

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P776715

Luminaire Tested: HCDJBS4050CSD-HCD6TRMW-5000lm-2700K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776715  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2310613A001)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBS4050CSD-HCD6TRMW-5000lm-2700K  
Description: 6 INCH ROUND MEDIUM MATTE WHITE TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

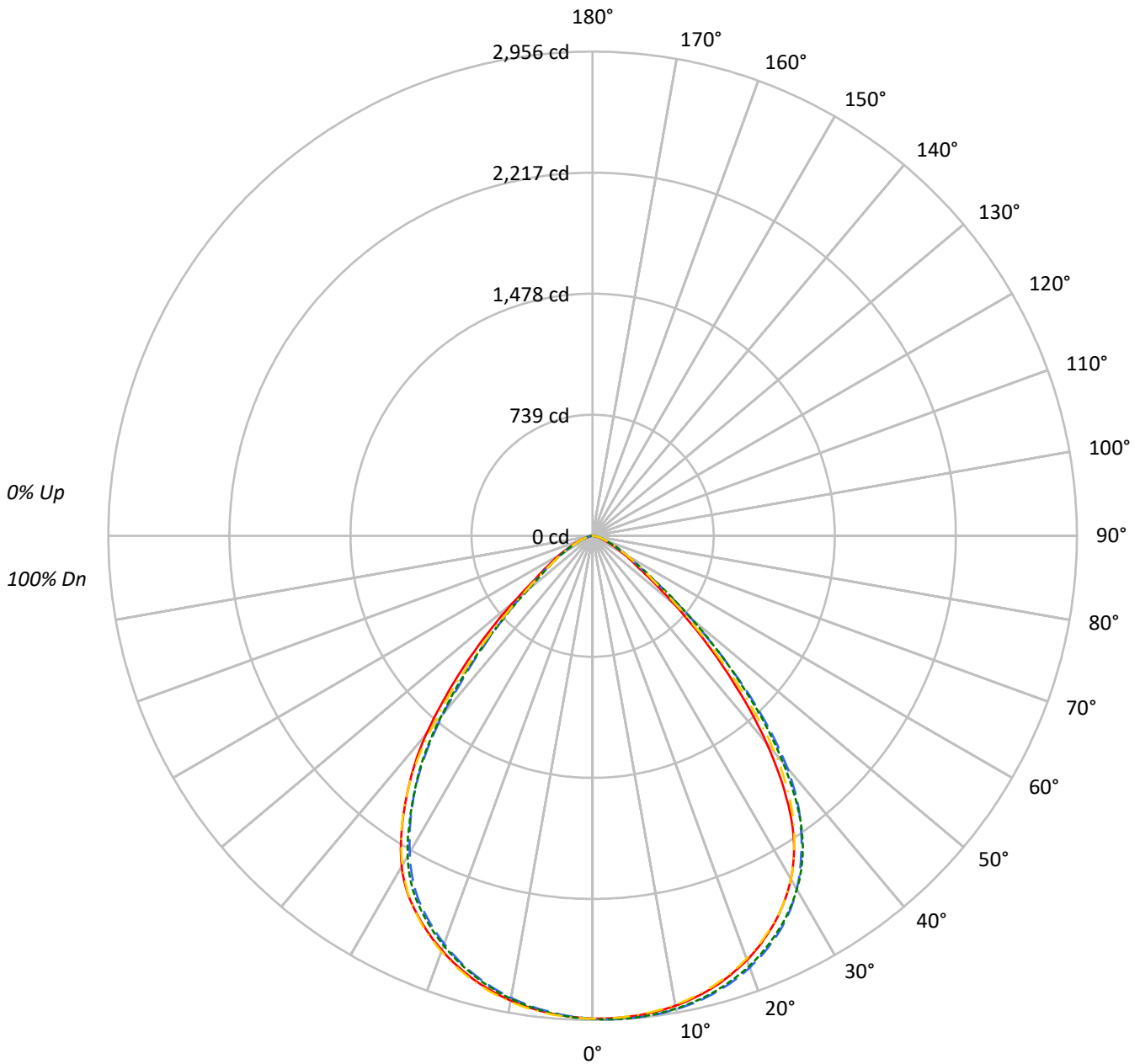
Lumens per Lamp: N/A  
Luminaire Lumens: 4926.7 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.18  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 48  
Input Voltage (V): NR  
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: 24 FT



TEST NUMBER: P776715  
CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P776715  
 CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|---|
| RF  | 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  | 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   | 112 | 109 | 106 | 103 | 109 | 106 | 104 | 101 | 102 | 100 | 98  | 99  | 97  | 95  | 95  | 94  | 92  | 90  |    |    |    |   |
| 2   | 105 | 99  | 94  | 89  | 102 | 97  | 92  | 88  | 94  | 90  | 86  | 90  | 87  | 85  | 88  | 85  | 83  | 81  |    |    |    |   |
| 3   | 98  | 90  | 84  | 79  | 96  | 88  | 83  | 78  | 86  | 81  | 77  | 83  | 79  | 75  | 81  | 77  | 74  | 72  |    |    |    |   |
| 4   | 91  | 82  | 75  | 70  | 89  | 81  | 74  | 69  | 78  | 73  | 69  | 76  | 72  | 68  | 74  | 70  | 67  | 65  |    |    |    |   |
| 5   | 85  | 75  | 68  | 62  | 83  | 74  | 67  | 62  | 72  | 66  | 62  | 70  | 65  | 61  | 69  | 64  | 60  | 59  |    |    |    |   |
| 6   | 80  | 69  | 62  | 56  | 78  | 68  | 61  | 56  | 66  | 60  | 56  | 65  | 59  | 55  | 63  | 59  | 55  | 53  |    |    |    |   |
| 7   | 75  | 63  | 56  | 51  | 73  | 63  | 56  | 51  | 61  | 55  | 51  | 60  | 54  | 50  | 59  | 54  | 50  | 48  |    |    |    |   |
| 8   | 70  | 59  | 51  | 46  | 69  | 58  | 51  | 46  | 57  | 51  | 46  | 56  | 50  | 46  | 55  | 49  | 46  | 44  |    |    |    |   |
| 9   | 66  | 54  | 47  | 43  | 65  | 54  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 40  |    |    |    |   |
| 10  | 62  | 51  | 44  | 39  | 61  | 50  | 44  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 48  | 42  | 39  | 37  |    |    |    |   |

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

|     | 0°     | 90°    | 180°   | 270°   |
|-----|--------|--------|--------|--------|
| 0°  | 161648 | 161648 | 161648 | 161648 |
| 5°  | 161941 | 162513 | 161061 | 160962 |
| 10° | 162188 | 163179 | 160384 | 159778 |
| 15° | 161919 | 163497 | 159150 | 157963 |
| 20° | 160775 | 163038 | 157053 | 155250 |
| 25° | 158211 | 161404 | 153856 | 151267 |
| 30° | 153251 | 157809 | 147510 | 142927 |
| 35° | 141529 | 149272 | 133358 | 126618 |
| 40° | 118272 | 129364 | 113026 | 102750 |
| 45° | 87079  | 99731  | 83482  | 72806  |
| 50° | 55887  | 67230  | 53704  | 44928  |
| 55° | 33404  | 40543  | 35105  | 30441  |
| 60° | 23529  | 27575  | 25426  | 22136  |
| 65° | 16072  | 19561  | 17914  | 15838  |
| 70° | 11028  | 14169  | 12486  | 11460  |
| 75° | 7625   | 10527  | 8875   | 8303   |
| 80° | 5177   | 8050   | 6314   | 5904   |
| 85° | 2264   | 6290   | 3711   | 3459   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 102732 cd/sqm



TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 279.1  | 5.7       |
| 10°-20°   | 798.0  | 16.2      |
| 20°-30°   | 1184.8 | 24.0      |
| 30°-40°   | 1271.4 | 25.8      |
| 40°-50°   | 852.1  | 17.3      |
| 50°-60°   | 346.8  | 7.0       |
| 60°-70°   | 138.5  | 2.8       |
| 70°-80°   | 47.4   | 1.0       |
| 80°-90°   | 8.6    | 0.2       |
| 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°    | 2262.0 | 45.9      |
| 0°-40°    | 3533.4 | 71.7      |
| 0°-60°    | 4732.2 | 96.1      |
| 0°-90°    | 4926.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4926.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 90°  | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 2949 | 2949 | 2949 | 2949 | 2949 |      |
| 5°  | 2943 | 2953 | 2927 | 2925 | 2943 | 280  |
| 15° | 2853 | 2881 | 2804 | 2783 | 2853 | 805  |
| 25° | 2616 | 2668 | 2544 | 2501 | 2616 | 1202 |
| 35° | 2115 | 2230 | 1993 | 1892 | 2115 | 1301 |
| 45° | 1123 | 1286 | 1077 | 939  | 1123 | 867  |
| 55° | 350  | 424  | 367  | 318  | 350  | 337  |
| 65° | 124  | 151  | 138  | 122  | 124  | 128  |
| 75° | 36   | 50   | 42   | 39   | 36   | 40   |
| 85° | 4    | 10   | 6    | 6    | 4    | 6    |
| 90° | 0    | 0    | 0    | 0    | 0    |      |



TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 |
| 0.5°  | 2947.3 | 2948.7 | 2950.5 | 2951.9 | 2952.3 | 2951.9 | 2948.2 | 2945.5 | 2945.9 | 2945.9 | 2947.3 |
| 1°    | 2948.2 | 2950.1 | 2951.9 | 2953.2 | 2953.7 | 2952.8 | 2948.2 | 2945.0 | 2944.6 | 2944.1 | 2945.0 |
| 1.5°  | 2948.2 | 2951.0 | 2953.2 | 2954.6 | 2954.2 | 2952.8 | 2948.2 | 2944.1 | 2943.7 | 2941.8 | 2942.8 |
| 2°    | 2947.8 | 2951.4 | 2954.2 | 2955.5 | 2954.6 | 2953.2 | 2947.8 | 2943.2 | 2941.8 | 2939.6 | 2940.0 |
| 2.5°  | 2947.3 | 2951.9 | 2954.6 | 2956.0 | 2955.1 | 2953.2 | 2947.3 | 2941.8 | 2940.0 | 2937.3 | 2937.3 |
| 3°    | 2946.9 | 2951.9 | 2955.1 | 2956.4 | 2955.1 | 2952.8 | 2946.4 | 2940.5 | 2938.2 | 2934.6 | 2934.6 |
| 3.5°  | 2946.4 | 2951.9 | 2955.5 | 2956.4 | 2955.1 | 2952.3 | 2945.0 | 2938.7 | 2935.5 | 2931.4 | 2930.9 |
| 4°    | 2945.5 | 2951.9 | 2955.1 | 2956.4 | 2954.6 | 2951.4 | 2943.7 | 2936.4 | 2932.7 | 2928.2 | 2927.7 |
| 4.5°  | 2944.1 | 2951.0 | 2955.1 | 2956.4 | 2954.2 | 2950.5 | 2942.3 | 2934.6 | 2930.0 | 2924.5 | 2924.1 |
| 5°    | 2942.8 | 2950.5 | 2954.6 | 2955.5 | 2953.2 | 2949.1 | 2940.0 | 2931.8 | 2926.8 | 2920.9 | 2920.0 |
| 5.5°  | 2941.4 | 2949.1 | 2953.7 | 2955.1 | 2952.3 | 2947.3 | 2938.2 | 2929.1 | 2923.6 | 2916.8 | 2915.4 |
| 6°    | 2939.1 | 2948.2 | 2952.8 | 2954.2 | 2951.0 | 2945.5 | 2935.9 | 2925.9 | 2920.0 | 2912.7 | 2911.3 |
| 6.5°  | 2936.8 | 2946.4 | 2951.4 | 2952.8 | 2949.1 | 2943.7 | 2933.2 | 2922.7 | 2916.3 | 2908.1 | 2906.3 |
| 7°    | 2934.6 | 2945.0 | 2950.1 | 2951.4 | 2947.8 | 2941.4 | 2930.0 | 2919.1 | 2912.2 | 2903.1 | 2901.3 |
| 7.5°  | 2931.8 | 2942.8 | 2948.2 | 2949.6 | 2945.5 | 2938.7 | 2927.3 | 2915.4 | 2907.7 | 2898.1 | 2895.8 |
| 8°    | 2928.6 | 2940.5 | 2946.4 | 2947.8 | 2943.2 | 2935.9 | 2923.6 | 2911.3 | 2903.1 | 2892.6 | 2890.4 |
| 8.5°  | 2925.4 | 2938.2 | 2944.1 | 2945.5 | 2940.9 | 2933.2 | 2920.0 | 2906.8 | 2897.6 | 2887.2 | 2884.4 |
| 9°    | 2921.3 | 2935.5 | 2941.8 | 2943.2 | 2937.7 | 2929.5 | 2916.3 | 2902.2 | 2892.6 | 2881.2 | 2877.6 |
| 9.5°  | 2917.7 | 2932.3 | 2938.7 | 2940.5 | 2934.6 | 2926.4 | 2911.8 | 2897.2 | 2887.2 | 2874.9 | 2871.2 |
| 10°   | 2913.6 | 2929.1 | 2935.9 | 2937.3 | 2931.4 | 2922.7 | 2907.2 | 2892.2 | 2881.2 | 2868.0 | 2864.8 |
| 10.5° | 2909.0 | 2925.0 | 2932.3 | 2934.1 | 2927.3 | 2918.2 | 2902.7 | 2886.3 | 2875.3 | 2861.2 | 2857.5 |
| 11°   | 2904.0 | 2921.3 | 2928.6 | 2930.5 | 2923.6 | 2914.1 | 2897.6 | 2880.8 | 2868.5 | 2854.4 | 2849.8 |
| 11.5° | 2899.0 | 2916.8 | 2924.5 | 2926.8 | 2919.1 | 2909.0 | 2892.2 | 2874.4 | 2861.6 | 2846.6 | 2842.1 |
| 12°   | 2893.1 | 2912.2 | 2920.4 | 2922.3 | 2915.0 | 2903.6 | 2886.3 | 2868.0 | 2854.4 | 2838.4 | 2833.9 |
| 12.5° | 2887.2 | 2906.8 | 2915.9 | 2917.7 | 2910.0 | 2898.6 | 2880.3 | 2861.2 | 2847.1 | 2830.2 | 2825.2 |
| 13°   | 2881.2 | 2901.7 | 2911.3 | 2913.1 | 2904.5 | 2892.6 | 2874.0 | 2853.9 | 2838.9 | 2821.5 | 2816.5 |
| 13.5° | 2874.9 | 2896.3 | 2905.8 | 2907.7 | 2899.0 | 2886.7 | 2867.1 | 2846.6 | 2830.7 | 2812.4 | 2807.0 |
| 14°   | 2868.0 | 2890.8 | 2900.4 | 2902.2 | 2893.5 | 2880.3 | 2860.3 | 2838.4 | 2822.5 | 2802.9 | 2796.9 |
| 14.5° | 2860.7 | 2884.0 | 2894.5 | 2896.7 | 2887.2 | 2873.5 | 2852.5 | 2830.2 | 2813.3 | 2793.3 | 2786.9 |
| 15°   | 2853.0 | 2877.6 | 2888.1 | 2890.8 | 2880.8 | 2866.7 | 2844.8 | 2821.5 | 2804.2 | 2783.3 | 2776.4 |
| 15.5° | 2845.2 | 2870.3 | 2881.2 | 2884.4 | 2873.5 | 2859.4 | 2837.0 | 2813.3 | 2794.2 | 2772.3 | 2765.5 |
| 16°   | 2836.6 | 2863.0 | 2874.4 | 2877.1 | 2866.2 | 2851.6 | 2828.8 | 2803.8 | 2784.6 | 2761.4 | 2754.1 |
| 16.5° | 2827.9 | 2855.3 | 2867.1 | 2869.9 | 2858.9 | 2843.4 | 2820.2 | 2794.2 | 2774.2 | 2750.5 | 2742.7 |
| 17°   | 2818.4 | 2847.5 | 2859.8 | 2862.6 | 2850.7 | 2835.2 | 2811.1 | 2784.2 | 2763.2 | 2738.6 | 2730.9 |
| 17.5° | 2809.2 | 2838.9 | 2851.6 | 2854.4 | 2842.5 | 2826.1 | 2801.5 | 2774.2 | 2752.3 | 2726.3 | 2718.1 |
| 18°   | 2799.2 | 2829.8 | 2843.0 | 2846.2 | 2833.4 | 2817.0 | 2791.5 | 2763.2 | 2740.9 | 2714.0 | 2705.4 |
| 18.5° | 2788.7 | 2820.6 | 2834.3 | 2837.0 | 2824.3 | 2807.4 | 2781.0 | 2752.3 | 2729.5 | 2701.3 | 2692.1 |
| 19°   | 2778.3 | 2810.6 | 2824.7 | 2827.9 | 2814.7 | 2797.4 | 2770.5 | 2740.9 | 2717.2 | 2688.5 | 2678.5 |
| 19.5° | 2767.3 | 2800.6 | 2815.2 | 2818.4 | 2805.1 | 2786.9 | 2759.6 | 2729.5 | 2704.9 | 2674.8 | 2664.3 |
| 20°   | 2755.9 | 2790.1 | 2805.1 | 2808.8 | 2794.7 | 2776.0 | 2748.2 | 2717.2 | 2692.1 | 2661.2 | 2650.2 |
| 20.5° | 2744.1 | 2779.2 | 2794.2 | 2798.3 | 2784.2 | 2765.0 | 2736.3 | 2704.9 | 2678.9 | 2646.1 | 2635.6 |
| 21°   | 2731.3 | 2767.8 | 2783.7 | 2787.4 | 2772.8 | 2753.2 | 2724.0 | 2692.1 | 2665.3 | 2632.0 | 2620.1 |

TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22.5° | 2691.7 | 2730.9 | 2747.7 | 2752.7 | 2737.2 | 2716.3 | 2685.3 | 2651.1 | 2622.9 | 2585.1 | 2572.3 |
| 23°   | 2677.1 | 2717.7 | 2735.4 | 2740.0 | 2724.0 | 2702.6 | 2671.2 | 2637.0 | 2607.4 | 2568.6 | 2555.4 |
| 23.5° | 2662.1 | 2704.0 | 2721.8 | 2726.8 | 2710.8 | 2688.5 | 2656.6 | 2622.4 | 2592.3 | 2552.2 | 2538.1 |
| 24°   | 2647.0 | 2689.9 | 2708.5 | 2713.6 | 2697.1 | 2674.4 | 2642.0 | 2606.9 | 2576.4 | 2535.4 | 2520.3 |
| 24.5° | 2631.5 | 2674.8 | 2693.5 | 2699.4 | 2683.0 | 2660.2 | 2627.4 | 2591.4 | 2560.0 | 2518.1 | 2502.6 |
| 25°   | 2615.6 | 2659.8 | 2679.4 | 2685.3 | 2668.4 | 2645.2 | 2611.9 | 2575.5 | 2543.6 | 2500.3 | 2484.3 |
| 25.5° | 2598.7 | 2644.7 | 2663.9 | 2669.8 | 2653.4 | 2629.7 | 2596.0 | 2559.5 | 2526.7 | 2481.6 | 2465.2 |
| 26°   | 2581.9 | 2628.8 | 2648.4 | 2654.8 | 2637.9 | 2614.2 | 2580.0 | 2542.7 | 2509.0 | 2462.0 | 2444.7 |
| 26.5° | 2564.1 | 2611.9 | 2631.1 | 2638.8 | 2622.0 | 2597.4 | 2562.7 | 2525.4 | 2490.7 | 2440.6 | 2422.8 |
| 27°   | 2546.3 | 2594.2 | 2614.7 | 2622.0 | 2605.1 | 2580.5 | 2545.0 | 2506.7 | 2471.6 | 2418.3 | 2399.6 |
| 27.5° | 2526.3 | 2576.4 | 2596.4 | 2604.6 | 2587.8 | 2563.2 | 2526.3 | 2487.1 | 2451.5 | 2395.5 | 2375.0 |
| 28°   | 2507.6 | 2557.3 | 2577.3 | 2586.4 | 2570.0 | 2545.0 | 2506.7 | 2466.6 | 2429.7 | 2371.3 | 2349.0 |
| 28.5° | 2486.2 | 2537.2 | 2556.3 | 2567.3 | 2552.7 | 2526.3 | 2486.6 | 2445.6 | 2406.9 | 2346.3 | 2322.1 |
| 29°   | 2465.7 | 2516.2 | 2536.3 | 2547.2 | 2533.1 | 2507.1 | 2465.2 | 2422.8 | 2383.2 | 2318.5 | 2293.0 |
| 29.5° | 2443.3 | 2494.8 | 2514.4 | 2526.3 | 2513.5 | 2486.6 | 2443.3 | 2399.6 | 2357.7 | 2290.7 | 2263.3 |
| 30°   | 2421.0 | 2472.5 | 2492.1 | 2504.9 | 2493.0 | 2466.1 | 2419.6 | 2374.5 | 2330.3 | 2262.0 | 2232.8 |
| 30.5° | 2395.9 | 2448.8 | 2467.9 | 2482.5 | 2472.5 | 2443.3 | 2395.5 | 2348.1 | 2302.5 | 2231.9 | 2201.8 |
| 31°   | 2371.8 | 2424.2 | 2444.2 | 2459.3 | 2450.2 | 2420.6 | 2370.9 | 2321.2 | 2272.5 | 2200.0 | 2169.0 |
| 31.5° | 2344.9 | 2399.1 | 2418.7 | 2434.2 | 2426.9 | 2396.9 | 2344.5 | 2293.0 | 2241.5 | 2167.2 | 2137.6 |
| 32°   | 2317.1 | 2372.3 | 2391.8 | 2409.6 | 2403.2 | 2371.3 | 2318.0 | 2262.4 | 2209.1 | 2133.9 | 2104.3 |
| 32.5° | 2287.5 | 2344.5 | 2365.0 | 2382.7 | 2377.7 | 2345.8 | 2289.8 | 2231.4 | 2174.9 | 2098.8 | 2071.0 |
| 33°   | 2257.9 | 2315.7 | 2337.2 | 2355.8 | 2351.3 | 2318.9 | 2261.1 | 2199.1 | 2140.3 | 2063.3 | 2036.0 |
| 33.5° | 2225.1 | 2287.0 | 2308.9 | 2327.6 | 2323.5 | 2290.2 | 2231.9 | 2166.3 | 2104.3 | 2026.4 | 2001.8 |
| 34°   | 2190.0 | 2256.5 | 2280.7 | 2298.4 | 2294.8 | 2262.0 | 2201.8 | 2131.7 | 2067.9 | 1987.7 | 1964.0 |
| 34.5° | 2152.6 | 2226.4 | 2251.0 | 2269.3 | 2263.3 | 2229.6 | 2170.8 | 2095.2 | 2031.0 | 1949.4 | 1928.0 |
| 35°   | 2114.8 | 2193.2 | 2220.5 | 2237.8 | 2230.5 | 2198.2 | 2138.0 | 2059.2 | 1992.7 | 1910.2 | 1888.8 |
| 35.5° | 2075.2 | 2160.4 | 2189.5 | 2206.4 | 2196.8 | 2164.9 | 2105.2 | 2024.1 | 1955.8 | 1870.1 | 1848.7 |
| 36°   | 2032.3 | 2125.7 | 2158.5 | 2174.0 | 2160.8 | 2131.7 | 2070.6 | 1985.8 | 1917.5 | 1829.1 | 1805.8 |
| 36.5° | 1988.1 | 2091.1 | 2124.8 | 2141.2 | 2122.5 | 2094.7 | 2034.1 | 1949.4 | 1879.2 | 1787.2 | 1763.0 |
| 37°   | 1943.5 | 2053.3 | 2091.1 | 2106.6 | 2082.4 | 2056.9 | 1995.4 | 1910.7 | 1839.1 | 1744.8 | 1717.0 |
| 37.5° | 1897.0 | 2014.5 | 2054.2 | 2069.7 | 2040.1 | 2016.4 | 1955.8 | 1873.7 | 1799.5 | 1702.9 | 1670.1 |
| 38°   | 1849.6 | 1973.1 | 2017.7 | 2032.3 | 1995.4 | 1976.3 | 1914.8 | 1833.2 | 1758.9 | 1656.4 | 1622.7 |
| 38.5° | 1801.3 | 1931.2 | 1978.1 | 1992.2 | 1950.3 | 1931.2 | 1872.4 | 1794.5 | 1717.4 | 1609.4 | 1573.9 |
| 39°   | 1753.0 | 1886.5 | 1936.6 | 1951.2 | 1904.7 | 1885.6 | 1828.2 | 1751.6 | 1674.2 | 1561.1 | 1521.5 |
| 39.5° | 1703.3 | 1838.7 | 1892.9 | 1907.5 | 1856.9 | 1837.3 | 1782.2 | 1709.2 | 1627.7 | 1513.8 | 1469.1 |
| 40°   | 1652.7 | 1788.1 | 1848.2 | 1861.0 | 1807.7 | 1786.7 | 1734.3 | 1661.9 | 1579.4 | 1460.9 | 1414.9 |
| 40.5° | 1601.7 | 1736.1 | 1800.4 | 1811.8 | 1759.8 | 1733.4 | 1684.2 | 1614.5 | 1528.8 | 1409.4 | 1359.7 |
| 41°   | 1549.3 | 1682.8 | 1749.8 | 1760.3 | 1710.2 | 1680.1 | 1632.7 | 1563.4 | 1476.8 | 1358.8 | 1305.5 |
| 41.5° | 1496.0 | 1629.0 | 1699.7 | 1707.0 | 1660.5 | 1626.3 | 1578.5 | 1512.8 | 1425.4 | 1308.2 | 1250.4 |
| 42°   | 1441.3 | 1574.4 | 1646.4 | 1651.8 | 1608.5 | 1571.2 | 1522.0 | 1457.7 | 1372.5 | 1255.4 | 1198.9 |
| 42.5° | 1386.2 | 1521.5 | 1592.6 | 1597.1 | 1557.5 | 1514.7 | 1467.3 | 1404.4 | 1322.8 | 1205.7 | 1148.8 |
| 43°   | 1331.5 | 1468.2 | 1535.6 | 1543.4 | 1505.1 | 1461.4 | 1412.1 | 1349.3 | 1273.2 | 1154.7 | 1099.5 |
| 43.5° | 1278.2 | 1415.3 | 1480.5 | 1488.7 | 1449.5 | 1404.9 | 1357.5 | 1295.0 | 1223.9 | 1105.9 | 1051.2 |



TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°  |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 45°   | 1123.2 | 1254.5 | 1309.6 | 1325.1 | 1286.4 | 1239.0 | 1190.7 | 1137.8 | 1076.8 | 961.0  | 914.1 |
| 45.5° | 1073.6 | 1200.7 | 1251.3 | 1271.3 | 1232.1 | 1185.2 | 1136.5 | 1086.3 | 1028.0 | 915.9  | 871.7 |
| 46°   | 1023.0 | 1147.8 | 1193.4 | 1218.0 | 1181.6 | 1131.9 | 1081.3 | 1035.3 | 980.2  | 871.7  | 830.7 |
| 46.5° | 972.4  | 1095.4 | 1138.3 | 1165.2 | 1130.5 | 1080.9 | 1028.9 | 984.3  | 932.3  | 829.8  | 790.1 |
| 47°   | 922.3  | 1041.7 | 1082.7 | 1110.9 | 1080.0 | 1030.7 | 976.1  | 932.3  | 885.4  | 787.0  | 752.3 |
| 47.5° | 874.9  | 990.6  | 1028.9 | 1057.6 | 1028.5 | 982.0  | 926.4  | 883.1  | 840.3  | 748.2  | 715.9 |
| 48°   | 828.0  | 939.6  | 976.1  | 1006.1 | 978.3  | 935.0  | 877.6  | 835.3  | 796.1  | 709.9  | 681.2 |
| 48.5° | 781.9  | 889.9  | 926.4  | 955.1  | 929.6  | 889.9  | 832.1  | 788.8  | 753.2  | 673.5  | 646.6 |
| 49°   | 738.2  | 841.2  | 877.2  | 904.5  | 881.7  | 844.4  | 787.0  | 743.7  | 709.5  | 637.9  | 614.7 |
| 49.5° | 696.7  | 792.9  | 829.8  | 856.7  | 834.3  | 799.7  | 744.6  | 700.8  | 668.5  | 604.2  | 583.7 |
| 50°   | 655.3  | 746.4  | 781.9  | 808.4  | 788.3  | 756.9  | 702.7  | 660.7  | 629.7  | 572.3  | 554.1 |
| 50.5° | 616.1  | 701.3  | 737.7  | 761.4  | 743.2  | 715.0  | 664.4  | 622.5  | 591.5  | 542.3  | 525.9 |
| 51°   | 578.3  | 657.5  | 694.5  | 715.0  | 701.3  | 674.9  | 627.5  | 586.5  | 555.9  | 514.0  | 499.0 |
| 51.5° | 542.3  | 615.6  | 653.0  | 672.6  | 659.8  | 636.6  | 593.3  | 553.2  | 523.1  | 486.7  | 473.0 |
| 52°   | 508.1  | 576.4  | 612.9  | 631.1  | 621.1  | 598.3  | 560.0  | 521.3  | 493.5  | 460.7  | 448.8 |
| 52.5° | 475.7  | 540.0  | 575.1  | 591.0  | 581.9  | 562.3  | 529.0  | 492.1  | 465.7  | 436.5  | 426.1 |
| 53°   | 445.2  | 505.8  | 539.1  | 552.7  | 545.4  | 529.5  | 499.4  | 465.7  | 442.0  | 414.7  | 406.5 |
| 53.5° | 417.9  | 473.9  | 504.9  | 518.1  | 510.8  | 498.1  | 472.1  | 441.1  | 420.1  | 395.5  | 386.4 |
| 54°   | 392.3  | 443.8  | 473.4  | 485.3  | 478.0  | 468.4  | 447.0  | 418.8  | 402.4  | 375.9  | 366.8 |
| 54.5° | 370.0  | 416.9  | 442.5  | 454.8  | 447.5  | 441.1  | 423.3  | 400.5  | 384.6  | 356.8  | 347.2 |
| 55°   | 349.5  | 392.3  | 414.2  | 426.5  | 424.2  | 418.8  | 403.3  | 382.8  | 367.3  | 337.7  | 327.2 |
| 55.5° | 330.4  | 370.0  | 388.7  | 401.0  | 401.5  | 396.9  | 383.7  | 364.5  | 349.5  | 321.3  | 311.2 |
| 56°   | 313.5  | 348.6  | 365.0  | 377.3  | 378.2  | 375.0  | 363.6  | 346.3  | 331.7  | 306.2  | 296.6 |
| 56.5° | 298.5  | 329.0  | 344.0  | 355.4  | 355.0  | 353.1  | 343.6  | 328.1  | 316.7  | 292.1  | 283.9 |
| 57°   | 285.7  | 311.7  | 324.9  | 335.4  | 332.2  | 331.3  | 324.0  | 313.0  | 302.6  | 280.7  | 272.5 |
| 57.5° | 273.4  | 296.6  | 307.6  | 317.2  | 315.3  | 314.9  | 308.0  | 298.5  | 289.4  | 268.8  | 261.1 |
| 58°   | 261.6  | 283.9  | 293.5  | 301.2  | 299.8  | 299.4  | 293.9  | 286.2  | 278.0  | 257.5  | 249.7 |
| 58.5° | 249.7  | 271.6  | 281.2  | 288.0  | 287.5  | 287.1  | 282.1  | 274.8  | 266.1  | 246.1  | 237.9 |
| 59°   | 237.4  | 259.7  | 269.3  | 276.1  | 275.2  | 275.2  | 270.2  | 262.9  | 254.7  | 234.7  | 226.9 |
| 59.5° | 226.0  | 247.4  | 257.0  | 264.3  | 263.4  | 263.4  | 258.8  | 251.1  | 242.9  | 223.7  | 216.4 |
| 60°   | 214.6  | 235.6  | 244.7  | 252.0  | 251.5  | 251.1  | 246.5  | 240.1  | 231.9  | 213.3  | 206.4 |
| 60.5° | 203.2  | 223.7  | 232.9  | 240.1  | 239.2  | 239.2  | 235.1  | 228.7  | 221.5  | 203.2  | 196.4 |
| 61°   | 192.8  | 212.8  | 221.5  | 228.3  | 227.8  | 227.8  | 224.2  | 218.3  | 211.0  | 193.7  | 186.8 |
| 61.5° | 182.7  | 201.9  | 210.5  | 216.9  | 216.0  | 216.9  | 213.3  | 207.8  | 200.5  | 184.5  | 178.2 |
| 62°   | 173.2  | 191.8  | 199.6  | 206.0  | 205.5  | 206.0  | 203.2  | 197.8  | 190.5  | 175.4  | 169.5 |
| 62.5° | 163.6  | 182.3  | 189.6  | 195.5  | 195.0  | 195.9  | 193.2  | 188.2  | 180.9  | 166.8  | 161.3 |
| 63°   | 155.4  | 172.7  | 180.0  | 185.5  | 185.5  | 185.9  | 183.6  | 179.1  | 171.8  | 158.1  | 153.1 |
| 63.5° | 147.6  | 162.7  | 170.9  | 176.3  | 175.9  | 176.8  | 174.5  | 170.4  | 162.7  | 149.9  | 145.8 |
| 64°   | 139.4  | 154.9  | 163.1  | 167.2  | 167.2  | 167.7  | 165.9  | 162.2  | 154.0  | 142.2  | 138.5 |
| 64.5° | 131.7  | 147.2  | 154.9  | 159.5  | 159.0  | 159.5  | 157.7  | 153.6  | 145.8  | 134.9  | 131.7 |
| 65°   | 123.9  | 139.4  | 147.2  | 151.7  | 150.8  | 151.7  | 149.9  | 145.8  | 138.1  | 128.0  | 124.9 |
| 65.5° | 116.7  | 131.7  | 139.4  | 144.0  | 143.1  | 144.0  | 142.2  | 138.5  | 130.8  | 121.2  | 118.9 |
| 66°   | 110.3  | 124.4  | 131.7  | 136.7  | 135.8  | 136.7  | 135.3  | 131.2  | 123.5  | 114.4  | 112.6 |





TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 0°   | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  | 202.5° | 225° |
|-------|------|-------|-------|-------|-------|--------|-------|--------|-------|--------|------|
| 67.5° | 92.5 | 105.3 | 112.1 | 115.7 | 115.7 | 116.7  | 115.7 | 111.6  | 104.3 | 97.1   | 96.1 |
| 68°   | 87.5 | 99.8  | 106.2 | 109.8 | 109.8 | 110.7  | 109.8 | 105.7  | 98.4  | 91.6   | 91.1 |
| 68.5° | 82.0 | 93.9  | 100.2 | 103.9 | 103.9 | 104.8  | 103.9 | 100.2  | 93.0  | 86.6   | 86.1 |
| 69°   | 77.5 | 88.9  | 95.2  | 98.4  | 98.4  | 99.3   | 98.9  | 94.8   | 87.9  | 81.6   | 81.6 |
| 69.5° | 72.9 | 83.8  | 89.8  | 93.0  | 93.4  | 93.9   | 93.4  | 89.3   | 82.9  | 77.0   | 77.0 |
| 70°   | 68.8 | 78.8  | 85.2  | 88.4  | 88.4  | 89.3   | 88.4  | 84.8   | 77.9  | 72.9   | 72.9 |
| 70.5° | 64.7 | 74.7  | 80.2  | 83.4  | 83.4  | 84.3   | 83.8  | 79.7   | 73.4  | 68.4   | 68.8 |
| 71°   | 60.6 | 70.2  | 76.1  | 78.8  | 79.3  | 79.7   | 79.3  | 75.6   | 69.3  | 64.7   | 65.2 |
| 71.5° | 57.0 | 66.1  | 72.0  | 74.7  | 74.7  | 75.6   | 75.2  | 71.1   | 65.2  | 60.6   | 61.5 |
| 72°   | 53.3 | 62.4  | 67.9  | 70.6  | 70.6  | 71.5   | 71.1  | 67.0   | 61.5  | 57.0   | 57.9 |
| 72.5° | 50.1 | 58.8  | 63.8  | 66.5  | 66.5  | 67.4   | 67.0  | 63.3   | 57.9  | 53.8   | 54.7 |
| 73°   | 46.9 | 55.1  | 60.1  | 62.9  | 62.9  | 63.8   | 63.3  | 59.2   | 54.2  | 50.6   | 51.5 |
| 73.5° | 44.2 | 51.5  | 57.0  | 59.2  | 59.7  | 60.1   | 59.7  | 56.0   | 51.0  | 47.4   | 48.3 |
| 74°   | 41.5 | 48.3  | 53.3  | 56.0  | 56.0  | 57.0   | 56.0  | 52.4   | 47.8  | 44.2   | 45.6 |
| 74.5° | 38.7 | 45.6  | 50.1  | 52.9  | 52.9  | 53.3   | 52.9  | 49.2   | 44.7  | 41.5   | 42.4 |
| 75°   | 36.0 | 42.8  | 47.4  | 49.7  | 49.7  | 50.6   | 49.7  | 46.5   | 41.9  | 39.2   | 39.6 |
| 75.5° | 33.7 | 40.1  | 44.2  | 46.5  | 46.9  | 47.4   | 46.9  | 43.3   | 39.2  | 36.5   | 37.4 |
| 76°   | 31.4 | 37.4  | 41.5  | 43.7  | 44.2  | 44.7   | 43.7  | 40.6   | 36.9  | 34.2   | 35.1 |
| 76.5° | 29.2 | 34.6  | 39.2  | 41.0  | 41.5  | 41.9   | 41.0  | 38.3   | 34.6  | 31.4   | 32.8 |
| 77°   | 26.9 | 32.4  | 36.5  | 38.7  | 38.7  | 39.2   | 38.7  | 36.0   | 31.9  | 29.2   | 30.5 |
| 77.5° | 25.1 | 30.1  | 34.2  | 36.0  | 36.5  | 36.9   | 36.5  | 33.3   | 29.6  | 26.9   | 28.3 |
| 78°   | 23.2 | 27.8  | 31.9  | 33.7  | 34.2  | 34.6   | 34.2  | 31.0   | 27.3  | 25.1   | 26.0 |
| 78.5° | 21.4 | 26.0  | 29.6  | 31.4  | 31.9  | 32.4   | 31.4  | 28.7   | 25.5  | 23.2   | 24.2 |
| 79°   | 19.6 | 24.2  | 27.3  | 29.6  | 29.6  | 30.1   | 29.2  | 26.4   | 23.7  | 21.4   | 22.3 |
| 79.5° | 17.8 | 22.3  | 25.5  | 27.3  | 27.3  | 27.8   | 27.3  | 24.6   | 21.9  | 19.6   | 20.5 |
| 80°   | 16.4 | 20.5  | 23.7  | 25.5  | 25.5  | 26.0   | 25.1  | 22.3   | 20.0  | 17.8   | 18.7 |
| 80.5° | 15.0 | 18.7  | 21.9  | 23.7  | 23.7  | 24.2   | 23.2  | 20.5   | 18.2  | 16.4   | 17.3 |
| 81°   | 13.7 | 16.9  | 20.0  | 21.9  | 21.9  | 22.3   | 21.4  | 19.1   | 16.9  | 14.6   | 15.5 |
| 81.5° | 11.8 | 15.5  | 18.2  | 20.0  | 20.0  | 20.5   | 20.0  | 17.3   | 15.0  | 13.2   | 14.1 |
| 82°   | 10.9 | 14.1  | 16.9  | 18.7  | 18.7  | 18.7   | 18.2  | 15.5   | 13.7  | 11.8   | 12.8 |
| 82.5° | 9.6  | 12.3  | 15.5  | 16.9  | 16.9  | 17.3   | 16.9  | 14.1   | 12.3  | 10.5   | 11.4 |
| 83°   | 8.2  | 10.9  | 14.1  | 15.5  | 15.5  | 15.9   | 15.0  | 12.8   | 10.9  | 9.1    | 10.0 |
| 83.5° | 7.3  | 9.6   | 12.8  | 14.1  | 14.1  | 14.6   | 13.7  | 11.4   | 9.6   | 7.7    | 8.7  |
| 84°   | 5.9  | 8.7   | 10.9  | 12.8  | 12.8  | 13.2   | 12.3  | 10.0   | 8.2   | 6.4    | 7.7  |
| 84.5° | 5.0  | 7.3   | 10.0  | 11.4  | 11.4  | 11.8   | 10.9  | 8.7    | 7.3   | 5.5    | 6.8  |
| 85°   | 3.6  | 5.9   | 8.7   | 10.0  | 10.0  | 10.5   | 9.6   | 7.3    | 5.9   | 4.1    | 5.5  |
| 85.5° | 2.7  | 5.0   | 7.7   | 9.1   | 9.1   | 9.1    | 8.7   | 6.4    | 5.0   | 3.6    | 4.6  |
| 86°   | 2.3  | 4.1   | 6.4   | 7.7   | 7.7   | 8.2    | 7.3   | 5.5    | 3.6   | 2.7    | 3.6  |
| 86.5° | 1.8  | 3.2   | 5.5   | 6.8   | 6.8   | 6.8    | 6.4   | 4.6    | 3.2   | 2.3    | 2.7  |
| 87°   | 1.4  | 2.7   | 4.6   | 5.5   | 5.5   | 5.9    | 5.5   | 3.6    | 2.3   | 1.8    | 1.8  |
| 87.5° | 0.9  | 2.3   | 3.6   | 4.6   | 4.6   | 4.6    | 4.6   | 3.2    | 1.8   | 1.4    | 1.4  |
| 88°   | 0.5  | 1.4   | 2.7   | 3.6   | 3.6   | 3.6    | 3.2   | 2.3    | 1.4   | 0.5    | 0.5  |
| 88.5° | 0.0  | 0.9   | 1.8   | 2.7   | 2.7   | 2.7    | 2.3   | 1.8    | 0.9   | 0.0    | 0.0  |



