

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: P834204

Luminaire Tested: **ORLG-12-4-INS-ASY2-LD4-2HI-30-120-EDD**

Issue Date: 5/16/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P834204  
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-30-120-EDD  
Description: 1FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

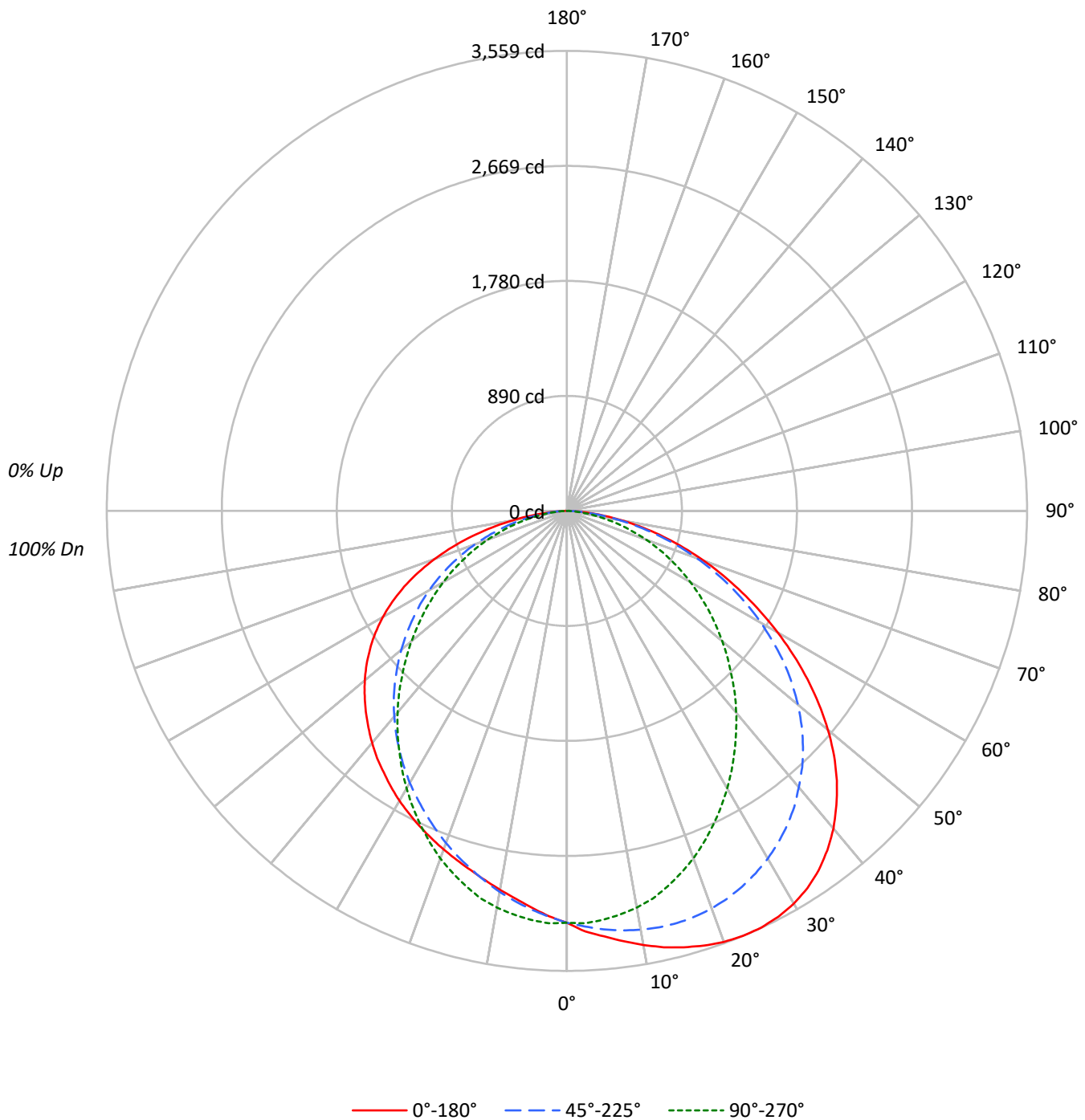
Lumens per Lamp: N/A  
Luminaire Lumens: 9372.7 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Spacing Criteria (0/90/45): 1.41 / 1.17 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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: P834204

CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-2HI-30-120-EDD

### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834204

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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°  | 8574  | 8574 | 8574 |
| 5°  | 8927  | 8579 | 8325 |
| 10° | 9318  | 8514 | 8132 |
| 15° | 9736  | 8378 | 8015 |
| 20° | 10162 | 8193 | 7982 |
| 25° | 10561 | 7955 | 7994 |
| 30° | 10905 | 7706 | 8046 |
| 35° | 11154 | 7431 | 8113 |
| 40° | 11266 | 7156 | 8233 |
| 45° | 11235 | 6854 | 8368 |
| 50° | 11036 | 6566 | 8540 |
| 55° | 10659 | 6264 | 8718 |
| 60° | 10139 | 5941 | 8850 |
| 65° | 9521  | 5579 | 8839 |
| 70° | 8861  | 5146 | 8576 |
| 75° | 8045  | 4519 | 7907 |
| 80° | 6907  | 3713 | 6670 |
| 85° | 5267  | 2538 | 4579 |

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P834204

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 302.2  | 3.2       |
| 10°-20°   | 872.7  | 9.3       |
| 20°-30°   | 1337.0 | 14.3      |
| 30°-40°   | 1631.6 | 17.4      |
| 40°-50°   | 1706.3 | 18.2      |
| 50°-60°   | 1544.3 | 16.5      |
| 60°-70°   | 1169.6 | 12.5      |
| 70°-80°   | 651.8  | 7.0       |
| 80°-90°   | 157.2  | 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°    | 2511.9 | 26.8      |
| 0°-40°    | 4143.5 | 44.2      |
| 0°-60°    | 7394.1 | 78.9      |
| 0°-90°    | 9372.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 9372.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 3186 | 3186 | 3186 | 3186 | 3186 |      |
| 5°  | 3305 | 3250 | 3176 | 3098 | 3082 | 319  |
| 15° | 3495 | 3301 | 3007 | 2867 | 2877 | 991  |
| 25° | 3557 | 3207 | 2679 | 2585 | 2692 | 1641 |
| 35° | 3395 | 2970 | 2262 | 2259 | 2470 | 2120 |
| 45° | 2952 | 2582 | 1801 | 1880 | 2199 | 2272 |
| 55° | 2272 | 2051 | 1335 | 1453 | 1858 | 2027 |
| 65° | 1495 | 1406 | 876  | 996  | 1388 | 1483 |
| 75° | 774  | 731  | 435  | 519  | 760  | 821  |
| 85° | 171  | 150  | 82   | 110  | 148  | 205  |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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Peachtree City, GA 30269



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CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-2HI-30-120-EDD

