

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: P835200

Luminaire Tested: **ORLG-24-2-INS-ASY2-LD4-4HI-30-120-EDD**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P835200  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-24-2-INS-ASY2-LD4-4HI-30-120-EDD  
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

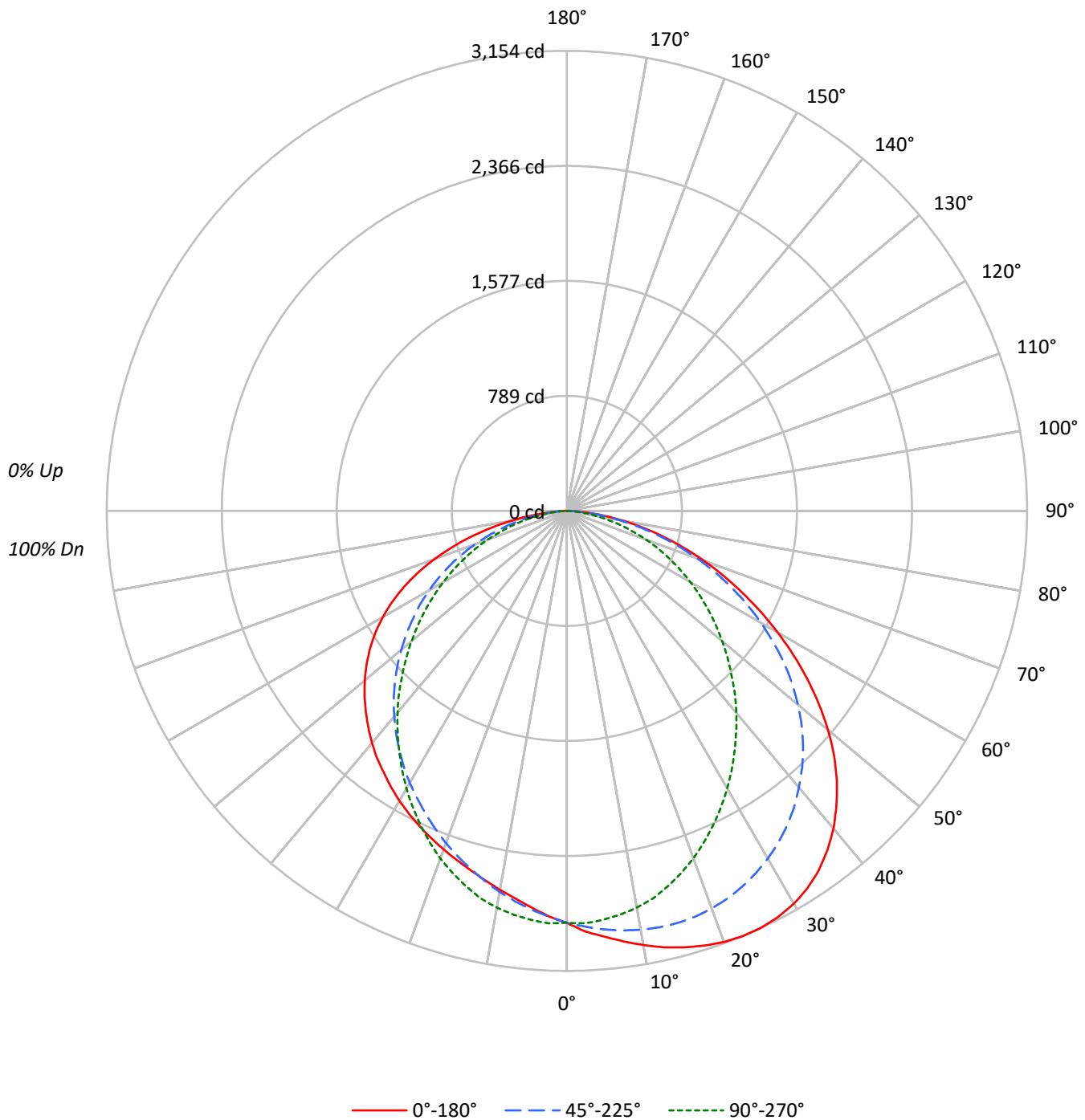
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8307.5 lumens  
Efficiency: N/A  
Efficacy: 94.4 lumens/watt  
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 2' 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: P835200  
CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-4HI-30-120-EDD

### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835200

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-4HI-30-120-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°  | 7600 | 7600 | 7600 |
| 5°  | 7913 | 7604 | 7379 |
| 10° | 8259 | 7547 | 7208 |
| 15° | 8630 | 7426 | 7104 |
| 20° | 9007 | 7262 | 7075 |
| 25° | 9361 | 7051 | 7086 |
| 30° | 9665 | 6831 | 7132 |
| 35° | 9886 | 6587 | 7191 |
| 40° | 9986 | 6343 | 7297 |
| 45° | 9959 | 6075 | 7417 |
| 50° | 9782 | 5820 | 7569 |
| 55° | 9447 | 5552 | 7727 |
| 60° | 8987 | 5266 | 7844 |
| 65° | 8439 | 4945 | 7834 |
| 70° | 7854 | 4561 | 7601 |
| 75° | 7130 | 4005 | 7009 |
| 80° | 6123 | 3292 | 5912 |
| 85° | 4668 | 2248 | 4060 |

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835200

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-4HI-30-120-EDD

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 267.9  | 3.2       |
| 10°-20°   | 773.5  | 9.3       |
| 20°-30°   | 1185.0 | 14.3      |
| 30°-40°   | 1446.2 | 17.4      |
| 40°-50°   | 1512.4 | 18.2      |
| 50°-60°   | 1368.8 | 16.5      |
| 60°-70°   | 1036.7 | 12.5      |
| 70°-80°   | 577.7  | 7.0       |
| 80°-90°   | 139.3  | 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°    | 2226.4 | 26.8      |
| 0°-40°    | 3672.6 | 44.2      |
| 0°-60°    | 6553.8 | 78.9      |
| 0°-90°    | 8307.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8307.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 2824 | 2824 | 2824 | 2824 | 2824 |      |
| 5°  | 2929 | 2880 | 2815 | 2746 | 2732 | 282  |
| 15° | 3098 | 2926 | 2666 | 2542 | 2550 | 879  |
| 25° | 3153 | 2843 | 2375 | 2291 | 2386 | 1454 |
| 35° | 3009 | 2632 | 2005 | 2003 | 2189 | 1879 |
| 45° | 2617 | 2289 | 1596 | 1667 | 1949 | 2013 |
| 55° | 2014 | 1818 | 1183 | 1288 | 1647 | 1797 |
| 65° | 1325 | 1246 | 777  | 883  | 1230 | 1315 |
| 75° | 686  | 648  | 385  | 460  | 674  | 727  |
| 85° | 151  | 133  | 73   | 98   | 132  | 182  |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P835200

CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-4HI-30-120-EDD

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 10°    | 20°    | 22.5°  | 30°    | 40°    | 45°    | 50°    | 60°    | 67.5°  | 70°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 |
| 2.5°  | 2886.6 | 2873.0 | 2861.9 | 2866.2 | 2868.7 | 2860.0 | 2852.6 | 2853.8 | 2846.4 | 2860.6 | 2827.3 |
| 5°    | 2929.2 | 2916.8 | 2903.8 | 2908.8 | 2903.8 | 2890.9 | 2880.4 | 2877.3 | 2857.6 | 2865.6 | 2831.6 |
| 7.5°  | 2976.7 | 2963.1 | 2944.0 | 2949.5 | 2939.0 | 2915.0 | 2901.4 | 2893.4 | 2863.1 | 2863.7 | 2826.1 |
| 10°   | 3022.4 | 3010.6 | 2984.7 | 2988.4 | 2969.3 | 2937.2 | 2915.6 | 2904.5 | 2861.9 | 2855.7 | 2816.8 |
| 12.5° | 3065.0 | 3048.9 | 3021.1 | 3023.0 | 2995.2 | 2952.6 | 2924.8 | 2908.8 | 2853.2 | 2834.7 | 2796.4 |
| 15°   | 3097.7 | 3082.3 | 3048.9 | 3048.3 | 3012.5 | 2956.9 | 2925.5 | 2903.2 | 2832.9 | 2803.8 | 2763.7 |
| 17.5° | 3125.5 | 3111.3 | 3069.9 | 3068.7 | 3025.5 | 2955.1 | 2917.4 | 2889.7 | 2803.2 | 2767.4 | 2723.0 |
| 20°   | 3145.2 | 3131.0 | 3084.7 | 3080.4 | 3028.5 | 2945.8 | 2900.8 | 2865.6 | 2764.3 | 2721.7 | 2672.4 |
| 22.5° | 3154.5 | 3140.3 | 3087.8 | 3081.6 | 3021.1 | 2927.3 | 2876.7 | 2835.3 | 2719.9 | 2664.3 | 2613.1 |
| 25°   | 3152.6 | 3139.0 | 3079.8 | 3073.6 | 3006.9 | 2899.5 | 2842.7 | 2795.2 | 2663.7 | 2598.3 | 2547.7 |
| 27.5° | 3137.2 | 3126.7 | 3064.4 | 3056.3 | 2981.0 | 2861.9 | 2801.4 | 2748.9 | 2601.4 | 2528.5 | 2473.6 |
| 30°   | 3110.6 | 3102.6 | 3036.6 | 3029.2 | 2948.9 | 2820.5 | 2753.2 | 2692.7 | 2534.1 | 2452.0 | 2396.4 |
| 32.5° | 3068.1 | 3060.6 | 2994.0 | 2987.2 | 2905.7 | 2767.4 | 2697.0 | 2634.7 | 2460.6 | 2369.9 | 2314.3 |
| 35°   | 3009.4 | 3005.1 | 2940.3 | 2932.9 | 2850.1 | 2706.9 | 2632.2 | 2563.7 | 2384.1 | 2281.6 | 2228.5 |
| 37.5° | 2932.2 | 2932.2 | 2869.9 | 2861.9 | 2781.0 | 2632.8 | 2559.4 | 2486.5 | 2297.6 | 2189.0 | 2136.5 |
| 40°   | 2842.7 | 2850.8 | 2787.2 | 2779.2 | 2700.8 | 2553.2 | 2473.0 | 2396.4 | 2204.4 | 2091.5 | 2040.2 |
| 42.5° | 2735.3 | 2742.7 | 2689.6 | 2682.2 | 2608.8 | 2461.2 | 2386.5 | 2303.2 | 2106.9 | 1992.1 | 1939.0 |
