

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: P979121

Luminaire Tested: **WPSLED15S-60W-5000K**

Issue Date: 03/31/2025



Test Information

Test Method: LM-79-08
Report Number: P979121
Test Lab: Cooper Lighting Solutions
Issue Date: 03/31/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: WPSLED15S-60W-5000K
Description: LUMARK WALL PACK LED SMALL 80CRI CCT AND LUMEN SELECTIVE FIXTURE
OPERATING @60W-5000K
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

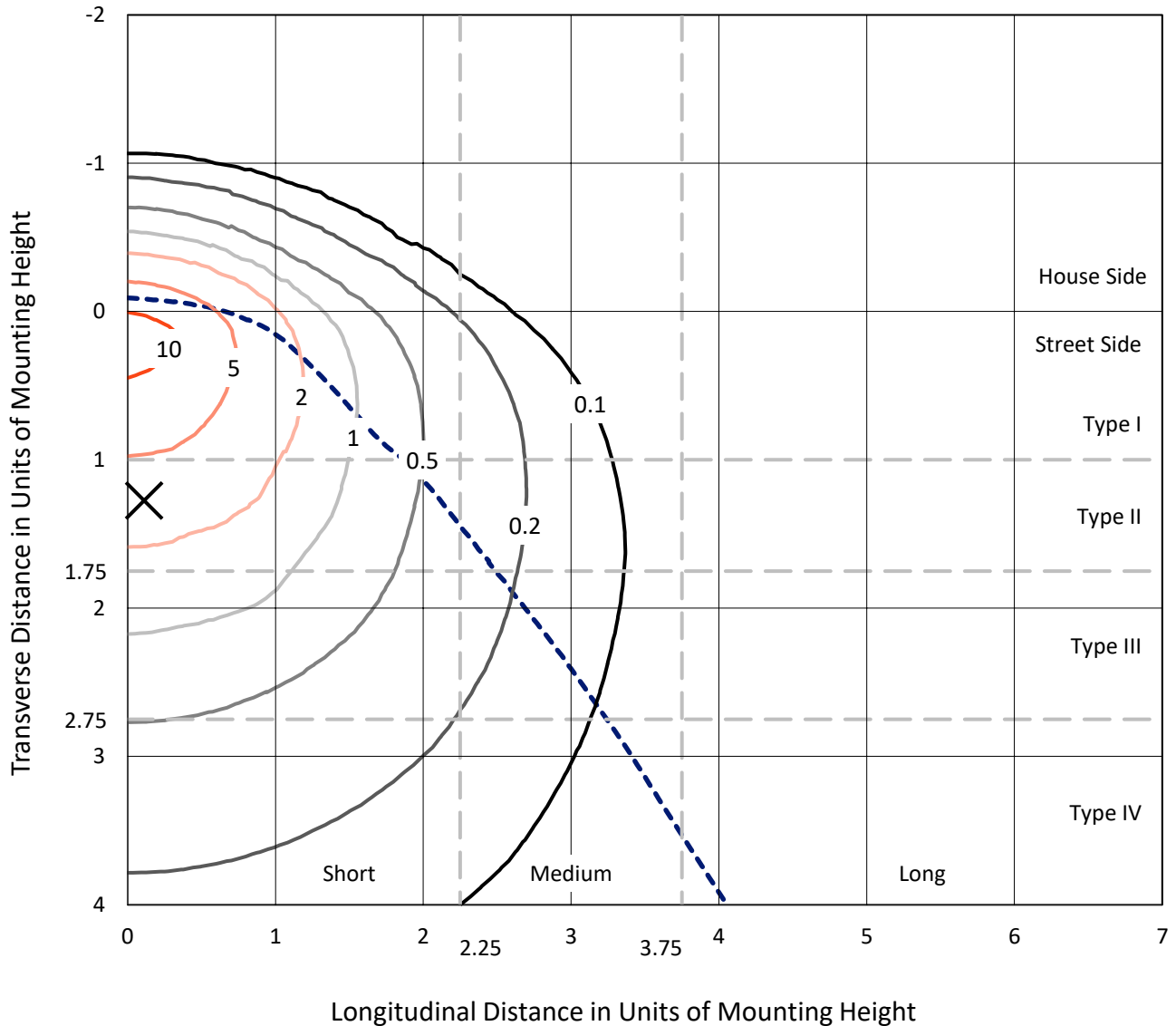
Lumens per Lamp: N/A
Luminaire Lumens: 8467.5 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.61' x L: 0.12' x H: 0.44')
IES Classification: Type IV - Short
BUG Rating: B1 - U3 - G4

Input Watts (W): 60.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

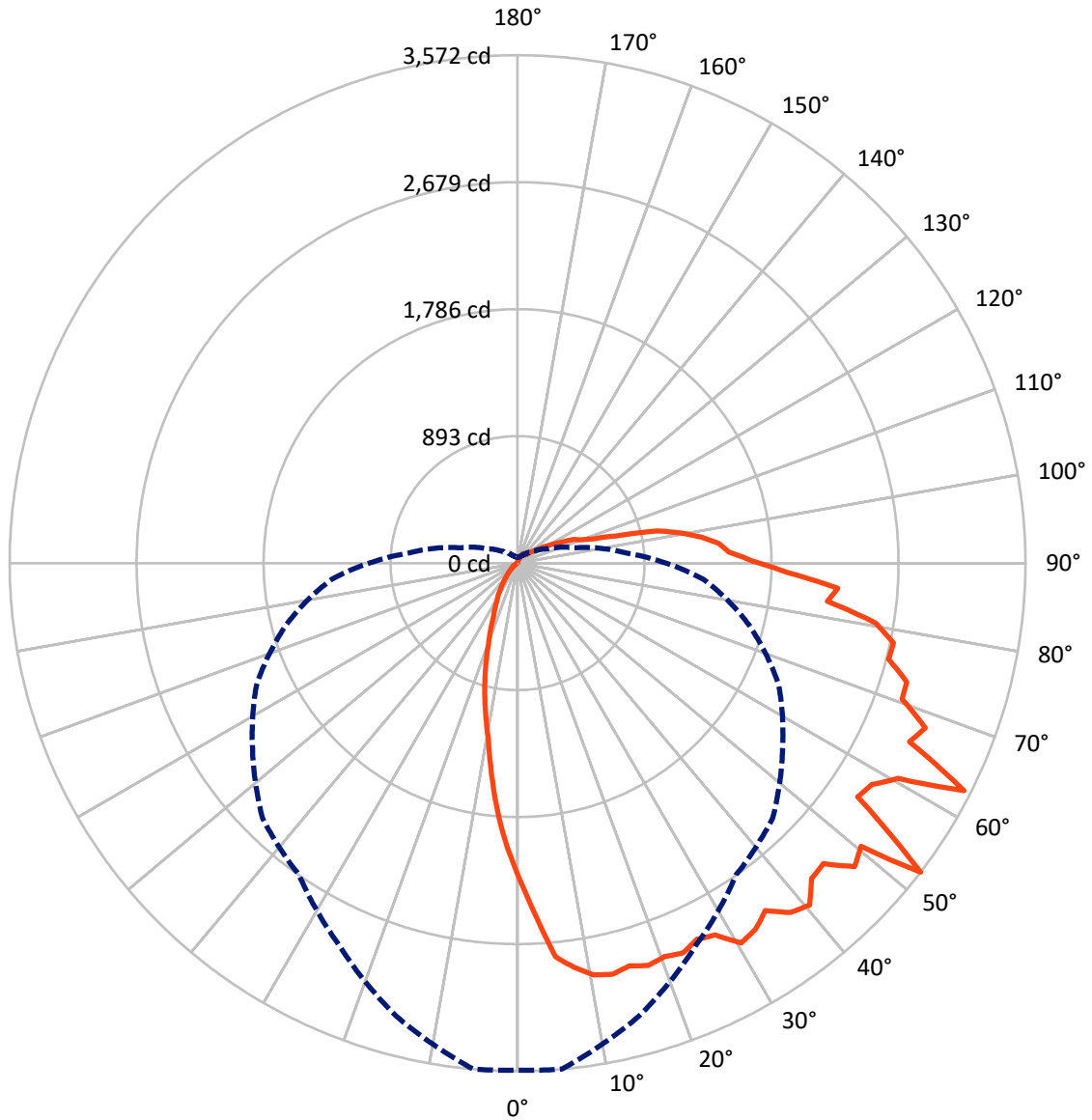
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 12.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 52-Deg Vertical