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 10°    | 20°    | 22.5°  | 30°    | 40°    | 45°    | 50°    | 60°    | 67.5°  | 70°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 |
| 2.5°  | 3256.7 | 3241.4 | 3228.8 | 3233.7 | 3236.5 | 3226.7 | 3218.4 | 3219.8 | 3211.4 | 3227.4 | 3189.8 |
| 5°    | 3304.7 | 3290.8 | 3276.2 | 3281.8 | 3276.2 | 3261.6 | 3249.7 | 3246.2 | 3224.0 | 3233.0 | 3194.7 |
| 7.5°  | 3358.4 | 3343.0 | 3321.5 | 3327.7 | 3315.9 | 3288.7 | 3273.4 | 3264.3 | 3230.2 | 3230.9 | 3188.4 |
| 10°   | 3409.9 | 3396.7 | 3367.4 | 3371.6 | 3350.0 | 3313.8 | 3289.4 | 3276.9 | 3228.8 | 3221.9 | 3178.0 |
| 12.5° | 3458.0 | 3439.9 | 3408.5 | 3410.6 | 3379.3 | 3331.2 | 3299.9 | 3281.8 | 3219.1 | 3198.2 | 3155.0 |
| 15°   | 3494.9 | 3477.5 | 3439.9 | 3439.2 | 3398.8 | 3336.1 | 3300.6 | 3275.5 | 3196.1 | 3163.4 | 3118.1 |
| 17.5° | 3526.2 | 3510.2 | 3463.5 | 3462.1 | 3413.4 | 3334.0 | 3291.5 | 3260.2 | 3162.7 | 3122.3 | 3072.1 |
| 20°   | 3548.5 | 3532.5 | 3480.3 | 3475.4 | 3416.9 | 3323.5 | 3272.7 | 3233.0 | 3118.8 | 3070.7 | 3015.0 |
| 22.5° | 3559.0 | 3542.9 | 3483.7 | 3476.8 | 3408.5 | 3302.7 | 3245.5 | 3198.9 | 3068.6 | 3006.0 | 2948.2 |
| 25°   | 3556.9 | 3541.5 | 3474.7 | 3467.7 | 3392.5 | 3271.3 | 3207.2 | 3153.6 | 3005.3 | 2931.4 | 2874.3 |
| 27.5° | 3539.5 | 3527.6 | 3457.3 | 3448.2 | 3363.2 | 3228.8 | 3160.6 | 3101.4 | 2934.9 | 2852.7 | 2790.7 |
| 30°   | 3509.5 | 3500.4 | 3425.9 | 3417.6 | 3327.0 | 3182.2 | 3106.2 | 3038.0 | 2859.0 | 2766.4 | 2703.7 |
| 32.5° | 3461.4 | 3453.1 | 3377.9 | 3370.2 | 3278.3 | 3122.3 | 3042.9 | 2972.5 | 2776.1 | 2673.7 | 2611.1 |
| 35°   | 3395.3 | 3390.4 | 3317.3 | 3308.9 | 3215.6 | 3054.0 | 2969.7 | 2892.4 | 2689.8 | 2574.1 | 2514.3 |
| 37.5° | 3308.2 | 3308.2 | 3237.9 | 3228.8 | 3137.6 | 2970.4 | 2887.6 | 2805.4 | 2592.3 | 2469.7 | 2410.5 |
| 40°   | 3207.2 | 3216.3 | 3144.6 | 3135.5 | 3047.0 | 2880.6 | 2790.1 | 2703.7 | 2487.1 | 2359.6 | 2301.8 |
| 42.5° | 3086.1 | 3094.4 | 3034.5 | 3026.2 | 2943.3 | 2776.8 | 2692.5 | 2598.5 | 2377.0 | 2247.5 | 2187.6 |
| 45°   | 2952.3 | 2963.5 | 2909.8 | 2903.6 | 2826.3 | 2663.3 | 2582.5 | 2487.1 | 2262.1 | 2130.5 | 2072.0 |
| 47.5° | 2803.3 | 2817.9 | 2771.2 | 2767.8 | 2696.0 | 2547.0 | 2462.7 | 2365.9 | 2141.6 | 2008.6 | 1953.6 |
| 50°   | 2636.1 | 2657.0 | 2618.7 | 2618.7 | 2554.6 | 2406.3 | 2333.2 | 2236.4 | 2016.3 | 1883.3 | 1828.9 |
| 52.5° | 2457.1 | 2483.6 | 2455.1 | 2455.7 | 2403.5 | 2270.5 | 2194.6 | 2099.9 | 1885.3 | 1754.4 | 1704.3 |
| 55°   | 2271.9 | 2297.6 | 2279.5 | 2282.3 | 2241.2 | 2120.0 | 2051.1 | 1957.1 | 1751.6 | 1624.2 | 1576.8 |
| 57.5° | 2078.3 | 2106.1 | 2094.3 | 2099.9 | 2071.3 | 1962.6 | 1890.9 | 1808.7 | 1613.7 | 1487.7 | 1447.3 |
