

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: P979127

Luminaire Tested: **WPSLED15S-50W-6500K**

Issue Date: 03/31/2025



Test Information

Test Method: LM-79-08
Report Number: P979127
Test Lab: Cooper Lighting Solutions
Issue Date: 03/31/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: WPSLED15S-50W-6500K
Description: LUMARK WALL PACK LED SMALL 80CRI CCT AND LUMEN SELECTIVE FIXTURE
OPERATING @50W-6500K
Light Source: 6500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

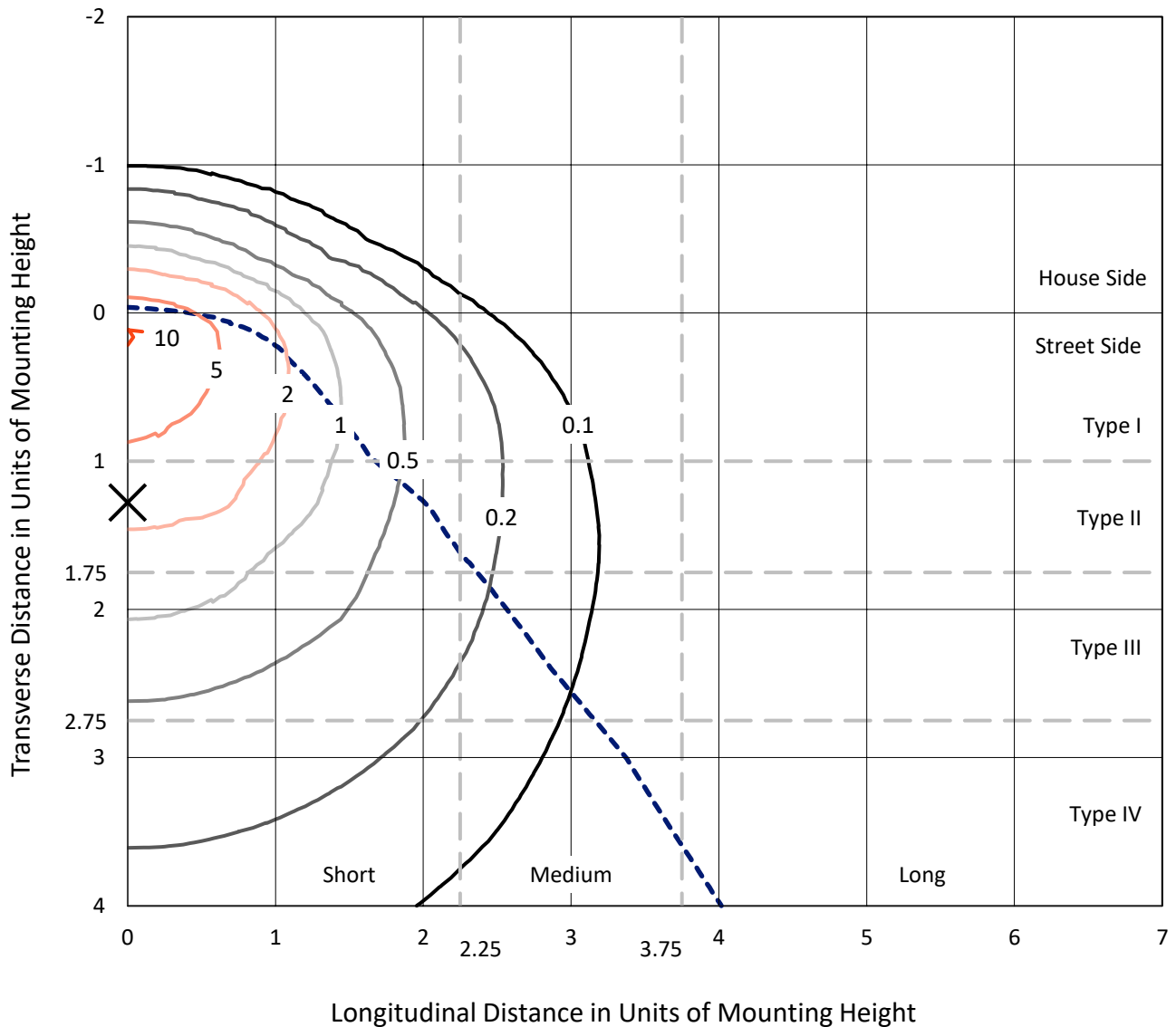
Lumens per Lamp: N/A
Luminaire Lumens: 7091.1 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.61' x L: 0.12' x H: 0.44')
IES Classification: Type IV - Short
BUG Rating: B1 - U3 - G4