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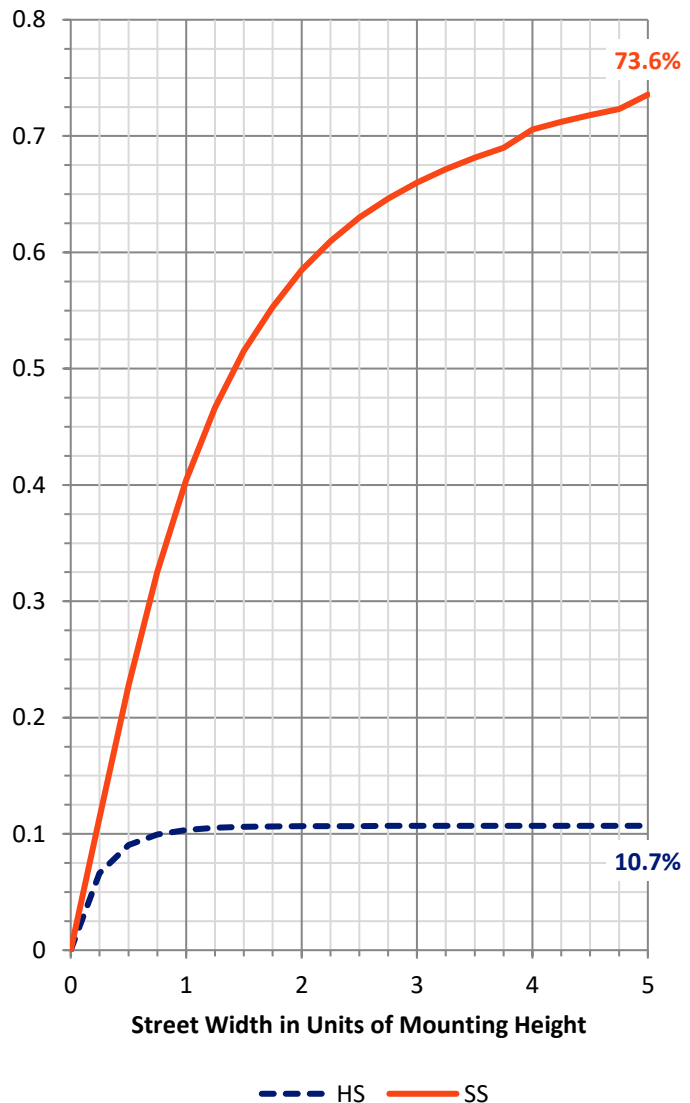
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	915.7	9.3	925.0
	% Fixture	10.8	0.1	10.9
Street Side	Lumens	6725.0	817.5	7542.5
	% Fixture	79.4	9.7	89.1
Total	Lumens	7640.7	826.8	8467.5
	% Fixture	90.2	9.8	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.7	2.5
10°-20°	564.4	6.7
20°-30°	814.9	9.6
30°-40°	993.2	11.7
40°-50°	1098.9	13.0
50°-60°	1134.8	13.4
60°-70°	1127.6	13.3
70°-80°	981.5	11.6
80°-90°	714.7	8.4
90°-100°	430.2	5.1
100°-110°	207.4	2.4
110°-120°	93.4	1.1
120°-130°	44.5	0.5
130°-140°	24.9	0.3
140°-150°	16.6	0.2
150°-160°	7.5	0.1
160°-170°	2.0	0.0
170°-180°	0.2	0.0
0°-90°	7640.7	90.2
0°-180°	8467.5	100.0

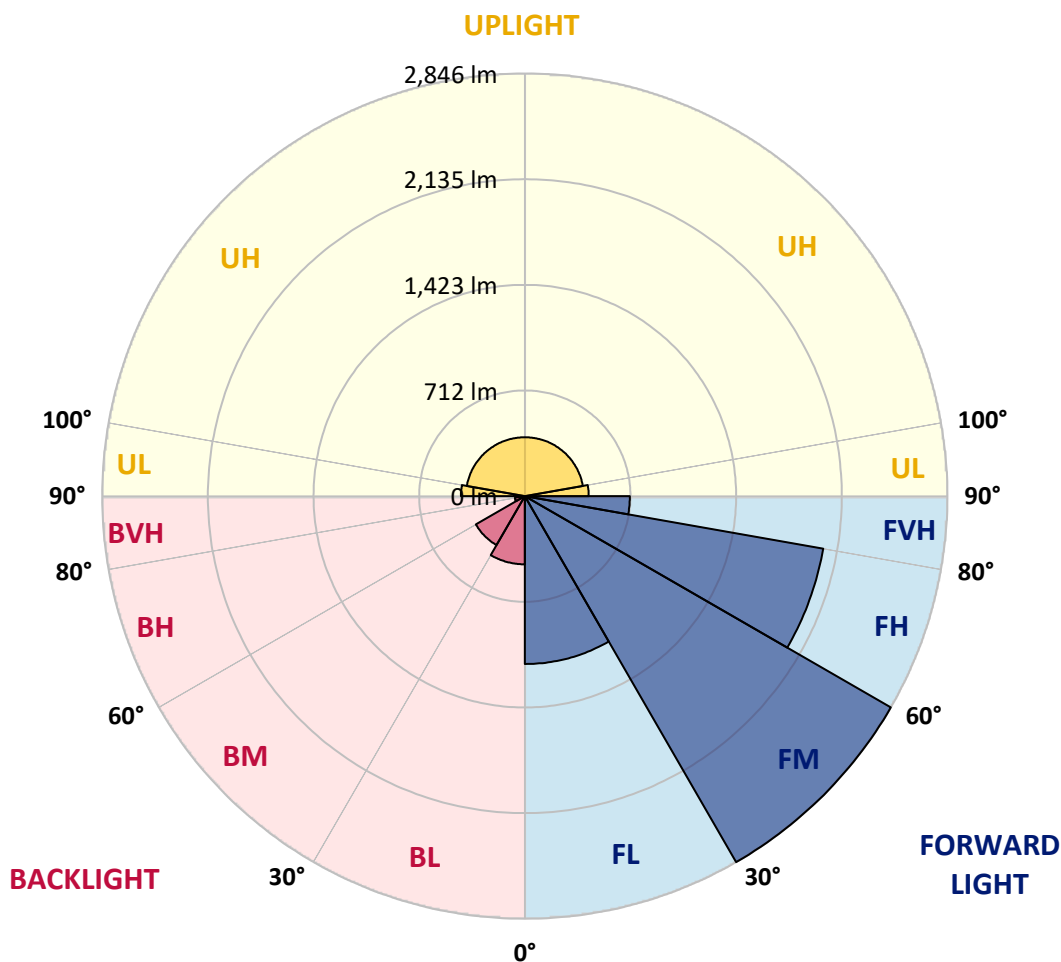


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1130.7	13.4			
FM (30°-60°)	2846.3	33.6			
FH (60°-80°)	2040.8	24.1			G2/5000
FVH (80°-90°)	707.2	8.4			G4/750
BL (0°-30°)	459.2	5.4	B1/500		
BM (30°-60°)	380.7	4.5	B1/1000		
BH (60°-80°)	68.4	0.8	B0/110		G0/110
BVH (80°-90°)	7.4	0.1			G0/10
UL (90°-100°)	430.2	5.1		U3/500	
UH (100°-180°)	396.6	4.7		U3/500	