TEST NUMBER: P776715  
CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-----|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |



TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|-------|--------|--------|--------|--------|--------|--------|
| 0°    | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 | 2948.7 |
| 0.5°  | 2948.2 | 2949.6 | 2950.1 | 2947.3 | 2945.9 | 2947.3 |
| 1°    | 2946.4 | 2947.8 | 2948.7 | 2946.9 | 2945.9 | 2948.2 |
| 1.5°  | 2944.1 | 2945.5 | 2947.3 | 2945.9 | 2945.5 | 2948.2 |
| 2°    | 2941.4 | 2943.7 | 2945.0 | 2944.6 | 2944.6 | 2947.8 |
| 2.5°  | 2938.7 | 2940.9 | 2943.2 | 2943.2 | 2943.7 | 2947.3 |
| 3°    | 2935.5 | 2938.2 | 2940.9 | 2941.4 | 2942.8 | 2946.9 |
| 3.5°  | 2932.3 | 2935.5 | 2938.2 | 2939.6 | 2941.4 | 2946.4 |
| 4°    | 2929.1 | 2931.8 | 2935.5 | 2937.3 | 2940.0 | 2945.5 |
| 4.5°  | 2925.0 | 2928.6 | 2932.3 | 2934.6 | 2938.2 | 2944.1 |
| 5°    | 2920.9 | 2925.0 | 2928.6 | 2931.8 | 2935.9 | 2942.8 |
| 5.5°  | 2916.3 | 2920.4 | 2925.0 | 2929.1 | 2933.6 | 2941.4 |
| 6°    | 2911.8 | 2916.3 | 2920.9 | 2925.4 | 2930.9 | 2939.1 |
| 6.5°  | 2907.2 | 2911.8 | 2916.8 | 2922.3 | 2928.2 | 2936.8 |
| 7°    | 2901.3 | 2906.3 | 2912.2 | 2918.2 | 2924.5 | 2934.6 |
| 7.5°  | 2896.3 | 2901.3 | 2907.7 | 2914.1 | 2921.3 | 2931.8 |
| 8°    | 2890.4 | 2895.4 | 2902.7 | 2909.5 | 2917.7 | 2928.6 |
| 8.5°  | 2884.4 | 2889.9 | 2897.2 | 2904.9 | 2914.1 | 2925.4 |
| 9°    | 2878.1 | 2883.5 | 2891.3 | 2899.9 | 2909.5 | 2921.3 |
| 9.5°  | 2871.2 | 2877.1 | 2885.3 | 2894.5 | 2904.9 | 2917.7 |
| 10°   | 2864.4 | 2870.3 | 2879.0 | 2889.0 | 2899.9 | 2913.6 |
| 10.5° | 2857.1 | 2863.5 | 2872.6 | 2882.6 | 2894.9 | 2909.0 |
| 11°   | 2848.9 | 2855.7 | 2865.3 | 2876.2 | 2889.4 | 2904.0 |
| 11.5° | 2841.1 | 2848.0 | 2858.0 | 2869.4 | 2883.5 | 2899.0 |
| 12°   | 2832.5 | 2839.8 | 2849.8 | 2862.6 | 2877.1 | 2893.1 |
| 12.5° | 2824.3 | 2831.1 | 2842.1 | 2855.3 | 2870.8 | 2887.2 |
| 13°   | 2814.7 | 2822.5 | 2833.4 | 2847.5 | 2863.9 | 2881.2 |
| 13.5° | 2805.1 | 2813.3 | 2824.7 | 2839.3 | 2856.6 | 2874.9 |
| 14°   | 2795.1 | 2803.8 | 2815.6 | 2830.7 | 2848.9 | 2868.0 |
| 14.5° | 2785.1 | 2793.3 | 2806.1 | 2822.0 | 2841.1 | 2860.7 |
| 15°   | 2774.6 | 2783.3 | 2796.5 | 2812.9 | 2832.9 | 2853.0 |
| 15.5° | 2763.7 | 2772.8 | 2786.0 | 2803.3 | 2823.8 | 2845.2 |
| 16°   | 2752.3 | 2761.4 | 2775.1 | 2793.3 | 2815.2 | 2836.6 |
| 16.5° | 2740.9 | 2750.5 | 2764.1 | 2783.3 | 2805.6 | 2827.9 |
| 17°   | 2728.6 | 2738.6 | 2753.2 | 2772.3 | 2795.6 | 2818.4 |
| 17.5° | 2716.7 | 2726.3 | 2741.4 | 2761.4 | 2785.1 | 2809.2 |
| 18°   | 2703.1 | 2714.0 | 2729.5 | 2750.5 | 2774.6 | 2799.2 |
| 18.5° | 2690.3 | 2701.3 | 2717.2 | 2738.2 | 2763.2 | 2788.7 |
| 19°   | 2676.6 | 2688.0 | 2704.4 | 2725.9 | 2751.8 | 2778.3 |
| 19.5° | 2662.5 | 2674.8 | 2691.2 | 2713.6 | 2740.4 | 2767.3 |
| 20°   | 2647.9 | 2661.2 | 2678.0 | 2700.8 | 2728.1 | 2755.9 |
| 20.5° | 2633.4 | 2647.0 | 2664.3 | 2687.6 | 2715.4 | 2744.1 |
| 21°   | 2618.3 | 2632.4 | 2649.8 | 2673.5 | 2702.2 | 2731.3 |



TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 2570.5 | 2586.4 | 2604.6 | 2629.7 | 2660.2 | 2691.7 |
| 23°   | 2553.6 | 2570.0 | 2588.7 | 2614.2 | 2644.7 | 2677.1 |
| 23.5° | 2536.3 | 2552.7 | 2572.7 | 2598.3 | 2629.3 | 2662.1 |
| 24°   | 2519.0 | 2535.8 | 2555.4 | 2581.4 | 2613.3 | 2647.0 |
| 24.5° | 2501.2 | 2518.5 | 2538.6 | 2564.5 | 2596.9 | 2631.5 |
| 25°   | 2483.0 | 2500.8 | 2520.8 | 2547.2 | 2580.0 | 2615.6 |
| 25.5° | 2463.8 | 2482.1 | 2503.0 | 2529.5 | 2562.7 | 2598.7 |
| 26°   | 2442.9 | 2462.9 | 2483.0 | 2510.3 | 2545.0 | 2581.9 |
| 26.5° | 2421.5 | 2442.0 | 2462.5 | 2489.8 | 2526.7 | 2564.1 |
| 27°   | 2398.2 | 2420.6 | 2440.1 | 2468.9 | 2507.6 | 2546.3 |
| 27.5° | 2373.6 | 2396.4 | 2417.4 | 2447.0 | 2487.1 | 2526.3 |
| 28°   | 2348.1 | 2372.3 | 2393.2 | 2422.8 | 2466.6 | 2507.6 |
| 28.5° | 2321.7 | 2344.9 | 2367.7 | 2399.1 | 2444.2 | 2486.2 |
| 29°   | 2293.4 | 2317.6 | 2341.3 | 2374.5 | 2421.5 | 2465.7 |
| 29.5° | 2264.7 | 2288.0 | 2313.5 | 2348.6 | 2397.8 | 2443.3 |
| 30°   | 2233.7 | 2257.9 | 2284.3 | 2320.8 | 2372.7 | 2421.0 |
| 30.5° | 2201.8 | 2223.7 | 2253.8 | 2293.9 | 2347.2 | 2395.9 |
| 31°   | 2168.6 | 2191.3 | 2221.0 | 2264.7 | 2319.4 | 2371.8 |
| 31.5° | 2135.3 | 2155.8 | 2188.2 | 2235.5 | 2291.1 | 2344.9 |
| 32°   | 2099.3 | 2118.9 | 2154.0 | 2204.1 | 2262.0 | 2317.1 |
| 32.5° | 2062.8 | 2080.2 | 2118.9 | 2174.0 | 2231.4 | 2287.5 |
| 33°   | 2025.0 | 2045.1 | 2082.9 | 2142.1 | 2199.1 | 2257.9 |
| 33.5° | 1985.8 | 2007.3 | 2045.5 | 2108.4 | 2166.7 | 2225.1 |
| 34°   | 1947.1 | 1969.0 | 2008.6 | 2072.0 | 2133.0 | 2190.0 |
| 34.5° | 1907.5 | 1929.3 | 1970.3 | 2036.4 | 2097.0 | 2152.6 |
| 35°   | 1866.5 | 1892.0 | 1932.5 | 1998.6 | 2059.7 | 2114.8 |
| 35.5° | 1825.4 | 1853.7 | 1894.7 | 1959.4 | 2021.4 | 2075.2 |
| 36°   | 1783.1 | 1814.5 | 1854.6 | 1915.7 | 1980.4 | 2032.3 |
| 36.5° | 1740.7 | 1773.0 | 1815.0 | 1874.7 | 1937.5 | 1988.1 |
| 37°   | 1696.5 | 1730.7 | 1773.0 | 1830.0 | 1891.1 | 1943.5 |
| 37.5° | 1651.4 | 1687.4 | 1728.8 | 1784.4 | 1844.6 | 1897.0 |
| 38°   | 1604.9 | 1641.3 | 1683.3 | 1736.1 | 1793.1 | 1849.6 |
| 38.5° | 1555.7 | 1592.6 | 1635.9 | 1686.0 | 1743.0 | 1801.3 |
| 39°   | 1505.6 | 1541.6 | 1587.1 | 1633.1 | 1686.9 | 1753.0 |
| 39.5° | 1454.5 | 1488.7 | 1534.3 | 1579.4 | 1632.7 | 1703.3 |
| 40°   | 1402.6 | 1435.8 | 1481.9 | 1523.8 | 1575.7 | 1652.7 |
| 40.5° | 1351.5 | 1383.9 | 1426.7 | 1468.2 | 1520.6 | 1601.7 |
| 41°   | 1299.6 | 1332.9 | 1372.5 | 1411.7 | 1465.0 | 1549.3 |
| 41.5° | 1247.6 | 1283.2 | 1318.3 | 1356.1 | 1409.0 | 1496.0 |
| 42°   | 1197.1 | 1234.0 | 1264.5 | 1300.5 | 1352.4 | 1441.3 |
| 42.5° | 1146.5 | 1184.8 | 1210.7 | 1244.9 | 1298.7 | 1386.2 |
| 43°   | 1096.4 | 1136.5 | 1158.8 | 1188.4 | 1244.0 | 1331.5 |
| 43.5° | 1046.2 | 1085.4 | 1106.8 | 1134.6 | 1190.2 | 1278.2 |



TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°  | 292.5° | 315°  | 337.5° | 360°   |
|-------|--------|-------|--------|-------|--------|--------|
| 45°   | 906.3  | 939.1 | 953.3  | 977.0 | 1036.2 | 1123.2 |
| 45.5° | 862.6  | 891.3 | 904.1  | 927.8 | 988.8  | 1073.6 |
| 46°   | 820.2  | 845.7 | 855.3  | 880.4 | 942.3  | 1023.0 |
| 46.5° | 776.9  | 801.1 | 807.9  | 835.3 | 896.3  | 972.4  |
| 47°   | 737.3  | 757.3 | 762.8  | 789.7 | 851.2  | 922.3  |
| 47.5° | 699.5  | 713.6 | 720.0  | 748.2 | 807.0  | 874.9  |
| 48°   | 663.9  | 672.1 | 678.5  | 707.7 | 763.7  | 828.0  |
| 48.5° | 627.5  | 632.5 | 639.8  | 668.9 | 723.2  | 781.9  |
| 49°   | 594.7  | 595.1 | 602.9  | 632.5 | 682.1  | 738.2  |
| 49.5° | 563.2  | 559.6 | 568.2  | 597.8 | 643.4  | 696.7  |
| 50°   | 533.6  | 526.8 | 535.9  | 564.1 | 605.1  | 655.3  |
| 50.5° | 504.4  | 495.8 | 505.3  | 532.2 | 570.1  | 616.1  |
| 51°   | 478.9  | 468.9 | 477.1  | 503.1 | 535.9  | 578.3  |
| 51.5° | 453.9  | 444.7 | 452.0  | 475.7 | 504.4  | 542.3  |
| 52°   | 430.2  | 422.9 | 428.8  | 449.8 | 475.3  | 508.1  |
| 52.5° | 410.6  | 402.8 | 406.9  | 425.1 | 447.5  | 475.7  |
| 53°   | 391.4  | 384.1 | 387.3  | 402.4 | 421.5  | 445.2  |
| 53.5° | 372.3  | 366.4 | 368.2  | 380.9 | 396.9  | 417.9  |
| 54°   | 352.7  | 350.0 | 350.9  | 360.9 | 374.6  | 392.3  |
| 54.5° | 333.6  | 334.0 | 334.5  | 342.2 | 354.1  | 370.0  |
| 55°   | 317.2  | 318.5 | 318.5  | 324.9 | 335.4  | 349.5  |
| 55.5° | 302.6  | 303.9 | 303.9  | 308.5 | 317.6  | 330.4  |
| 56°   | 289.4  | 290.7 | 290.7  | 294.4 | 301.7  | 313.5  |
| 56.5° | 277.5  | 279.3 | 278.9  | 282.1 | 288.4  | 298.5  |
| 57°   | 266.1  | 267.5 | 267.5  | 270.2 | 276.6  | 285.7  |
| 57.5° | 254.7  | 256.1 | 255.6  | 258.4 | 264.7  | 273.4  |
| 58°   | 243.3  | 244.7 | 244.2  | 246.5 | 252.9  | 261.6  |
| 58.5° | 231.9  | 233.3 | 232.4  | 235.1 | 240.6  | 249.7  |
| 59°   | 221.5  | 222.4 | 221.9  | 223.7 | 228.7  | 237.4  |
| 59.5° | 211.0  | 212.3 | 211.4  | 212.8 | 217.8  | 226.0  |
| 60°   | 200.5  | 201.9 | 201.0  | 202.8 | 207.3  | 214.6  |
| 60.5° | 191.4  | 192.3 | 191.4  | 192.8 | 196.9  | 203.2  |
| 61°   | 182.3  | 183.2 | 181.8  | 183.2 | 186.8  | 192.8  |
| 61.5° | 173.2  | 174.1 | 173.2  | 174.5 | 177.7  | 182.7  |
| 62°   | 165.0  | 165.9 | 164.5  | 165.9 | 169.1  | 173.2  |
| 62.5° | 156.8  | 158.6 | 156.8  | 158.1 | 160.9  | 163.6  |
| 63°   | 149.0  | 151.3 | 149.5  | 150.8 | 153.1  | 155.4  |
| 63.5° | 141.7  | 143.5 | 142.2  | 143.1 | 145.4  | 147.6  |
| 64°   | 134.9  | 136.2 | 134.9  | 135.8 | 137.6  | 139.4  |
| 64.5° | 128.0  | 128.5 | 127.6  | 128.0 | 129.9  | 131.7  |
| 65°   | 121.7  | 122.1 | 121.2  | 121.7 | 123.0  | 123.9  |
| 65.5° | 115.3  | 115.7 | 114.8  | 115.3 | 116.2  | 116.7  |
| 66°   | 109.4  | 109.8 | 108.9  | 109.4 | 109.8  | 110.3  |



