180°    - - 45°-225°    - · - 90°-270°    - · · - 135°-315°

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     | 20  |     |     | 20  |     |     | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30  |     |     | 10  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 70  |
| 3   | 90  | 79  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 65  | 61  | 59  |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 62  | 56  | 52  | 50  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 50  | 45  | 43  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  | 38  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 40  | 35  | 46  | 40  | 35  | 33  |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 31  | 29  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  | 26  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 26  | 24  |

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

|     | 0°   | 90°  | 180° | 270° |
|-----|------|------|------|------|
| 0°  | 4368 | 4368 | 4368 | 4368 |
| 5°  | 4553 | 4337 | 4255 | 4344 |
| 10° | 4755 | 4315 | 4169 | 4321 |
| 15° | 4959 | 4260 | 4128 | 4261 |
| 20° | 5176 | 4183 | 4110 | 4159 |
| 25° | 5390 | 4066 | 4109 | 4024 |
| 30° | 5598 | 3924 | 4137 | 3881 |
| 35° | 5747 | 3763 | 4178 | 3703 |
| 40° | 5824 | 3601 | 4237 | 3520 |
| 45° | 5835 | 3437 | 4319 | 3350 |
| 50° | 5780 | 3280 | 4424 | 3193 |
| 55° | 5660 | 3134 | 4523 | 3047 |
| 60° | 5482 | 2982 | 4584 | 2904 |
| 65° | 5237 | 2806 | 4559 | 2741 |
| 70° | 4892 | 2601 | 4397 | 2553 |
| 75° | 4402 | 2319 | 4036 | 2307 |
| 80° | 3732 | 1943 | 3391 | 1972 |
| 85° | 2595 | 1286 | 2152 | 1321 |

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Scaled Data Report

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 308.3  | 3.2       |
| 10°-20°   | 892.6  | 9.4       |
| 20°-30°   | 1368.0 | 14.4      |
| 30°-40°   | 1663.4 | 17.5      |
| 40°-50°   | 1729.2 | 18.2      |
| 50°-60°   | 1562.0 | 16.4      |
| 60°-70°   | 1187.5 | 12.5      |
| 70°-80°   | 662.0  | 7.0       |
| 80°-90°   | 152.4  | 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°    | 2568.9 | 27.0      |
| 0°-40°    | 4232.3 | 44.4      |
| 0°-60°    | 7523.5 | 79.0      |
| 0°-90°    | 9525.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 9525.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 90°  | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 3247 | 3247 | 3247 | 3247 | 3247 |      |
| 5°  | 3371 | 3211 | 3150 | 3216 | 3371 | 325  |
| 15° | 3560 | 3058 | 2964 | 3059 | 3560 | 1009 |