BUG Rating: B1-U3-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2
2.5°	2486.3	2486.3	2481.3	2475.2	2474.2	2470.2	2451.1	2403.9	2325.6	2253.3	2227.2
5°	2777.5	2780.5	2778.5	2719.2	2659.0	2568.6	2500.3	2449.1	2416.0	2266.4	2211.1
7.5°	2866.8	2870.9	2884.9	2859.8	2829.7	2784.5	2635.9	2482.3	2406.9	2258.3	2168.0
10°	2937.1	2945.2	2927.1	2868.9	2806.6	2799.6	2758.4	2574.6	2395.9	2251.3	2129.8
12.5°	2950.2	2966.3	2903.0	2843.8	2843.8	2792.5	2755.4	2668.0	2416.0	2253.3	2104.7
15°	2931.1	2939.1	2883.9	2863.8	2861.8	2780.5	2720.2	2696.1	2449.1	2248.3	2075.6
17.5°	2971.3	2974.3	2955.2	2898.0	2793.5	2812.6	2748.4	2688.1	2508.4	2240.3	2053.5
20°	2959.2	2953.2	2885.9	2855.8	2886.9	2751.4	2713.2	2645.9	2544.5	2219.2	2015.3
22.5°	2981.3	2978.3	2896.0	2875.9	2809.6	2807.6	2760.4	2650.0	2540.5	2188.0	1968.1
25°	2931.1	2931.1	2857.8	2854.8	2828.7	2767.4	2661.0	2618.8	2512.4	2154.9	1922.9
27.5°	2975.3	2961.2	2861.8	2822.7	2811.6	2728.3	2666.0	2577.7	2464.2	2105.7	1870.7
30°	3110.9	3098.8	2991.4	2854.8	2761.4	2740.3	2652.0	2545.5	2397.9	2046.5	1811.5
32.5°	3083.7	3071.7	3017.5	2968.3	2786.5	2692.1	2562.6	2461.2	2333.6	1982.2	1749.2
35°	3023.5	3000.4	2925.1	2929.1	2885.9	2660.0	2557.6	2375.8	2271.4	1920.9	1680.9
37.5°	3151.0	3117.9	2994.4	2898.0	2850.8	2663.0	2542.5	2366.8	2212.1	1854.7	1599.6
40°	3203.2	3162.1	2982.3	2981.3	2770.5	2724.3	2477.2	2349.7	2151.9	1778.4	1525.3
42.5°	3043.6	3032.5	3145.0	2968.3	2834.7	2637.9	2452.1	2287.5	2073.6	1687.0	1430.9
45°	3043.6	3014.5	2906.0	2960.2	2799.6	2566.6	2427.0	2222.2	1979.2	1593.6	1331.5
47.5°	3236.4	3189.2	3004.4	2830.7	2819.7	2603.8	2390.9	2175.0	1868.7	1496.2	1223.1
50°	3155.0	3129.9	3084.7	2963.2	2660.0	2601.8	2337.7	2100.7	1765.3	1390.7	1111.6
52°	3565.7	3571.8	3297.6	2966.3	2678.1	2536.5	2275.4	2025.4	1686.0	1312.4	1045.3
52.5°	3415.1	3458.3	3425.2	2930.1	2703.2	2502.3	2264.4	1999.3	1663.9	1286.3	1029.3
55°	2905.0	2902.0	2888.9	3164.1	2701.2	2398.9	2235.2	1909.9	1572.5	1204.0	948.9
57.5°	2932.1	2938.1	2838.7	2764.4	2826.7	2380.8	2164.9	1806.5	1494.2	1119.6	867.6
60°	3083.7	3074.7	3102.8	2810.6	2596.7	2375.8	2007.3	1728.1	1428.9	1031.3	803.3
62.5°	3549.7	3523.6	3239.4	2872.9	2600.7	2388.9	1949.1	1660.9	1353.6	958.0	736.0
65°	3039.6	3028.5	2973.3	3077.7	2647.9	2275.4	1926.0	1621.7	1274.3	881.6	641.7
67.5°	3099.8	3092.8	2977.3	2800.6	2683.1	2274.4	1868.7	1539.4	1198.0	784.2	543.2
70°	2870.9	2868.9	2803.6	2710.2	2505.4	2234.2	1782.4	1434.9	1109.6	675.8	442.8
72.5°	2850.8	2861.8	2767.4	2613.8	2417.0	2076.6	1691.0	1354.6	1005.2	578.4	362.5
75°	2697.1	2695.1	2624.8	2490.3	2299.5	1970.1	1600.6	1282.3	893.7	482.0	284.2
77.5°	2699.2	2702.2	2614.8	2442.1	2217.2	1856.7	1501.2	1143.7	785.2	382.6	216.9
80°	2551.5	2553.6	2438.1	2292.5	2078.6	1738.2	1363.6	1027.2	667.8	293.2	159.7
82.5°	2184.0	2194.1	2118.8	2017.3	1863.7	1561.5	1216.0	918.8	561.3	218.9	118.5
85°	2243.3	2259.3	2150.9	2005.3	1808.5	1466.1	1086.5	789.3	444.8	156.6	87.4
87.5°	1874.7	1898.8	1819.5	1725.1	1554.4	1259.2	932.9	642.7	349.4	118.5	67.3
90°	1636.8	1652.8	1591.6	1488.2	1319.5	1088.5	806.3	536.2	270.1	88.4	53.2
92.5°	1463.0	1487.1	1458.0	1375.7	1221.0	970.0	686.8	429.8	204.8	68.3	45.2
95°	1402.8	1423.9	1344.6	1223.1	1070.4	843.5	569.4	344.4	157.7	55.2	39.2
97.5°	1294.3	1308.4	1251.2	1089.5	940.9	720.0	460.9	257.1	122.5	47.2	35.1
100°	1158.8	1163.8	1083.5	977.0	800.3	579.4	350.4	200.8	99.4	43.2	32.1
102.5°	994.1	1005.2	894.7	764.2	627.6	453.9	275.1	162.7	82.3	41.2	32.1
105°	708.9	715.0	650.7	580.4	489.0	351.5	228.9	136.6	69.3	40.2	32.1
107.5°	537.2	544.2	512.1	459.9	385.6	291.2	186.8	113.5	61.3	39.2	31.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	466.9	467.9	441.8	398.6	333.4	240.0	154.6	94.4	56.2	39.2	30.1
112.5°	416.7	423.8	391.6	348.4	282.2	204.8	129.5	80.3	54.2	38.2	29.1
115°	340.4	342.4	320.3	288.2	231.0	169.7	111.5	72.3	53.2	36.1	27.1
117.5°	285.2	284.2	268.1	235.0	190.8	140.6	98.4	67.3	51.2	33.1	25.1
120°	228.9	232.0	217.9	193.8	158.7	119.5	86.4	63.3	49.2	31.1	23.1
122.5°	193.8	194.8	183.8	162.7	130.5	102.4	76.3	59.2	47.2	29.1	20.1
125°	161.7	162.7	153.6	135.6	110.5	89.4	69.3	57.2	46.2	27.1	18.1
127.5°	137.6	138.6	129.5	113.5	95.4	80.3	66.3	56.2	45.2	24.1	16.1
130°	116.5	115.5	108.4	97.4	85.4	75.3	65.3	54.2	41.2	21.1	14.1
132.5°	98.4	97.4	92.4	86.4	78.3	73.3	63.3	52.2	37.2	19.1	12.0
135°	85.4	84.3	82.3	80.3	75.3	70.3	61.3	49.2	34.1	16.1	10.0
137.5°	77.3	78.3	79.3	78.3	72.3	67.3	58.2	46.2	30.1	14.1	8.0
140°	80.3	79.3	78.3	77.3	71.3	64.3	56.2	44.2	27.1	12.0	7.0
142.5°	80.3	80.3	79.3	76.3	68.3	62.3	53.2	41.2	24.1	10.0	6.0
145°	80.3	80.3	77.3	72.3	66.3	58.2	49.2	36.1	21.1	8.0	5.0
147.5°	79.3	79.3	74.3	67.3	60.2	54.2	44.2	31.1	18.1	7.0	5.0
150°	75.3	74.3	67.3	60.2	55.2	48.2	37.2	27.1	15.1	6.0	4.0
152.5°	65.3	65.3	60.2	53.2	46.2	40.2	32.1	22.1	12.0	5.0	3.0
155°	52.2	51.2	47.2	42.2	37.2	34.1	27.1	19.1	10.0	4.0	3.0
157.5°	40.2	39.2	37.2	34.1	32.1	29.1	22.1	15.1	8.0	4.0	3.0
160°	35.1	35.1	32.1	30.1	27.1	23.1	18.1	12.0	6.0	3.0	2.0
162.5°	30.1	30.1	27.1	25.1	21.1	17.1	13.1	8.0	5.0	3.0	2.0
165°	23.1	23.1	21.1	19.1	16.1	12.0	9.0	6.0	4.0	3.0	2.0
167.5°	17.1	17.1	15.1	14.1	11.0	8.0	6.0	5.0	3.0	3.0	2.0
170°	10.0	10.0	9.0	8.0	6.0	5.0	5.0	4.0	3.0	2.0	2.0
172.5°	4.0	4.0	4.0	3.0	4.0	4.0	4.0	3.0	3.0	2.0	2.0
175°	1.0	1.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2	2231.2
2.5°	2209.1	2181.0	2127.8	2066.5	2037.4	2018.3	2009.3	2009.3	2005.3	2009.3
5°	2179.0	2069.6	2004.3	1953.1	1888.8	1844.6	1812.5	1780.4	1761.3	1760.3
7.5°	2119.8	1975.2	1886.8	1797.4	1698.0	1635.8	1570.5	1522.3	1496.2	1500.2
10°	2053.5	1903.9	1765.3	1638.8	1500.2	1414.8	1334.5	1287.3	1248.2	1243.1
12.5°	2000.3	1821.5	1631.7	1450.0	1311.4	1192.9	1114.6	1089.5	1076.4	1072.4
15°	1952.1	1737.2	1514.3	1301.4	1135.7	1050.3	996.1	947.9	920.8	921.8
17.5°	1915.9	1653.8	1384.7	1160.8	1016.2	909.8	817.4	782.2	770.2	773.2
20°	1868.7	1561.5	1278.3	1055.4	891.7	767.2	698.9	638.6	616.5	614.5
22.5°	1806.5	1466.1	1163.8	942.9	764.2	646.7	564.3	523.2	506.1	501.1
25°	1744.2	1364.6	1060.4	828.4	664.7	543.2	465.9	424.8	405.7	403.7
27.5°	1678.9	1266.2	967.0	714.0	560.3	455.9	379.6	349.4	340.4	336.4
30°	1605.6	1179.9	857.5	620.6	478.0	379.6	327.4	298.2	288.2	286.2
32.5°	1526.3	1087.5	752.1	536.2	406.7	326.3	276.1	256.1	245.0	245.0
35°	1442.0	993.1	655.7	464.9	345.4	277.1	234.0	209.9	196.8	194.8
37.5°	1353.6	898.7	572.4	399.7	295.2	235.0	191.8	170.7	163.7	159.7
40°	1263.2	809.3	499.1	343.4	248.0	190.8	156.6	136.6	129.5	129.5
42.5°	1168.8	715.0	432.8	293.2	210.9	157.7	126.5	110.5	104.4	105.4
45°	1063.4	623.6	368.5	248.0	174.7	128.5	103.4	88.4	81.3	80.3
47.5°	948.9	536.2	315.3	209.9	143.6	105.4	83.3	70.3	65.3	63.3
50°	853.5	461.9	267.1	172.7	119.5	84.3	65.3	55.2	50.2	49.2
52°	779.2	413.7	239.0	150.6	102.4	70.3	54.2	45.2	43.2	44.2
52.5°	766.2	402.7	233.0	146.6	97.4	67.3	51.2	42.2	42.2	43.2
55°	688.8	354.5	201.8	124.5	79.3	53.2	38.2	34.1	36.1	35.1
57.5°	625.6	300.2	170.7	106.4	64.3	41.2	27.1	27.1	27.1	26.1
60°	558.3	258.1	146.6	90.4	50.2	29.1	19.1	17.1	15.1	15.1
62.5°	480.0	214.9	126.5	74.3	38.2	18.1	10.0	8.0	7.0	7.0
65°	403.7	179.7	107.4	60.2	27.1	9.0	2.0	0.0	0.0	0.0
67.5°	327.4	151.6	89.4	47.2	18.1	2.0	0.0	0.0	0.0	0.0
70°	264.1	125.5	74.3	35.1	9.0	0.0	0.0	0.0	0.0	0.0
72.5°	208.9	104.4	60.2	24.1	2.0	0.0	0.0	0.0	0.0	0.0
75°	161.7	85.4	47.2	15.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	123.5	68.3	36.1	9.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	95.4	54.2	28.1	5.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	73.3	43.2	21.1	3.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	57.2	33.1	16.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	46.2	26.1	11.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	37.2	21.1	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	32.1	17.1	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	27.1	14.1	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	25.1	13.1	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	24.1	12.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	24.1	11.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	24.1	11.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	23.1	10.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P979121
 CATALOG NUMBER: WPSLED15S-60W-5000K