TEST NUMBER: P776715

CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 93.4   | 93.9 | 93.0   | 93.0 | 93.0   | 92.5 |
| 68°   | 88.4   | 88.9 | 87.9   | 88.4 | 87.5   | 87.5 |
| 68.5° | 83.8   | 84.3 | 83.4   | 83.4 | 82.9   | 82.0 |
| 69°   | 79.3   | 79.7 | 78.8   | 79.3 | 77.9   | 77.5 |
| 69.5° | 75.2   | 75.6 | 74.7   | 74.7 | 73.8   | 72.9 |
| 70°   | 71.1   | 71.5 | 70.6   | 70.6 | 69.3   | 68.8 |
| 70.5° | 67.0   | 67.4 | 66.5   | 66.5 | 65.2   | 64.7 |
| 71°   | 63.3   | 63.8 | 62.9   | 62.9 | 61.5   | 60.6 |
| 71.5° | 59.7   | 60.1 | 59.2   | 59.2 | 57.9   | 57.0 |
| 72°   | 56.5   | 56.5 | 56.0   | 56.0 | 54.2   | 53.3 |
| 72.5° | 53.3   | 53.3 | 52.9   | 52.9 | 51.0   | 50.1 |
| 73°   | 50.1   | 50.1 | 49.7   | 49.7 | 47.8   | 46.9 |
| 73.5° | 46.9   | 47.4 | 46.5   | 46.5 | 44.7   | 44.2 |
| 74°   | 44.2   | 44.2 | 43.7   | 43.7 | 41.9   | 41.5 |
| 74.5° | 41.5   | 41.5 | 41.0   | 41.0 | 39.2   | 38.7 |
| 75°   | 39.2   | 39.2 | 38.7   | 38.3 | 36.9   | 36.0 |
| 75.5° | 36.9   | 36.5 | 36.0   | 36.0 | 34.2   | 33.7 |
| 76°   | 34.6   | 34.2 | 33.7   | 33.3 | 31.9   | 31.4 |
| 76.5° | 32.4   | 31.9 | 31.4   | 31.4 | 29.6   | 29.2 |
| 77°   | 30.1   | 30.1 | 29.6   | 29.2 | 27.3   | 26.9 |
| 77.5° | 27.8   | 27.8 | 27.3   | 26.9 | 25.5   | 25.1 |
| 78°   | 25.5   | 26.0 | 25.5   | 25.1 | 23.2   | 23.2 |
| 78.5° | 23.7   | 24.2 | 23.7   | 23.2 | 21.4   | 21.4 |
| 79°   | 21.9   | 22.3 | 21.9   | 21.4 | 20.0   | 19.6 |
| 79.5° | 20.5   | 20.5 | 20.0   | 19.6 | 18.2   | 17.8 |
| 80°   | 18.7   | 18.7 | 18.7   | 17.8 | 16.4   | 16.4 |
| 80.5° | 16.9   | 17.3 | 16.9   | 16.4 | 15.0   | 15.0 |
| 81°   | 15.5   | 15.9 | 15.5   | 15.0 | 13.7   | 13.7 |
| 81.5° | 14.1   | 14.6 | 14.1   | 13.7 | 11.8   | 11.8 |
| 82°   | 12.8   | 13.2 | 12.8   | 12.3 | 10.5   | 10.9 |
| 82.5° | 11.4   | 11.4 | 11.4   | 10.9 | 9.1    | 9.6  |
| 83°   | 10.0   | 10.5 | 10.0   | 9.6  | 7.7    | 8.2  |
| 83.5° | 9.1    | 9.1  | 8.7    | 8.2  | 6.8    | 7.3  |
| 84°   | 7.7    | 7.7  | 7.7    | 7.3  | 5.9    | 5.9  |
| 84.5° | 6.8    | 6.8  | 6.4    | 6.4  | 4.6    | 5.0  |
| 85°   | 5.5    | 5.5  | 5.5    | 5.5  | 4.1    | 3.6  |
| 85.5° | 4.6    | 4.6  | 4.6    | 4.1  | 3.2    | 2.7  |
| 86°   | 3.6    | 3.6  | 3.6    | 3.2  | 2.7    | 2.3  |
| 86.5° | 2.7    | 2.7  | 2.3    | 2.3  | 1.8    | 1.8  |
| 87°   | 1.4    | 1.8  | 1.4    | 1.4  | 1.4    | 1.4  |
| 87.5° | 0.5    | 0.9  | 0.5    | 0.9  | 0.9    | 0.9  |
| 88°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.5    | 0.5  |
| 88.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |



TEST NUMBER: P776715  
CATALOG NUMBER: HCDJBL54050CSD-HCD6TRMW-5000lm-2700K

**CANDELA DISTRIBUTION (continued):**

|     | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-----|--------|------|--------|------|--------|------|
| 90° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |



Report Generated By 670245859 / DESKTOP-T8S5UU9



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

Scaled Data Report





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

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

Scaled Data Report



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

Scaled Data Report





|       |        |        |        |        |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 21.5° | 2718.6 | 2755.9 | 2771.9 | 2776.4 | 2761.4 | 2741.4 | 2711.7 | 2678.9 | 2651.6 | 2616.5 | 2604.6 |
| 22°   | 2705.4 | 2743.6 | 2760.5 | 2764.6 | 2749.6 | 2729.0 | 2698.5 | 2665.3 | 2637.5 | 2601.0 | 2588.7 |



|       |        |        |        |        |        |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 44°   | 1225.8 | 1362.0 | 1423.1 | 1434.5 | 1394.4 | 1349.7 | 1301.0 | 1241.3 | 1175.2 | 1055.3 | 1004.3 |
| 44.5° | 1174.3 | 1307.3 | 1366.6 | 1379.8 | 1339.2 | 1294.6 | 1244.0 | 1189.8 | 1125.5 | 1008.4 | 959.2  |



|       |       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 66.5° | 103.9 | 118.0 | 124.4 | 129.0 | 128.5 | 129.4 | 128.5 | 124.4 | 116.7 | 108.5 | 107.1 |
| 67°   | 98.0  | 111.2 | 118.0 | 122.1 | 122.1 | 123.0 | 121.7 | 118.0 | 110.3 | 102.5 | 101.6 |



|       |     |     |     |     |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89°   | 0.0 | 0.5 | 0.9 | 1.8 | 1.8 | 1.4 | 0.9 | 0.5 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.0 | 0.5 | 0.9 | 0.9 | 0.9 | 0.5 | 0.0 | 0.0 | 0.0 |



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

Scaled Data Report





|       |        |        |        |        |        |        |
|-------|--------|--------|--------|--------|--------|--------|
| 21.5° | 2602.8 | 2617.4 | 2635.2 | 2659.3 | 2688.5 | 2718.6 |
| 22°   | 2586.9 | 2601.9 | 2619.7 | 2644.7 | 2674.8 | 2705.4 |



|       |       |        |        |        |        |        |
|-------|-------|--------|--------|--------|--------|--------|
| 44°   | 998.8 | 1035.8 | 1055.3 | 1081.8 | 1137.4 | 1225.8 |
| 44.5° | 952.4 | 987.5  | 1003.4 | 1029.4 | 1086.3 | 1174.3 |



|       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|
| 66.5° | 103.9 | 104.3 | 103.4 | 103.9 | 103.9 | 103.9 |
| 67°   | 98.4  | 98.9  | 98.0  | 98.4  | 98.4  | 98.0  |

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

Scaled Data Report



|       |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|
| 89°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 89.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

Scaled Data Report



(END OF REPORT)