

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: P1449920

Luminaire Tested: **TWC60_T4_60W_3000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449920
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_3000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T4 distribution, 60W
3000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8680 lumens
Efficiency: N/A
Efficacy: 145.6 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

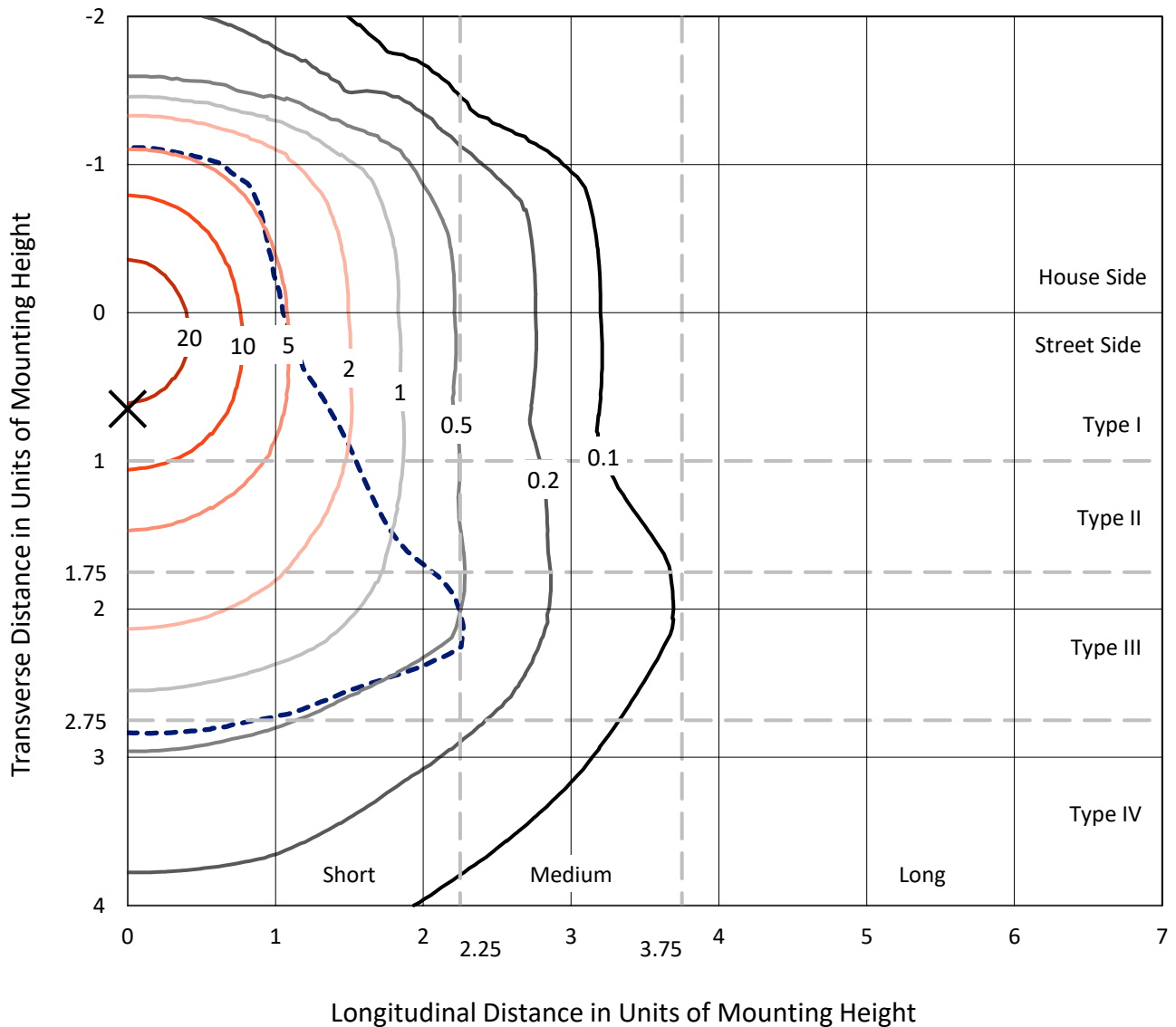
Input Watts (W): 59.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

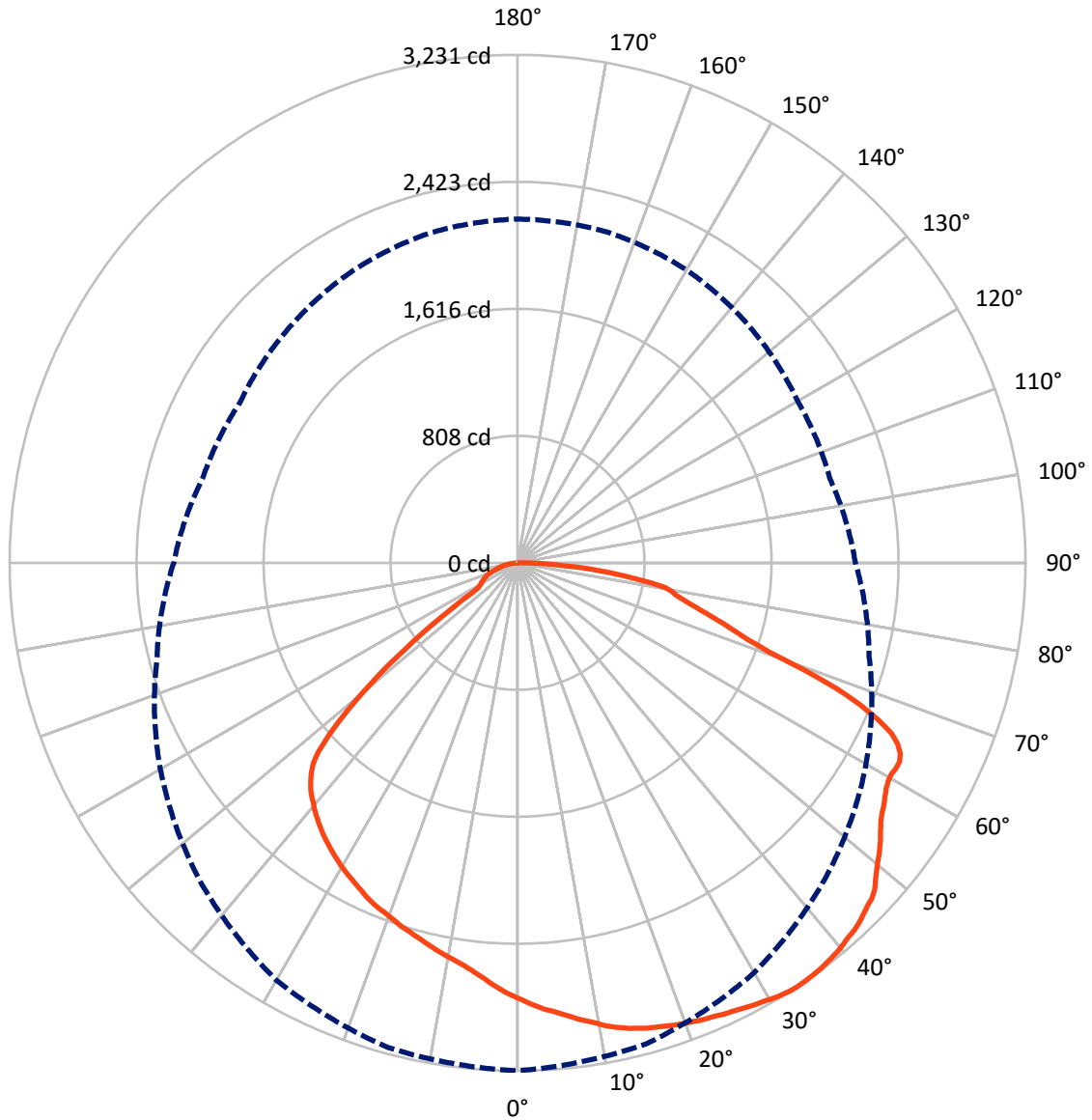
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 28.6 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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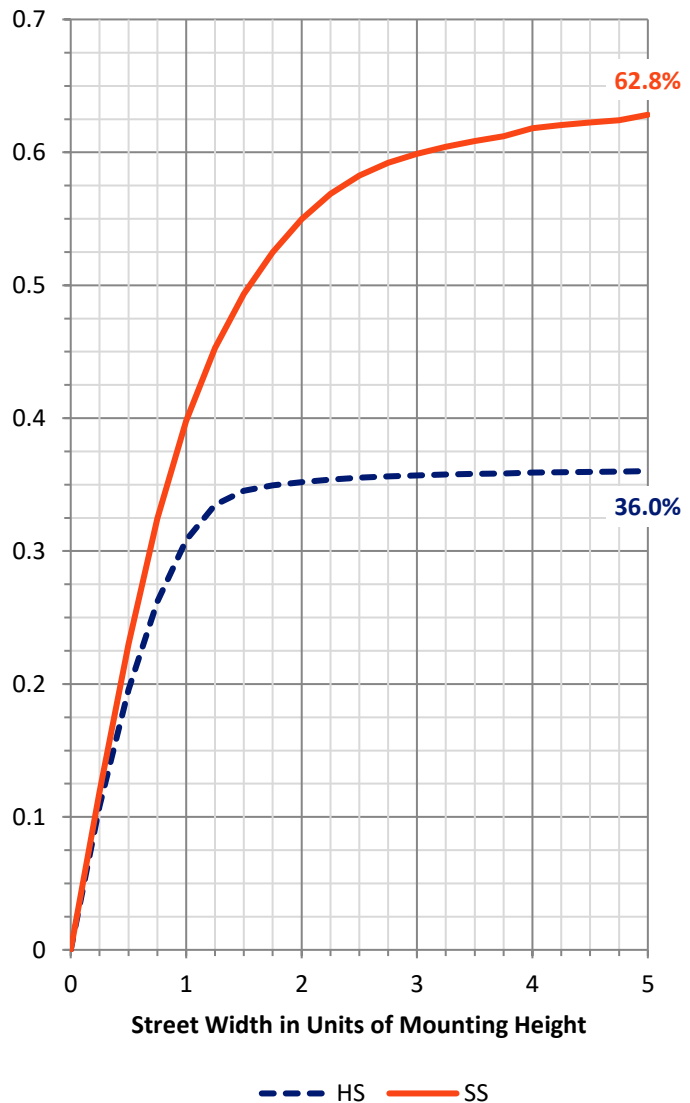
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3147.1	0.0	3147.1
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	5532.9	0.0	5532.9
	% Fixture	63.7	0.0	63.7
Total	Lumens	8680.0	0.0	8680.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.3	3.0
10°-20°	765.7	8.8
20°-30°	1193.8	13.8
30°-40°	1506.7	17.4
40°-50°	1647.4	19.0
50°-60°	1458.9	16.8
60°-70°	1104.4	12.7
70°-80°	576.3	6.6
80°-90°	163.6	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°	8680.0	100.0
0°-180°	8680.0	100.0