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	23.1	9.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	22.1	7.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	20.1	5.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	18.1	3.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	14.1	2.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	12.0	2.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	11.0	1.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	11.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	9.0	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	8.0	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	7.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	6.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	5.0	3.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
142.5°	4.0	3.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
145°	4.0	3.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
147.5°	4.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
150°	3.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
152.5°	3.0	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
155°	3.0	2.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
157.5°	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2407-168-4

Test Date: 08/08/2024

Luminaire Tested: LSDL-92S-100W 5000k

Data in this report applies to families of products including LSDL-92S-100W 5000k.

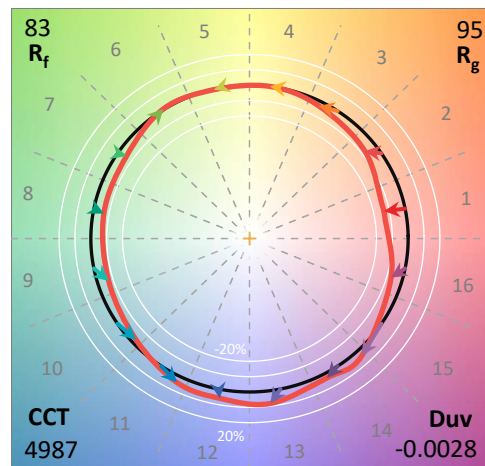
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-168-4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/12/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **LSDL-92S-100W 5000k**
 Description: Lumark Wallpack 100W

Spectral Parameters

CCT (K): 4987
 CIE u': 0.2135
 CIE v': 0.4819
 Duv: -0.0028
 CIE x: 0.3449
 CIE y: 0.3461
 CIE z: 0.3090
 Peak Wavelength (nm): 453
 Dominant Wavelength (nm): 576
 Purity: 7.317109
 Rf: 82.9
 Rg: 94.6

CRI (Ra):	83.4		
R1:	82.5	R9:	6.6
R2:	92.4	R10:	80.3
R3:	94.5	R11:	78.9
R4:	79.9	R12:	59.3
R5:	82.3	R13:	85.9
R6:	86.3	R14:	97.8
R7:	84.5	R15:	77.3
R8:	64.7		



Test Conditions

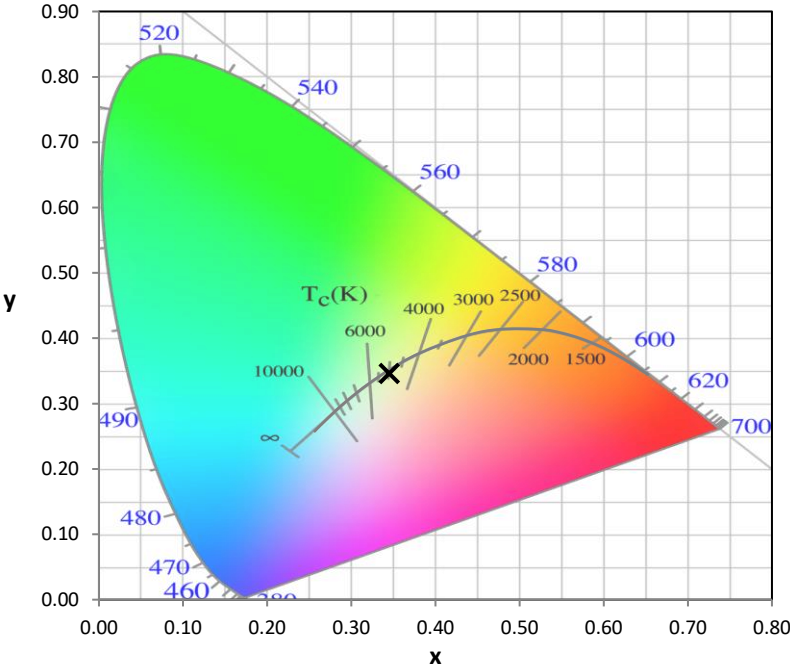
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-168-4

