

Signify Classified - Internal
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: LUMARK

Report Number: P1449922

Luminaire Tested: **TWC60_T4_60W_5000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449922
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ()
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2026
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: TWC60_T4_60W_5000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T4 distribution, 60W
5000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9114 lumens
Efficiency: N/A
Efficacy: 152.4 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 0.42' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G2

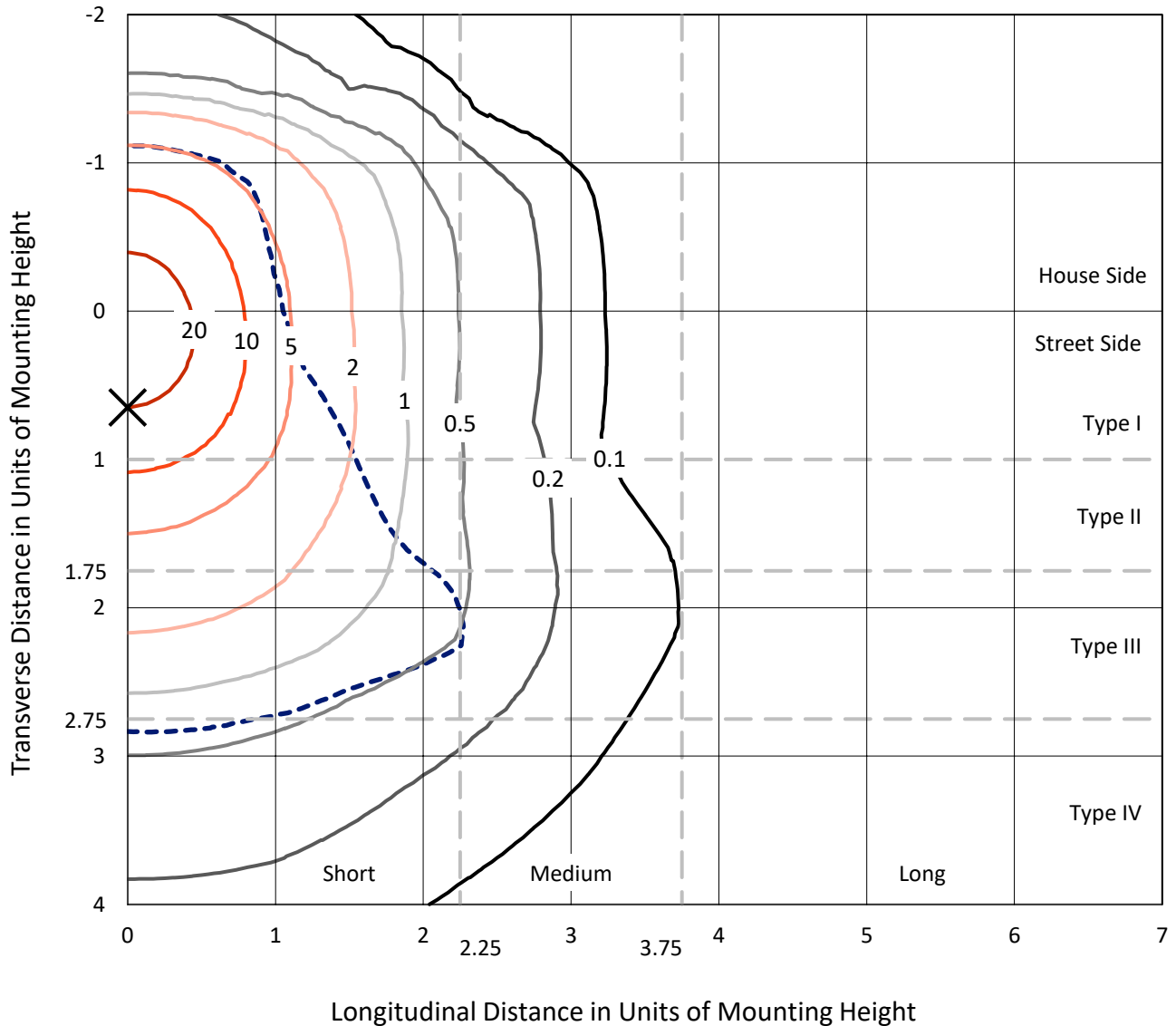
Input Watts (W): 59.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

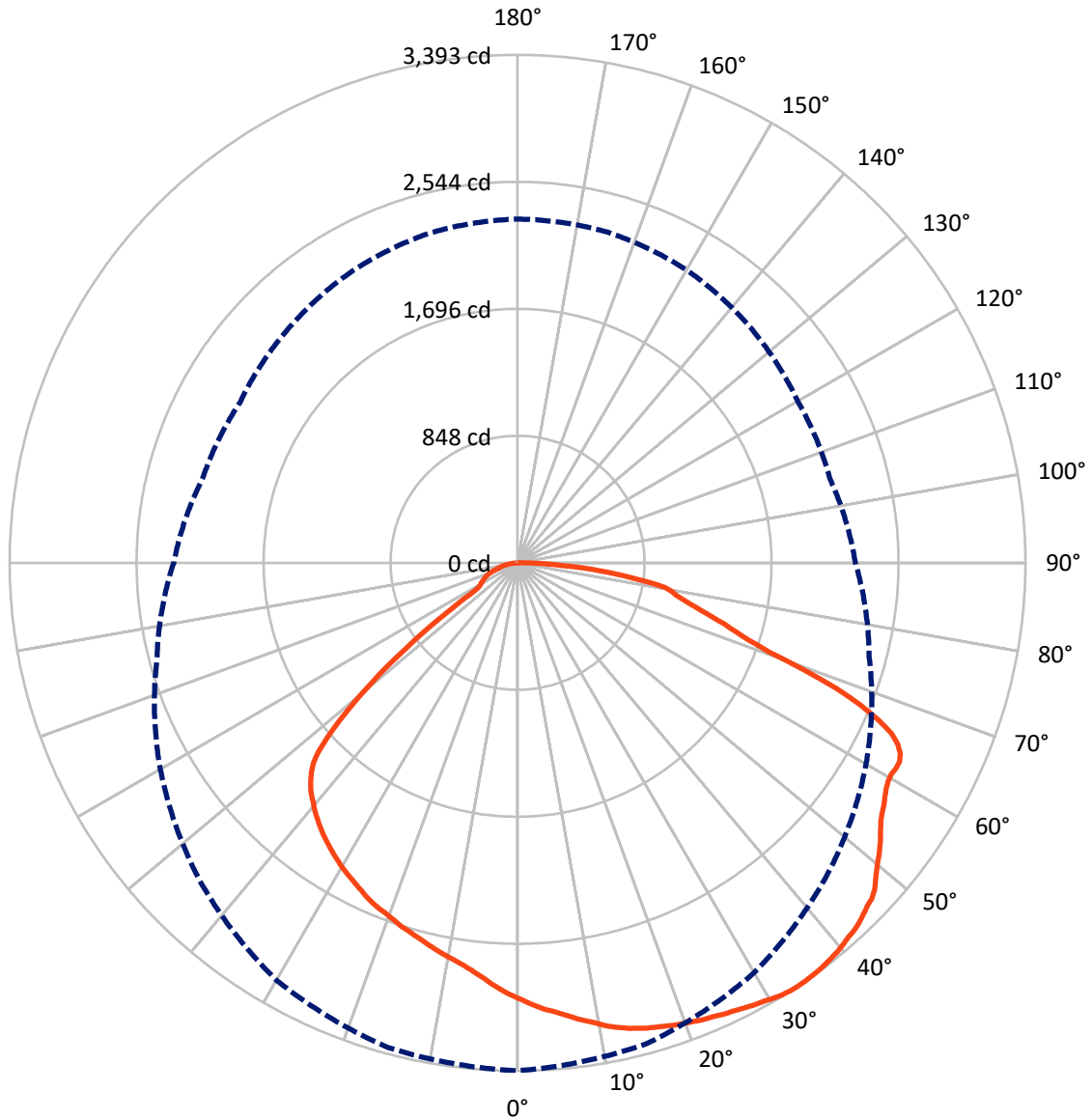
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 30 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 33-Deg Vertical

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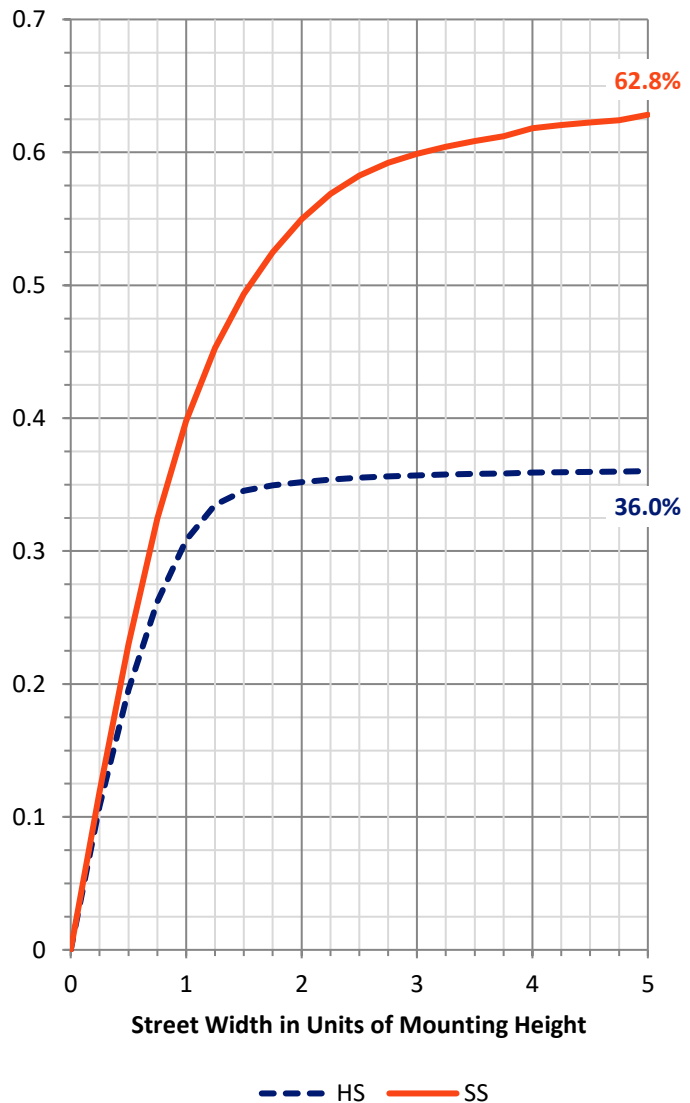
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3304.5	0.0	3304.5
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	5809.5	0.0	5809.5
	% Fixture	63.7	0.0	63.7
Total	Lumens	9114.0	0.0	9114.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.4	3.0
10°-20°	803.9	8.8
20°-30°	1253.5	13.8
30°-40°	1582.0	17.4
40°-50°	1729.8	19.0
50°-60°	1531.9	16.8
60°-70°	1159.6	12.7
70°-80°	605.1	6.6
80°-90°	171.8	1.9
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°-90°	9114.0	100.0
0°-180°	9114.0	100.0