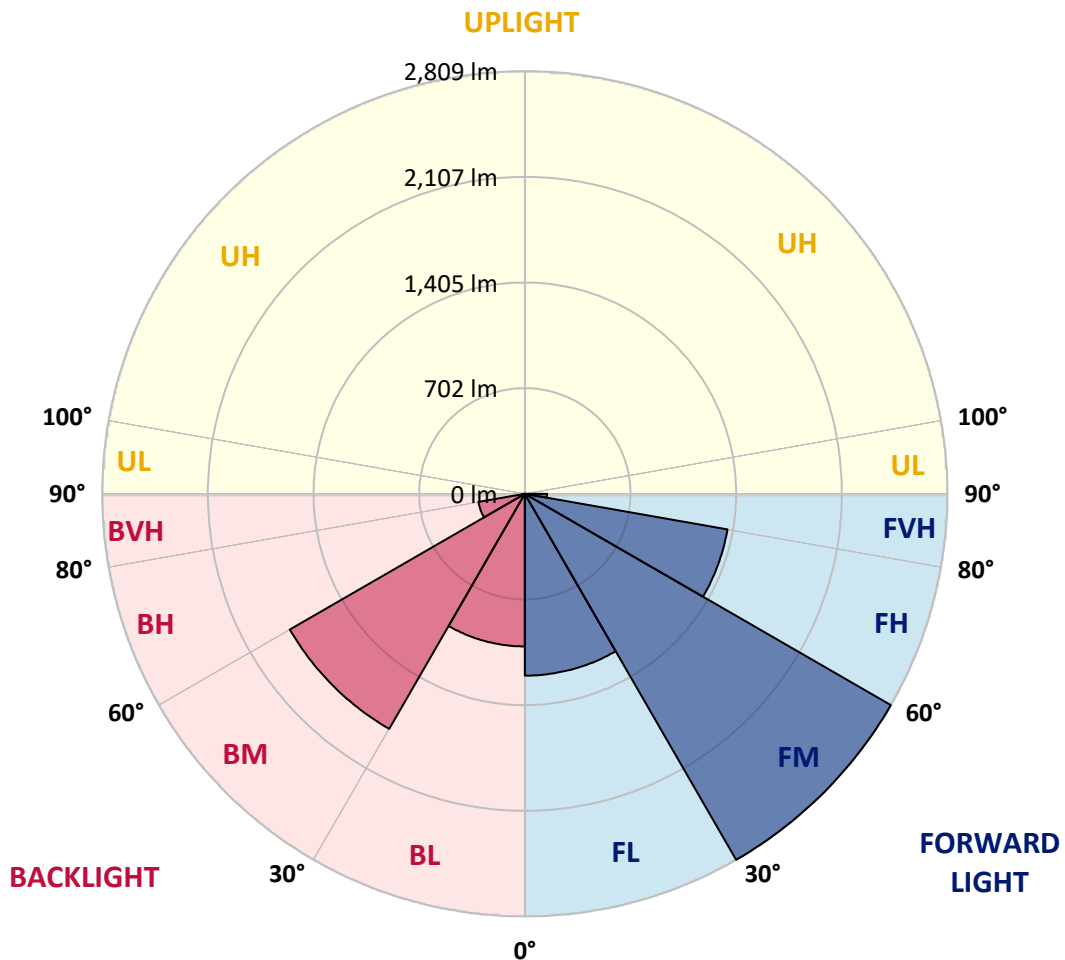
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1208.4	13.9			
FM (30°-60°)	2809.2	32.4			
FH (60°-80°)	1367.5	15.8			G1/1800
FVH (80°-90°)	147.8	1.7			G2/225
BL (0°-30°)	1014.4	11.7	B3/2500		
BM (30°-60°)	1803.9	20.8	B2/2500		
BH (60°-80°)	313.1	3.6	B1/500		G1/500
BVH (80°-90°)	15.8	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°	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5
1°	2801.8	2799.4	2795.7	2791.7	2787.0	2781.6	2776.0	2770.0	2764.7	2760.5	2757.5
2°	2824.2	2822.0	2816.7	2808.0	2794.4	2784.2	2773.3	2762.2	2752.1	2743.7	2737.9
3°	2845.6	2841.3	2834.3	2822.8	2806.4	2786.5	2769.0	2753.5	2739.3	2726.9	2718.0
4°	2861.8	2859.4	2849.1	2834.0	2813.9	2786.9	2763.6	2743.9	2724.6	2707.4	2694.8
5°	2882.4	2877.5	2864.5	2844.7	2819.7	2787.6	2757.6	2732.6	2708.0	2685.2	2667.8
6°	2902.3	2895.8	2879.9	2854.7	2824.6	2786.5	2750.8	2720.3	2690.0	2661.5	2642.1
7°	2926.1	2915.1	2894.7	2863.6	2827.8	2784.6	2742.7	2706.6	2670.7	2637.9	2618.3
8°	2944.9	2933.0	2908.7	2873.5	2830.3	2780.2	2732.4	2691.3	2649.7	2615.1	2597.0
9°	2965.5	2952.6	2924.3	2883.7	2832.6	2775.2	2721.0	2674.7	2628.8	2593.9	2578.7
10°	2990.1	2975.1	2941.8	2893.5	2833.7	2770.1	2709.5	2657.6	2607.9	2573.5	2561.0
11°	3012.2	2995.6	2959.0	2902.5	2834.7	2763.9	2696.8	2639.8	2587.6	2555.2	2545.2
12°	3028.2	3012.1	2973.8	2911.5	2835.9	2755.9	2681.5	2620.3	2566.1	2537.0	2528.1
13°	3046.2	3025.9	2985.7	2920.0	2836.8	2747.3	2666.4	2599.8	2543.8	2518.4	2510.8
14°	3058.2	3038.5	2994.1	2925.1	2837.3	2739.8	2651.5	2579.1	2521.9	2500.6	2494.3
15°	3071.5	3048.5	2999.2	2926.9	2835.2	2730.9	2633.6	2557.3	2500.4	2482.6	2476.8
16°	3081.7	3056.3	3005.0	2928.1	2830.4	2720.9	2616.2	2536.2	2478.2	2463.7	2459.1
17°	3091.3	3063.9	3007.4	2925.7	2823.2	2708.1	2596.7	2513.0	2456.0	2444.0	2441.9
18°	3102.5	3072.1	3006.9	2919.4	2814.0	2695.0	2577.3	2489.3	2434.4	2423.8	2425.3
19°	3112.2	3080.5	3008.8	2914.2	2802.6	2679.9	2556.8	2465.1	2412.9	2404.3	2410.2
20°	3120.8	3089.1	3013.1	2908.3	2789.8	2662.4	2535.3	2440.5	2390.6	2386.2	2394.4
21°	3131.1	3096.1	3016.0	2902.3	2776.6	2642.2	2513.2	2415.4	2368.2	2366.8	2375.2
22°	3139.3	3103.5	3017.7	2896.3	2762.2	2620.6	2488.0	2389.3	2345.0	2346.7	2357.7
23°	3145.3	3108.2	3019.2	2891.0	2747.2	2597.7	2463.8	2362.4	2320.4	2326.1	2340.7
24°	3155.7	3114.4	3019.7	2885.9	2732.0	2573.7	2436.2	2334.9	2295.9	2305.2	2324.8
25°	3163.4	3119.2	3018.7	2878.9	2716.0	2549.6	2407.4	2307.1	2271.8	2284.8	2309.1
26°	3172.9	3123.8	3017.5	2870.8	2697.7	2524.3	2378.8	2277.8	2247.6	2262.8	2291.5
27°	3183.5	3128.9	3018.1	2862.0	2679.5	2497.6	2349.8	2249.4	2222.6	2240.9	2272.2
28°	3192.7	3136.5	3017.3	2852.4	2661.9	2470.1	2319.6	2219.2	2196.1	2219.9	2252.1
29°	3200.9	3143.7	3014.0	2842.0	2642.7	2440.8	2287.8	2188.5	2168.9	2200.2	2231.2
30°	3213.1	3150.3	3012.9	2830.2	2623.8	2410.3	2254.2	2156.0	2141.4	2178.3	2211.5
31°	3222.2	3155.8	3011.9	2818.1	2603.8	2379.3	2219.3	2124.4	2112.8	2153.9	2193.2
32°	3227.9	3162.7	3011.0	2805.0	2582.5	2348.3	2185.9	2091.4	2084.6	2129.0	2172.6
33°	3231.0	3167.3	3010.0	2792.8	2560.0	2315.2	2148.6	2057.7	2057.0	2104.3	2150.8
34°	3229.1	3166.2	3009.0	2780.2	2535.7	2282.4	2113.3	2024.0	2028.4	2079.0	2128.8
35°	3226.7	3165.8	3008.5	2766.3	2510.0	2247.5	2076.0	1990.1	1999.2	2053.0	2106.6
36°	3224.4	3160.8	3004.5	2751.6	2483.3	2212.0	2036.3	1956.6	1969.7	2026.5	2083.4
37°	3216.6	3154.6	2997.2	2737.7	2455.3	2173.2	1998.3	1922.8	1940.4	1999.5	2060.1
38°	3210.9	3147.7	2988.9	2723.3	2425.5	2136.8	1960.0	1890.4	1911.2	1972.2	2036.8
39°	3201.9	3136.5	2978.3	2706.5	2394.0	2099.6	1922.7	1855.9	1881.8	1945.7	2010.5
40°	3189.9	3124.2	2966.3	2686.7	2362.6	2059.7	1885.0	1819.9	1852.6	1921.4	1984.7
41°	3177.1	3108.8	2952.8	2666.5	2330.7	2019.1	1847.2	1784.0	1820.4	1897.7	1958.4
42°	3170.5	3097.3	2940.6	2645.3	2297.7	1976.3	1804.4	1747.0	1786.0	1871.7	1933.0
43°	3156.1	3084.3	2923.6	2625.6	2263.8	1932.4	1762.0	1711.3	1752.0	1842.6	1907.9
44°	3137.5	3068.8	2904.3	2606.3	2229.9	1887.5	1718.0	1674.5	1717.4	1811.2	1882.0