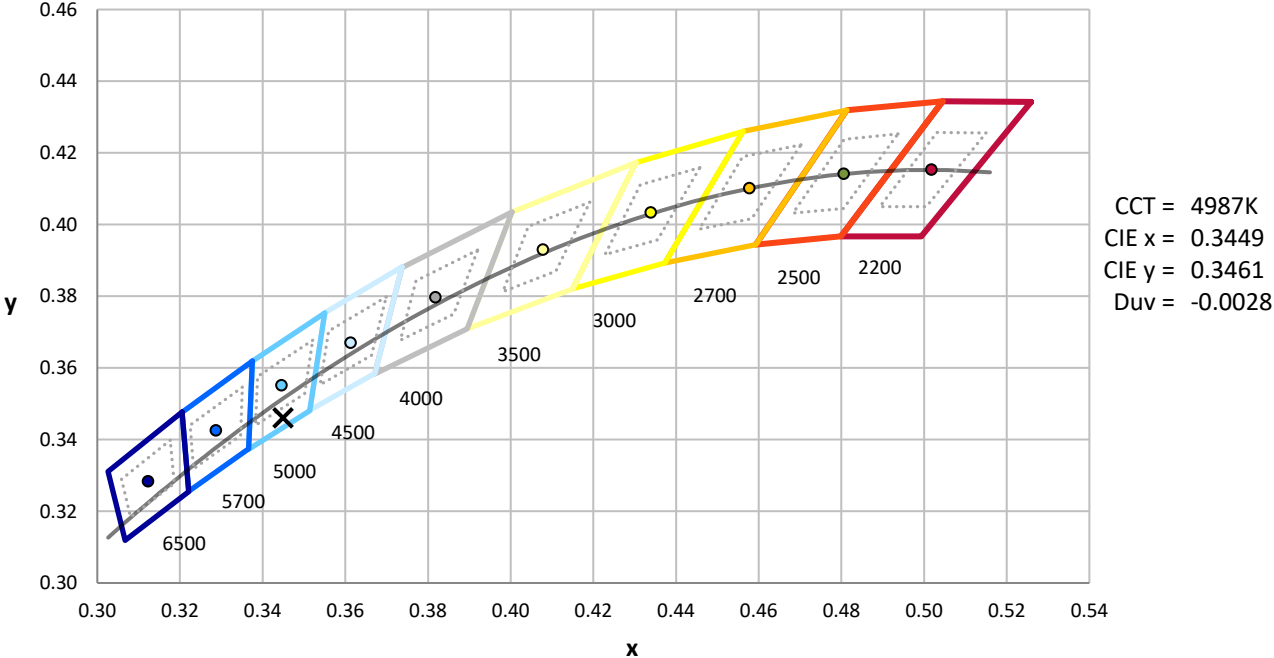
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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CIE 1931 Chromaticity Diagram



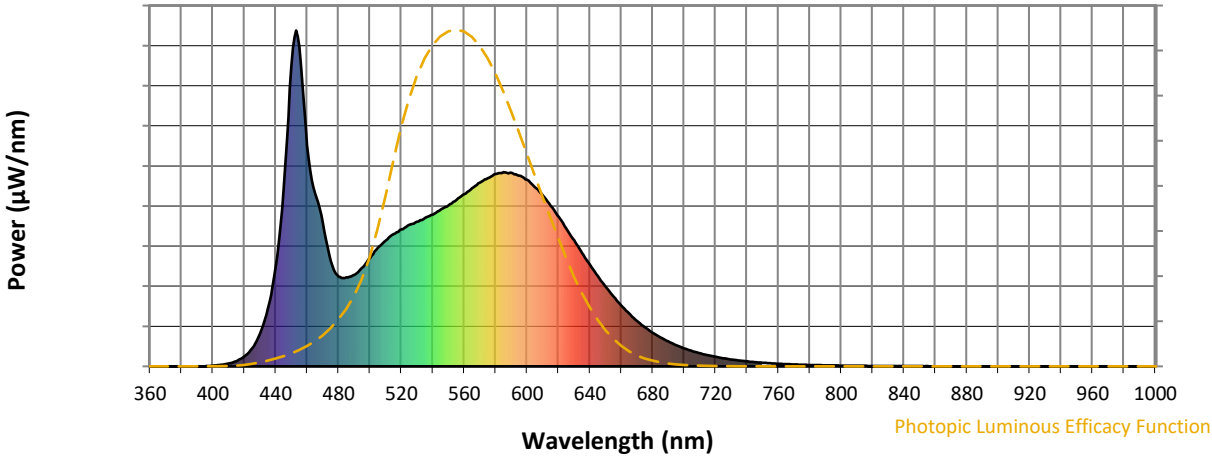
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 7-step quadrangle

REPORT NUMBER: SP1-2407-168-4

Photopic Flux vs. Wavelength

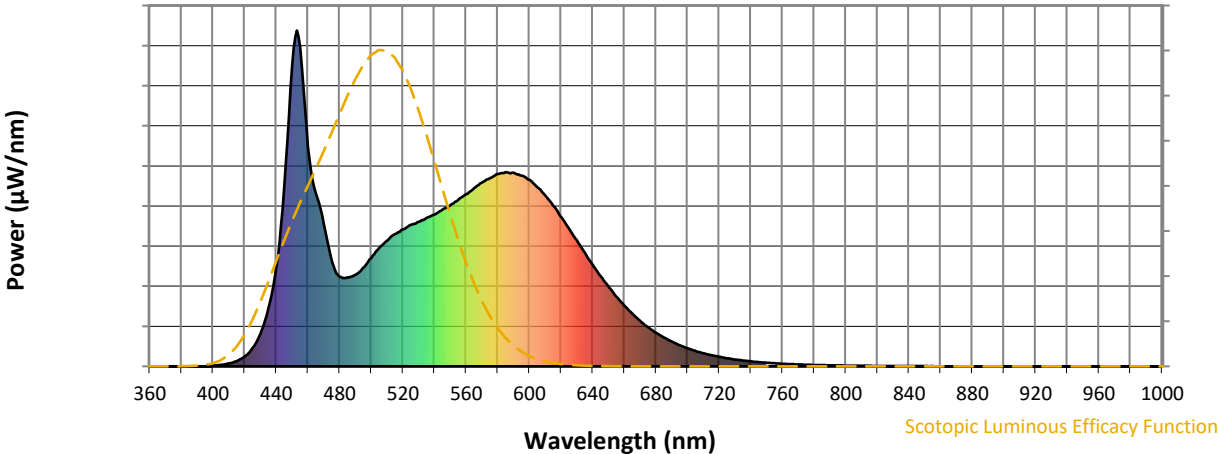


Photopic Lumens: NR

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	273	NR	620	446	NR	750	11	NR	880	0	NR
365	0	NR	495	294	NR	625	410	NR	755	9	NR	885	0	NR
370	0	NR	500	322	NR	630	376	NR	760	8	NR	890	0	NR
375	0	NR	505	352	NR	635	338	NR	765	7	NR	895	0	NR
380	0	NR	510	374	NR	640	303	NR	770	6	NR	900	0	NR
385	0	NR	515	393	NR	645	269	NR	775	5	NR	905	0	NR
390	0	NR	520	408	NR	650	237	NR	780	4	NR	910	0	NR
395	0	NR	525	421	NR	655	208	NR	785	4	NR	915	0	NR
400	2	NR	530	430	NR	660	181	NR	790	3	NR	920	0	NR
405	5	NR	535	442	NR	665	157	NR	795	3	NR	925	0	NR
410	9	NR	540	451	NR	670	135	NR	800	2	NR	930	0	NR
415	16	NR	545	467	NR	675	116	NR	805	2	NR	935	0	NR
420	29	NR	550	480	NR	680	100	NR	810	2	NR	940	0	NR
425	54	NR	555	495	NR	685	86	NR	815	2	NR	945	0	NR
430	98	NR	560	513	NR	690	74	NR	820	1	NR	950	0	NR
435	174	NR	565	530	NR	695	63	NR	825	1	NR	955	0	NR
440	296	NR	570	546	NR	700	54	NR	830	1	NR	960	0	NR
445	529	NR	575	561	NR	705	46	NR	835	1	NR	965	0	NR
450	894	NR	580	572	NR	710	39	NR	840	1	NR	970	0	NR
455	952	NR	585	578	NR	715	33	NR	845	1	NR	975	0	NR
460	658	NR	590	576	NR	720	28	NR	850	1	NR	980	0	NR
465	516	NR	595	568	NR	725	24	NR	855	1	NR	985	0	NR
470	424	NR	600	555	NR	730	21	NR	860	0	NR	990	0	NR
475	314	NR	605	534	NR	735	17	NR	865	0	NR	995	0	NR
480	267	NR	610	509	NR	740	15	NR	870	0	NR	1000	0	NR
485	265	NR	615	479	NR	745	13	NR	875	0	NR			