| 25° | 3631 | 2738 | 2768 | 2710 | 3631 | 1677 |
| 35° | 3499 | 2291 | 2544 | 2255 | 3499 | 2185 |
| 45° | 3066 | 1806 | 2270 | 1761 | 3066 | 2361 |
| 55° | 2413 | 1336 | 1928 | 1299 | 2413 | 2154 |
| 65° | 1645 | 882  | 1432 | 861  | 1645 | 1626 |
| 75° | 847  | 446  | 776  | 444  | 847  | 899  |
| 85° | 168  | 83   | 139  | 86   | 168  | 212  |
| 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°    | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 |
| 2.5°  | 3318.7 | 3270.2 | 3271.0 | 3313.4 | 3280.8 | 3296.7 | 3251.3 | 3268.7 | 3263.4 | 3267.2 | 3230.1 |
| 5°    | 3370.9 | 3318.7 | 3317.9 | 3354.3 | 3317.9 | 3324.7 | 3267.2 | 3278.5 | 3261.9 | 3251.3 | 3211.1 |
| 7.5°  | 3426.2 | 3374.0 | 3368.7 | 3400.5 | 3352.8 | 3347.5 | 3283.8 | 3283.8 | 3253.5 | 3227.0 | 3189.2 |
| 10°   | 3480.7 | 3427.0 | 3420.2 | 3444.4 | 3385.3 | 3367.9 | 3290.7 | 3278.5 | 3238.4 | 3199.0 | 3158.1 |
| 12.5° | 3521.6 | 3467.1 | 3461.8 | 3477.0 | 3410.3 | 3378.5 | 3290.7 | 3267.2 | 3208.1 | 3152.8 | 3121.0 |
| 15°   | 3560.3 | 3504.2 | 3489.8 | 3497.4 | 3420.9 | 3378.5 | 3280.0 | 3243.7 | 3168.0 | 3095.3 | 3058.1 |
| 17.5° | 3587.5 | 3533.8 | 3519.4 | 3518.6 | 3426.2 | 3365.6 | 3257.3 | 3207.3 | 3116.5 | 3028.6 | 2991.5 |
| 20°   | 3614.8 | 3561.0 | 3542.8 | 3529.2 | 3424.7 | 3348.2 | 3224.0 | 3156.6 | 3050.6 | 2952.1 | 2921.1 |
| 22.5° | 3628.4 | 3573.1 | 3553.4 | 3533.0 | 3414.9 | 3316.4 | 3183.1 | 3097.5 | 2976.4 | 2859.0 | 2833.2 |
| 25°   | 3630.7 | 3573.9 | 3552.7 | 3523.2 | 3395.2 | 3278.5 | 3130.1 | 3026.3 | 2890.8 | 2760.5 | 2738.5 |
| 27.5° | 3624.6 | 3562.5 | 3541.3 | 3505.7 | 3365.6 | 3232.3 | 3067.2 | 2945.3 | 2799.9 | 2656.0 | 2632.5 |
| 30°   | 3603.4 | 3540.6 | 3520.1 | 3473.9 | 3324.0 | 3175.5 | 2998.3 | 2855.2 | 2699.2 | 2546.2 | 2525.7 |
| 32.5° | 3561.0 | 3499.7 | 3483.0 | 3436.8 | 3278.5 | 3109.6 | 2918.0 | 2758.2 | 2587.8 | 2441.7 | 2411.4 |
| 35°   | 3498.9 | 3437.6 | 3427.0 | 3378.5 | 3214.9 | 3030.9 | 2830.2 | 2652.2 | 2469.7 | 2320.5 | 2291.0 |
| 37.5° | 3417.9 | 3366.4 | 3350.5 | 3302.8 | 3139.9 | 2941.5 | 2729.5 | 2537.1 | 2349.3 | 2188.7 | 2170.5 |
| 40°   | 3315.6 | 3267.2 | 3255.1 | 3212.6 | 3052.8 | 2842.3 | 2620.4 | 2418.2 | 2225.1 | 2075.9 | 2050.1 |
| 42.5° | 3199.0 | 3153.6 | 3146.8 | 3102.8 | 2945.3 | 2732.5 | 2502.3 | 2294.7 | 2095.6 | 1951.7 | 1925.9 |
| 45°   | 3066.5 | 3022.6 | 3021.0 | 2979.4 | 2827.9 | 2610.6 | 2378.1 | 2169.8 | 1969.1 | 1819.9 | 1806.3 |
| 47.5° | 2920.3 | 2880.9 | 2880.9 | 2842.3 | 2696.9 | 2476.5 | 2250.1 | 2039.5 | 1841.9 | 1710.1 | 1685.8 |