Input Watts (W): 50.5
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

REPORT NUMBER: P979127
 CATALOG NUMBER: WPSLED15S-50W-6500K

Iso-Footcandle Lines of Horizontal Illumination

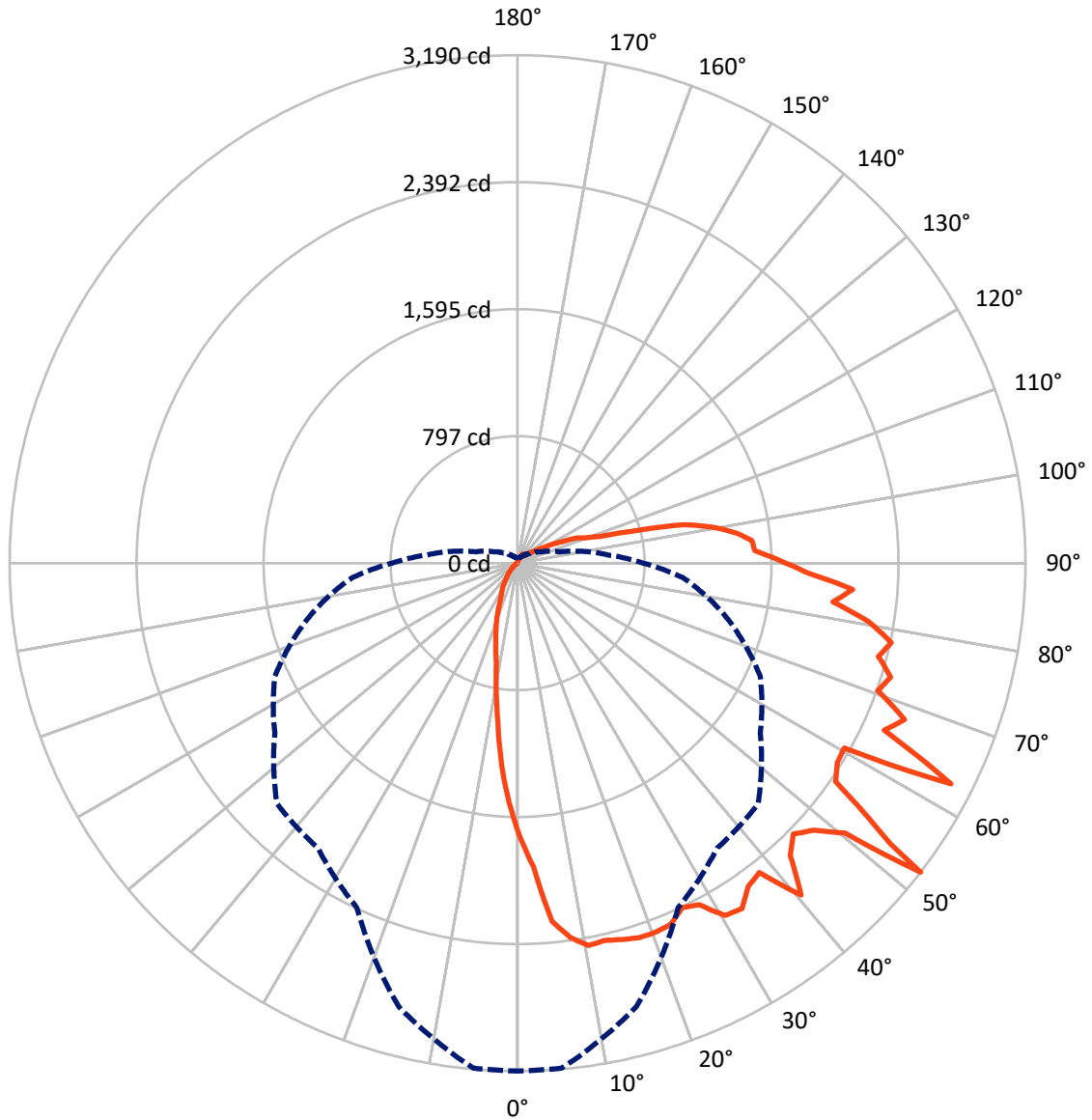
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P979127
CATALOG NUMBER: WPSLED15S-50W-6500K

Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 52-Deg Vertical

REPORT NUMBER: P979127
 CATALOG NUMBER: WPSLED15S-50W-6500K

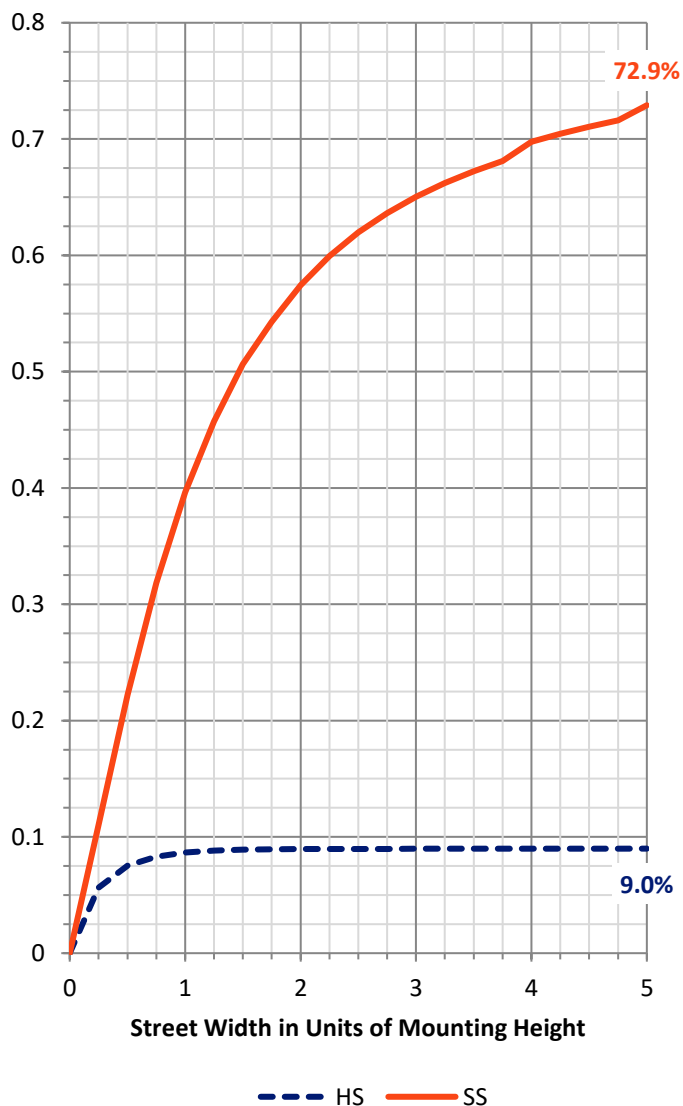
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	644.0	7.7	651.7
	% Fixture	9.1	0.1	9.2
Street Side	Lumens	5636.7	802.7	6439.4
	% Fixture	79.5	11.3	90.8
Total	Lumens	6280.7	810.4	7091.1
	% Fixture	88.6	11.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.6	2.3
10°-20°	437.2	6.2
20°-30°	641.7	9.0
30°-40°	793.8	11.2
40°-50°	887.0	12.5
50°-60°	930.9	13.1
60°-70°	930.5	13.1
70°-80°	839.7	11.8
80°-90°	657.3	9.3
90°-100°	436.6	6.2
100°-110°	208.1	2.9
110°-120°	84.9	1.2
120°-130°	37.2	0.5
130°-140°	20.9	0.3
140°-150°	14.2	0.2
150°-160°	6.6	0.1
160°-170°	1.8	0.0
170°-180°	0.1	0.0
0°-90°	6280.7	88.6
0°-180°	7091.1	100.0