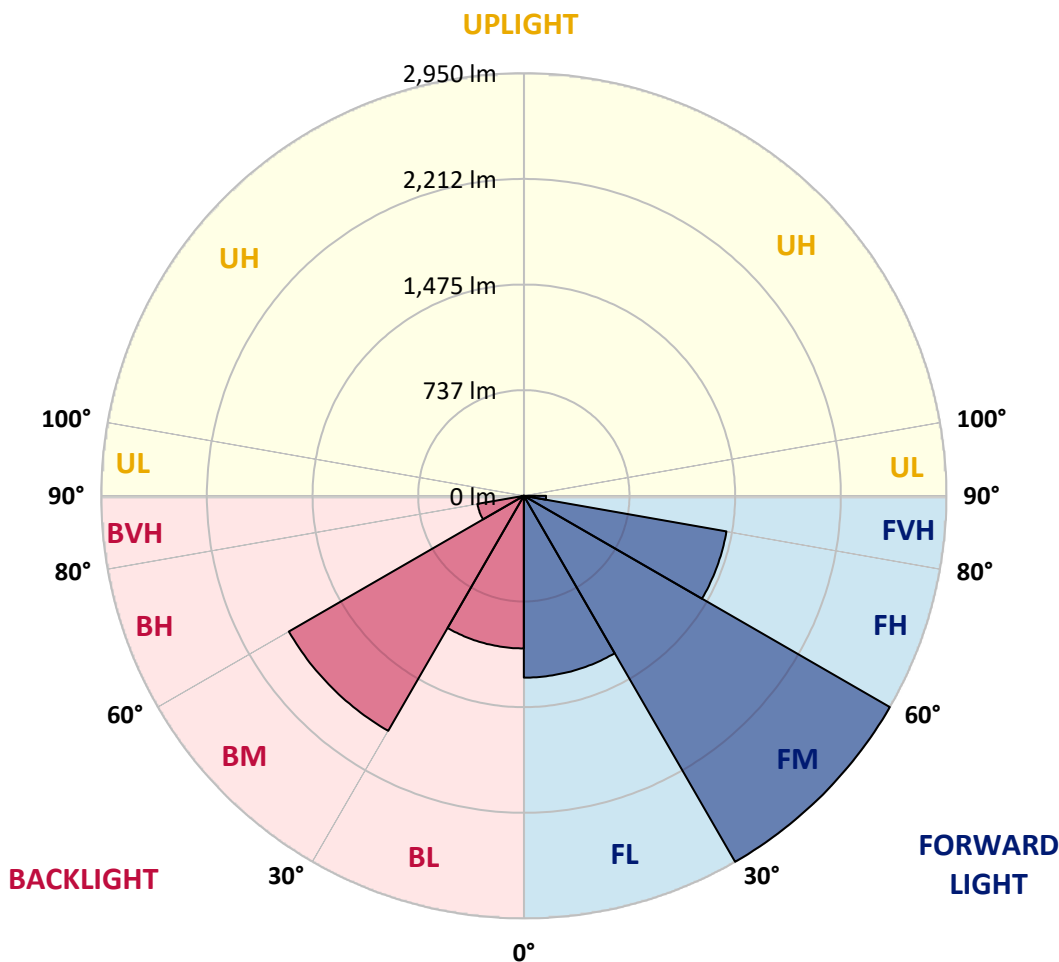
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1268.8	13.9			
FM (30°-60°)	2949.6	32.4			
FH (60°-80°)	1435.9	15.8			G1/1800
FVH (80°-90°)	155.2	1.7			G2/225
BL (0°-30°)	1065.1	11.7	B3/2500		
BM (30°-60°)	1894.1	20.8	B2/2500		
BH (60°-80°)	328.8	3.6	B1/500		G1/500
BVH (80°-90°)	16.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
0°	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4
1°	2941.9	2939.3	2935.5	2931.3	2926.3	2920.7	2914.8	2908.5	2902.9	2898.5	2895.3
2°	2965.4	2963.1	2957.5	2948.4	2934.1	2923.4	2911.9	2900.3	2889.7	2880.9	2874.8
3°	2987.8	2983.3	2976.0	2963.9	2946.7	2925.8	2907.4	2891.1	2876.2	2863.2	2853.9
4°	3004.9	3002.3	2991.5	2975.7	2954.6	2926.2	2901.8	2881.1	2860.8	2842.7	2829.5
5°	3026.5	3021.3	3007.7	2986.9	2960.7	2927.0	2895.5	2869.2	2843.4	2819.4	2801.2
6°	3047.4	3040.6	3023.9	2997.4	2965.8	2925.8	2888.3	2856.3	2824.5	2794.6	2774.2
7°	3072.4	3060.8	3039.4	3006.7	2969.2	2923.8	2879.8	2841.9	2804.2	2769.8	2749.2
8°	3092.1	3079.6	3054.1	3017.1	2971.8	2919.2	2869.0	2825.8	2782.2	2745.8	2726.8
9°	3113.7	3100.2	3070.5	3027.9	2974.2	2913.9	2857.0	2808.4	2760.2	2723.6	2707.6
10°	3139.6	3123.8	3088.9	3038.1	2975.4	2908.6	2844.9	2790.5	2738.3	2702.2	2689.0
11°	3162.8	3145.3	3106.9	3047.6	2976.4	2902.1	2831.6	2771.8	2717.0	2682.9	2672.4
12°	3179.6	3162.7	3122.5	3057.0	2977.7	2893.7	2815.6	2751.3	2694.4	2663.8	2654.5
13°	3198.5	3177.2	3134.9	3066.0	2978.6	2884.6	2799.7	2729.8	2671.0	2644.3	2636.3
14°	3211.1	3190.4	3143.8	3071.3	2979.1	2876.8	2784.1	2708.0	2648.0	2625.6	2619.0
15°	3225.0	3200.9	3149.1	3073.2	2976.9	2867.4	2765.3	2685.1	2625.4	2606.7	2600.6
16°	3235.7	3209.1	3155.2	3074.5	2971.9	2856.9	2747.0	2663.0	2602.1	2586.9	2582.0
17°	3245.8	3217.1	3157.7	3071.9	2964.3	2843.5	2726.5	2638.6	2578.8	2566.2	2564.0
18°	3257.6	3225.7	3157.2	3065.3	2954.7	2829.7	2706.1	2613.8	2556.1	2545.0	2546.6
19°	3267.8	3234.5	3159.2	3059.9	2942.7	2813.9	2684.6	2588.3	2533.5	2524.5	2530.7
20°	3276.8	3243.5	3163.7	3053.7	2929.3	2795.5	2662.0	2562.5	2510.1	2505.5	2514.1
21°	3287.6	3250.9	3166.8	3047.4	2915.4	2774.3	2638.8	2536.2	2486.6	2485.1	2494.0
22°	3296.2	3258.6	3168.5	3041.1	2900.3	2751.6	2612.4	2508.8	2462.2	2464.0	2475.6
23°	3302.5	3263.6	3170.1	3035.5	2884.5	2727.6	2587.0	2480.5	2436.4	2442.4	2457.7
24°	3313.4	3270.1	3170.6	3030.2	2868.6	2702.4	2558.0	2451.6	2410.7	2420.5	2441.0
25°	3321.5	3275.1	3169.6	3022.8	2851.8	2677.1	2527.8	2422.4	2385.4	2399.0	2424.5
26°	3331.5	3279.9	3168.3	3014.3	2832.6	2650.5	2497.7	2391.7	2360.0	2375.9	2406.1
27°	3342.6	3285.3	3169.0	3005.1	2813.5	2622.5	2467.3	2361.9	2333.7	2352.9	2385.8
28°	3352.3	3293.3	3168.1	2995.0	2795.0	2593.6	2435.6	2330.2	2305.9	2330.9	2364.7
29°	3360.9	3300.8	3164.7	2984.1	2774.8	2562.8	2402.2	2297.9	2277.3	2310.2	2342.8
30°	3373.7	3307.8	3163.5	2971.7	2755.0	2530.8	2366.9	2263.8	2248.5	2287.2	2322.1
31°	3383.3	3313.5	3162.5	2959.0	2734.0	2498.3	2330.3	2230.6	2218.4	2261.6	2302.9
32°	3389.2	3320.8	3161.5	2945.2	2711.6	2465.7	2295.2	2196.0	2188.8	2235.5	2281.2
33°	3392.5	3325.6	3160.5	2932.4	2688.0	2431.0	2256.0	2160.6	2159.9	2209.5	2258.3
34°	3390.5	3324.5	3159.4	2919.2	2662.5	2396.5	2219.0	2125.2	2129.8	2183.0	2235.2
35°	3388.0	3324.0	3158.9	2904.6	2635.5	2359.9	2179.8	2089.6	2099.2	2155.7	2211.9
36°	3385.6	3318.8	3154.7	2889.2	2607.5	2322.6	2138.1	2054.4	2068.2	2127.8	2187.6
37°	3377.4	3312.3	3147.0	2874.6	2578.1	2281.9	2098.2	2019.0	2037.4	2099.5	2163.1
38°	3371.4	3305.0	3138.3	2859.4	2546.8	2243.6	2058.0	1984.9	2006.8	2070.8	2138.6
39°	3361.9	3293.3	3127.2	2841.8	2513.7	2204.6	2018.8	1948.7	1975.9	2043.0	2111.0
40°	3349.3	3280.4	3114.6	2821.0	2480.7	2162.7	1979.3	1910.9	1945.2	2017.5	2083.9
41°	3335.9	3264.2	3100.4	2799.8	2447.2	2120.1	1939.6	1873.2	1911.4	1992.6	2056.3
42°	3329.0	3252.1	3087.6	2777.5	2412.6	2075.1	1894.6	1834.4	1875.3	1965.3	2029.7
43°	3313.9	3238.5	3069.7	2756.9	2377.0	2029.0	1850.1	1796.9	1839.6	1934.7	2003.3
44°	3294.3	3222.2	3049.5	2736.6	2341.4	1981.9	1803.9	1758.2	1803.3	1901.8	1976.1