| 50°   | 2761.3 | 2724.2 | 2712.8 | 2693.9 | 2552.2 | 2330.3 | 2115.3 | 1912.3 | 1716.1 | 1590.4 | 1566.9 |
| 52.5° | 2591.6 | 2559.8 | 2567.4 | 2532.6 | 2395.5 | 2178.1 | 1978.9 | 1769.2 | 1589.7 | 1475.3 | 1451.8 |
| 55°   | 2412.9 | 2367.5 | 2374.3 | 2361.4 | 2231.9 | 2021.3 | 1826.0 | 1651.0 | 1465.5 | 1357.9 | 1336.0 |
| 57.5° | 2227.3 | 2168.3 | 2192.5 | 2184.9 | 2057.7 | 1860.8 | 1685.8 | 1517.0 | 1342.0 | 1242.8 | 1221.6 |
| 60°   | 2037.3 | 1980.4 | 2005.4 | 1998.6 | 1879.0 | 1700.2 | 1541.2 | 1384.4 | 1219.3 | 1129.2 | 1108.0 |
| 62.5° | 1841.9 | 1789.6 | 1812.3 | 1807.0 | 1697.2 | 1535.9 | 1397.3 | 1253.4 | 1095.9 | 1014.8 | 995.1  |
| 65°   | 1644.9 | 1595.0 | 1615.4 | 1611.6 | 1510.1 | 1387.5 | 1249.6 | 1117.8 | 971.7  | 901.2  | 881.5  |
| 67.5° | 1443.5 | 1397.3 | 1416.2 | 1416.2 | 1323.1 | 1205.7 | 1101.2 | 980.8  | 849.7  | 789.2  | 771.0  |
| 70°   | 1243.6 | 1200.4 | 1217.0 | 1215.5 | 1136.8 | 1041.3 | 951.2  | 843.7  | 726.3  | 676.3  | 661.2  |
| 72.5° | 1042.1 | 1004.2 | 1019.4 | 1017.9 | 952.0  | 890.6  | 801.3  | 708.1  | 605.9  | 565.7  | 552.1  |
| 75°   | 846.7  | 811.1  | 825.5  | 824.0  | 770.2  | 712.7  | 652.8  | 575.6  | 487.7  | 459.7  | 446.1  |
| 77.5° | 660.4  | 624.0  | 636.2  | 636.2  | 596.8  | 555.1  | 507.4  | 447.6  | 385.5  | 355.2  | 345.3  |
| 80°   | 481.7  | 464.3  | 458.2  | 458.9  | 432.4  | 405.2  | 380.9  | 323.4  | 277.9  | 257.5  | 250.7  |
| 82.5° | 316.6  | 302.2  | 296.1  | 297.6  | 282.5  | 265.8  | 250.7  | 210.5  | 180.2  | 168.1  | 164.3  |
| 85°   | 168.1  | 157.5  | 152.2  | 156.0  | 153.0  | 143.9  | 136.3  | 109.1  | 90.1   | 85.6   | 83.3   |
| 87.5° | 53.0   | 46.2   | 42.4   | 56.0   | 47.7   | 42.4   | 40.9   | 32.6   | 25.0   | 25.0   | 24.2   |
| 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):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   | 185°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 |
| 2.5°  | 3242.2 | 3242.2 | 3212.6 | 3205.8 | 3202.8 | 3206.6 | 3177.1 | 3171.7 | 3214.2 | 3199.8 | 3167.2 |
| 5°    | 3216.4 | 3214.9 | 3173.3 | 3165.7 | 3165.7 | 3161.1 | 3127.8 | 3120.2 | 3162.7 | 3150.5 | 3114.9 |
| 7.5°  | 3184.6 | 3180.1 | 3130.9 | 3125.6 | 3118.0 | 3114.9 | 3077.8 | 3072.5 | 3108.9 | 3101.3 | 3068.0 |
| 10°   | 3146.0 | 3141.5 | 3083.1 | 3079.4 | 3071.0 | 3065.0 | 3030.1 | 3026.3 | 3063.4 | 3051.3 | 3024.8 |
| 12.5° | 3095.3 | 3086.9 | 3027.1 | 3023.3 | 3016.5 | 3014.2 | 2980.1 | 2978.6 | 3019.5 | 3007.4 | 2979.4 |
| 15°   | 3028.6 | 3021.8 | 2955.1 | 2956.7 | 2957.4 | 2957.4 | 2930.2 | 2928.6 | 2968.8 | 2963.5 | 2933.2 |