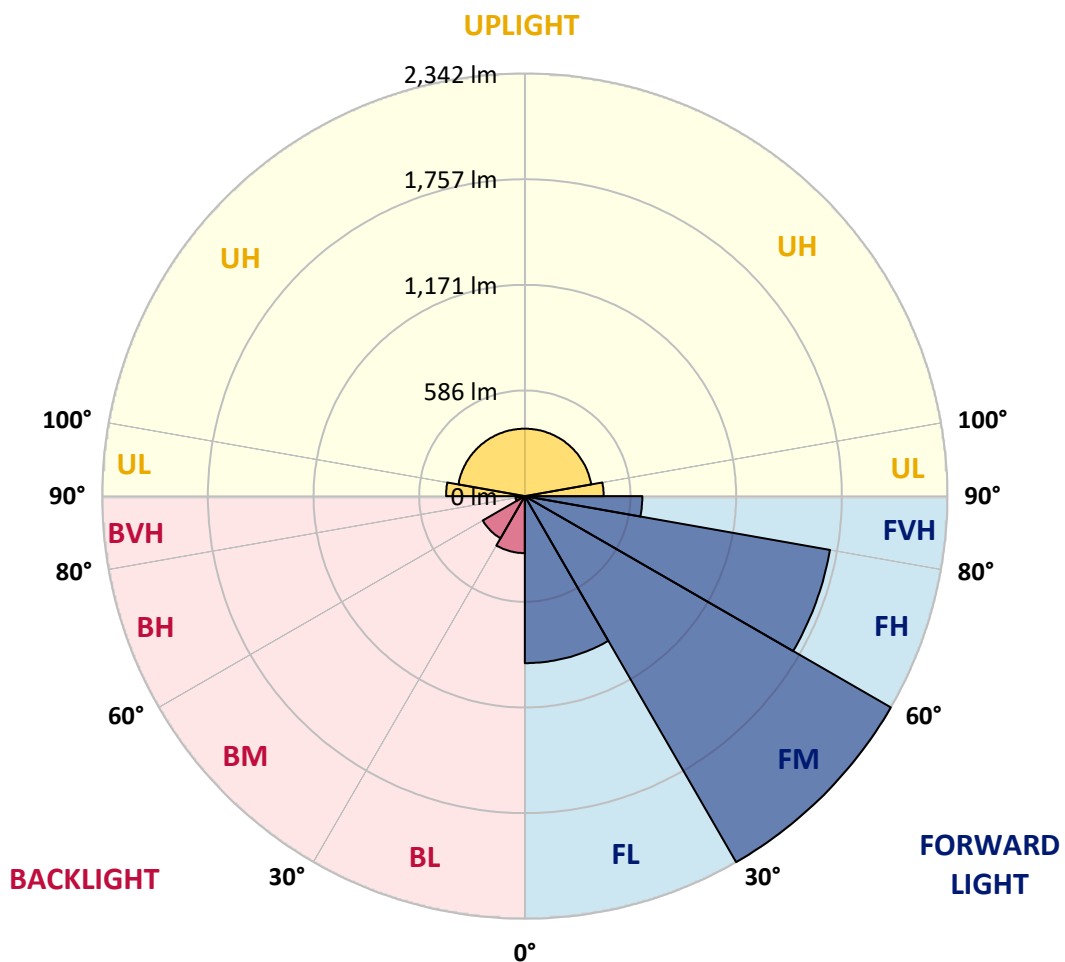
REPORT NUMBER: P979127
 CATALOG NUMBER: WPSLED15S-50W-6500K

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	925.7	13.1			
FM (30°-60°)	2342.3	33.0			
FH (60°-80°)	1717.7	24.2			G1/1800
FVH (80°-90°)	651.1	9.2			G4/750
BL (0°-30°)	315.7	4.5	B1/500		
BM (30°-60°)	269.4	3.8	B1/1000		
BH (60°-80°)	52.5	0.7	B0/110		G0/110
BVH (80°-90°)	6.3	0.1			G0/10
UL (90°-100°)	436.6	6.2		U3/500	
UH (100°-180°)	373.8	5.3		U3/500	