REPORT NUMBER: SP1-2407-168-4

Scotopic Flux vs. Wavelength



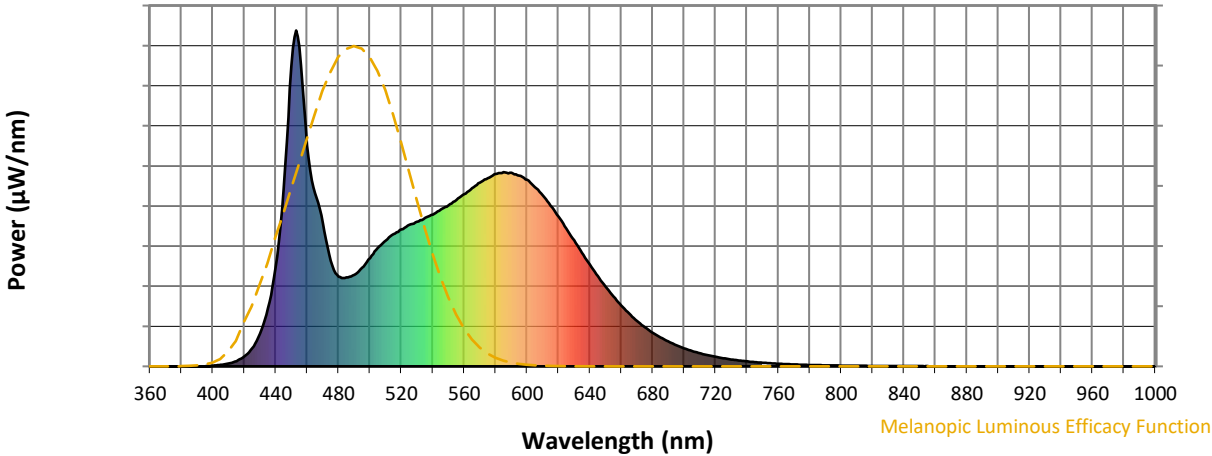
Scotopic Lumens: NR

S/P: 2

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	273	NR	620	446	NR	750	11	NR	880	0	NR
365	0	NR	495	294	NR	625	410	NR	755	9	NR	885	0	NR
370	0	NR	500	322	NR	630	376	NR	760	8	NR	890	0	NR
375	0	NR	505	352	NR	635	338	NR	765	7	NR	895	0	NR
380	0	NR	510	374	NR	640	303	NR	770	6	NR	900	0	NR
385	0	NR	515	393	NR	645	269	NR	775	5	NR	905	0	NR
390	0	NR	520	408	NR	650	237	NR	780	4	NR	910	0	NR
395	0	NR	525	421	NR	655	208	NR	785	4	NR	915	0	NR
400	2	NR	530	430	NR	660	181	NR	790	3	NR	920	0	NR
405	5	NR	535	442	NR	665	157	NR	795	3	NR	925	0	NR
410	9	NR	540	451	NR	670	135	NR	800	2	NR	930	0	NR
415	16	NR	545	467	NR	675	116	NR	805	2	NR	935	0	NR
420	29	NR	550	480	NR	680	100	NR	810	2	NR	940	0	NR
425	54	NR	555	495	NR	685	86	NR	815	2	NR	945	0	NR
430	98	NR	560	513	NR	690	74	NR	820	1	NR	950	0	NR
435	174	NR	565	530	NR	695	63	NR	825	1	NR	955	0	NR
440	296	NR	570	546	NR	700	54	NR	830	1	NR	960	0	NR
445	529	NR	575	561	NR	705	46	NR	835	1	NR	965	0	NR
450	894	NR	580	572	NR	710	39	NR	840	1	NR	970	0	NR
455	952	NR	585	578	NR	715	33	NR	845	1	NR	975	0	NR
460	658	NR	590	576	NR	720	28	NR	850	1	NR	980	0	NR
465	516	NR	595	568	NR	725	24	NR	855	1	NR	985	0	NR
470	424	NR	600	555	NR	730	21	NR	860	0	NR	990	0	NR
475	314	NR	605	534	NR	735	17	NR	865	0	NR	995	0	NR
480	267	NR	610	509	NR	740	15	NR	870	0	NR	1000	0	NR
485	265	NR	615	479	NR	745	13	NR	875	0	NR			