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	3273.6	3200.6	3031.0	2715.2	2306.4	1932.9	1758.0	1717.2	1767.1	1869.1	1946.1
46°	3260.7	3180.6	3011.8	2693.4	2269.8	1884.8	1711.2	1675.8	1731.4	1835.5	1913.4
47°	3234.3	3161.5	2989.1	2669.5	2231.6	1835.2	1663.2	1633.2	1695.8	1801.3	1877.2
48°	3193.2	3135.6	2961.9	2644.0	2194.3	1783.7	1616.6	1593.4	1659.7	1766.3	1831.1
49°	3153.8	3094.7	2937.3	2617.2	2158.0	1732.3	1569.9	1553.3	1623.2	1729.3	1772.5
50°	3120.9	3056.0	2908.4	2590.2	2121.0	1679.2	1522.0	1511.3	1586.6	1690.3	1694.5
51°	3089.3	3022.2	2870.6	2562.2	2084.2	1628.0	1474.9	1468.7	1550.1	1649.2	1592.6
52°	3054.1	2989.7	2830.5	2532.0	2045.3	1578.1	1426.0	1425.8	1513.8	1603.6	1464.2
53°	3016.1	2955.5	2790.4	2501.9	2005.9	1526.7	1375.4	1382.2	1474.7	1552.4	1322.4
54°	2979.7	2916.9	2753.8	2468.0	1964.8	1477.4	1326.1	1340.6	1433.5	1489.7	1170.8
55°	2954.4	2882.7	2715.8	2427.3	1917.1	1429.1	1275.8	1298.4	1391.4	1407.3	1019.9
56°	2933.7	2855.8	2674.6	2383.5	1868.3	1377.3	1226.1	1254.7	1347.5	1303.5	863.8
57°	2909.4	2833.7	2632.1	2337.7	1820.5	1324.5	1169.4	1210.8	1302.0	1178.6	705.3
58°	2887.5	2811.7	2596.3	2294.4	1773.5	1270.3	1114.3	1164.8	1252.8	1043.3	556.6
59°	2871.8	2791.9	2568.0	2246.5	1725.4	1216.9	1061.1	1118.4	1203.3	906.1	427.1
60°	2868.6	2780.2	2545.6	2193.9	1674.7	1160.2	1010.0	1070.4	1147.2	762.5	335.2
61°	2876.3	2777.1	2528.4	2143.1	1619.9	1102.8	958.2	1021.0	1085.5	619.2	285.7
62°	2876.4	2780.3	2510.3	2093.9	1562.1	1047.1	909.5	970.0	1011.9	484.1	268.3
63°	2856.6	2774.0	2505.1	2048.1	1504.3	988.8	862.7	918.5	923.6	362.3	257.0
64°	2813.7	2746.5	2512.0	2007.1	1448.2	928.9	819.0	866.1	814.5	278.8	247.1
65°	2743.3	2688.6	2530.3	1971.6	1387.6	867.9	775.1	812.9	704.3	247.5	236.9
66°	2625.9	2596.7	2524.8	1942.5	1316.8	807.2	730.3	759.4	586.5	232.5	226.6
67°	2475.2	2463.1	2486.6	1924.7	1242.2	745.1	684.0	708.5	468.8	216.8	216.0
68°	2288.8	2294.9	2401.5	1930.7	1164.4	684.0	635.8	659.0	374.1	203.5	205.8
69°	2036.0	2084.3	2237.8	1965.6	1089.9	628.0	586.4	608.8	298.2	192.4	196.4
70°	1781.1	1844.2	2025.9	2009.8	1016.2	575.8	533.9	556.4	225.1	181.5	187.3
71°	1624.4	1647.7	1764.0	2000.1	954.5	522.4	480.4	503.3	182.9	170.8	176.9
72°	1527.3	1523.3	1505.0	1854.5	899.4	471.4	426.6	444.3	168.6	161.2	164.4
73°	1437.9	1443.6	1321.4	1586.7	841.6	420.4	374.6	384.5	157.6	152.4	150.6
74°	1347.0	1369.0	1220.3	1283.7	834.2	375.0	326.6	320.5	145.5	143.2	136.5
75°	1262.4	1286.0	1135.7	1095.1	936.2	329.7	283.0	259.0	133.2	131.2	122.8
76°	1190.4	1195.2	1059.6	1010.6	1008.4	288.3	245.3	196.9	122.0	118.2	108.9
77°	1130.5	1095.6	988.3	941.9	846.1	251.4	207.6	147.5	111.4	105.3	96.5
78°	1080.3	1004.3	911.0	869.9	596.0	214.2	170.8	124.8	101.8	93.1	87.8
79°	1046.9	938.4	832.9	789.4	443.6	186.6	141.4	110.2	92.2	80.9	80.8
80°	1002.3	877.4	757.7	678.3	383.1	162.6	114.6	96.8	81.5	66.2	73.1
81°	889.3	817.2	699.1	559.5	390.7	138.4	89.4	83.1	70.0	53.6	64.1
82°	775.9	757.5	643.7	476.2	347.6	116.1	67.0	69.7	58.5	44.9	54.2
83°	662.4	687.5	582.4	413.5	239.2	96.6	50.8	57.5	47.0	38.1	44.0
84°	547.4	613.2	500.1	359.7	161.1	78.5	38.2	45.9	36.0	30.3	33.1
85°	435.8	534.2	393.8	311.7	125.5	60.7	29.1	35.1	26.6	21.8	22.0
86°	305.8	430.2	302.1	252.0	100.1	44.4	20.0	25.1	18.3	13.4	11.2
87°	212.2	313.7	222.4	156.1	73.2	29.1	10.9	14.9	10.1	6.3	4.6
88°	115.4	186.7	146.3	69.5	47.0	15.4	5.0	6.1	3.7	2.3	1.8
89°	58.6	82.8	78.6	44.9	28.6	7.3	1.4	1.2	0.7	0.5	0.3



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	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):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	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):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449922

CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4	2917.4
1°	2894.5	2895.1	2895.8	2897.9	2901.8	2906.7	2912.8	2919.4	2924.7	2929.8	2933.6
2°	2872.0	2872.5	2874.7	2878.4	2885.7	2895.6	2906.8	2918.7	2929.5	2938.0	2949.2
3°	2848.2	2845.6	2849.3	2857.0	2868.7	2883.4	2898.5	2915.9	2931.3	2948.7	2965.1
4°	2820.7	2818.4	2822.6	2832.9	2848.6	2867.9	2888.3	2911.1	2933.3	2957.8	2978.5
5°	2791.3	2787.5	2794.2	2807.3	2828.4	2852.6	2878.0	2906.3	2936.1	2966.4	2990.8
6°	2764.8	2762.6	2767.3	2780.6	2804.4	2835.1	2866.9	2899.3	2935.7	2972.8	3002.3
7°	2740.4	2737.2	2742.9	2755.4	2780.4	2816.0	2855.1	2894.2	2934.5	2977.7	3014.4
8°	2718.3	2714.9	2720.6	2731.1	2756.5	2796.7	2841.6	2886.6	2932.8	2982.3	3027.0
9°	2700.1	2696.0	2701.6	2710.1	2733.3	2776.2	2825.9	2875.6	2929.3	2986.1	3039.5
10°	2682.7	2679.5	2684.1	2690.9	2711.6	2755.0	2810.0	2865.4	2925.2	2989.8	3051.7
11°	2666.1	2664.5	2667.3	2673.2	2690.4	2733.2	2791.9	2852.9	2919.8	2993.5	3063.8
12°	2649.3	2647.8	2649.2	2654.9	2669.0	2710.2	2772.9	2838.6	2913.5	2997.6	3075.7
13°	2632.2	2630.5	2632.3	2636.5	2647.5	2686.6	2753.6	2824.1	2907.3	3001.8	3085.9
14°	2616.1	2613.5	2616.8	2618.0	2627.3	2663.3	2732.9	2809.5	2902.6	3003.5	3093.4
15°	2598.3	2595.8	2597.9	2598.5	2606.4	2639.2	2711.0	2792.6	2895.1	3002.8	3096.6
16°	2581.6	2582.3	2579.2	2579.8	2586.2	2614.2	2688.6	2776.1	2886.5	2999.9	3098.2
17°	2565.6	2564.9	2562.3	2561.6	2565.8	2589.1	2665.3	2758.6	2876.2	2994.4	3096.5
18°	2551.2	2552.6	2547.6	2542.2	2543.4	2564.2	2640.0	2739.0	2861.9	2985.4	3092.3
19°	2534.5	2535.3	2531.1	2523.8	2522.6	2539.5	2615.6	2717.0	2845.4	2975.2	3088.4
20°	2517.4	2518.1	2514.7	2505.0	2501.3	2514.1	2589.8	2697.9	2828.8	2964.0	3084.5
21°	2500.9	2503.3	2497.6	2485.2	2479.6	2489.2	2562.9	2676.4	2809.7	2951.2	3080.5
22°	2487.3	2490.9	2481.5	2465.9	2457.2	2462.9	2535.8	2651.0	2788.4	2938.1	3077.1
23°	2474.6	2477.9	2465.8	2446.6	2433.3	2435.7	2507.7	2624.5	2766.6	2925.0	3075.3
24°	2459.7	2462.8	2450.7	2427.9	2410.0	2409.0	2477.9	2596.7	2744.8	2912.1	3073.3
25°	2441.8	2445.4	2434.4	2409.0	2386.8	2382.8	2448.7	2568.4	2721.2	2898.8	3067.6
26°	2423.9	2424.8	2415.5	2392.1	2362.1	2355.0	2418.7	2536.6	2696.2	2884.1	3060.9
27°	2403.5	2406.5	2394.3	2371.8	2338.2	2326.1	2385.7	2504.0	2669.9	2868.3	3053.6
28°	2385.0	2389.0	2374.6	2350.7	2314.3	2296.9	2353.7	2471.6	2643.1	2852.0	3046.9
29°	2367.2	2372.3	2355.7	2328.6	2290.7	2267.7	2319.9	2438.8	2615.0	2835.4	3039.5
30°	2349.8	2354.6	2337.2	2305.3	2266.5	2236.5	2284.5	2404.9	2585.4	2816.7	3030.8
31°	2329.4	2335.1	2318.4	2282.8	2241.8	2205.2	2250.6	2370.9	2556.0	2796.4	3019.9
32°	2309.1	2315.1	2298.6	2260.0	2214.1	2173.6	2214.6	2333.7	2525.9	2776.3	3011.1
33°	2288.4	2295.6	2278.7	2237.6	2186.0	2141.0	2177.7	2296.6	2493.5	2755.4	3001.9
34°	2268.3	2274.6	2257.0	2214.3	2157.7	2108.6	2140.6	2259.7	2461.3	2732.6	2991.6
35°	2248.5	2253.8	2235.0	2189.5	2127.9	2077.2	2103.1	2221.6	2428.4	2708.4	2981.7
36°	2225.1	2231.9	2211.7	2165.6	2099.0	2046.1	2066.6	2181.7	2393.7	2683.7	2971.5
37°	2201.2	2208.5	2188.2	2141.0	2070.7	2015.2	2030.3	2141.7	2358.2	2657.2	2960.9
38°	2175.8	2184.0	2163.4	2113.8	2043.1	1983.7	1995.4	2101.6	2321.5	2630.1	2948.3
39°	2150.5	2158.4	2136.0	2085.9	2015.9	1949.8	1958.2	2056.1	2283.5	2604.2	2933.4
40°	2123.4	2131.3	2110.8	2058.1	1988.4	1914.7	1917.7	2013.7	2243.7	2575.5	2917.0
41°	2096.8	2102.9	2082.6	2032.1	1958.8	1879.6	1876.3	1967.8	2202.0	2545.4	2898.1
42°	2069.4	2075.8	2055.4	2006.9	1928.9	1845.0	1834.8	1922.6	2159.2	2516.5	2879.7
43°	2040.9	2044.9	2027.6	1981.0	1898.7	1809.0	1794.5	1874.5	2115.4	2486.5	2861.7
44°	2013.6	2006.5	1999.9	1951.0	1868.1	1771.7	1753.4	1825.4	2068.5	2455.2	2843.5



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CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1985.4	1964.6	1971.8	1919.5	1835.7	1734.7	1712.9	1776.4	2019.7	2422.2	2822.4
46°	1934.6	1914.2	1929.6	1887.9	1802.2	1697.4	1671.6	1727.7	1973.2	2389.1	2798.6
47°	1864.5	1832.4	1873.7	1854.0	1768.0	1658.8	1629.9	1675.4	1923.4	2357.1	2774.6
48°	1771.4	1719.8	1797.4	1815.8	1734.2	1620.0	1587.5	1626.9	1874.1	2326.3	2749.3
49°	1651.0	1582.7	1692.7	1772.8	1698.5	1583.0	1543.3	1577.6	1825.0	2295.4	2724.3
50°	1505.8	1430.6	1564.1	1720.6	1660.4	1545.7	1497.8	1529.3	1776.0	2264.6	2696.1
51°	1353.1	1274.7	1419.2	1648.5	1621.1	1507.9	1453.7	1480.2	1728.0	2230.8	2665.0
52°	1197.5	1115.4	1265.6	1551.6	1579.9	1469.3	1408.4	1428.8	1680.6	2193.7	2632.2
53°	1037.8	949.1	1111.4	1437.7	1536.2	1430.5	1362.4	1377.1	1630.4	2151.9	2596.4
54°	871.1	783.5	950.5	1298.2	1489.3	1389.8	1317.5	1321.8	1581.2	2110.5	2554.6
55°	710.5	624.6	786.4	1153.7	1437.8	1348.7	1271.0	1266.8	1531.2	2072.5	2511.5
56°	557.9	483.6	630.1	1006.9	1375.4	1306.2	1224.1	1213.4	1478.9	2033.8	2469.7
57°	424.1	377.4	481.9	852.3	1295.6	1260.2	1176.3	1158.5	1425.6	1992.1	2425.9
58°	344.6	319.4	378.2	697.1	1194.4	1211.2	1126.6	1105.0	1371.6	1946.2	2380.0
59°	304.9	297.8	317.4	549.9	1073.5	1161.5	1077.8	1054.3	1318.9	1896.3	2333.0
60°	289.1	288.5	289.9	419.0	943.7	1110.0	1027.2	1003.9	1261.0	1843.2	2286.3
61°	280.8	280.6	279.0	321.2	811.4	1058.7	977.4	955.2	1200.4	1788.8	2245.8
62°	272.4	272.3	270.2	271.8	673.7	1004.3	928.1	906.6	1139.1	1734.8	2211.3
63°	263.5	263.5	261.2	252.4	538.0	949.4	877.7	858.0	1074.0	1675.5	2181.6
64°	254.7	255.0	252.2	242.7	411.3	887.2	826.3	809.9	1008.2	1606.7	2156.8
65°	245.9	246.9	242.5	230.5	310.1	818.7	774.3	760.4	944.3	1536.0	2135.5
66°	237.4	239.0	233.1	219.7	257.6	731.6	722.2	710.6	885.2	1468.3	2126.6
67°	228.9	230.2	223.9	208.6	226.8	635.0	671.3	658.0	824.2	1402.5	2142.7
68°	220.4	221.2	214.8	198.0	208.4	531.9	622.1	604.8	758.2	1338.6	2177.3
69°	211.0	211.8	205.7	187.8	197.4	429.8	573.1	550.1	695.3	1282.9	2187.7
70°	198.5	197.7	194.9	178.0	185.2	342.3	523.4	496.4	642.3	1230.8	2140.4
71°	184.0	183.2	181.4	169.4	173.1	272.7	476.4	443.1	590.5	1191.9	1992.2
72°	169.4	168.4	167.2	159.2	162.0	203.4	429.7	390.5	541.2	1186.9	1728.1
73°	154.6	153.8	152.7	146.7	150.8	164.1	386.7	341.1	490.6	1266.5	1439.6
74°	140.0	140.1	138.6	133.4	140.8	151.2	340.5	296.7	442.8	1355.8	1231.4
75°	127.3	129.1	125.0	120.0	131.6	138.5	292.7	254.6	390.1	1256.6	1114.5
76°	118.3	121.9	114.3	107.3	121.0	127.0	245.8	217.0	338.7	1039.7	1025.7
77°	112.0	116.4	106.9	94.6	108.6	115.5	199.1	182.7	297.9	846.5	944.0
78°	105.2	108.6	100.4	82.5	96.0	104.6	156.1	150.8	274.6	654.8	867.6
79°	94.6	96.1	91.9	73.5	83.4	94.1	124.1	124.2	248.2	550.4	779.3
80°	84.0	86.2	81.1	66.6	71.4	83.8	105.0	100.4	225.4	543.7	669.6
81°	73.3	74.7	70.4	59.3	58.0	73.4	89.3	82.8	213.6	483.8	571.9
82°	60.7	60.8	59.2	50.8	45.3	62.2	74.8	65.2	199.6	349.6	497.8
83°	45.6	43.5	45.8	41.2	36.2	50.2	60.5	47.6	167.8	250.6	441.1
84°	32.5	31.3	33.0	31.0	28.4	39.1	46.7	35.0	121.3	201.7	388.9
85°	20.5	19.6	20.7	20.8	20.5	29.2	34.5	25.0	86.3	167.3	324.7
86°	9.5	8.3	9.7	10.8	12.7	19.4	24.3	16.6	59.7	136.0	231.4
87°	3.9	3.3	3.9	4.2	6.1	10.5	14.1	9.5	34.7	107.6	143.3
88°	1.6	1.4	1.5	1.7	2.2	3.8	5.4	5.2	16.5	82.4	106.9
89°	0.1	0.0	0.1	0.3	0.4	0.6	1.0	0.9	7.4	59.2	77.9