BUG Rating: B1-U3-G4

Type IV Short





REPORT NUMBER: P979127

CATALOG NUMBER: WPSLED15S-50W-6500K

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6
2.5°	1908.8	1912.2	1908.8	1901.3	1898.8	1892.9	1875.3	1835.9	1766.3	1724.3	1713.4
5°	2259.4	2254.4	2254.4	2204.0	2139.5	2035.5	1934.8	1878.6	1847.6	1728.5	1699.2
7.5°	2372.6	2380.2	2403.6	2387.7	2328.2	2257.7	2140.3	1936.5	1846.8	1723.5	1671.5
10°	2442.2	2449.8	2429.6	2380.2	2314.7	2342.4	2248.5	2082.4	1845.1	1726.0	1647.2
12.5°	2431.3	2431.3	2376.8	2335.7	2362.5	2313.9	2303.0	2169.7	1886.2	1736.9	1628.7
15°	2452.3	2446.4	2407.0	2391.9	2349.1	2307.2	2252.7	2220.0	1953.3	1736.1	1605.2
17.5°	2472.4	2475.8	2458.2	2411.2	2324.8	2306.4	2282.9	2235.9	2032.9	1734.4	1580.9
20°	2474.9	2459.8	2398.6	2386.0	2396.9	2289.6	2238.4	2186.4	2075.7	1718.4	1551.5
22.5°	2463.2	2459.8	2388.5	2396.9	2341.6	2319.8	2277.8	2199.0	2080.8	1695.0	1516.3
25°	2397.8	2399.5	2327.3	2358.4	2350.0	2302.2	2207.4	2176.4	2064.8	1674.8	1483.6
27.5°	2428.8	2421.3	2354.2	2319.8	2325.6	2265.3	2197.3	2137.8	2034.6	1643.8	1440.8
30°	2568.0	2555.4	2448.1	2344.9	2272.8	2268.6	2193.1	2099.2	1981.8	1600.2	1393.0
32.5°	2586.5	2576.4	2529.4	2445.6	2280.4	2221.7	2116.0	2038.0	1931.5	1556.6	1346.1
35°	2494.2	2479.1	2429.6	2444.7	2365.9	2198.2	2131.1	1965.9	1873.6	1514.6	1289.0
37.5°	2465.7	2440.5	2407.8	2395.3	2372.6	2177.2	2110.9	1938.2	1830.0	1465.2	1225.3
40°	2741.6	2669.5	2450.6	2381.0	2291.3	2253.5	2058.1	1918.9	1789.7	1403.9	1164.1
42.5°	2510.2	2506.0	2688.8	2477.4	2292.1	2192.3	2031.3	1878.6	1728.5	1335.2	1096.1
45°	2427.1	2405.3	2346.6	2477.4	2318.1	2095.0	2017.9	1833.3	1637.9	1263.9	1022.3
47.5°	2505.1	2486.7	2410.4	2305.5	2368.4	2116.8	1984.3	1803.2	1536.5	1190.1	931.8
50°	2665.3	2623.4	2471.6	2365.1	2194.8	2183.1	1926.4	1741.1	1436.7	1103.7	847.1
52°	3189.5	3183.6	2883.4	2386.9	2184.7	2136.9	1861.0	1681.5	1368.7	1040.8	789.2
52.5°	2932.8	3021.7	3054.5	2414.5	2186.4	2101.7	1861.0	1663.9	1356.1	1022.3	781.6
55°	2422.9	2415.4	2426.3	2782.7	2188.9	1981.0	1877.8	1577.5	1272.3	959.4	722.9
57.5°	2366.7	2355.8	2335.7	2310.6	2448.9	1921.4	1827.5	1493.7	1211.9	888.2	662.6
60°	2356.7	2350.0	2311.4	2261.9	2164.6	1978.4	1684.9	1428.3	1164.1	820.2	613.9
62.5°	3054.5	3036.0	2724.0	2256.9	2087.5	2035.5	1603.5	1377.9	1114.6	756.5	561.1
65°	2530.3	2521.9	2473.3	2633.4	2142.8	1862.7	1592.6	1355.3	1050.0	699.5	492.3
67.5°	2620.9	2619.2	2512.7	2349.1	2286.2	1862.7	1582.6	1289.0	994.7	626.5	415.1
70°	2399.5	2403.6	2350.0	2285.4	2108.4	1884.5	1484.5	1186.7	922.5	544.3	343.9
72.5°	2448.9	2445.6	2360.0	2213.3	2038.0	1760.4	1422.4	1121.3	839.5	468.8	281.0
75°	2340.7	2339.9	2262.7	2142.0	1961.7	1666.4	1357.0	1090.3	748.9	388.3	226.4
77.5°	2398.6	2404.5	2334.0	2162.1	1939.9	1611.9	1306.7	976.2	664.2	309.5	171.9
80°	2238.4	2239.3	2144.5	2017.0	1819.1	1513.8	1182.5	873.1	565.3	239.9	128.3
82.5°	1995.2	2001.9	1929.8	1817.4	1674.8	1384.7	1076.0	796.7	478.9	180.3	95.6
85°	2110.1	2123.5	2022.9	1871.9	1679.0	1342.7	991.3	690.2	383.3	131.7	73.8
87.5°	1826.6	1870.2	1778.0	1665.6	1490.3	1181.7	867.2	584.6	307.8	100.6	57.9
90°	1650.5	1660.6	1590.1	1478.6	1299.9	1056.7	781.6	500.7	240.7	75.5	46.1
92.5°	1490.3	1517.2	1492.8	1406.5	1237.9	967.8	680.2	416.8	186.2	59.5	39.4
95°	1478.6	1476.9	1399.7	1266.4	1097.0	846.2	571.1	335.5	140.1	47.0	34.4
97.5°	1378.8	1389.7	1325.9	1144.8	972.9	730.5	457.9	242.4	108.2	40.3	29.4
100°	1242.9	1251.3	1154.0	1029.1	831.1	577.0	343.9	182.8	86.4	36.9	27.7
102.5°	1071.0	1084.4	962.8	803.5	642.4	450.4	255.8	144.3	71.3	34.4	26.0
105°	751.5	742.2	661.7	587.1	490.6	340.5	213.9	119.9	59.5	33.5	26.0
107.5°	537.6	544.3	509.1	447.0	371.5	275.9	170.3	99.0	52.0	32.7	26.0