| 17.5° | 2955.1 | 2946.1 | 2882.4 | 2887.0 | 2892.3 | 2898.3 | 2877.1 | 2880.9 | 2923.3 | 2916.5 | 2889.3 |
| 20°   | 2871.8 | 2862.8 | 2800.7 | 2813.5 | 2824.9 | 2837.0 | 2823.4 | 2834.0 | 2873.4 | 2870.3 | 2849.9 |
| 22.5° | 2778.7 | 2769.6 | 2712.0 | 2731.7 | 2750.7 | 2773.4 | 2767.3 | 2779.4 | 2821.1 | 2820.3 | 2802.2 |
| 25°   | 2665.1 | 2667.4 | 2616.6 | 2640.9 | 2672.7 | 2704.5 | 2706.7 | 2726.4 | 2772.6 | 2768.1 | 2751.4 |
| 27.5° | 2559.1 | 2562.1 | 2508.3 | 2549.2 | 2591.6 | 2632.5 | 2642.4 | 2669.6 | 2716.6 | 2712.8 | 2698.4 |
| 30°   | 2447.7 | 2451.5 | 2399.3 | 2455.3 | 2506.8 | 2556.8 | 2578.0 | 2615.1 | 2662.8 | 2662.8 | 2647.7 |
| 32.5° | 2331.9 | 2338.7 | 2284.1 | 2359.1 | 2419.0 | 2477.3 | 2514.4 | 2553.0 | 2607.5 | 2606.0 | 2593.1 |
| 35°   | 2213.0 | 2220.5 | 2170.5 | 2266.0 | 2325.8 | 2397.0 | 2443.2 | 2494.7 | 2543.2 | 2543.9 | 2534.1 |
| 37.5° | 2091.8 | 2100.9 | 2055.4 | 2159.9 | 2228.1 | 2312.2 | 2371.2 | 2422.7 | 2476.5 | 2479.5 | 2470.5 |
| 40°   | 1971.4 | 1981.2 | 1941.8 | 2042.6 | 2128.9 | 2222.8 | 2291.0 | 2351.5 | 2410.6 | 2412.1 | 2406.1 |
| 42.5° | 1850.9 | 1861.5 | 1832.0 | 1930.5 | 2028.2 | 2128.9 | 2209.2 | 2278.1 | 2338.7 | 2342.5 | 2335.6 |
| 45°   | 1733.6 | 1742.6 | 1721.4 | 1829.0 | 1922.9 | 2032.7 | 2125.1 | 2203.1 | 2264.5 | 2269.8 | 2267.5 |
| 47.5° | 1616.9 | 1625.3 | 1606.3 | 1704.8 | 1813.1 | 1929.7 | 2036.5 | 2122.8 | 2188.0 | 2194.0 | 2192.5 |
| 50°   | 1502.6 | 1509.4 | 1488.9 | 1591.9 | 1699.5 | 1823.7 | 1935.0 | 2035.0 | 2107.7 | 2113.7 | 2113.0 |
| 52.5° | 1389.0 | 1395.8 | 1378.4 | 1486.7 | 1584.4 | 1715.4 | 1836.6 | 1944.9 | 2016.8 | 2025.9 | 2027.4 |
| 55°   | 1279.2 | 1282.2 | 1268.5 | 1372.3 | 1467.0 | 1604.1 | 1743.4 | 1848.7 | 1920.6 | 1928.2 | 1932.7 |
| 57.5° | 1169.3 | 1170.1 | 1158.7 | 1257.9 | 1348.8 | 1488.9 | 1635.1 | 1745.7 | 1813.8 | 1821.4 | 1828.2 |
| 60°   | 1060.3 | 1059.5 | 1046.6 | 1142.8 | 1229.9 | 1368.5 | 1520.7 | 1630.6 | 1696.4 | 1703.3 | 1712.4 |
| 62.5° | 952.0  | 949.7  | 938.3  | 1027.0 | 1108.7 | 1245.8 | 1398.8 | 1504.8 | 1567.7 | 1572.2 | 1584.4 |
| 65°   | 844.4  | 842.2  | 831.6  | 913.4  | 987.6  | 1118.6 | 1268.5 | 1369.3 | 1426.1 | 1432.1 | 1429.9 |
| 67.5° | 738.4  | 733.9  | 725.5  | 799.0  | 866.4  | 987.6  | 1131.5 | 1227.7 | 1274.6 | 1279.9 | 1294.3 |
| 70°   | 632.4  | 627.1  | 608.1  | 686.2  | 745.2  | 853.5  | 987.6  | 1073.2 | 1112.5 | 1117.8 | 1115.6 |
| 72.5° | 527.9  | 522.6  | 502.1  | 574.1  | 624.0  | 718.7  | 838.4  | 909.6  | 943.6  | 948.2  | 948.2  |
| 75°   | 426.4  | 423.4  | 410.5  | 465.0  | 506.7  | 583.9  | 685.4  | 744.5  | 771.0  | 776.3  | 774.8  |