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CANDELA DISTRIBUTION (continued):

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	3117.8	3048.2	2886.7	2585.9	2196.6	1840.8	1674.3	1635.4	1682.9	1780.1	1853.4
46°	3105.5	3029.2	2868.4	2565.2	2161.7	1795.0	1629.7	1596.0	1648.9	1748.1	1822.3
47°	3080.3	3011.0	2846.8	2542.4	2125.3	1747.8	1584.0	1555.4	1615.0	1715.5	1787.8
48°	3041.2	2986.3	2820.9	2518.1	2089.8	1698.7	1539.6	1517.5	1580.6	1682.2	1743.9
49°	3003.7	2947.4	2797.5	2492.6	2055.2	1649.8	1495.1	1479.3	1545.9	1646.9	1688.1
50°	2972.3	2910.5	2769.9	2466.9	2020.0	1599.2	1449.5	1439.3	1511.0	1609.8	1613.8
51°	2942.2	2878.3	2733.9	2440.2	1984.9	1550.4	1404.6	1398.7	1476.3	1570.6	1516.7
52°	2908.7	2847.4	2695.7	2411.4	1947.9	1502.9	1358.1	1357.9	1441.7	1527.2	1394.4
53°	2872.5	2814.8	2657.5	2382.8	1910.4	1454.0	1309.9	1316.3	1404.4	1478.4	1259.4
54°	2837.8	2778.0	2622.7	2350.5	1871.2	1407.0	1262.9	1276.7	1365.2	1418.7	1115.0
55°	2813.7	2745.5	2586.5	2311.7	1825.8	1361.0	1215.0	1236.5	1325.1	1340.2	971.3
56°	2794.0	2719.8	2547.3	2270.0	1779.3	1311.7	1167.7	1194.9	1283.3	1241.4	822.7
57°	2770.9	2698.8	2506.8	2226.4	1733.8	1261.4	1113.7	1153.1	1240.0	1122.4	671.7
58°	2750.0	2677.8	2472.7	2185.1	1689.0	1209.8	1061.3	1109.3	1193.1	993.6	530.1
59°	2735.1	2659.0	2445.7	2139.5	1643.2	1158.9	1010.6	1065.2	1146.0	863.0	406.8
60°	2732.0	2647.8	2424.4	2089.4	1594.9	1104.9	961.9	1019.5	1092.5	726.2	319.2
61°	2739.4	2644.9	2408.0	2041.0	1542.7	1050.3	912.6	972.3	1033.9	589.7	272.1
62°	2739.5	2647.9	2390.8	1994.2	1487.7	997.2	866.2	923.8	963.7	461.1	255.5
63°	2720.6	2641.9	2385.8	1950.6	1432.6	941.7	821.6	874.8	879.6	345.0	244.8
64°	2679.7	2615.7	2392.4	1911.5	1379.2	884.7	780.0	824.8	775.7	265.5	235.4
65°	2612.7	2560.6	2409.8	1877.7	1321.5	826.6	738.2	774.2	670.7	235.7	225.6
66°	2500.9	2473.1	2404.6	1850.0	1254.1	768.8	695.5	723.2	558.6	221.5	215.8
67°	2357.3	2345.8	2368.2	1833.0	1183.0	709.6	651.5	674.7	446.5	206.5	205.7
68°	2179.8	2185.6	2287.1	1838.7	1108.9	651.5	605.5	627.6	356.3	193.8	196.0
69°	1939.0	1985.0	2131.2	1872.0	1038.0	598.1	558.5	579.8	284.0	183.2	187.1
70°	1696.3	1756.4	1929.4	1914.1	967.8	548.4	508.4	529.9	214.4	172.9	178.3
71°	1547.0	1569.2	1680.0	1904.8	909.0	497.5	457.5	479.3	174.2	162.6	168.5
72°	1454.5	1450.7	1433.3	1766.2	856.6	448.9	406.3	423.2	160.6	153.5	156.5
73°	1369.4	1374.8	1258.4	1511.1	801.5	400.4	356.8	366.2	150.1	145.1	143.4
74°	1282.8	1303.8	1162.1	1222.5	794.5	357.2	311.0	305.2	138.6	136.4	130.0
75°	1202.2	1224.7	1081.7	1043.0	891.7	314.0	269.5	246.6	126.9	124.9	117.0
76°	1133.7	1138.2	1009.2	962.5	960.4	274.5	233.6	187.5	116.2	112.6	103.7
77°	1076.7	1043.5	941.2	897.0	805.8	239.5	197.7	140.4	106.1	100.3	91.9
78°	1028.9	956.5	867.6	828.4	567.7	204.0	162.7	118.8	97.0	88.7	83.7
79°	997.1	893.7	793.2	751.8	422.4	177.8	134.7	105.0	87.8	77.1	76.9
80°	954.5	835.6	721.6	646.0	364.9	154.9	109.2	92.2	77.6	63.0	69.7
81°	847.0	778.3	665.8	532.8	372.1	131.8	85.1	79.2	66.7	51.0	61.0
82°	738.9	721.4	613.0	453.6	331.0	110.6	63.9	66.4	55.7	42.8	51.6
83°	630.8	654.8	554.7	393.8	227.8	92.0	48.3	54.7	44.8	36.3	41.9
84°	521.3	584.0	476.3	342.6	153.4	74.8	36.3	43.7	34.3	28.8	31.5
85°	415.1	508.8	375.0	296.8	119.5	57.8	27.7	33.4	25.3	20.7	20.9
86°	291.2	409.7	287.7	240.0	95.3	42.3	19.0	23.9	17.4	12.7	10.7
87°	202.1	298.8	211.8	148.7	69.7	27.7	10.4	14.2	9.6	6.0	4.3
88°	109.9	177.8	139.3	66.2	44.8	14.6	4.8	5.8	3.5	2.2	1.7
89°	55.8	78.8	74.8	42.8	27.3	7.0	1.3	1.1	0.7	0.4	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: P1449920