REPORT NUMBER: P979127
 CATALOG NUMBER: WPSLED15S-50W-6500K

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	452.0	457.9	426.0	383.3	313.7	217.2	136.7	81.4	48.6	32.7	25.2
112.5°	406.8	411.0	374.9	330.4	258.3	184.5	114.1	69.6	47.0	31.9	24.3
115°	317.0	319.5	296.9	264.2	205.5	148.4	95.6	62.1	46.1	30.2	22.6
117.5°	257.5	257.5	239.9	207.2	166.9	121.6	83.9	57.9	43.6	27.7	21.0
120°	198.8	201.3	187.9	165.2	133.3	100.6	73.0	53.7	41.9	26.0	19.3
122.5°	162.7	164.4	154.3	135.0	109.0	86.4	64.6	51.2	40.3	24.3	16.8
125°	133.3	133.3	125.8	110.7	91.4	74.6	59.5	49.5	40.3	22.6	15.1
127.5°	110.7	110.7	104.8	91.4	78.8	67.1	56.2	48.6	38.6	20.1	13.4
130°	93.1	93.1	87.2	78.8	70.4	63.7	56.2	47.0	35.2	17.6	11.7
132.5°	78.8	78.0	74.6	70.4	65.4	62.9	54.5	44.4	31.9	15.9	10.1
135°	67.9	68.8	67.9	66.3	63.7	60.4	52.8	41.9	28.5	13.4	8.4
137.5°	63.7	65.4	66.3	66.3	61.2	57.9	50.3	40.3	26.0	11.7	6.7
140°	69.6	67.9	67.1	66.3	61.2	55.4	48.6	37.7	23.5	10.1	5.9
142.5°	69.6	69.6	67.9	64.6	58.7	53.7	45.3	35.2	21.0	8.4	5.0
145°	67.9	67.9	65.4	61.2	56.2	49.5	42.8	31.0	17.6	7.5	4.2
147.5°	67.9	67.1	63.7	57.9	52.0	46.1	38.6	26.8	15.1	5.9	4.2
150°	63.7	62.9	57.9	51.2	47.8	41.1	32.7	23.5	13.4	5.0	3.4
152.5°	56.2	55.4	51.2	45.3	40.3	35.2	28.5	20.1	10.9	4.2	3.4
155°	45.3	44.4	40.3	36.1	32.7	30.2	24.3	16.8	9.2	4.2	2.5
157.5°	34.4	34.4	32.7	31.0	29.4	26.0	20.1	14.3	6.7	3.4	2.5
160°	31.9	31.0	29.4	26.8	24.3	20.1	15.9	10.9	5.0	2.5	2.5
162.5°	26.8	26.8	25.2	21.8	19.3	15.9	11.7	7.5	4.2	2.5	2.5
165°	21.0	21.0	19.3	16.8	14.3	10.9	8.4	5.9	3.4	2.5	1.7
167.5°	15.1	15.1	13.4	11.7	9.2	7.5	5.0	4.2	3.4	2.5	1.7
170°	8.4	8.4	8.4	6.7	5.0	4.2	4.2	3.4	2.5	2.5	1.7
172.5°	4.2	3.4	3.4	3.4	3.4	3.4	3.4	2.5	2.5	1.7	1.7
175°	0.8	0.8	1.7	2.5	2.5	2.5	2.5	2.5	2.5	1.7	1.7
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



REPORT NUMBER: P979127
 CATALOG NUMBER: WPSLED15S-50W-6500K

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6	1717.6
2.5°	1705.9	1693.3	1630.4	1567.5	1528.1	1519.7	1517.2	1512.1	1510.5	1505.4
5°	1689.1	1571.7	1507.1	1458.5	1404.8	1372.9	1341.9	1288.2	1273.1	1272.3
7.5°	1639.6	1486.1	1409.8	1332.7	1218.6	1123.8	1082.7	1034.9	1017.3	1011.4
10°	1580.9	1430.8	1303.3	1143.1	1022.3	931.8	869.7	838.7	806.0	810.2
12.5°	1527.2	1358.7	1159.0	986.3	859.6	764.9	710.4	669.3	649.1	642.4
15°	1478.6	1280.7	1044.2	852.9	730.5	644.1	583.7	556.0	544.3	543.5
17.5°	1440.0	1195.1	943.5	753.1	618.9	542.6	502.4	482.2	471.3	465.5