REPORT NUMBER: SP1-2407-168-4

Melanopic Flux vs. Wavelength



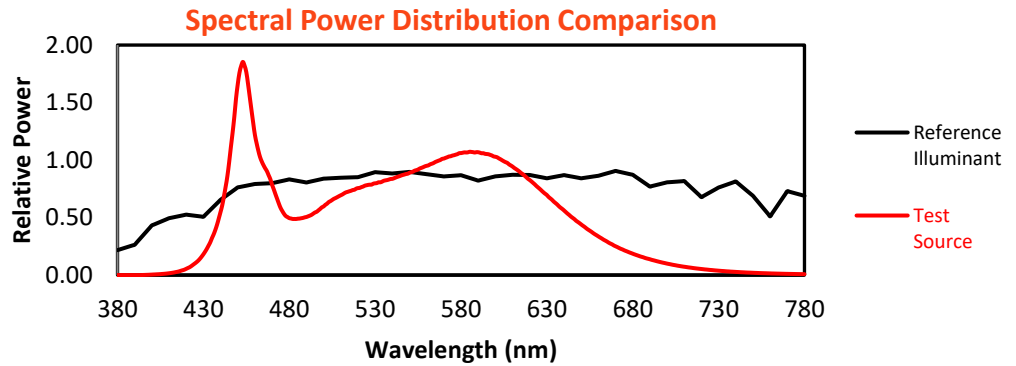
Melanopic Lumens: NR

M/P: 4.35

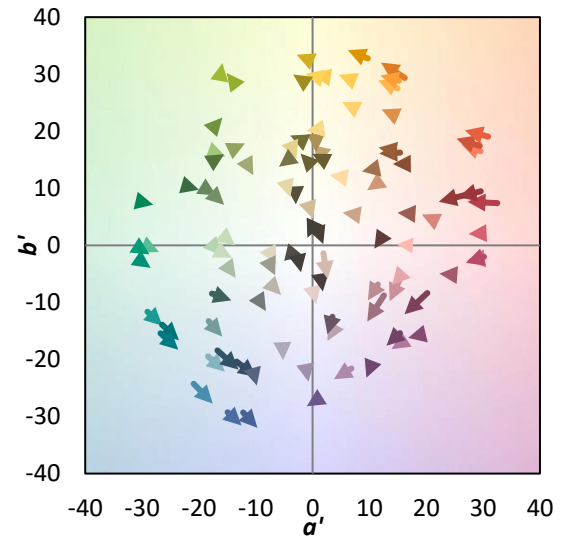
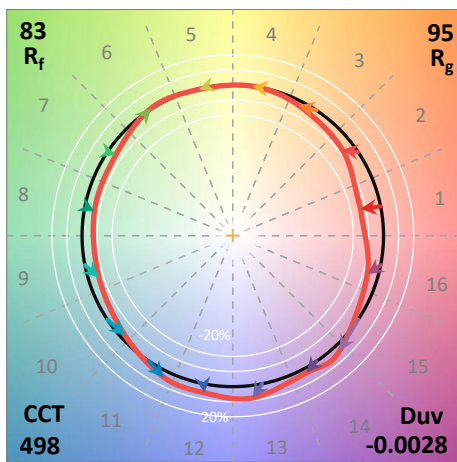
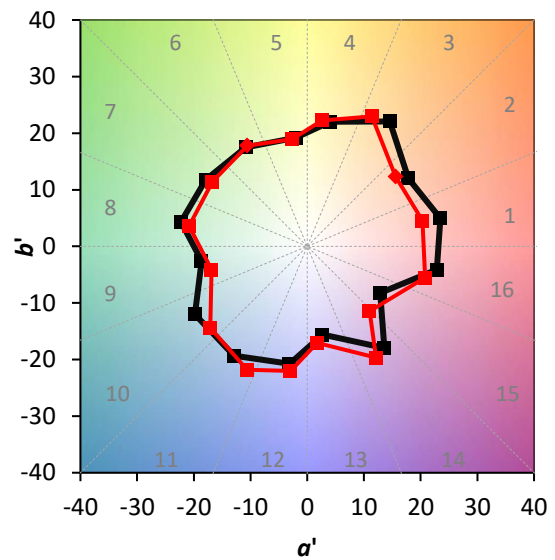
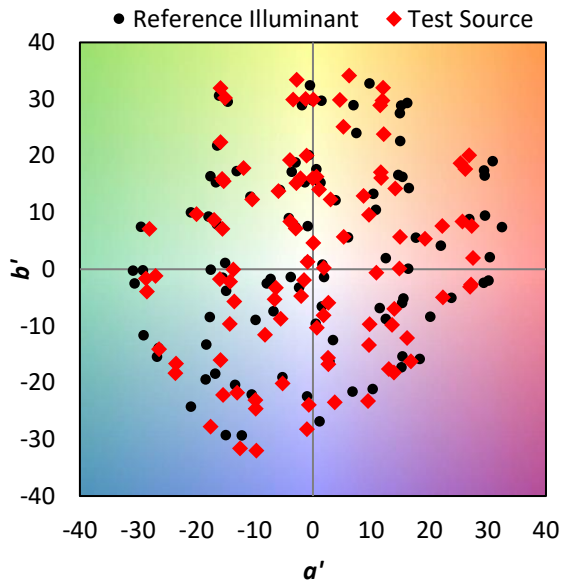
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	273	NR	620	446	NR	750	11	NR	880	0	NR
365	0	NR	495	294	NR	625	410	NR	755	9	NR	885	0	NR
370	0	NR	500	322	NR	630	376	NR	760	8	NR	890	0	NR
375	0	NR	505	352	NR	635	338	NR	765	7	NR	895	0	NR
380	0	NR	510	374	NR	640	303	NR	770	6	NR	900	0	NR
385	0	NR	515	393	NR	645	269	NR	775	5	NR	905	0	NR
390	0	NR	520	408	NR	650	237	NR	780	4	NR	910	0	NR
395	0	NR	525	421	NR	655	208	NR	785	4	NR	915	0	NR
400	2	NR	530	430	NR	660	181	NR	790	3	NR	920	0	NR
405	5	NR	535	442	NR	665	157	NR	795	3	NR	925	0	NR
410	9	NR	540	451	NR	670	135	NR	800	2	NR	930	0	NR
415	16	NR	545	467	NR	675	116	NR	805	2	NR	935	0	NR
420	29	NR	550	480	NR	680	100	NR	810	2	NR	940	0	NR
425	54	NR	555	495	NR	685	86	NR	815	2	NR	945	0	NR
430	98	NR	560	513	NR	690	74	NR	820	1	NR	950	0	NR
435	174	NR	565	530	NR	695	63	NR	825	1	NR	955	0	NR
440	296	NR	570	546	NR	700	54	NR	830	1	NR	960	0	NR
445	529	NR	575	561	NR	705	46	NR	835	1	NR	965	0	NR
450	894	NR	580	572	NR	710	39	NR	840	1	NR	970	0	NR
455	952	NR	585	578	NR	715	33	NR	845	1	NR	975	0	NR
460	658	NR	590	576	NR	720	28	NR	850	1	NR	980	0	NR
465	516	NR	595	568	NR	725	24	NR	855	1	NR	985	0	NR
470	424	NR	600	555	NR	730	21	NR	860	0	NR	990	0	NR
475	314	NR	605	534	NR	735	17	NR	865	0	NR	995	0	NR
480	267	NR	610	509	NR	740	15	NR	870	0	NR	1000	0	NR
485	265	NR	615	479	NR	745	13	NR	875	0	NR			