| 45°   | 2616.8 | 2626.7 | 2579.1 | 2573.6 | 2505.1 | 2360.6 | 2289.0 | 2204.4 | 2005.0 | 1888.4 | 1836.5 |
| 47.5° | 2484.7 | 2497.7 | 2456.3 | 2453.2 | 2389.6 | 2257.5 | 2182.8 | 2097.0 | 1898.2 | 1780.3 | 1731.6 |
| 50°   | 2336.5 | 2355.1 | 2321.1 | 2321.1 | 2264.3 | 2132.8 | 2068.0 | 1982.2 | 1787.1 | 1669.2 | 1621.1 |
| 52.5° | 2177.9 | 2201.3 | 2176.0 | 2176.7 | 2130.4 | 2012.4 | 1945.2 | 1861.2 | 1671.1 | 1555.0 | 1510.6 |
| 55°   | 2013.7 | 2036.5 | 2020.5 | 2022.9 | 1986.5 | 1879.1 | 1818.0 | 1734.7 | 1552.5 | 1439.6 | 1397.6 |
| 57.5° | 1842.1 | 1866.8 | 1856.3 | 1861.2 | 1835.9 | 1739.6 | 1676.0 | 1603.2 | 1430.3 | 1318.6 | 1282.8 |
| 60°   | 1669.8 | 1693.3 | 1687.7 | 1694.5 | 1678.5 | 1595.1 | 1537.1 | 1461.8 | 1307.5 | 1200.1 | 1168.6 |
| 62.5° | 1495.8 | 1517.4 | 1516.1 | 1523.5 | 1514.9 | 1445.8 | 1393.9 | 1329.7 | 1180.3 | 1081.5 | 1052.5 |
| 65°   | 1325.4 | 1343.9 | 1342.7 | 1350.7 | 1348.8 | 1293.3 | 1246.4 | 1187.7 | 1053.1 | 962.4  | 937.1  |
| 67.5° | 1159.9 | 1175.4 | 1171.0 | 1180.3 | 1182.8 | 1138.3 | 1097.6 | 1045.1 | 932.1  | 843.9  | 822.3  |
| 70°   | 998.2  | 1008.7 | 1003.1 | 1009.3 | 1014.9 | 981.5  | 947.0  | 900.7  | 803.1  | 725.3  | 707.4  |
| 72.5° | 839.5  | 847.0  | 838.3  | 844.5  | 849.4  | 825.3  | 797.0  | 756.8  | 676.0  | 608.7  | 593.9  |
| 75°   | 685.8  | 696.3  | 678.4  | 684.6  | 688.3  | 664.2  | 647.6  | 614.8  | 545.1  | 493.2  | 483.4  |
| 77.5° | 537.1  | 543.2  | 533.4  | 530.9  | 533.4  | 516.1  | 503.1  | 477.8  | 425.3  | 382.7  | 376.6  |
| 80°   | 395.1  | 398.8  | 388.9  | 386.4  | 388.3  | 375.9  | 366.1  | 347.5  | 310.5  | 278.4  | 275.9  |
| 82.5° | 264.8  | 266.7  | 258.0  | 255.6  | 256.8  | 253.1  | 241.4  | 228.4  | 211.1  | 184.0  | 183.3  |
| 85°   | 151.2  | 151.2  | 145.1  | 142.6  | 143.8  | 137.7  | 133.3  | 126.5  | 119.8  | 101.2  | 102.5  |
| 87.5° | 55.6   | 55.6   | 52.5   | 51.9   | 58.0   | 51.2   | 49.4   | 46.3   | 48.2   | 38.3   | 40.7   |
| 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):**