20°	1404.8	1107.1	861.3	667.6	535.9	470.5	431.9	409.3	400.0	399.2
22.5°	1359.5	1022.3	776.6	572.0	472.2	406.8	369.0	344.7	330.4	329.6
25°	1310.8	948.5	688.6	503.2	412.6	351.4	308.6	279.3	266.7	265.0
27.5°	1258.9	876.4	607.2	443.7	354.8	297.7	254.1	234.0	228.1	225.6
30°	1198.5	808.5	535.1	388.3	312.0	249.1	219.7	201.3	197.1	195.4
32.5°	1135.6	742.2	468.8	340.5	268.4	219.7	189.5	177.8	173.6	172.8
35°	1068.5	671.8	418.5	301.1	232.3	192.1	166.1	150.1	141.7	140.1
37.5°	1001.4	599.7	365.7	264.2	202.1	166.9	139.2	123.3	119.1	117.4
40°	932.6	534.2	319.5	231.5	176.1	138.4	114.9	101.5	97.3	95.6
42.5°	859.6	463.8	275.9	203.0	152.6	114.1	94.8	83.0	78.8	78.8
45°	787.5	405.9	241.5	177.0	128.3	94.8	78.8	67.1	62.1	61.2
47.5°	703.6	353.1	213.9	153.5	106.5	78.8	63.7	53.7	48.6	47.8
50°	627.3	304.4	187.0	129.2	89.7	65.4	50.3	42.8	37.7	37.7
52°	576.2	273.4	168.6	112.4	78.0	55.4	41.9	34.4	33.5	33.5
52.5°	562.8	265.9	164.4	109.9	74.6	52.8	40.3	32.7	32.7	32.7
55°	504.9	232.3	146.8	94.8	62.1	41.1	29.4	26.0	26.8	26.8
57.5°	457.9	203.0	127.5	81.4	51.2	31.9	21.0	21.0	20.1	19.3
60°	405.9	178.6	111.5	69.6	40.3	22.6	15.1	13.4	10.9	10.9
62.5°	349.7	153.5	98.1	59.5	30.2	14.3	8.4	5.9	5.0	4.2
65°	293.5	133.3	84.7	48.6	22.6	7.5	1.7	0.0	0.0	0.0
67.5°	244.9	115.7	72.1	38.6	15.1	1.7	0.0	0.0	0.0	0.0
70°	197.9	98.1	60.4	29.4	7.5	0.0	0.0	0.0	0.0	0.0
72.5°	159.3	83.9	49.5	20.1	2.5	0.0	0.0	0.0	0.0	0.0
75°	124.1	68.8	39.4	13.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	99.0	57.0	31.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	77.2	45.3	23.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	60.4	36.1	18.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
85°	47.8	28.5	13.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	39.4	22.6	10.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0
90°	32.7	17.6	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	27.7	14.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	23.5	11.7	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	21.0	10.1	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	20.1	9.2	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	19.3	9.2	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	19.3	8.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	19.3	8.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P979127
 CATALOG NUMBER: WPSLED15S-50W-6500K