CATALOG NUMBER: TWC60_T4_60W_3000K

CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5	2778.5
1°	2756.7	2757.3	2757.9	2759.9	2763.6	2768.3	2774.1	2780.4	2785.5	2790.3	2793.9
2°	2735.3	2735.7	2737.8	2741.4	2748.3	2757.7	2768.4	2779.7	2790.0	2798.1	2808.8
3°	2712.6	2710.1	2713.6	2721.0	2732.1	2746.1	2760.5	2777.1	2791.7	2808.3	2823.9
4°	2686.4	2684.2	2688.2	2698.0	2713.0	2731.4	2750.8	2772.5	2793.6	2817.0	2836.7
5°	2658.4	2654.8	2661.2	2673.6	2693.7	2716.8	2741.0	2767.9	2796.3	2825.2	2848.4
6°	2633.2	2631.1	2635.5	2648.2	2670.9	2700.1	2730.4	2761.3	2795.9	2831.3	2859.4
7°	2609.9	2606.9	2612.3	2624.2	2648.0	2681.9	2719.2	2756.4	2794.8	2835.9	2870.9
8°	2588.9	2585.6	2591.1	2601.1	2625.3	2663.5	2706.3	2749.2	2793.2	2840.3	2882.9
9°	2571.5	2567.6	2573.0	2581.1	2603.2	2644.0	2691.4	2738.7	2789.8	2843.9	2894.8
10°	2555.0	2551.9	2556.3	2562.8	2582.5	2623.8	2676.2	2729.0	2785.9	2847.5	2906.4
11°	2539.2	2537.6	2540.3	2545.9	2562.3	2603.1	2659.0	2717.1	2780.8	2851.0	2917.9
12°	2523.2	2521.7	2523.1	2528.5	2541.9	2581.2	2640.9	2703.5	2774.8	2854.9	2929.3
13°	2506.9	2505.3	2507.0	2511.0	2521.4	2558.7	2622.5	2689.6	2768.9	2858.9	2939.0
14°	2491.5	2489.1	2492.2	2493.3	2502.2	2536.5	2602.8	2675.7	2764.4	2860.5	2946.1
15°	2474.6	2472.2	2474.2	2474.8	2482.3	2513.5	2581.9	2659.6	2757.3	2859.8	2949.2
16°	2458.7	2459.3	2456.4	2457.0	2463.1	2489.7	2560.6	2643.9	2749.1	2857.1	2950.7
17°	2443.4	2442.8	2440.3	2439.6	2443.6	2465.8	2538.4	2627.3	2739.3	2851.8	2949.1
18°	2429.7	2431.1	2426.3	2421.2	2422.3	2442.1	2514.3	2608.6	2725.6	2843.3	2945.1
19°	2413.8	2414.6	2410.6	2403.6	2402.5	2418.6	2491.1	2587.6	2709.9	2833.6	2941.4
20°	2397.5	2398.2	2395.0	2385.7	2382.2	2394.4	2466.5	2569.4	2694.1	2822.9	2937.7
21°	2381.8	2384.1	2378.7	2366.9	2361.5	2370.7	2440.9	2549.0	2675.9	2810.7	2933.8
22°	2368.9	2372.3	2363.3	2348.5	2340.2	2345.6	2415.1	2524.8	2655.6	2798.2	2930.6
23°	2356.8	2359.9	2348.4	2330.1	2317.4	2319.7	2388.3	2499.5	2634.9	2785.7	2928.9
24°	2342.6	2345.5	2334.0	2312.3	2295.2	2294.3	2359.9	2473.1	2614.1	2773.5	2927.0
25°	2325.5	2329.0	2318.5	2294.3	2273.1	2269.3	2332.1	2446.1	2591.6	2760.8	2921.6
26°	2308.5	2309.3	2300.5	2278.2	2249.6	2242.9	2303.5	2415.8	2567.8	2746.8	2915.2
27°	2289.1	2291.9	2280.3	2258.9	2226.9	2215.3	2272.1	2384.8	2542.8	2731.7	2908.2
28°	2271.4	2275.2	2261.5	2238.8	2204.1	2187.5	2241.6	2353.9	2517.3	2716.2	2901.8
29°	2254.5	2259.3	2243.5	2217.7	2181.6	2159.7	2209.4	2322.7	2490.5	2700.4	2894.8
30°	2237.9	2242.5	2225.9	2195.5	2158.6	2130.0	2175.7	2290.4	2462.3	2682.6	2886.5
31°	2218.5	2223.9	2208.0	2174.1	2135.0	2100.2	2143.4	2258.0	2434.3	2663.3	2876.1
32°	2199.1	2204.9	2189.1	2152.4	2108.7	2070.1	2109.1	2222.6	2405.6	2644.1	2867.7
33°	2179.4	2186.3	2170.2	2131.0	2081.9	2039.0	2074.0	2187.2	2374.8	2624.2	2859.0
34°	2160.3	2166.3	2149.5	2108.9	2054.9	2008.2	2038.7	2152.1	2344.1	2602.5	2849.2
35°	2141.4	2146.5	2128.6	2085.2	2026.6	1978.3	2002.9	2115.8	2312.8	2579.4	2839.7
36°	2119.1	2125.6	2106.4	2062.5	1999.0	1948.7	1968.2	2077.8	2279.7	2555.9	2830.0
37°	2096.4	2103.3	2084.0	2039.0	1972.1	1919.2	1933.6	2039.7	2245.9	2530.7	2819.9
38°	2072.2	2080.0	2060.4	2013.1	1945.8	1889.2	1900.4	2001.5	2211.0	2504.9	2807.9
39°	2048.1	2055.6	2034.3	1986.6	1919.9	1856.9	1864.9	1958.2	2174.8	2480.2	2793.7
40°	2022.3	2029.8	2010.3	1960.1	1893.7	1823.5	1826.4	1917.8	2136.9	2452.9	2778.1
41°	1996.9	2002.8	1983.4	1935.3	1865.5	1790.1	1786.9	1874.1	2097.1	2424.2	2760.1
42°	1970.8	1976.9	1957.5	1911.3	1837.0	1757.1	1747.4	1831.0	2056.4	2396.7	2742.6
43°	1943.7	1947.5	1931.0	1886.7	1808.3	1722.8	1709.0	1785.2	2014.7	2368.1	2725.5
44°	1917.7	1910.9	1904.7	1858.1	1779.1	1687.3	1669.9	1738.5	1970.0	2338.3	2708.1



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CANDELA DISTRIBUTION (continued):

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	1890.8	1871.0	1877.9	1828.1	1748.3	1652.1	1631.3	1691.8	1923.5	2306.9	2688.0
46°	1842.5	1823.0	1837.7	1798.0	1716.4	1616.5	1592.0	1645.4	1879.2	2275.3	2665.4
47°	1775.7	1745.1	1784.5	1765.7	1683.8	1579.8	1552.3	1595.6	1831.8	2244.9	2642.5
48°	1687.0	1637.9	1711.8	1729.3	1651.6	1542.8	1511.9	1549.4	1784.8	2215.5	2618.4
49°	1572.4	1507.3	1612.1	1688.4	1617.6	1507.6	1469.8	1502.4	1738.1	2186.1	2594.6
50°	1434.1	1362.4	1489.6	1638.6	1581.3	1472.1	1426.4	1456.4	1691.4	2156.8	2567.7
51°	1288.6	1214.0	1351.6	1570.0	1543.9	1436.1	1384.4	1409.7	1645.7	2124.6	2538.1
52°	1140.4	1062.3	1205.3	1477.7	1504.6	1399.3	1341.3	1360.7	1600.5	2089.2	2506.9
53°	988.3	903.9	1058.5	1369.2	1463.0	1362.3	1297.5	1311.5	1552.7	2049.4	2472.8
54°	829.6	746.2	905.2	1236.3	1418.3	1323.6	1254.7	1258.8	1505.9	2010.0	2433.0
55°	676.6	594.9	748.9	1098.7	1369.3	1284.4	1210.4	1206.4	1458.3	1973.8	2391.9
56°	531.3	460.6	600.1	958.9	1309.9	1244.0	1165.8	1155.6	1408.4	1936.9	2352.1
57°	403.9	359.4	458.9	811.7	1233.9	1200.1	1120.2	1103.3	1357.7	1897.2	2310.4
58°	328.2	304.2	360.2	663.9	1137.5	1153.5	1073.0	1052.4	1306.2	1853.5	2266.7
59°	290.3	283.7	302.3	523.7	1022.4	1106.1	1026.5	1004.1	1256.1	1806.0	2221.9
60°	275.3	274.8	276.1	399.1	898.8	1057.2	978.3	956.1	1200.9	1755.4	2177.4
61°	267.4	267.3	265.7	305.9	772.8	1008.3	930.9	909.7	1143.2	1703.6	2138.9
62°	259.4	259.3	257.3	258.9	641.6	956.4	883.9	863.4	1084.9	1652.2	2106.0
63°	250.9	251.0	248.7	240.3	512.4	904.2	835.9	817.1	1022.9	1595.7	2077.7
64°	242.6	242.9	240.1	231.1	391.7	845.0	786.9	771.4	960.2	1530.2	2054.1
65°	234.2	235.2	231.0	219.6	295.3	779.8	737.4	724.2	899.3	1462.8	2033.8
66°	226.1	227.6	222.0	209.3	245.3	696.8	687.8	676.7	843.0	1398.3	2025.3
67°	218.0	219.2	213.2	198.7	216.0	604.7	639.3	626.7	785.0	1335.7	2040.7
68°	209.9	210.7	204.6	188.5	198.5	506.6	592.5	576.0	722.1	1274.8	2073.6
69°	201.0	201.7	195.9	178.8	188.0	409.4	545.8	523.9	662.2	1221.8	2083.5
70°	189.1	188.3	185.7	169.6	176.4	326.0	498.5	472.8	611.7	1172.1	2038.5
71°	175.2	174.5	172.8	161.4	164.9	259.7	453.7	422.0	562.3	1135.1	1897.3
72°	161.4	160.4	159.2	151.6	154.3	193.8	409.2	371.9	515.4	1130.3	1645.8
73°	147.2	146.4	145.4	139.8	143.6	156.2	368.2	324.9	467.2	1206.1	1371.0
74°	133.4	133.4	132.0	127.1	134.1	144.0	324.3	282.5	421.7	1291.2	1172.7
75°	121.3	123.0	119.1	114.3	125.3	131.9	278.8	242.4	371.5	1196.7	1061.5
76°	112.7	116.1	108.9	102.2	115.2	120.9	234.1	206.7	322.5	990.2	976.8
77°	106.6	110.8	101.8	90.1	103.4	110.0	189.7	174.0	283.7	806.2	899.0
78°	100.1	103.4	95.6	78.5	91.4	99.7	148.7	143.6	261.5	623.6	826.3
79°	90.1	91.6	87.5	70.0	79.4	89.6	118.2	118.3	236.4	524.2	742.2
80°	80.0	82.1	77.3	63.4	68.0	79.8	100.0	95.6	214.7	517.8	637.7
81°	69.8	71.2	67.0	56.4	55.3	69.9	85.1	78.8	203.4	460.8	544.6
82°	57.8	57.9	56.3	48.3	43.1	59.2	71.2	62.1	190.1	333.0	474.1
83°	43.4	41.5	43.6	39.3	34.5	47.8	57.6	45.3	159.8	238.7	420.1
84°	30.9	29.8	31.4	29.6	27.1	37.3	44.5	33.4	115.5	192.1	370.4
85°	19.5	18.7	19.8	19.8	19.5	27.8	32.8	23.8	82.2	159.3	309.2
86°	9.1	7.9	9.2	10.3	12.1	18.5	23.2	15.8	56.9	129.6	220.3
87°	3.7	3.1	3.7	4.0	5.8	10.0	13.4	9.1	33.0	102.5	136.5
88°	1.5	1.4	1.5	1.6	2.1	3.6	5.2	4.9	15.7	78.5	101.8
89°	0.1	0.0	0.1	0.3	0.4	0.5	0.9	0.9	7.1	56.3	74.1