|       | 80°    | 90°    | 100°   | 110°   | 112.5° | 120°   | 130°   | 135°   | 140°   | 150°   | 157.5° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 | 2824.2 |
| 2.5°  | 2836.6 | 2830.4 | 2824.8 | 2805.7 | 2813.7 | 2794.0 | 2792.7 | 2785.3 | 2779.8 | 2769.3 | 2782.9 |
| 5°    | 2827.3 | 2815.0 | 2798.9 | 2776.1 | 2782.9 | 2759.4 | 2754.5 | 2745.8 | 2738.4 | 2724.8 | 2735.3 |
| 7.5°  | 2812.5 | 2792.1 | 2766.8 | 2737.8 | 2747.1 | 2718.0 | 2710.6 | 2701.4 | 2695.2 | 2679.1 | 2688.4 |
| 10°   | 2790.9 | 2761.9 | 2732.2 | 2697.0 | 2703.8 | 2672.4 | 2663.1 | 2653.2 | 2647.7 | 2633.5 | 2642.7 |
| 12.5° | 2757.5 | 2722.4 | 2682.2 | 2644.0 | 2651.4 | 2621.7 | 2609.4 | 2598.9 | 2597.0 | 2585.3 | 2596.4 |
| 15°   | 2714.3 | 2665.6 | 2624.2 | 2583.5 | 2592.1 | 2557.5 | 2552.0 | 2541.5 | 2544.6 | 2536.5 | 2550.1 |
| 17.5° | 2659.4 | 2603.2 | 2558.2 | 2514.3 | 2523.0 | 2494.0 | 2489.6 | 2484.7 | 2487.8 | 2486.5 | 2501.4 |
| 20°   | 2597.7 | 2535.9 | 2484.1 | 2440.9 | 2445.8 | 2423.0 | 2424.8 | 2423.6 | 2429.8 | 2436.5 | 2456.9 |
| 22.5° | 2527.9 | 2458.1 | 2403.8 | 2359.4 | 2366.8 | 2347.0 | 2355.7 | 2358.1 | 2368.6 | 2384.1 | 2410.0 |
| 25°   | 2449.5 | 2374.8 | 2318.0 | 2276.0 | 2282.8 | 2269.9 | 2284.7 | 2290.9 | 2307.5 | 2333.5 | 2360.0 |
| 27.5° | 2367.4 | 2288.4 | 2227.9 | 2187.8 | 2200.7 | 2187.8 | 2210.0 | 2222.3 | 2247.6 | 2276.0 | 2308.8 |
| 30°   | 2280.4 | 2198.3 | 2135.9 | 2100.1 | 2112.5 | 2100.7 | 2136.5 | 2153.2 | 2178.5 | 2217.4 | 2256.3 |
| 32.5° | 2189.0 | 2102.6 | 2041.5 | 2013.7 | 2022.3 | 2020.5 | 2060.6 | 2079.1 | 2113.1 | 2157.5 | 2198.9 |
| 35°   | 2095.2 | 2005.0 | 1943.3 | 1919.8 | 1930.3 | 1932.8 | 1981.0 | 2002.6 | 2039.6 | 2093.3 | 2137.8 |
| 37.5° | 1998.2 | 1906.3 | 1845.8 | 1826.6 | 1835.9 | 1845.2 | 1901.3 | 1922.9 | 1964.9 | 2023.6 | 2072.3 |
| 40°   | 1897.6 | 1805.6 | 1746.4 | 1731.0 | 1740.2 | 1750.1 | 1811.2 | 1840.8 | 1886.5 | 1950.1 | 2003.2 |
| 42.5° | 1795.8 | 1703.8 | 1646.4 | 1635.3 | 1644.5 | 1663.7 | 1728.5 | 1756.3 | 1804.4 | 1874.8 | 1933.4 |
| 45°   | 1692.1 | 1596.4 | 1546.4 | 1537.7 | 1547.6 | 1569.8 | 1633.4 | 1666.8 | 1718.0 | 1795.2 | 1858.1 |
| 47.5° | 1587.1 | 1493.9 | 1446.4 | 1440.8 | 1450.7 | 1475.4 | 1545.8 | 1576.0 | 1630.3 | 1712.4 | 1780.3 |
| 50°   | 1480.9 | 1390.2 | 1344.5 | 1342.7 | 1351.9 | 1378.5 | 1445.8 | 1481.6 | 1537.7 | 1629.7 | 1699.5 |
| 52.5° | 1373.5 | 1286.5 | 1245.1 | 1245.1 | 1253.8 | 1280.9 | 1348.8 | 1385.9 | 1443.9 | 1540.8 | 1618.0 |
| 55°   | 1266.1 | 1183.4 | 1143.9 | 1147.0 | 1159.3 | 1182.8 | 1248.8 | 1287.7 | 1346.4 | 1447.0 | 1528.5 |
| 57.5° | 1158.7 | 1080.3 | 1044.5 | 1048.8 | 1060.5 | 1084.0 | 1148.8 | 1192.7 | 1245.7 | 1350.1 | 1433.4 |
| 60°   | 1052.5 | 978.4  | 947.0  | 951.9  | 962.4  | 985.9  | 1053.1 | 1090.8 | 1143.9 | 1250.1 | 1333.4 |
| 62.5° | 945.1  | 877.8  | 848.2  | 854.4  | 863.6  | 887.1  | 950.7  | 987.1  | 1039.6 | 1143.9 | 1227.8 |
| 65°   | 838.9  | 776.6  | 751.3  | 757.4  | 766.1  | 787.7  | 847.6  | 882.8  | 932.8  | 1034.6 | 1114.9 |
| 67.5° | 734.0  | 677.2  | 656.2  | 662.4  | 669.2  | 689.5  | 738.9  | 777.2  | 824.1  | 921.0  | 997.0  |
| 70°   | 630.3  | 579.7  | 561.1  | 567.3  | 573.5  | 592.0  | 635.2  | 670.4  | 713.6  | 802.5  | 872.9  |
| 72.5° | 527.8  | 478.4  | 469.2  | 474.7  | 479.7  | 495.7  | 537.1  | 564.8  | 602.5  | 681.5  | 742.0  |
| 75°   | 427.8  | 385.2  | 379.0  | 384.6  | 388.9  | 401.3  | 435.8  | 459.9  | 491.4  | 559.9  | 609.3  |
| 77.5° | 331.5  | 295.7  | 293.2  | 297.5  | 301.9  | 310.5  | 337.7  | 363.0  | 387.7  | 438.3  | 482.1  |
| 80°   | 241.4  | 212.4  | 212.4  | 216.7  | 215.4  | 225.9  | 245.1  | 265.4  | 283.3  | 319.8  | 351.9  |
| 82.5° | 159.3  | 136.4  | 139.5  | 142.6  | 144.5  | 148.8  | 160.5  | 175.9  | 187.0  | 209.3  | 230.3  |
| 85°   | 88.3   | 72.8   | 75.9   | 78.4   | 77.2   | 82.1   | 88.3   | 97.5   | 103.1  | 113.6  | 124.7  |
| 87.5° | 32.7   | 27.2   | 27.8   | 29.6   | 30.9   | 33.3   | 33.3   | 38.9   | 39.5   | 40.7   | 43.2   |
| 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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Peachtree City, GA 30269