| 60°   | 1883.9 | 1910.4 | 1904.1 | 1911.8 | 1893.7 | 1799.7 | 1734.2 | 1649.2 | 1475.1 | 1353.9 | 1318.4 |
| 62.5° | 1687.5 | 1711.9 | 1710.5 | 1718.9 | 1709.1 | 1631.1 | 1572.6 | 1500.2 | 1331.6 | 1220.2 | 1187.5 |
| 65°   | 1495.3 | 1516.2 | 1514.8 | 1523.9 | 1521.8 | 1459.1 | 1406.2 | 1340.0 | 1188.2 | 1085.8 | 1057.2 |
| 67.5° | 1308.7 | 1326.1 | 1321.2 | 1331.6 | 1334.4 | 1284.3 | 1238.3 | 1179.1 | 1051.7 | 952.1  | 927.7  |
| 70°   | 1126.2 | 1138.0 | 1131.8 | 1138.7 | 1145.0 | 1107.4 | 1068.4 | 1016.1 | 906.1  | 818.4  | 798.2  |
| 72.5° | 947.2  | 955.6  | 945.8  | 952.8  | 958.3  | 931.2  | 899.1  | 853.9  | 762.6  | 686.7  | 670.0  |
| 75°   | 773.8  | 785.6  | 765.4  | 772.4  | 776.6  | 749.4  | 730.6  | 693.7  | 615.0  | 556.5  | 545.3  |
| 77.5° | 605.9  | 612.9  | 601.7  | 599.0  | 601.7  | 582.2  | 567.6  | 539.1  | 479.9  | 431.8  | 424.8  |
| 80°   | 445.7  | 449.9  | 438.8  | 436.0  | 438.1  | 424.1  | 413.0  | 392.1  | 350.3  | 314.1  | 311.3  |
| 82.5° | 298.8  | 300.9  | 291.1  | 288.3  | 289.7  | 285.6  | 272.3  | 257.7  | 238.2  | 207.5  | 206.9  |
| 85°   | 170.6  | 170.6  | 163.7  | 160.9  | 162.3  | 155.3  | 150.4  | 142.8  | 135.1  | 114.2  | 115.6  |
| 87.5° | 62.7   | 62.7   | 59.2   | 58.5   | 65.5   | 57.8   | 55.7   | 52.2   | 54.3   | 43.2   | 46.0   |
| 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°    | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 | 3186.3 |
| 2.5°  | 3200.3 | 3193.3 | 3187.0 | 3165.4 | 3174.5 | 3152.2 | 3150.8 | 3142.5 | 3136.2 | 3124.4 | 3139.7 |
| 5°    | 3189.8 | 3175.9 | 3157.8 | 3132.0 | 3139.7 | 3113.2 | 3107.6 | 3097.9 | 3089.5 | 3074.2 | 3086.1 |
| 7.5°  | 3173.1 | 3150.1 | 3121.6 | 3088.8 | 3099.3 | 3066.6 | 3058.2 | 3047.7 | 3040.8 | 3022.7 | 3033.1 |
| 10°   | 3148.7 | 3116.0 | 3082.6 | 3042.9 | 3050.5 | 3015.0 | 3004.6 | 2993.4 | 2987.2 | 2971.1 | 2981.6 |
| 12.5° | 3111.1 | 3071.4 | 3026.2 | 2983.0 | 2991.3 | 2957.9 | 2944.0 | 2932.1 | 2930.0 | 2916.8 | 2929.3 |
| 15°   | 3062.4 | 3007.4 | 2960.7 | 2914.7 | 2924.5 | 2885.5 | 2879.2 | 2867.4 | 2870.8 | 2861.8 | 2877.1 |
| 17.5° | 3000.4 | 2937.0 | 2886.2 | 2836.7 | 2846.5 | 2813.7 | 2808.9 | 2803.3 | 2806.8 | 2805.4 | 2822.1 |
| 20°   | 2930.7 | 2861.1 | 2802.6 | 2753.8 | 2759.4 | 2733.6 | 2735.7 | 2734.3 | 2741.3 | 2749.0 | 2771.9 |
| 22.5° | 2852.0 | 2773.3 | 2712.0 | 2661.9 | 2670.3 | 2648.0 | 2657.7 | 2660.5 | 2672.3 | 2689.8 | 2719.0 |
| 25°   | 2763.6 | 2679.3 | 2615.2 | 2567.9 | 2575.5 | 2560.9 | 2577.6 | 2584.6 | 2603.4 | 2632.7 | 2662.6 |
| 27.5° | 2671.0 | 2581.8 | 2513.6 | 2468.3 | 2482.9 | 2468.3 | 2493.4 | 2507.3 | 2535.8 | 2567.9 | 2604.8 |
| 30°   | 2572.8 | 2480.1 | 2409.8 | 2369.4 | 2383.3 | 2370.1 | 2410.5 | 2429.3 | 2457.8 | 2501.7 | 2545.6 |