REPORT NUMBER: P1449922
 CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449922
 CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449922
CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P1449922
 CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2917.4	2917.4	2917.4
1°	2936.8	2939.9	2941.9
2°	2956.7	2962.0	2965.4
3°	2976.6	2983.2	2987.8
4°	2993.9	3003.4	3004.9
5°	3010.5	3022.9	3026.5
6°	3027.0	3042.8	3047.4
7°	3043.7	3062.4	3072.4
8°	3062.5	3083.3	3092.1
9°	3081.3	3106.1	3113.7
10°	3099.5	3130.0	3139.6
11°	3118.6	3152.4	3162.8
12°	3135.8	3171.2	3179.6
13°	3149.0	3185.7	3198.5
14°	3158.4	3199.1	3211.1
15°	3164.6	3208.2	3225.0
16°	3170.4	3216.9	3235.7
17°	3175.2	3226.1	3245.8
18°	3179.1	3236.9	3257.6
19°	3182.6	3246.2	3267.8
20°	3187.5	3255.2	3276.8
21°	3191.9	3262.8	3287.6
22°	3196.4	3270.1	3296.2
23°	3199.9	3277.5	3302.5
24°	3202.8	3286.8	3313.4
25°	3203.4	3293.4	3321.5
26°	3205.9	3301.0	3331.5
27°	3205.9	3309.4	3342.6
28°	3208.4	3318.8	3352.3
29°	3211.7	3326.2	3360.9
30°	3212.4	3335.4	3373.7
31°	3214.1	3344.8	3383.3
32°	3216.8	3348.2	3389.2
33°	3219.3	3350.5	3392.5
34°	3218.9	3350.6	3390.5
35°	3215.2	3349.7	3388.0
36°	3209.6	3344.0	3385.6
37°	3204.2	3339.3	3377.4
38°	3195.9	3330.9	3371.4
39°	3185.8	3320.6	3361.9
40°	3174.9	3309.4	3349.3
41°	3159.7	3292.9	3335.9
42°	3144.1	3283.4	3329.0
43°	3127.5	3269.2	3313.9
44°	3110.2	3251.5	3294.3



REPORT NUMBER: P1449922
 CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	3092.6	3231.6	3273.6
46°	3072.7	3211.1	3260.7
47°	3050.0	3191.3	3234.3
48°	3025.9	3158.6	3193.2
49°	2999.9	3114.7	3153.8
50°	2964.4	3080.8	3120.9
51°	2924.1	3047.4	3089.3
52°	2885.9	3014.1	3054.1
53°	2852.0	2977.9	3016.1
54°	2811.7	2940.1	2979.7
55°	2770.4	2909.0	2954.4
56°	2730.0	2886.8	2933.7
57°	2694.0	2867.7	2909.4
58°	2667.4	2843.8	2887.5
59°	2646.2	2825.7	2871.8
60°	2626.2	2816.3	2868.6
61°	2608.7	2817.0	2876.3
62°	2600.1	2818.0	2876.4
63°	2605.6	2805.4	2856.6
64°	2618.6	2769.9	2813.7
65°	2611.9	2705.0	2743.3
66°	2571.9	2603.5	2625.9
67°	2492.1	2462.0	2475.2
68°	2352.3	2280.7	2288.8
69°	2154.1	2056.0	2036.0
70°	1914.9	1820.1	1781.1
71°	1660.7	1642.3	1624.4
72°	1454.9	1527.5	1527.3
73°	1328.5	1441.6	1437.9
74°	1254.8	1357.6	1347.0
75°	1188.9	1267.7	1262.4
76°	1125.0	1176.8	1190.4
77°	1055.4	1090.4	1130.5
78°	975.3	1016.9	1080.3
79°	898.6	969.3	1046.9
80°	822.3	926.5	1002.3
81°	747.7	876.5	889.3
82°	674.8	801.0	775.9
83°	587.5	705.9	662.4
84°	485.5	610.3	547.4
85°	390.7	508.0	435.8
86°	321.4	387.5	305.8
87°	240.6	269.0	212.2
88°	157.2	155.5	115.4
89°	89.9	74.4	58.6



REPORT NUMBER: P1449922
CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
90°	0.0	0.0	0.0
91°	0.0	0.0	0.0
92°	0.0	0.0	0.0
93°	0.0	0.0	0.0
94°	0.0	0.0	0.0
95°	0.0	0.0	0.0
96°	0.0	0.0	0.0
97°	0.0	0.0	0.0
98°	0.0	0.0	0.0
99°	0.0	0.0	0.0
100°	0.0	0.0	0.0
101°	0.0	0.0	0.0
102°	0.0	0.0	0.0
103°	0.0	0.0	0.0
104°	0.0	0.0	0.0
105°	0.0	0.0	0.0
106°	0.0	0.0	0.0
107°	0.0	0.0	0.0
108°	0.0	0.0	0.0
109°	0.0	0.0	0.0
110°	0.0	0.0	0.0
111°	0.0	0.0	0.0
112°	0.0	0.0	0.0
113°	0.0	0.0	0.0
114°	0.0	0.0	0.0
115°	0.0	0.0	0.0
116°	0.0	0.0	0.0
117°	0.0	0.0	0.0
118°	0.0	0.0	0.0
119°	0.0	0.0	0.0
120°	0.0	0.0	0.0
121°	0.0	0.0	0.0
122°	0.0	0.0	0.0
123°	0.0	0.0	0.0
124°	0.0	0.0	0.0
125°	0.0	0.0	0.0
126°	0.0	0.0	0.0
127°	0.0	0.0	0.0
128°	0.0	0.0	0.0
129°	0.0	0.0	0.0
130°	0.0	0.0	0.0
131°	0.0	0.0	0.0
132°	0.0	0.0	0.0
133°	0.0	0.0	0.0
134°	0.0	0.0	0.0



REPORT NUMBER: P1449922
CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
135°	0.0	0.0	0.0
136°	0.0	0.0	0.0
137°	0.0	0.0	0.0
138°	0.0	0.0	0.0
139°	0.0	0.0	0.0
140°	0.0	0.0	0.0
141°	0.0	0.0	0.0
142°	0.0	0.0	0.0
143°	0.0	0.0	0.0
144°	0.0	0.0	0.0
145°	0.0	0.0	0.0
146°	0.0	0.0	0.0
147°	0.0	0.0	0.0
148°	0.0	0.0	0.0
149°	0.0	0.0	0.0
150°	0.0	0.0	0.0
151°	0.0	0.0	0.0
152°	0.0	0.0	0.0
153°	0.0	0.0	0.0
154°	0.0	0.0	0.0
155°	0.0	0.0	0.0
156°	0.0	0.0	0.0
157°	0.0	0.0	0.0
158°	0.0	0.0	0.0
159°	0.0	0.0	0.0
160°	0.0	0.0	0.0
161°	0.0	0.0	0.0
162°	0.0	0.0	0.0
163°	0.0	0.0	0.0
164°	0.0	0.0	0.0
165°	0.0	0.0	0.0
166°	0.0	0.0	0.0
167°	0.0	0.0	0.0
168°	0.0	0.0	0.0
169°	0.0	0.0	0.0
170°	0.0	0.0	0.0
171°	0.0	0.0	0.0
172°	0.0	0.0	0.0
173°	0.0	0.0	0.0
174°	0.0	0.0	0.0
175°	0.0	0.0	0.0
176°	0.0	0.0	0.0
177°	0.0	0.0	0.0
178°	0.0	0.0	0.0
179°	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



REPORT NUMBER: P1449922
CATALOG NUMBER: TWC60_T4_60W_5000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
180°	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2601-659-3

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-5000K

Data in this report applies to families of products including ;MWP2460W34VDDKYYAD

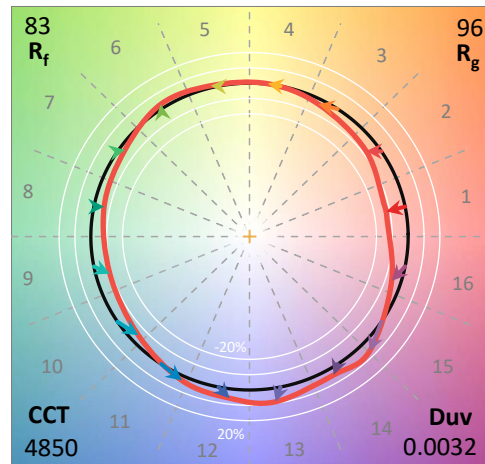
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 02/16/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **MWP2460W34VDDKYYAD-T4-24W-5000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 5000K

Spectral Parameters

CCT (K): 4850
 CIE u': 0.2108
 CIE v': 0.4905
 Duv: 0.0032
 CIE x: 0.3503
 CIE y: 0.3623
 CIE z: 0.2875
 Peak Wavelength (nm): 452
 Dominant Wavelength (nm): 571
 Purity: 13.81051
 Rf: 83.1
 Rg: 95.8

CRI (Ra):	82.6		
R1:	80.9	R9:	8.5
R2:	87.6	R10:	69.7
R3:	92.0	R11:	80.6
R4:	81.9	R12:	52.2
R5:	80.4	R13:	82.7
R6:	82.0	R14:	95.7
R7:	88.2	R15:	74.9
R8:	67.7		



Test Conditions

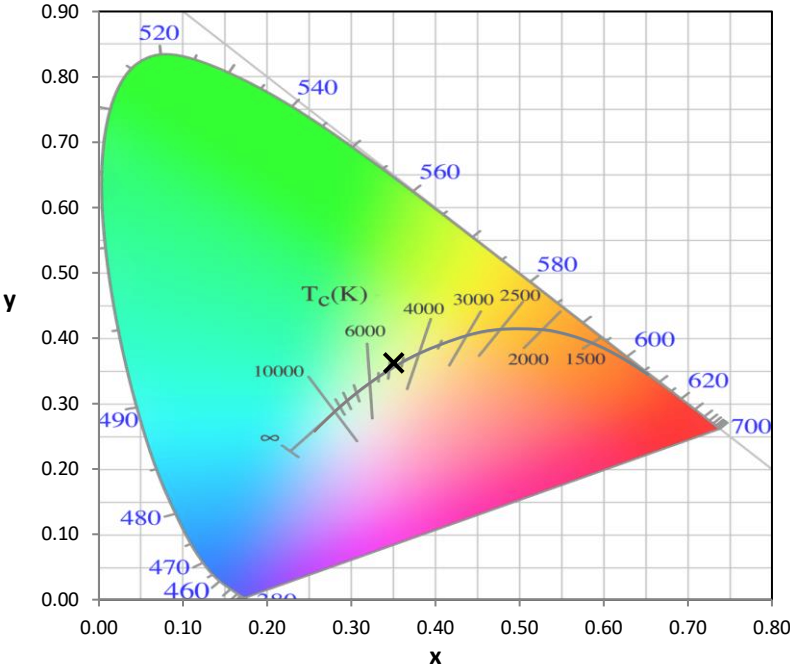
Stabilization Time: 25M
 Operation Time: 1H 25M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-3