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CATALOG NUMBER: ORLG-24-2-INS-ASY2-LD4-4HI-30-120-EDD

**CANDELA DISTRIBUTION (continued):**

|       | 160°   | 170°   | 180°   |
|-------|--------|--------|--------|
| 0°    | 2824.2 | 2824.2 | 2824.2 |
| 2.5°  | 2756.9 | 2771.7 | 2782.9 |
| 5°    | 2709.4 | 2721.7 | 2731.6 |
| 7.5°  | 2663.1 | 2674.2 | 2682.9 |
| 10°   | 2619.3 | 2631.6 | 2637.8 |
| 12.5° | 2574.2 | 2588.4 | 2593.3 |
| 15°   | 2529.8 | 2544.0 | 2550.1 |
| 17.5° | 2484.1 | 2502.6 | 2509.4 |
| 20°   | 2441.5 | 2464.9 | 2470.5 |
| 22.5° | 2398.3 | 2422.3 | 2429.1 |
| 25°   | 2351.4 | 2379.7 | 2386.5 |
| 27.5° | 2301.3 | 2335.3 | 2342.1 |
| 30°   | 2251.3 | 2288.4 | 2295.2 |
| 32.5° | 2197.6 | 2237.8 | 2243.9 |
| 35°   | 2141.5 | 2181.6 | 2189.0 |
| 37.5° | 2079.1 | 2122.9 | 2137.8 |
| 40°   | 2014.3 | 2061.8 | 2077.3 |
| 42.5° | 1946.4 | 1998.2 | 2014.3 |
| 45°   | 1873.6 | 1930.3 | 1948.9 |
| 47.5° | 1800.1 | 1864.3 | 1880.3 |
| 50°   | 1720.5 | 1789.0 | 1808.1 |
| 52.5° | 1637.1 | 1711.8 | 1731.0 |
| 55°   | 1550.7 | 1626.0 | 1647.0 |
| 57.5° | 1456.9 | 1534.6 | 1556.9 |
| 60°   | 1358.7 | 1436.5 | 1457.5 |
| 62.5° | 1258.1 | 1328.5 | 1348.8 |
| 65°   | 1145.7 | 1211.8 | 1230.3 |
| 67.5° | 1026.6 | 1087.1 | 1102.5 |
| 70°   | 900.0  | 952.5  | 966.1  |
| 72.5° | 767.9  | 804.4  | 822.3  |
| 75°   | 631.5  | 660.5  | 674.1  |
| 77.5° | 494.5  | 514.8  | 526.0  |
| 80°   | 360.5  | 372.2  | 381.5  |
| 82.5° | 235.8  | 240.8  | 247.5  |
| 85°   | 127.2  | 127.2  | 131.5  |
| 87.5° | 43.2   | 41.4   | 43.2   |
| 90°   | 0.0    | 0.0    | 0.0    |

(END OF REPORT)