| 32.5° | 2469.7 | 2372.2 | 2303.2 | 2271.9 | 2281.6 | 2279.5 | 2324.8 | 2345.7 | 2384.0 | 2434.2 | 2480.8 |
| 35°   | 2363.8 | 2262.1 | 2192.5 | 2166.0 | 2177.9 | 2180.6 | 2235.0 | 2259.3 | 2301.1 | 2361.7 | 2411.9 |
| 37.5° | 2254.5 | 2150.7 | 2082.4 | 2060.8 | 2071.3 | 2081.7 | 2145.1 | 2169.5 | 2216.9 | 2283.0 | 2338.0 |
| 40°   | 2140.9 | 2037.2 | 1970.3 | 1952.9 | 1963.3 | 1974.5 | 2043.4 | 2076.9 | 2128.4 | 2200.1 | 2260.0 |
| 42.5° | 2026.0 | 1922.3 | 1857.5 | 1844.9 | 1855.4 | 1877.0 | 1950.1 | 1981.5 | 2035.8 | 2115.2 | 2181.3 |
| 45°   | 1909.0 | 1801.1 | 1744.7 | 1734.9 | 1746.0 | 1771.1 | 1842.9 | 1880.5 | 1938.3 | 2025.3 | 2096.4 |
| 47.5° | 1790.6 | 1685.5 | 1631.8 | 1625.6 | 1636.7 | 1664.6 | 1744.0 | 1778.1 | 1839.4 | 1932.0 | 2008.6 |
| 50°   | 1670.8 | 1568.4 | 1516.9 | 1514.8 | 1525.3 | 1555.2 | 1631.1 | 1671.5 | 1734.9 | 1838.7 | 1917.4 |
| 52.5° | 1549.6 | 1451.4 | 1404.8 | 1404.8 | 1414.5 | 1445.2 | 1521.8 | 1563.6 | 1629.0 | 1738.4 | 1825.4 |
| 55°   | 1428.5 | 1335.1 | 1290.6 | 1294.0 | 1308.0 | 1334.4 | 1409.0 | 1452.8 | 1519.0 | 1632.5 | 1724.5 |
| 57.5° | 1307.3 | 1218.8 | 1178.4 | 1183.3 | 1196.5 | 1223.0 | 1296.1 | 1345.6 | 1405.5 | 1523.2 | 1617.2 |
| 60°   | 1187.5 | 1103.9 | 1068.4 | 1074.0 | 1085.8 | 1112.3 | 1188.2 | 1230.7 | 1290.6 | 1410.3 | 1504.4 |
| 62.5° | 1066.3 | 990.4  | 956.9  | 963.9  | 974.4  | 1000.8 | 1072.6 | 1113.7 | 1172.9 | 1290.6 | 1385.3 |
| 65°   | 946.5  | 876.2  | 847.6  | 854.6  | 864.3  | 888.7  | 956.3  | 995.9  | 1052.4 | 1167.3 | 1257.8 |
| 67.5° | 828.1  | 764.0  | 740.3  | 747.3  | 755.0  | 778.0  | 833.7  | 876.9  | 929.8  | 1039.1 | 1124.8 |
| 70°   | 711.1  | 654.0  | 633.1  | 640.1  | 647.0  | 667.9  | 716.7  | 756.4  | 805.1  | 905.4  | 984.8  |
| 72.5° | 595.5  | 539.8  | 529.3  | 535.6  | 541.2  | 559.3  | 605.9  | 637.3  | 679.8  | 768.9  | 837.2  |
| 75°   | 482.7  | 434.6  | 427.6  | 433.9  | 438.8  | 452.7  | 491.7  | 518.9  | 554.4  | 631.7  | 687.4  |
| 77.5° | 374.0  | 333.6  | 330.8  | 335.7  | 340.6  | 350.3  | 381.0  | 409.5  | 437.4  | 494.5  | 543.9  |
| 80°   | 272.3  | 239.6  | 239.6  | 244.5  | 243.1  | 254.9  | 276.5  | 299.5  | 319.7  | 360.8  | 397.0  |
| 82.5° | 179.7  | 153.9  | 157.4  | 160.9  | 163.0  | 167.8  | 181.1  | 198.5  | 211.0  | 236.1  | 259.8  |
| 85°   | 99.6   | 82.2   | 85.7   | 88.5   | 87.1   | 92.6   | 99.6   | 110.0  | 116.3  | 128.2  | 140.7  |
| 87.5° | 36.9   | 30.6   | 31.3   | 33.4   | 34.8   | 37.6   | 37.6   | 43.9   | 44.6   | 46.0   | 48.8   |
| 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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CATALOG NUMBER: ORLG-12-4-INS-ASY2-LD4-2HI-30-120-EDD