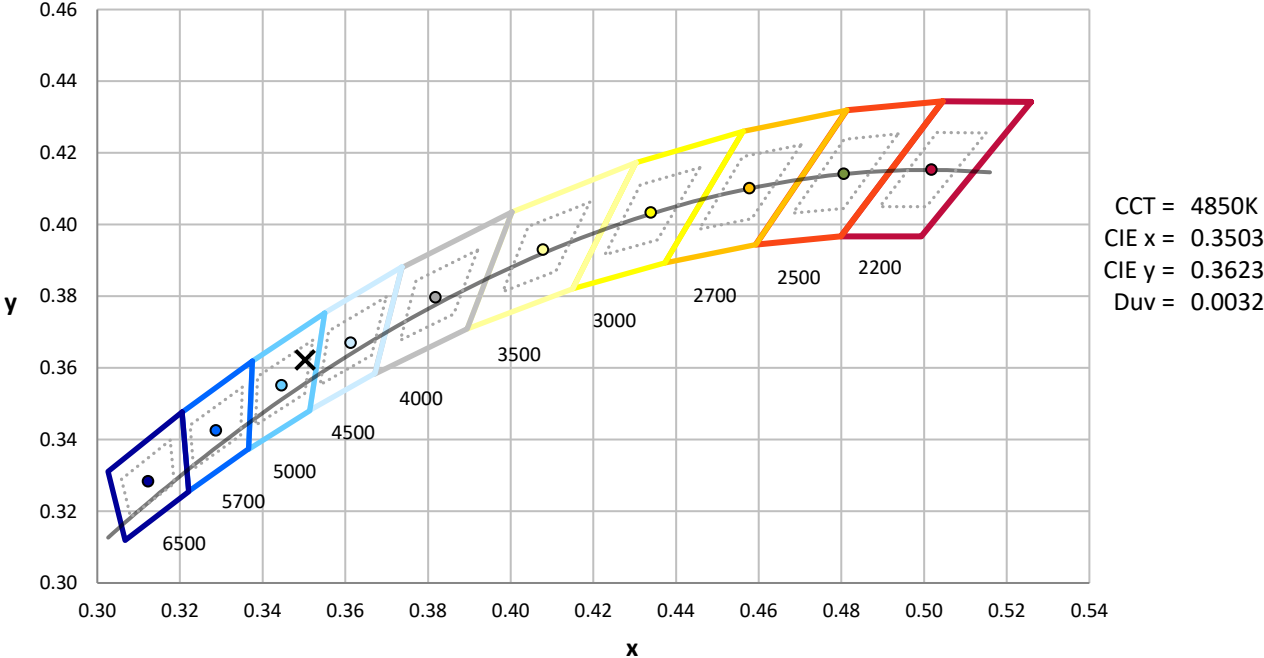
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	10/21/2025	10/21/2026
Sphere Thermometer	ONSET IN0085	10/21/2025	10/21/2026
Room Thermometer	ONSET IN0046	10/21/2025	10/21/2026

REPORT NUMBER: SP1-2601-659-3

CIE 1931 Chromaticity Diagram



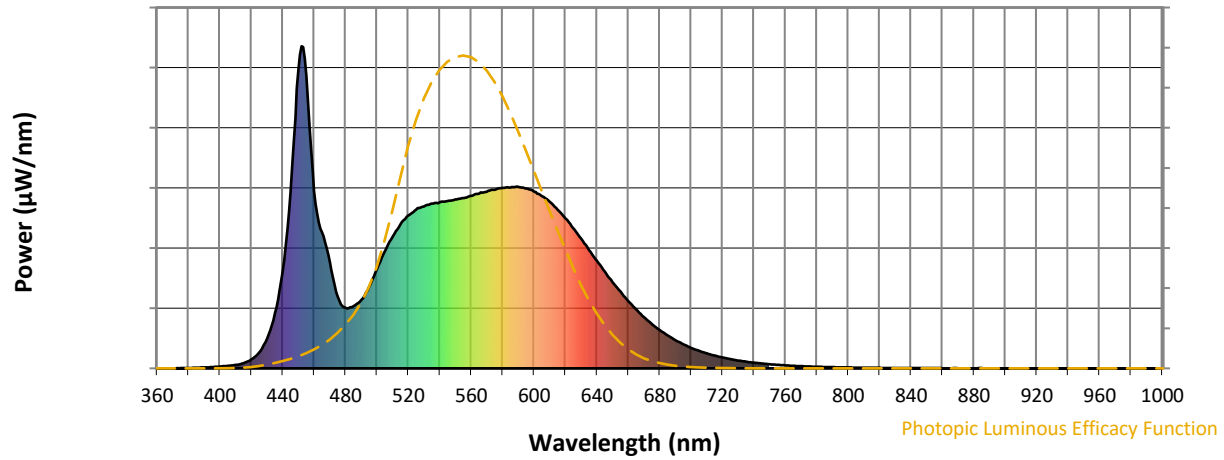
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-3