REPORT NUMBER: P1449920
 CATALOG NUMBER: TWC60_T4_60W_3000K

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: P1449920
 CATALOG NUMBER: TWC60_T4_60W_3000K

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: P1449920
CATALOG NUMBER: TWC60_T4_60W_3000K

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: P1449920
 CATALOG NUMBER: TWC60_T4_60W_3000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
0°	2778.5	2778.5	2778.5
1°	2797.0	2799.9	2801.8
2°	2815.9	2821.0	2824.2
3°	2834.9	2841.2	2845.6
4°	2851.4	2860.4	2861.8
5°	2867.2	2879.0	2882.4
6°	2882.9	2897.9	2902.3
7°	2898.8	2916.6	2926.1
8°	2916.7	2936.5	2944.9
9°	2934.6	2958.2	2965.5
10°	2951.9	2981.0	2990.1
11°	2970.1	3002.3	3012.2
12°	2986.5	3020.2	3028.2
13°	2999.1	3034.0	3046.2
14°	3008.0	3046.8	3058.2
15°	3013.9	3055.5	3071.5
16°	3019.5	3063.8	3081.7
17°	3024.0	3072.5	3091.3
18°	3027.8	3082.8	3102.5
19°	3031.1	3091.7	3112.2
20°	3035.8	3100.2	3120.8
21°	3039.9	3107.5	3131.1
22°	3044.2	3114.4	3139.3
23°	3047.6	3121.5	3145.3
24°	3050.3	3130.3	3155.7
25°	3050.9	3136.6	3163.4
26°	3053.3	3143.9	3172.9
27°	3053.3	3151.9	3183.5
28°	3055.7	3160.8	3192.7
29°	3058.8	3167.9	3200.9
30°	3059.5	3176.6	3213.1
31°	3061.1	3185.6	3222.2
32°	3063.7	3188.8	3227.9
33°	3066.0	3191.0	3231.0
34°	3065.7	3191.1	3229.1
35°	3062.1	3190.2	3226.7
36°	3056.8	3184.8	3224.4
37°	3051.7	3180.3	3216.6
38°	3043.8	3172.3	3210.9
39°	3034.1	3162.5	3201.9
40°	3023.8	3151.9	3189.9
41°	3009.3	3136.1	3177.1
42°	2994.4	3127.1	3170.5
43°	2978.6	3113.6	3156.1
44°	2962.1	3096.7	3137.5



REPORT NUMBER: P1449920
 CATALOG NUMBER: TWC60_T4_60W_3000K

CANDELA DISTRIBUTION (continued):

	330°	345°	360°
45°	2945.4	3077.8	3117.8
46°	2926.4	3058.2	3105.5
47°	2904.8	3039.4	3080.3
48°	2881.8	3008.2	3041.2
49°	2857.1	2966.4	3003.7
50°	2823.3	2934.1	2972.3
51°	2784.9	2902.3	2942.2
52°	2748.5	2870.6	2908.7
53°	2716.2	2836.1	2872.5
54°	2677.8	2800.1	2837.8
55°	2638.5	2770.5	2813.7
56°	2600.0	2749.4	2794.0
57°	2565.7	2731.2	2770.9
58°	2540.4	2708.4	2750.0
59°	2520.2	2691.2	2735.1
60°	2501.2	2682.2	2732.0
61°	2484.5	2682.9	2739.4
62°	2476.3	2683.8	2739.5
63°	2481.5	2671.8	2720.6
64°	2493.9	2638.0	2679.7
65°	2487.5	2576.2	2612.7
66°	2449.4	2479.5	2500.9
67°	2373.4	2344.8	2357.3
68°	2240.3	2172.1	2179.8
69°	2051.5	1958.1	1939.0
70°	1823.7	1733.4	1696.3
71°	1581.6	1564.1	1547.0
72°	1385.6	1454.7	1454.5
73°	1265.2	1372.9	1369.4
74°	1195.0	1292.9	1282.8
75°	1132.2	1207.3	1202.2
76°	1071.5	1120.7	1133.7
77°	1005.2	1038.5	1076.7
78°	928.9	968.5	1028.9
79°	855.8	923.2	997.1
80°	783.1	882.4	954.5
81°	712.1	834.8	847.0
82°	642.7	762.8	738.9
83°	559.5	672.2	630.8
84°	462.4	581.2	521.3
85°	372.1	483.8	415.1
86°	306.1	369.0	291.2
87°	229.2	256.2	202.1
88°	149.7	148.1	109.9
89°	85.6	70.9	55.8



REPORT NUMBER: P1449920
CATALOG NUMBER: TWC60_T4_60W_3000K

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: P1449920
CATALOG NUMBER: TWC60_T4_60W_3000K

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: P1449920
CATALOG NUMBER: TWC60_T4_60W_3000K

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: SP1-2601-659-1

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-3000K

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

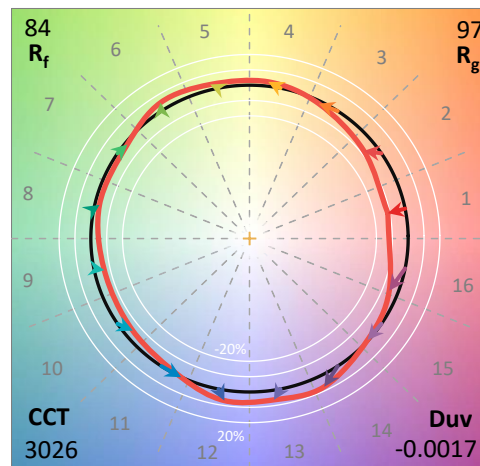
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-1
 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-3000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 3000K

Spectral Parameters

CCT (K): 3026
 CIE u': 0.2503
 CIE v': 0.5184
 Duv: -0.0017
 CIE x: 0.4326
 CIE y: 0.3983
 CIE z: 0.1691
 Peak Wavelength (nm): 604
 Dominant Wavelength (nm): 583
 Purity: 49.3886
 Rf: 84
 Rg: 97.4

CRI (Ra):	82.7		
R1:	81.4	R9:	7.5
R2:	90.7	R10:	78.8
R3:	96.3	R11:	80.8
R4:	81.1	R12:	70.7
R5:	81.6	R13:	83.7
R6:	88.6	R14:	98.6
R7:	82.6	R15:	74.2
R8:	59.3		