**CANDELA DISTRIBUTION (continued):**

|       | 160°   | 170°   | 180°   |
|-------|--------|--------|--------|
| 0°    | 3186.3 | 3186.3 | 3186.3 |
| 2.5°  | 3110.4 | 3127.1 | 3139.7 |
| 5°    | 3056.8 | 3070.7 | 3081.9 |
| 7.5°  | 3004.6 | 3017.1 | 3026.9 |
| 10°   | 2955.1 | 2969.0 | 2976.0 |
| 12.5° | 2904.3 | 2920.3 | 2925.9 |
| 15°   | 2854.1 | 2870.1 | 2877.1 |
| 17.5° | 2802.6 | 2823.5 | 2831.1 |
| 20°   | 2754.5 | 2781.0 | 2787.3 |
| 22.5° | 2705.8 | 2732.9 | 2740.6 |
| 25°   | 2652.8 | 2684.9 | 2692.5 |
| 27.5° | 2596.4 | 2634.7 | 2642.4 |
| 30°   | 2540.0 | 2581.8 | 2589.5 |
| 32.5° | 2479.4 | 2524.7 | 2531.7 |
| 35°   | 2416.0 | 2461.3 | 2469.7 |
| 37.5° | 2345.7 | 2395.2 | 2411.9 |
| 40°   | 2272.6 | 2326.2 | 2343.6 |
| 42.5° | 2196.0 | 2254.5 | 2272.6 |
| 45°   | 2113.8 | 2177.9 | 2198.8 |
| 47.5° | 2030.9 | 2103.3 | 2121.4 |
| 50°   | 1941.1 | 2018.4 | 2040.0 |
| 52.5° | 1847.0 | 1931.3 | 1952.9 |
| 55°   | 1749.5 | 1834.5 | 1858.2 |
| 57.5° | 1643.7 | 1731.4 | 1756.5 |
| 60°   | 1532.9 | 1620.7 | 1644.4 |
| 62.5° | 1419.4 | 1498.8 | 1521.8 |
| 65°   | 1292.6 | 1367.2 | 1388.1 |
| 67.5° | 1158.2 | 1226.5 | 1243.9 |
| 70°   | 1015.5 | 1074.7 | 1090.0 |
| 72.5° | 866.4  | 907.5  | 927.7  |
| 75°   | 712.5  | 745.2  | 760.5  |
| 77.5° | 557.9  | 580.9  | 593.4  |
| 80°   | 406.7  | 420.0  | 430.4  |
| 82.5° | 266.1  | 271.6  | 279.3  |
| 85°   | 143.5  | 143.5  | 148.3  |
| 87.5° | 48.8   | 46.7   | 48.8   |
| 90°   | 0.0    | 0.0    | 0.0    |

(END OF REPORT)