| 77.5° | 328.7  | 326.4  | 313.5  | 360.5  | 393.1  | 450.6  | 532.4  | 578.6  | 598.3  | 604.4  | 617.2  |
| 80°   | 235.5  | 234.8  | 214.3  | 260.5  | 274.9  | 323.4  | 383.2  | 418.8  | 429.4  | 437.7  | 446.8  |
| 82.5° | 150.7  | 151.5  | 131.0  | 170.4  | 176.5  | 207.5  | 244.6  | 266.6  | 274.2  | 281.0  | 287.8  |
| 85°   | 73.5   | 76.5   | 65.1   | 90.1   | 90.9   | 106.8  | 122.7  | 131.0  | 134.0  | 139.4  | 145.4  |
| 87.5° | 18.9   | 22.0   | 12.1   | 25.7   | 22.7   | 29.5   | 34.1   | 36.4   | 35.6   | 39.4   | 41.7   |
| 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°    | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 |
| 2.5°  | 3177.8 | 3202.0 | 3189.9 | 3229.3 | 3244.5 | 3220.2 | 3262.6 | 3263.4 | 3233.1 | 3268.7 | 3288.4 |
| 5°    | 3128.6 | 3153.6 | 3146.0 | 3186.9 | 3205.8 | 3184.6 | 3236.1 | 3246.0 | 3216.4 | 3256.6 | 3288.4 |
| 7.5°  | 3078.6 | 3108.1 | 3098.3 | 3139.9 | 3162.7 | 3146.0 | 3201.3 | 3217.2 | 3194.5 | 3238.4 | 3280.8 |
| 10°   | 3035.4 | 3060.4 | 3049.8 | 3093.7 | 3113.4 | 3099.8 | 3154.3 | 3183.9 | 3162.7 | 3216.4 | 3267.2 |
| 12.5° | 2993.0 | 3013.5 | 3001.3 | 3037.7 | 3056.6 | 3039.2 | 3105.9 | 3133.1 | 3118.0 | 3174.0 | 3239.2 |
| 15°   | 2938.5 | 2961.2 | 2944.5 | 2977.1 | 2991.5 | 2976.4 | 3030.9 | 3077.8 | 3058.9 | 3120.2 | 3192.2 |
| 17.5° | 2896.8 | 2909.7 | 2887.0 | 2912.7 | 2921.1 | 2900.6 | 2955.9 | 3002.1 | 2988.5 | 3055.1 | 3138.4 |
| 20°   | 2850.6 | 2861.2 | 2829.4 | 2843.8 | 2843.1 | 2817.3 | 2868.1 | 2913.5 | 2904.4 | 2977.9 | 3072.5 |
| 22.5° | 2799.1 | 2804.4 | 2767.3 | 2770.4 | 2768.8 | 2726.4 | 2771.9 | 2818.1 | 2814.3 | 2888.5 | 2994.5 |
| 25°   | 2744.6 | 2745.4 | 2697.7 | 2696.1 | 2679.5 | 2629.5 | 2669.6 | 2721.9 | 2710.5 | 2790.8 | 2902.1 |
| 27.5° | 2690.8 | 2683.3 | 2625.7 | 2612.1 | 2585.6 | 2525.7 | 2561.3 | 2608.3 | 2601.5 | 2680.2 | 2803.7 |
| 30°   | 2633.3 | 2623.4 | 2553.0 | 2528.0 | 2489.4 | 2420.5 | 2450.0 | 2493.9 | 2497.7 | 2566.6 | 2696.1 |
| 32.5° | 2578.8 | 2553.8 | 2475.8 | 2439.4 | 2390.9 | 2310.7 | 2326.6 | 2371.2 | 2377.3 | 2447.0 | 2580.3 |
| 35°   | 2508.3 | 2491.7 | 2395.5 | 2333.4 | 2285.7 | 2197.8 | 2214.5 | 2245.5 | 2254.6 | 2322.8 | 2458.3 |
| 37.5° | 2441.7 | 2415.2 | 2312.9 | 2237.2 | 2175.8 | 2083.4 | 2088.0 | 2119.8 | 2128.9 | 2197.8 | 2331.9 |
| 40°   | 2372.8 | 2334.9 | 2225.1 | 2136.5 | 2066.0 | 1969.1 | 1963.8 | 1997.1 | 2003.9 | 2071.3 | 2192.5 |
| 42.5° | 2299.3 | 2253.9 | 2130.4 | 2033.5 | 1952.4 | 1854.0 | 1843.4 | 1872.1 | 1879.7 | 1945.6 | 2064.5 |