Photopic Flux vs. Wavelength

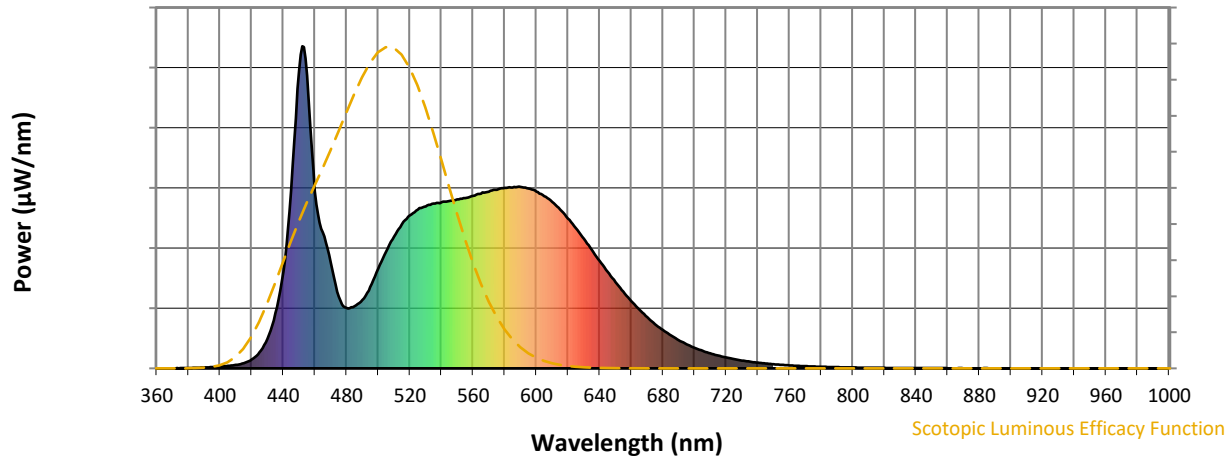


Photopic Lumens: NR

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

REPORT NUMBER: SP1-2601-659-3

Scotopic Flux vs. Wavelength



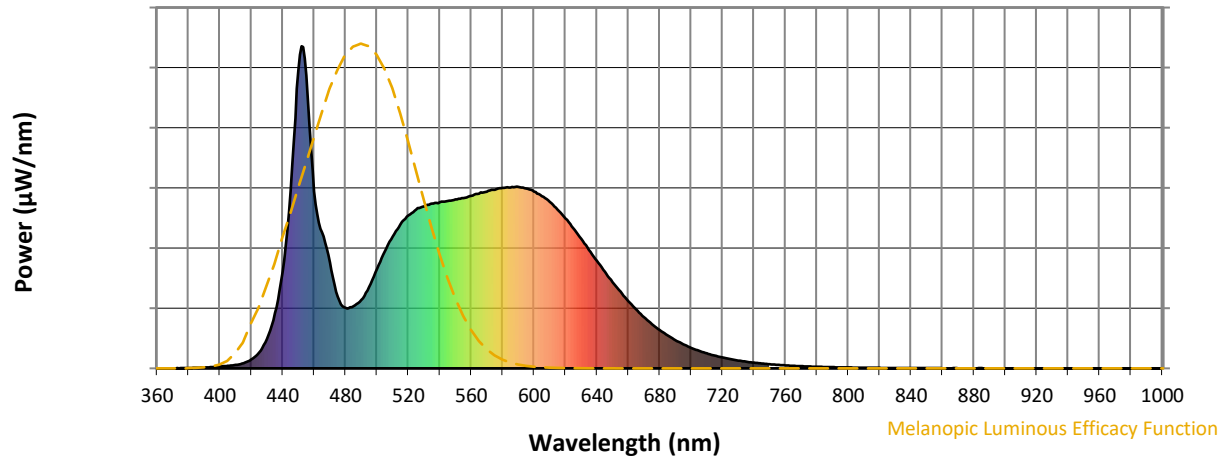
Scotopic Lumens: NR

S/P: 1.9

λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

REPORT NUMBER: SP1-2601-659-3

Melanopic Flux vs. Wavelength



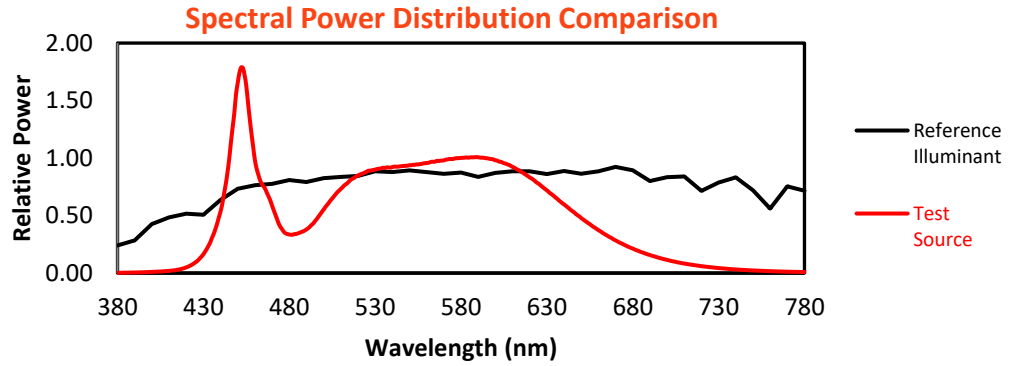
Melanopic Lumens: NR

M/P: 4

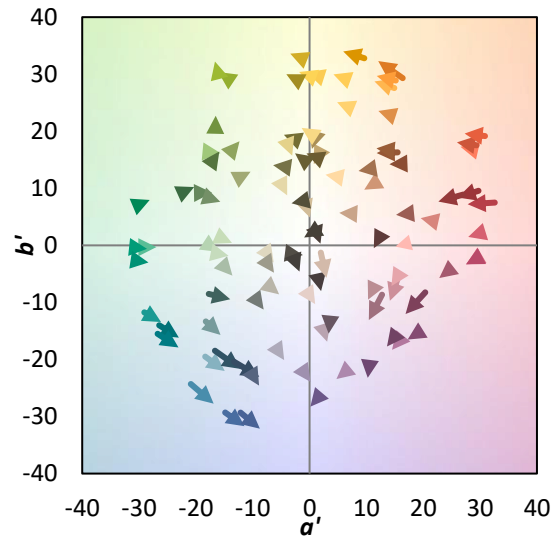
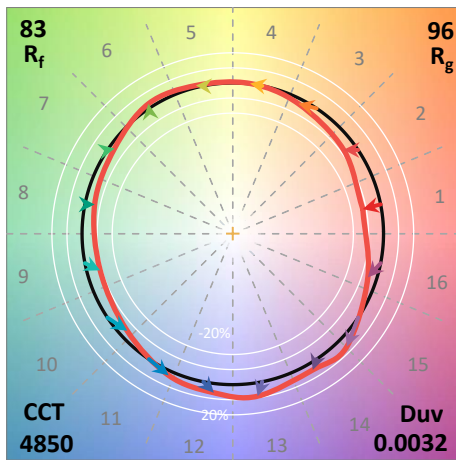
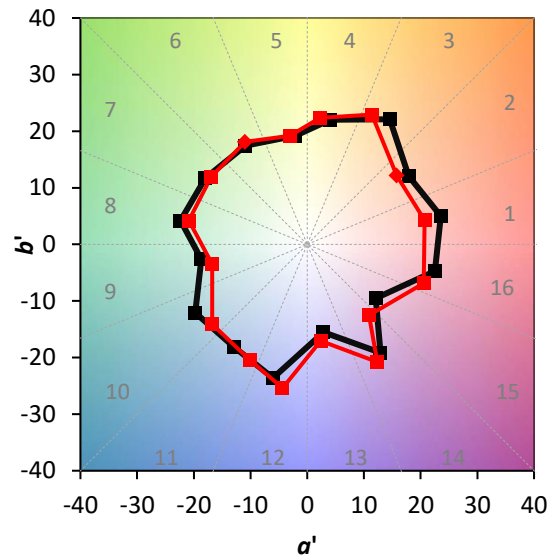
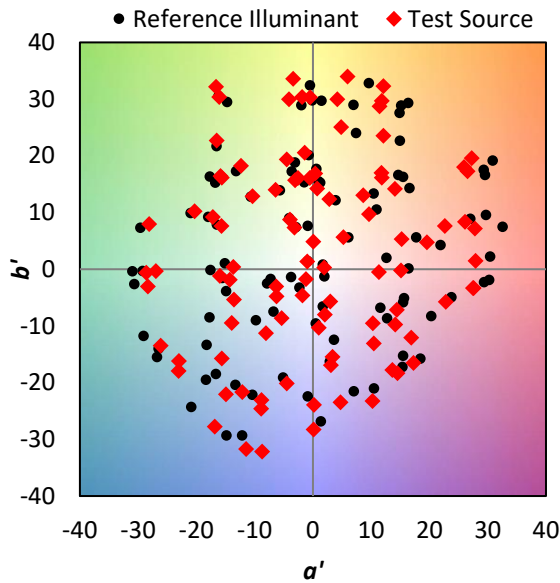
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	212	NR	620	465	NR	750	13	NR	880	0	NR
365	0	NR	495	253	NR	625	436	NR	755	11	NR	885	1	NR
370	0	NR	500	309	NR	630	403	NR	760	9	NR	890	0	NR
375	1	NR	505	363	NR	635	368	NR	765	8	NR	895	0	NR
380	1	NR	510	409	NR	640	334	NR	770	7	NR	900	0	NR
385	2	NR	515	448	NR	645	300	NR	775	6	NR	905	0	NR
390	3	NR	520	475	NR	650	268	NR	780	5	NR	910	0	NR
395	4	NR	525	493	NR	655	238	NR	785	4	NR	915	0	NR
400	6	NR	530	503	NR	660	209	NR	790	4	NR	920	0	NR
405	8	NR	535	512	NR	665	183	NR	795	3	NR	925	0	NR
410	11	NR	540	515	NR	670	159	NR	800	3	NR	930	0	NR
415	16	NR	545	520	NR	675	138	NR	805	2	NR	935	0	NR
420	28	NR	550	524	NR	680	119	NR	810	2	NR	940	0	NR
425	50	NR	555	528	NR	685	102	NR	815	2	NR	945	0	NR
430	92	NR	560	535	NR	690	88	NR	820	2	NR	950	0	NR
435	171	NR	565	542	NR	695	75	NR	825	1	NR	955	0	NR
440	300	NR	570	548	NR	700	64	NR	830	1	NR	960	0	NR
445	553	NR	575	555	NR	705	55	NR	835	1	NR	965	0	NR
450	925	NR	580	560	NR	710	46	NR	840	1	NR	970	0	NR
455	909	NR	585	562	NR	715	40	NR	845	1	NR	975	0	NR
460	550	NR	590	563	NR	720	34	NR	850	1	NR	980	0	NR
465	422	NR	595	558	NR	725	29	NR	855	1	NR	985	0	NR
470	328	NR	600	548	NR	730	24	NR	860	1	NR	990	0	NR
475	223	NR	605	534	NR	735	21	NR	865	0	NR	995	0	NR
480	188	NR	610	516	NR	740	18	NR	870	0	NR	1000	0	NR
485	193	NR	615	492	NR	745	15	NR	875	0	NR			