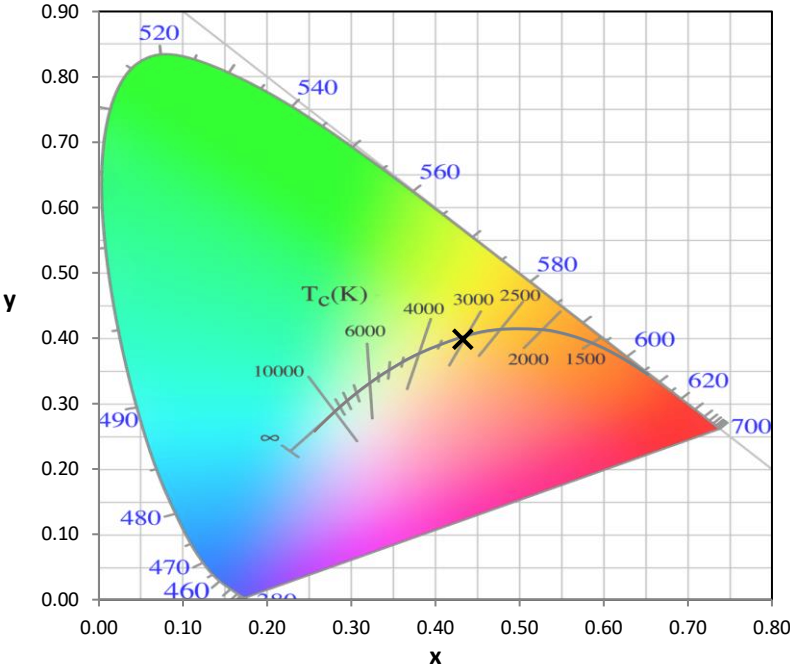
Test Conditions
 Stabilization Time: 64M
 Operation Time: 2H 4M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-1

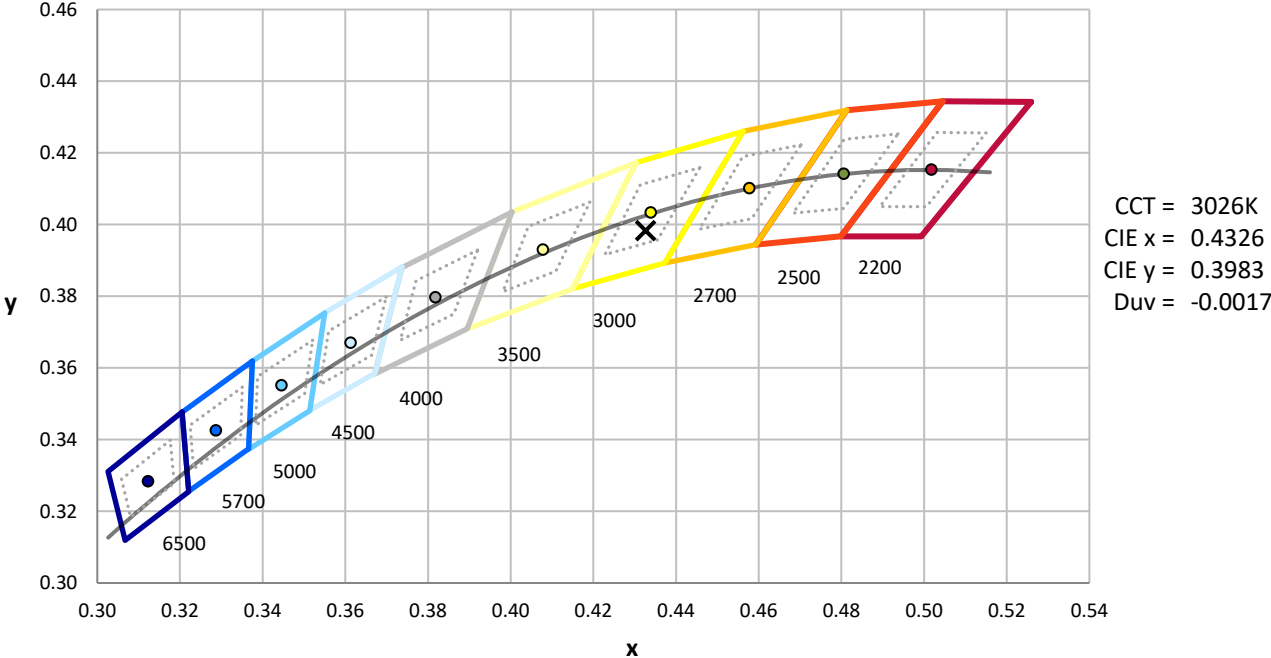
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2601-659-1

CIE 1931 Chromaticity Diagram



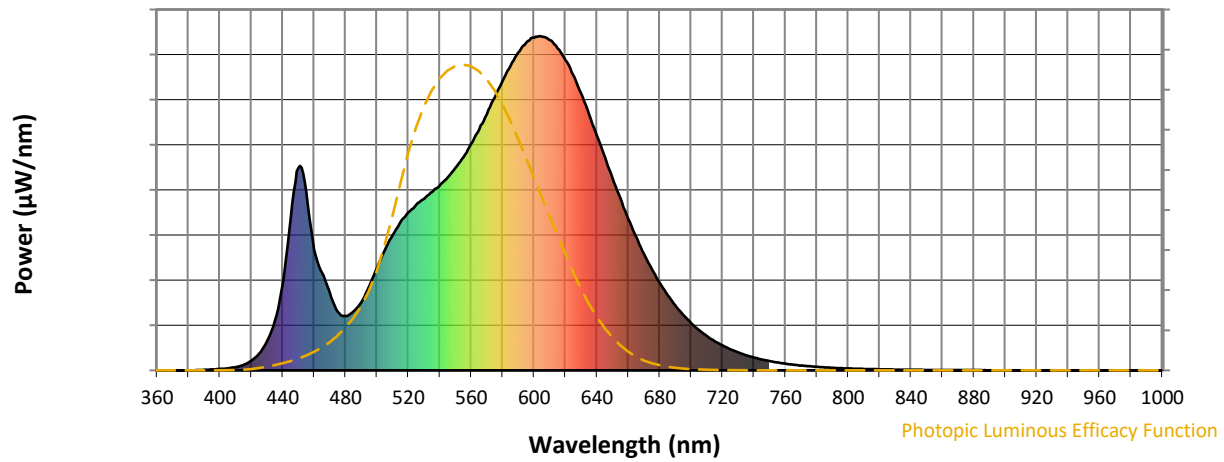
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-1

Photopic Flux vs. Wavelength

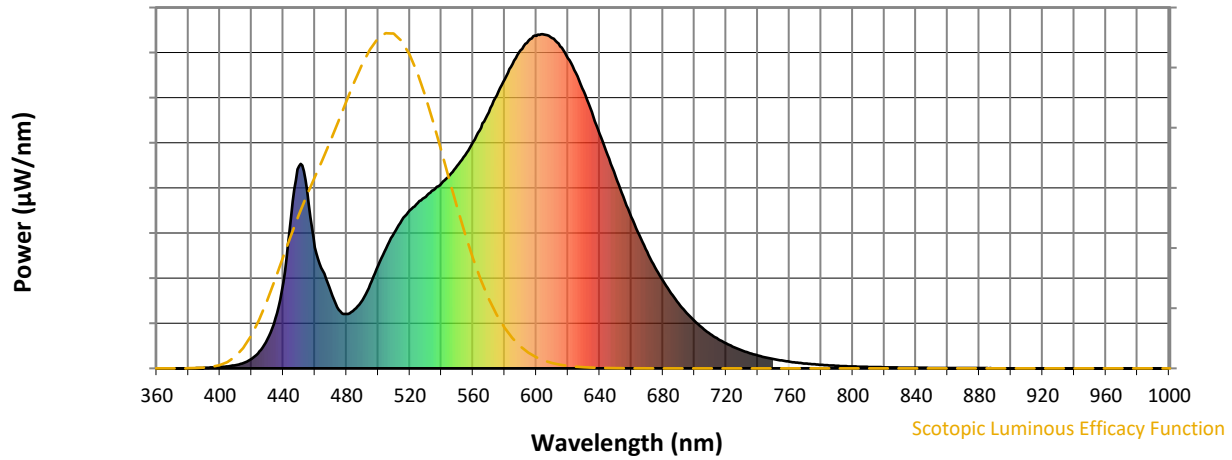


Photopic Lumens: NR

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	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-1

Scotopic Flux vs. Wavelength



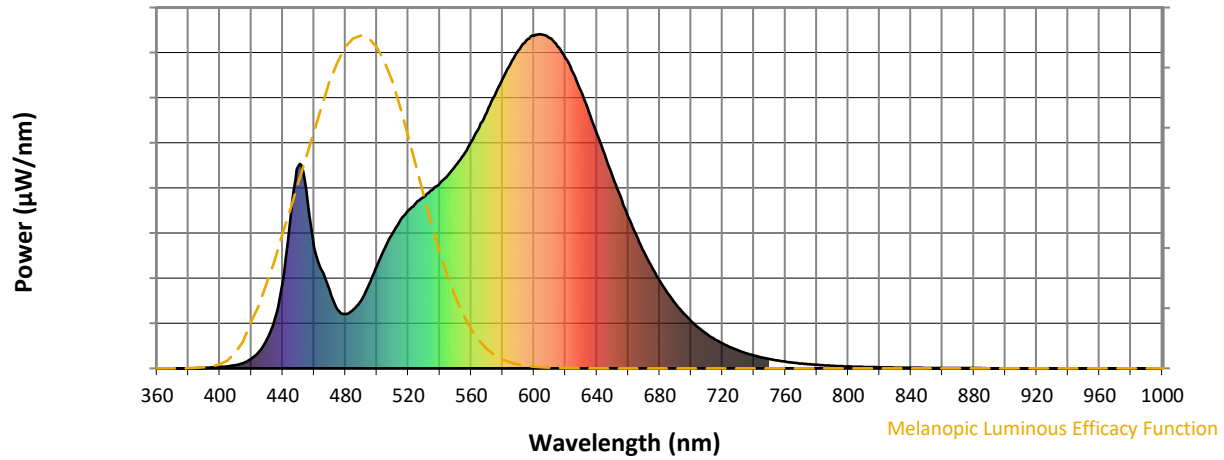
Scotopic Lumens: NR

S/P: 1.35

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	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-1