| 45°   | 2225.1 | 2170.5 | 2033.5 | 1927.4 | 1838.8 | 1738.1 | 1727.5 | 1749.5 | 1760.8 | 1822.9 | 1937.3 |
| 47.5° | 2146.3 | 2082.7 | 1933.5 | 1815.3 | 1723.7 | 1623.0 | 1610.1 | 1632.1 | 1641.2 | 1702.5 | 1810.8 |
| 50°   | 2063.8 | 1986.5 | 1830.5 | 1700.2 | 1609.4 | 1510.1 | 1491.2 | 1517.0 | 1525.3 | 1582.8 | 1688.9 |
| 52.5° | 1972.9 | 1887.3 | 1720.7 | 1584.4 | 1493.5 | 1398.8 | 1376.1 | 1401.1 | 1410.9 | 1467.0 | 1564.7 |
| 55°   | 1876.7 | 1784.3 | 1610.1 | 1477.6 | 1379.1 | 1286.7 | 1267.8 | 1277.6 | 1298.8 | 1351.9 | 1442.7 |
| 57.5° | 1768.4 | 1676.8 | 1493.5 | 1358.7 | 1264.0 | 1175.4 | 1159.5 | 1168.6 | 1188.3 | 1239.8 | 1321.6 |
| 60°   | 1653.3 | 1556.3 | 1374.6 | 1239.8 | 1148.1 | 1064.1 | 1049.7 | 1058.0 | 1079.2 | 1126.2 | 1201.9 |
| 62.5° | 1539.7 | 1430.6 | 1251.9 | 1117.8 | 1034.5 | 956.5  | 952.7  | 949.7  | 969.4  | 1014.8 | 1081.5 |
| 65°   | 1401.8 | 1297.3 | 1123.9 | 996.7  | 920.9  | 850.5  | 835.3  | 842.2  | 861.1  | 902.8  | 972.4  |
| 67.5° | 1254.2 | 1159.5 | 992.9  | 875.5  | 808.1  | 745.2  | 732.3  | 735.4  | 755.1  | 791.4  | 852.0  |
| 70°   | 1097.4 | 1014.1 | 858.8  | 753.6  | 696.8  | 637.7  | 629.4  | 630.1  | 649.0  | 680.9  | 733.9  |
| 72.5° | 933.0  | 858.1  | 723.3  | 633.1  | 586.2  | 543.8  | 536.2  | 527.1  | 544.5  | 571.8  | 617.2  |
| 75°   | 765.7  | 699.8  | 588.5  | 515.0  | 477.9  | 442.3  | 435.5  | 426.4  | 443.8  | 467.3  | 502.9  |
| 77.5° | 596.8  | 543.8  | 457.4  | 400.6  | 371.9  | 345.3  | 339.3  | 329.4  | 346.9  | 364.3  | 392.3  |
| 80°   | 431.7  | 393.1  | 341.6  | 281.7  | 271.9  | 254.5  | 248.4  | 237.8  | 254.5  | 265.8  | 287.0  |
| 82.5° | 278.7  | 253.0  | 223.4  | 181.8  | 180.2  | 167.4  | 164.3  | 152.2  | 167.4  | 174.2  | 190.1  |
| 85°   | 140.9  | 128.7  | 121.2  | 92.4   | 95.4   | 87.1   | 86.3   | 73.5   | 85.6   | 88.6   | 97.7   |
| 87.5° | 40.1   | 42.4   | 37.9   | 22.7   | 28.8   | 27.3   | 27.3   | 19.7   | 27.3   | 27.3   | 31.1   |
| 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: P838045

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3HI-20-120-EDD

**CANDELA DISTRIBUTION (continued):**

|       | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 | 3246.7 |
| 2.5°  | 3249.8 | 3262.6 | 3265.7 | 3264.9 | 3273.2 | 3318.7 | 3303.5 | 3318.7 |
| 5°    | 3257.3 | 3286.1 | 3293.7 | 3304.3 | 3317.9 | 3369.4 | 3352.8 | 3370.9 |
| 7.5°  | 3261.9 | 3305.0 | 3321.7 | 3342.2 | 3364.1 | 3421.7 | 3408.0 | 3426.2 |
| 10°   | 3261.9 | 3317.9 | 3342.2 | 3376.2 | 3405.8 | 3472.4 | 3459.5 | 3480.7 |