Summary

$R_f = 83.1$
 $R_g = 95.8$
 CIE $R_a = 82.6$
 $R_9 = 8.5$

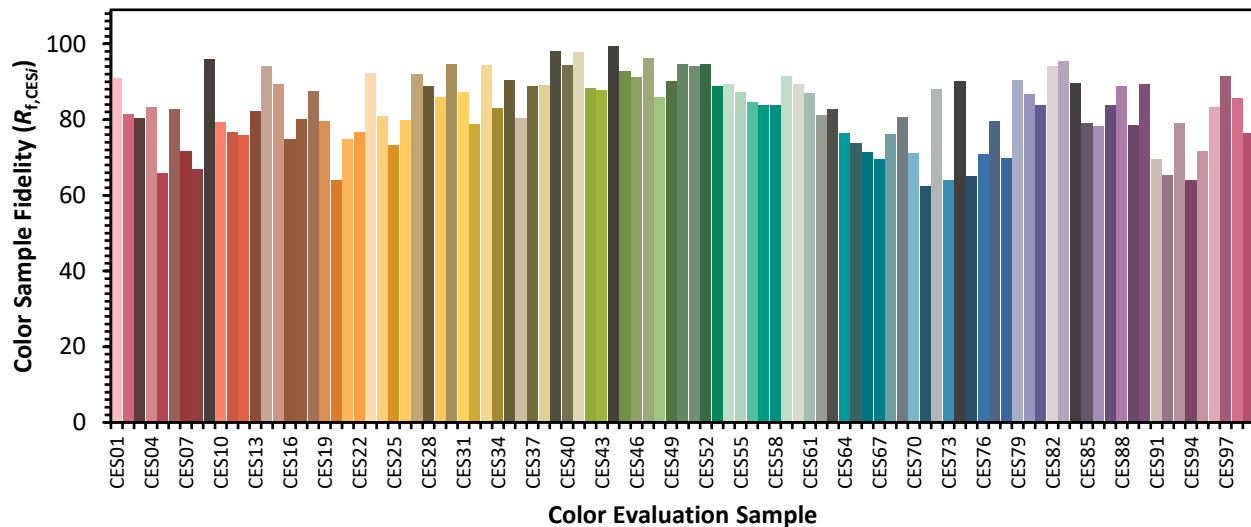


Color Vector Graphics

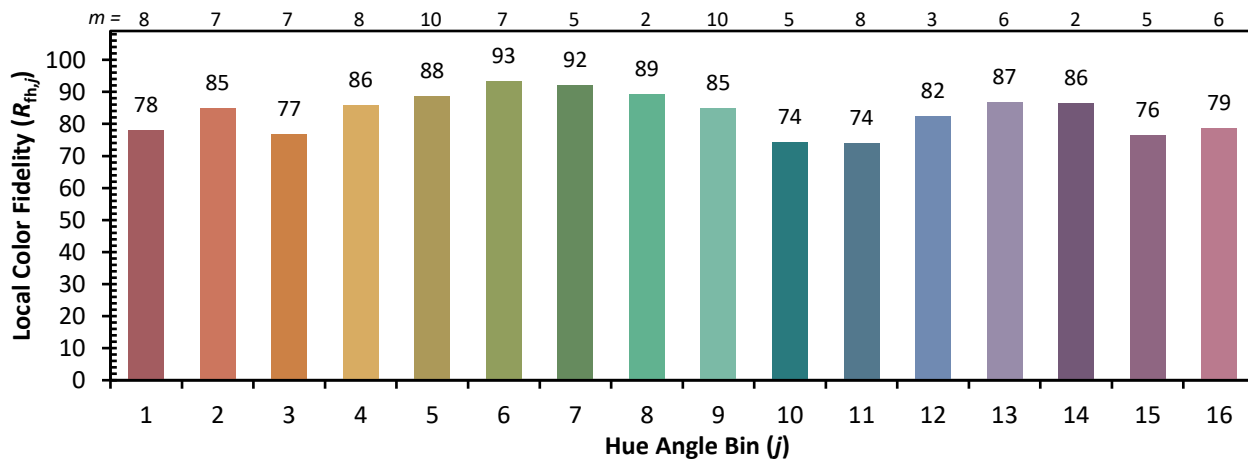
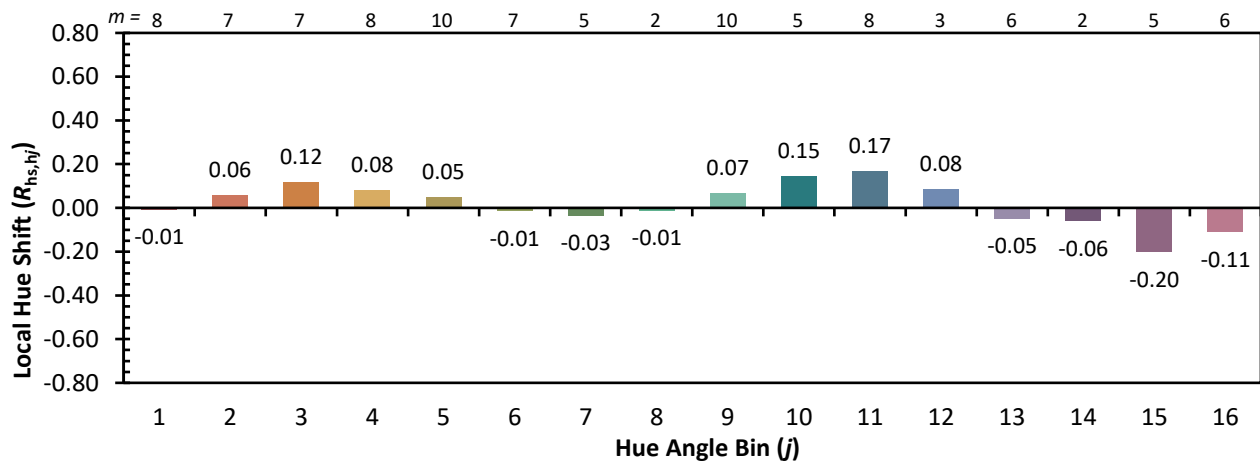
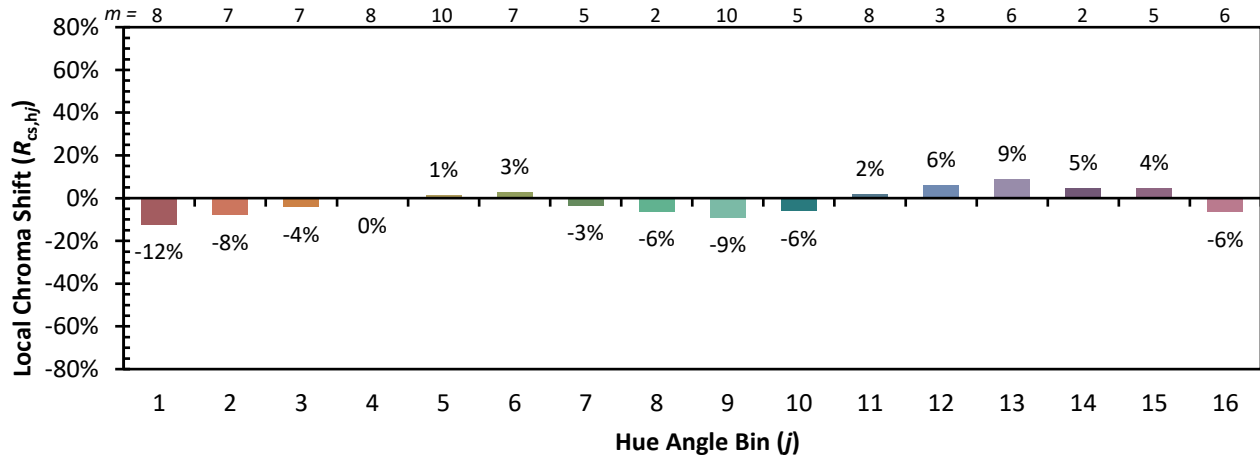


Individual Sample Fidelity Index ($R_{f,i}$)

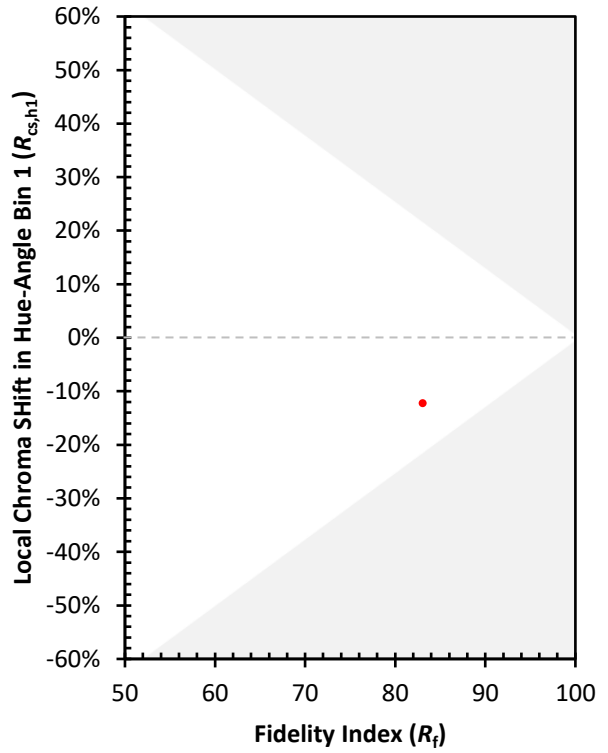
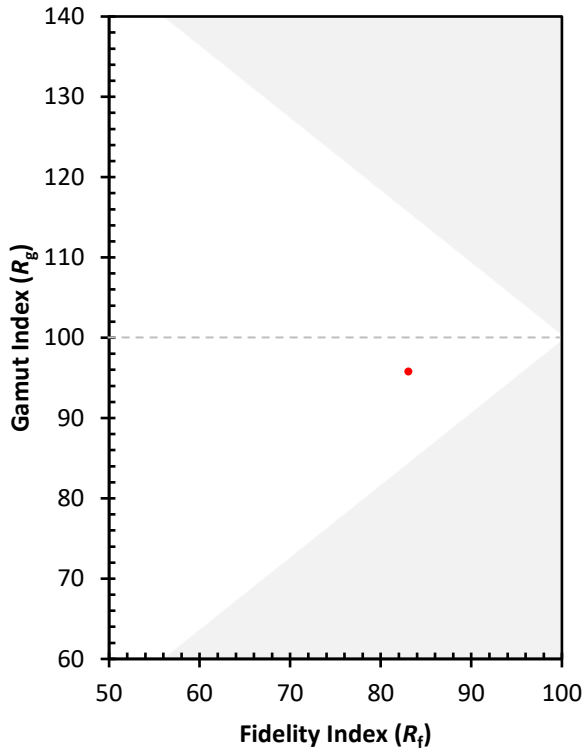
CES01 = 85	CES26 = 80	CES51 = 94	CES76 = 71
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 80
CES03 = 30	CES28 = 89	CES53 = 89	CES78 = 70
CES04 = 69	CES29 = 86	CES54 = 89	CES79 = 90
CES05 = 47	CES30 = 95	CES55 = 87	CES80 = 87
CES06 = 50	CES31 = 87	CES56 = 85	CES81 = 84
CES07 = 40	CES32 = 79	CES57 = 84	CES82 = 94
CES08 = 39	CES33 = 94	CES58 = 84	CES83 = 95
CES09 = 29	CES34 = 83	CES59 = 91	CES84 = 90
CES10 = 73	CES35 = 90	CES60 = 89	CES85 = 79
CES11 = 56	CES36 = 80	CES61 = 87	CES86 = 78
CES12 = 62	CES37 = 89	CES62 = 81	CES87 = 84
CES13 = 42	CES38 = 89	CES63 = 83	CES88 = 89
CES14 = 74	CES39 = 98	CES64 = 77	CES89 = 79
CES15 = 71	CES40 = 94	CES65 = 74	CES90 = 89
CES16 = 46	CES41 = 98	CES66 = 71	CES91 = 70
CES17 = 49	CES42 = 88	CES67 = 70	CES92 = 65
CES18 = 56	CES43 = 88	CES68 = 76	CES93 = 79
CES19 = 71	CES44 = 99	CES69 = 81	CES94 = 64
CES20 = 64	CES45 = 93	CES70 = 71	CES95 = 72
CES21 = 85	CES46 = 91	CES71 = 62	CES96 = 83
CES22 = 77	CES47 = 96	CES72 = 88	CES97 = 91
CES23 = 91	CES48 = 86	CES73 = 64	CES98 = 86
CES24 = 90	CES49 = 90	CES74 = 90	CES99 = 76
CES25 = 71	CES50 = 95	CES75 = 65	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)