Melanopic Flux vs. Wavelength



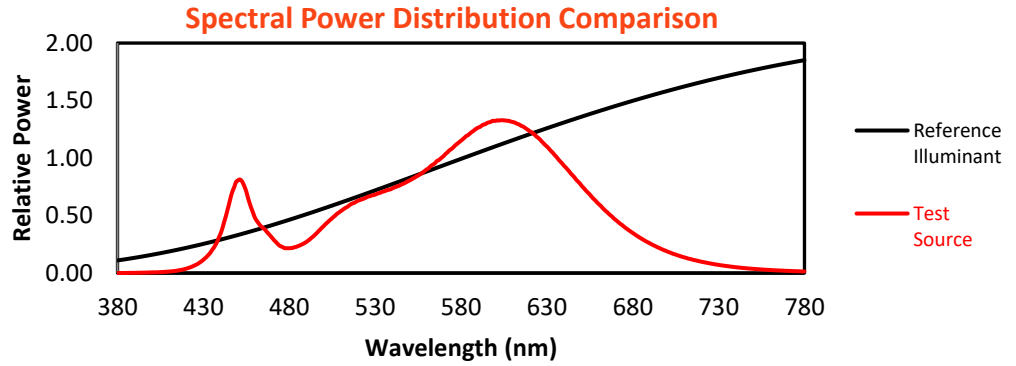
Melanopic Lumens: NR

M/P: 2.61

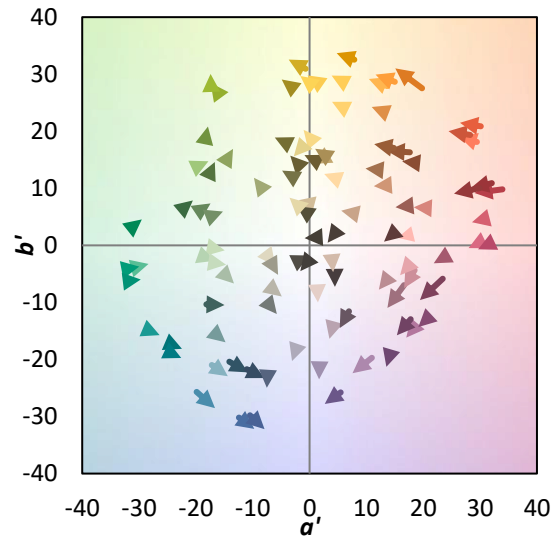
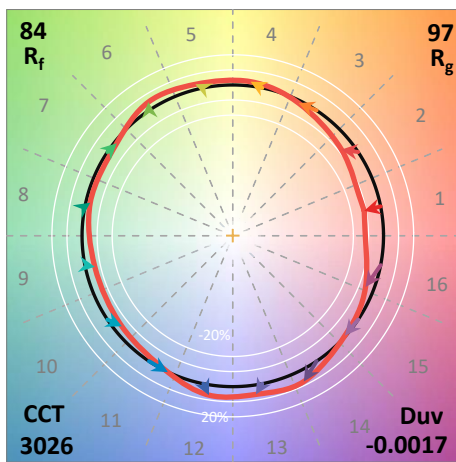
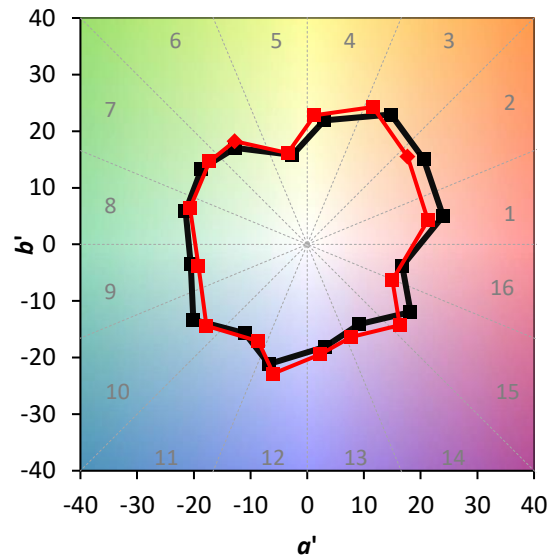
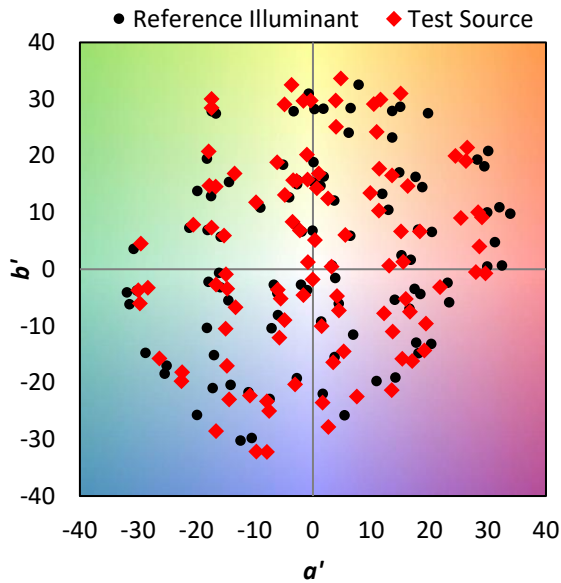
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