| 12.5° | 3248.2 | 3320.2 | 3354.3 | 3402.0 | 3439.8 | 3511.8 | 3506.5 | 3521.6 |
| 15°   | 3220.2 | 3308.8 | 3355.8 | 3417.1 | 3464.1 | 3544.4 | 3542.1 | 3560.3 |
| 17.5° | 3182.4 | 3289.1 | 3345.9 | 3423.2 | 3482.3 | 3572.4 | 3577.7 | 3587.5 |
| 20°   | 3134.6 | 3252.0 | 3326.2 | 3420.9 | 3495.1 | 3594.3 | 3601.2 | 3614.8 |
| 22.5° | 3071.8 | 3207.3 | 3296.7 | 3411.1 | 3496.6 | 3603.4 | 3615.6 | 3628.4 |
| 25°   | 2997.6 | 3153.6 | 3258.1 | 3392.1 | 3489.1 | 3602.7 | 3619.3 | 3630.7 |
| 27.5° | 2912.7 | 3083.9 | 3208.9 | 3361.8 | 3467.9 | 3590.6 | 3611.0 | 3624.6 |
| 30°   | 2814.3 | 3009.7 | 3152.8 | 3322.5 | 3439.1 | 3567.8 | 3589.8 | 3603.4 |
| 32.5° | 2712.8 | 2927.9 | 3086.2 | 3271.7 | 3397.4 | 3531.5 | 3550.4 | 3561.0 |
| 35°   | 2602.2 | 2828.7 | 3005.9 | 3206.6 | 3343.7 | 3473.2 | 3487.6 | 3498.9 |
| 37.5° | 2481.8 | 2721.1 | 2914.3 | 3133.1 | 3267.9 | 3392.1 | 3405.0 | 3417.9 |
| 40°   | 2357.6 | 2608.3 | 2811.3 | 3043.0 | 3177.8 | 3292.9 | 3306.6 | 3315.6 |
| 42.5° | 2232.6 | 2483.3 | 2701.4 | 2937.0 | 3071.0 | 3181.6 | 3189.9 | 3199.0 |
| 45°   | 2106.2 | 2353.8 | 2578.0 | 2819.6 | 2952.1 | 3055.9 | 3058.9 | 3066.5 |
| 47.5° | 1977.4 | 2219.8 | 2442.4 | 2685.5 | 2816.6 | 2911.2 | 2914.3 | 2920.3 |
| 50°   | 1847.9 | 2085.7 | 2297.8 | 2540.9 | 2668.9 | 2768.8 | 2755.2 | 2761.3 |
| 52.5° | 1720.7 | 1944.9 | 2161.5 | 2384.9 | 2511.3 | 2600.0 | 2603.7 | 2591.6 |
| 55°   | 1595.7 | 1807.0 | 2006.2 | 2221.3 | 2341.7 | 2410.6 | 2408.3 | 2412.9 |
| 57.5° | 1469.2 | 1667.7 | 1850.2 | 2047.1 | 2164.5 | 2229.6 | 2243.2 | 2227.3 |
| 60°   | 1340.5 | 1526.8 | 1690.4 | 1868.4 | 1982.0 | 2036.5 | 2052.4 | 2037.3 |
| 62.5° | 1212.5 | 1383.7 | 1532.1 | 1687.4 | 1792.6 | 1860.0 | 1858.5 | 1841.9 |
| 65°   | 1084.5 | 1239.8 | 1372.3 | 1504.1 | 1595.7 | 1663.1 | 1660.1 | 1644.9 |
| 67.5° | 966.4  | 1094.4 | 1213.3 | 1320.0 | 1399.6 | 1445.8 | 1461.7 | 1443.5 |
| 70°   | 836.1  | 946.7  | 1051.2 | 1136.8 | 1202.7 | 1244.3 | 1259.5 | 1243.6 |
| 72.5° | 705.8  | 799.8  | 873.2  | 955.8  | 1006.5 | 1041.3 | 1057.2 | 1042.1 |
| 75°   | 577.1  | 654.3  | 714.2  | 778.5  | 814.1  | 843.7  | 861.9  | 846.7  |
| 77.5° | 452.1  | 512.0  | 559.7  | 606.6  | 647.5  | 654.3  | 670.2  | 660.4  |
| 80°   | 333.2  | 376.4  | 411.2  | 442.3  | 471.8  | 474.9  | 487.7  | 481.7  |
| 82.5° | 221.9  | 250.7  | 259.8  | 292.3  | 311.3  | 308.2  | 321.1  | 316.6  |
| 85°   | 117.4  | 134.8  | 150.7  | 160.6  | 171.2  | 161.3  | 172.7  | 168.1  |
| 87.5° | 39.4   | 41.7   | 36.4   | 51.5   | 56.8   | 48.5   | 55.3   | 53.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)