Summary

$R_f = 82.9$
 $R_g = 94.6$
 $CIE R_a = 83.4$
 $R_9 = 6.6$

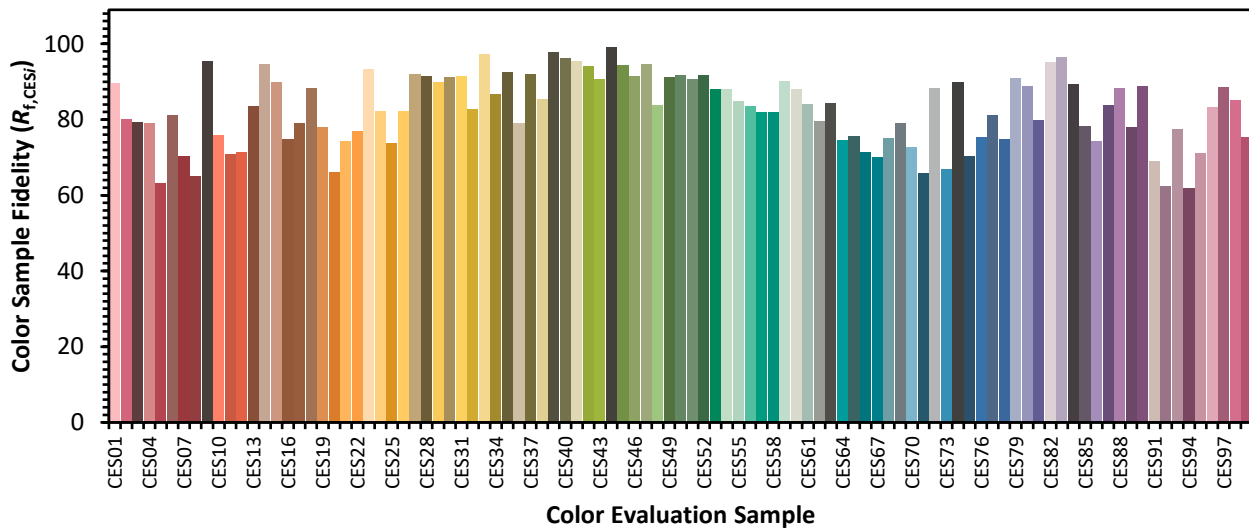


Color Vector Graphics

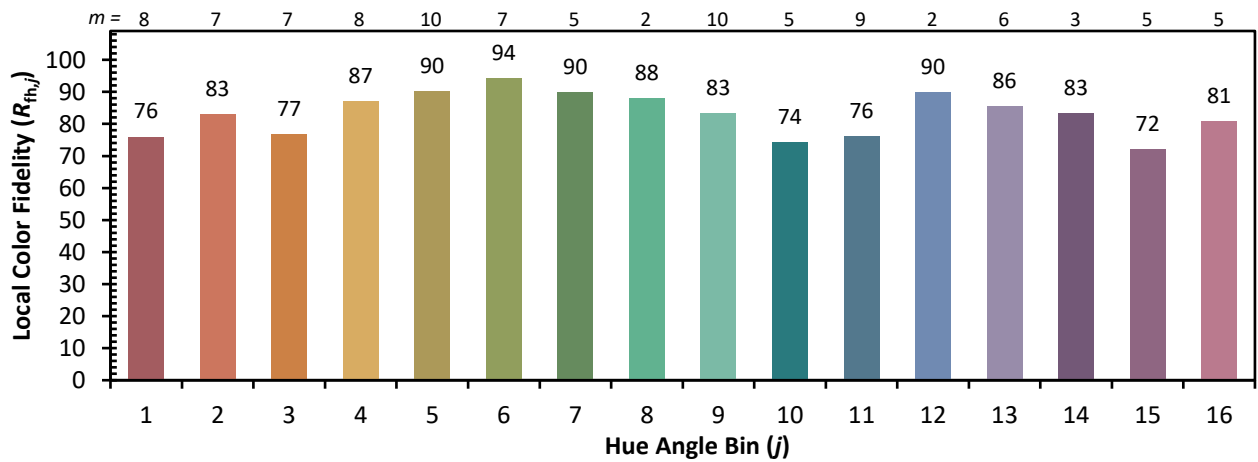
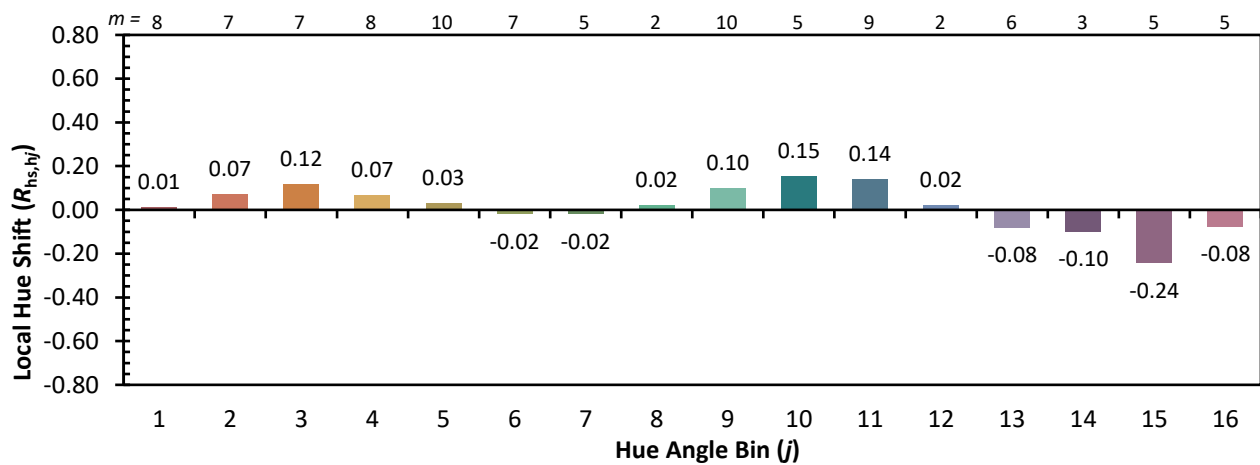
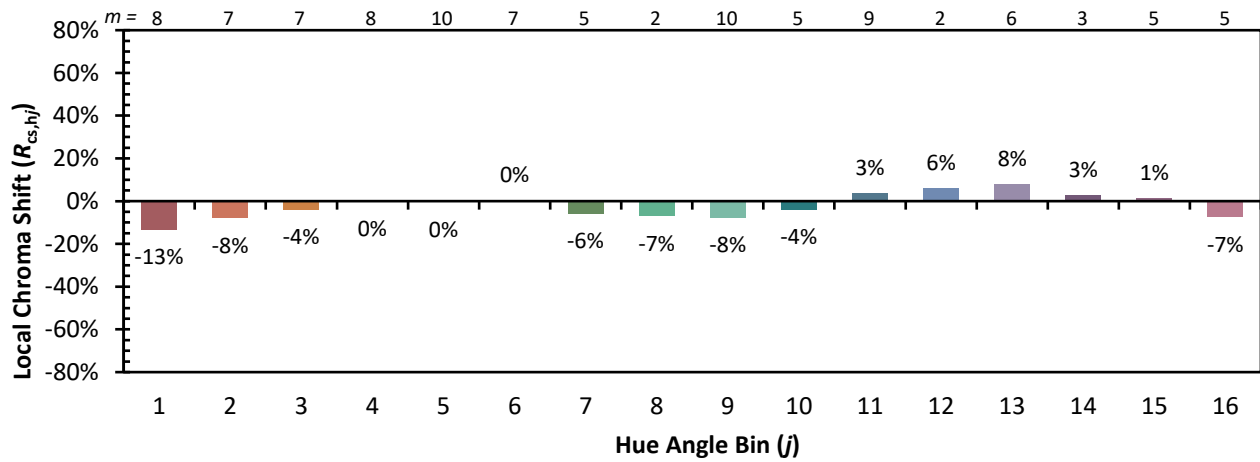


Individual Sample Fidelity Index ($R_{f,i}$)

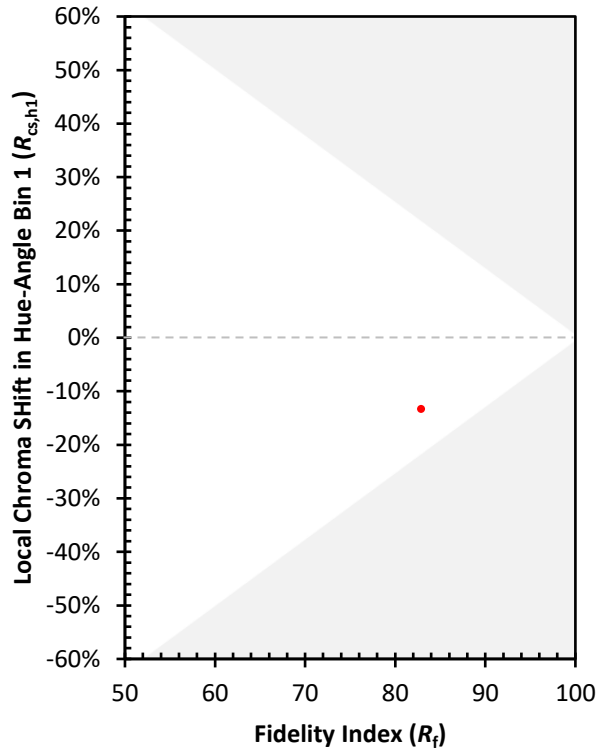
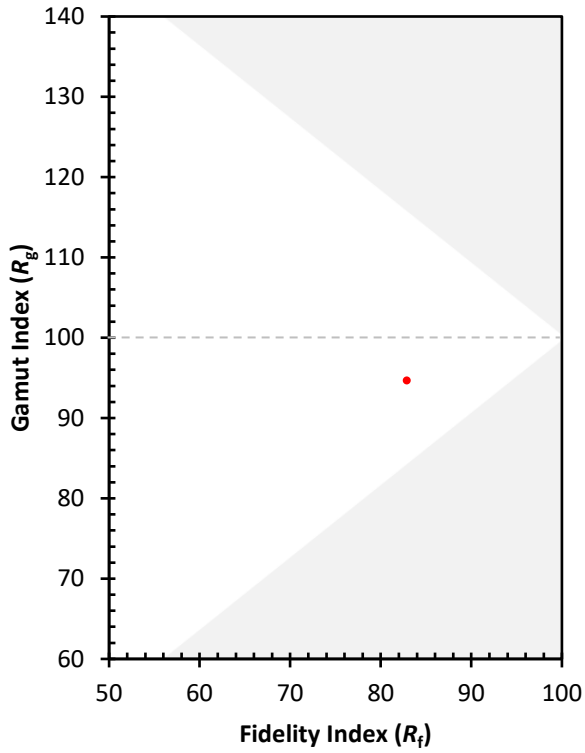
CES01 = 85	CES26 = 82	CES51 = 91	CES76 = 75
CES02 = 60	CES27 = 92	CES52 = 92	CES77 = 81
CES03 = 30	CES28 = 92	CES53 = 88	CES78 = 75
CES04 = 69	CES29 = 90	CES54 = 88	CES79 = 91
CES05 = 47	CES30 = 91	CES55 = 85	CES80 = 89
CES06 = 50	CES31 = 91	CES56 = 84	CES81 = 80
CES07 = 40	CES32 = 83	CES57 = 82	CES82 = 95
CES08 = 39	CES33 = 97	CES58 = 82	CES83 = 96
CES09 = 29	CES34 = 87	CES59 = 90	CES84 = 89
CES10 = 73	CES35 = 92	CES60 = 88	CES85 = 78
CES11 = 56	CES36 = 79	CES61 = 84	CES86 = 74
CES12 = 62	CES37 = 92	CES62 = 80	CES87 = 84
CES13 = 42	CES38 = 85	CES63 = 84	CES88 = 88
CES14 = 74	CES39 = 98	CES64 = 75	CES89 = 78
CES15 = 71	CES40 = 96	CES65 = 76	CES90 = 89
CES16 = 46	CES41 = 96	CES66 = 72	CES91 = 69
CES17 = 49	CES42 = 94	CES67 = 70	CES92 = 62
CES18 = 56	CES43 = 91	CES68 = 75	CES93 = 77
CES19 = 71	CES44 = 99	CES69 = 79	CES94 = 62
CES20 = 64	CES45 = 94	CES70 = 73	CES95 = 71
CES21 = 85	CES46 = 91	CES71 = 66	CES96 = 83
CES22 = 77	CES47 = 95	CES72 = 88	CES97 = 89
CES23 = 91	CES48 = 84	CES73 = 67	CES98 = 85
CES24 = 90	CES49 = 91	CES74 = 90	CES99 = 75
CES25 = 71	CES50 = 92	CES75 = 70	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)