Summary

$R_f = 84$
 $R_g = 97.4$
 $CIE R_a = 82.7$
 $R_9 = 7.5$

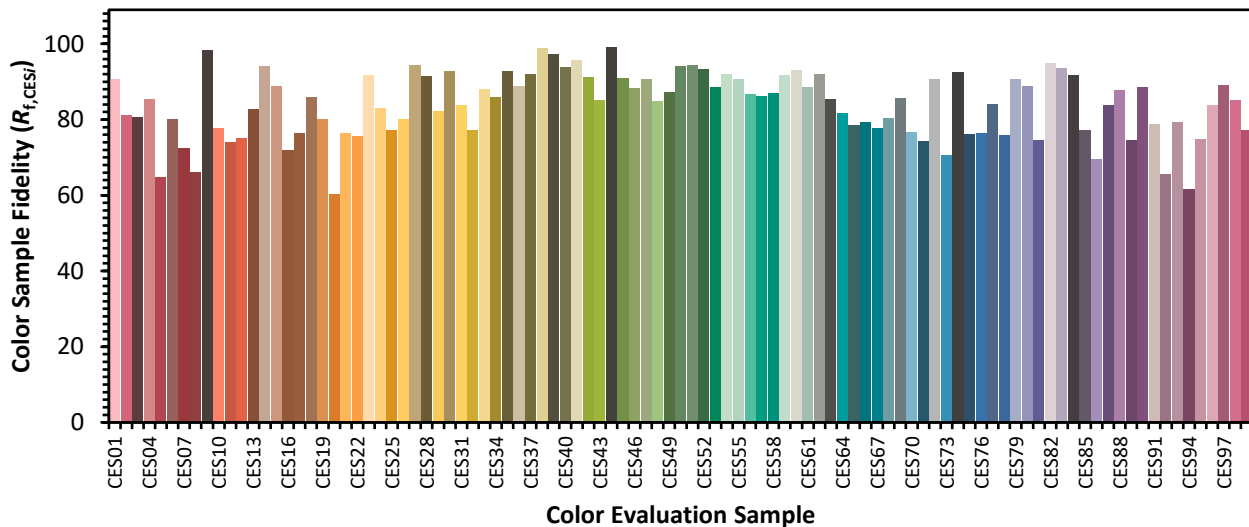


Color Vector Graphics

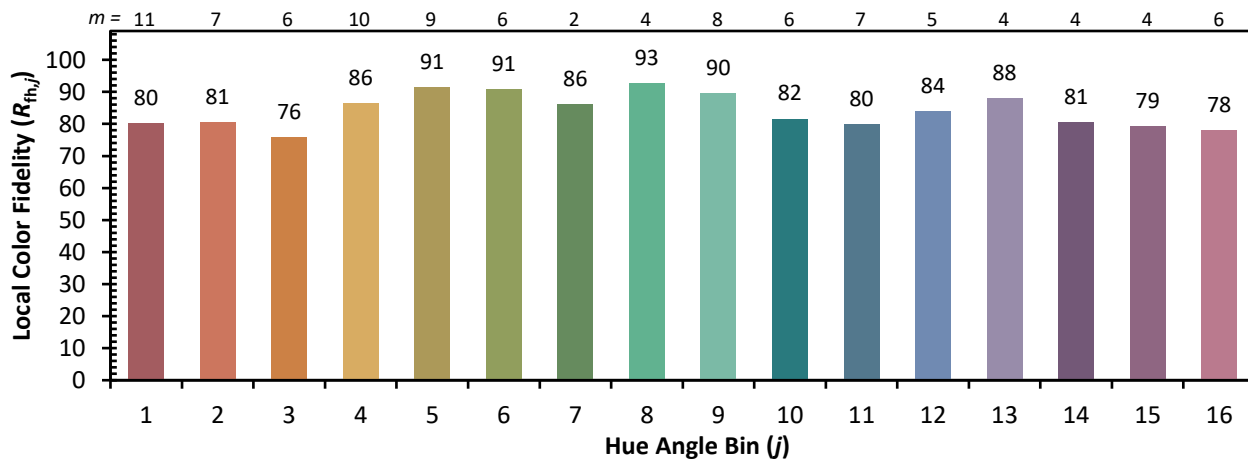
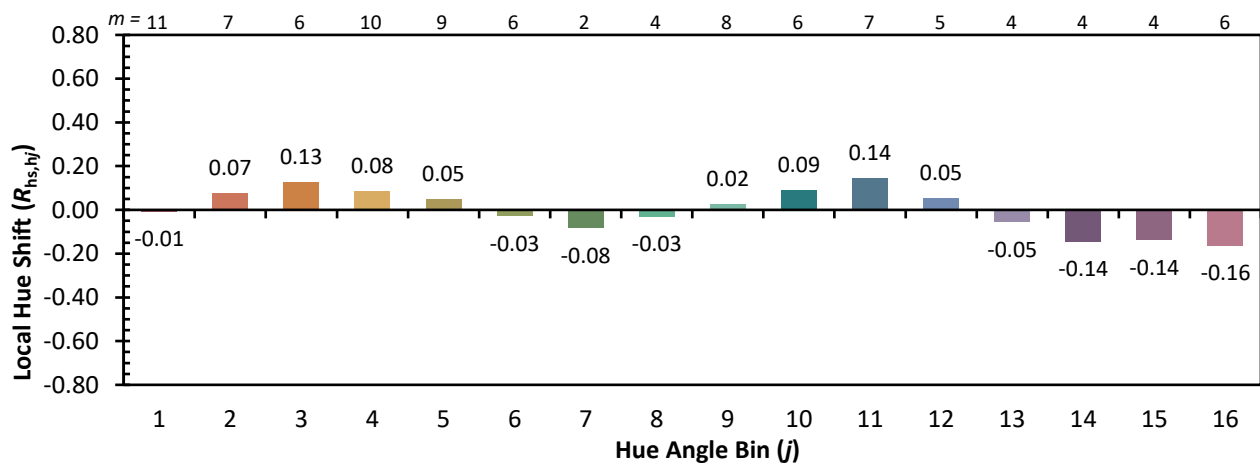
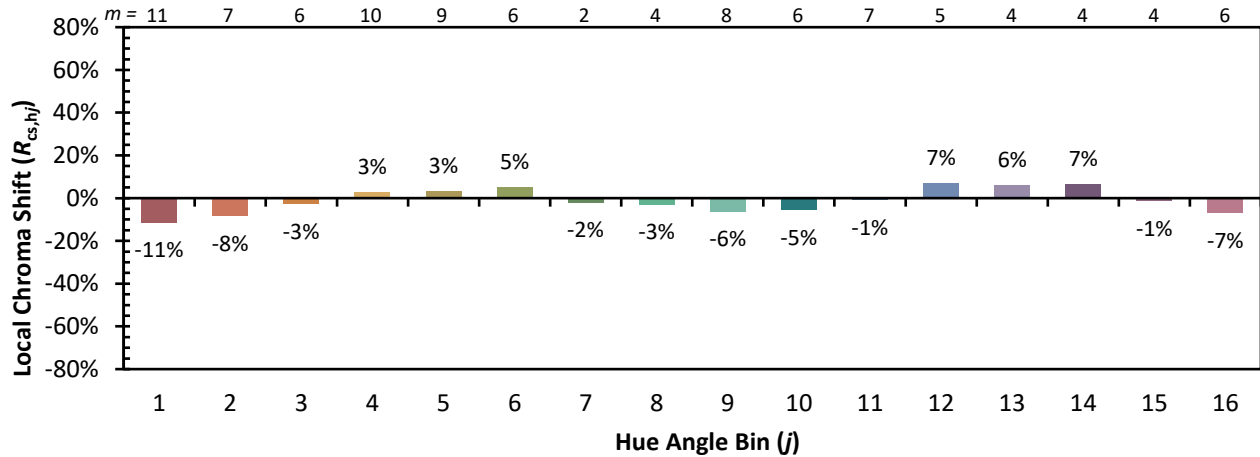


Individual Sample Fidelity Index ($R_{f,i}$)

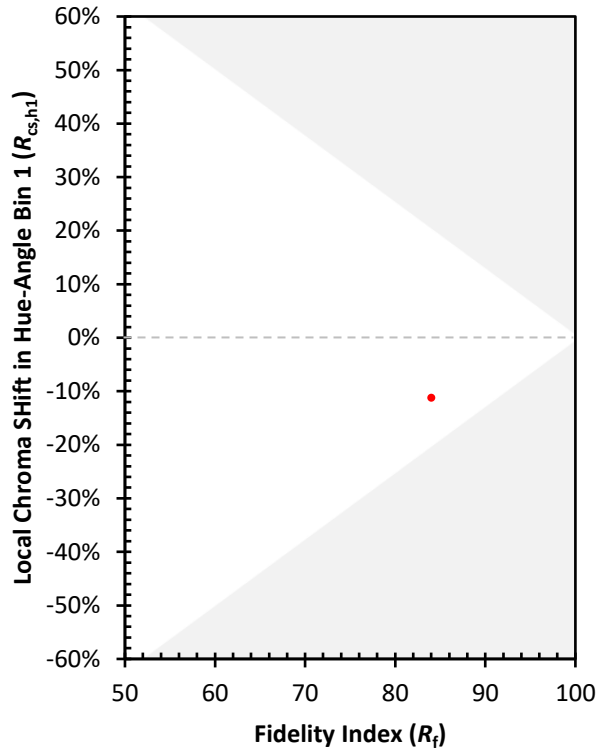
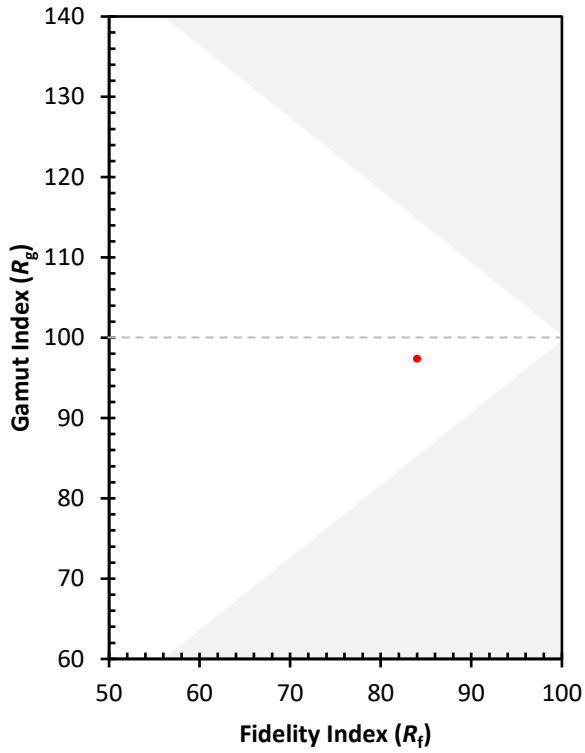
CES01 = 86	CES26 = 80	CES51 = 94	CES76 = 76
CES02 = 63	CES27 = 94	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 92	CES53 = 88	CES78 = 76
CES04 = 70	CES29 = 82	CES54 = 92	CES79 = 91
CES05 = 50	CES30 = 93	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 84	CES56 = 87	CES81 = 75
CES07 = 42	CES32 = 77	CES57 = 86	CES82 = 95
CES08 = 41	CES33 = 88	CES58 = 87	CES83 = 93
CES09 = 29	CES34 = 86	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 93	CES60 = 93	CES85 = 77
CES11 = 59	CES36 = 89	CES61 = 89	CES86 = 69
CES12 = 65	CES37 = 92	CES62 = 92	CES87 = 84
CES13 = 43	CES38 = 99	CES63 = 85	CES88 = 88
CES14 = 74	CES39 = 97	CES64 = 82	CES89 = 75
CES15 = 72	CES40 = 94	CES65 = 79	CES90 = 89
CES16 = 48	CES41 = 96	CES66 = 79	CES91 = 79
CES17 = 50	CES42 = 91	CES67 = 78	CES92 = 66
CES18 = 57	CES43 = 85	CES68 = 80	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 86	CES94 = 62
CES20 = 67	CES45 = 91	CES70 = 77	CES95 = 75
CES21 = 87	CES46 = 88	CES71 = 74	CES96 = 84
CES22 = 79	CES47 = 91	CES72 = 91	CES97 = 89
CES23 = 92	CES48 = 85	CES73 = 71	CES98 = 85
CES24 = 91	CES49 = 87	CES74 = 93	CES99 = 77
CES25 = 72	CES50 = 94	CES75 = 76	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)