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	18.5	6.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	17.6	5.9	2.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0
115°	16.8	4.2	2.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	14.3	2.5	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0
120°	11.7	1.7	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	10.1	0.8	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0
125°	9.2	0.8	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	8.4	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
130°	7.5	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	6.7	2.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
135°	5.9	2.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	5.0	2.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
140°	4.2	2.5	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	3.4	2.5	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
145°	3.4	2.5	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0
147.5°	3.4	2.5	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0
150°	2.5	1.7	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0
152.5°	2.5	1.7	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0
155°	2.5	1.7	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
157.5°	1.7	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.7	1.7	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0
162.5°	1.7	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.7	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.7	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.7	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.7	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.7	0.8	0.8	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: SP1-2407-168-5

Test Date: 08/08/2024

Luminaire Tested: LSDL-92S-100W 6500k

Data in this report applies to families of products including LSDL-92S-100W 6500k.

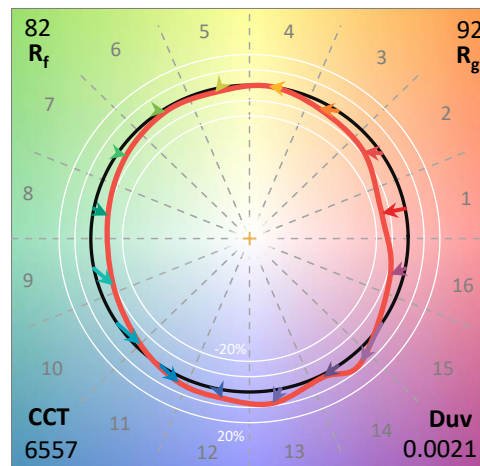
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-168-5
 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 6500k**
 Description: Lumark Wallpack 100W

Spectral Parameters

CCT (K): 6557
 CIE u': 0.1985
 CIE v': 0.4668
 Duv: 0.0021
 CIE x: 0.3121
 CIE y: 0.3263
 CIE z: 0.3616
 Peak Wavelength (nm): 453
 Dominant Wavelength (nm): 487
 Purity: 7.689333
 Rf: 81.6
 Rg: 92.3

CRI (Ra):	82.1		
R1:	80.1	R9:	-3.7
R2:	89.1	R10:	72.9
R3:	92.6	R11:	78.9
R4:	79.9	R12:	57.0
R5:	80.7	R13:	83.1
R6:	82.7	R14:	96.5
R7:	86.0	R15:	74.6
R8:	65.5		



Test Conditions

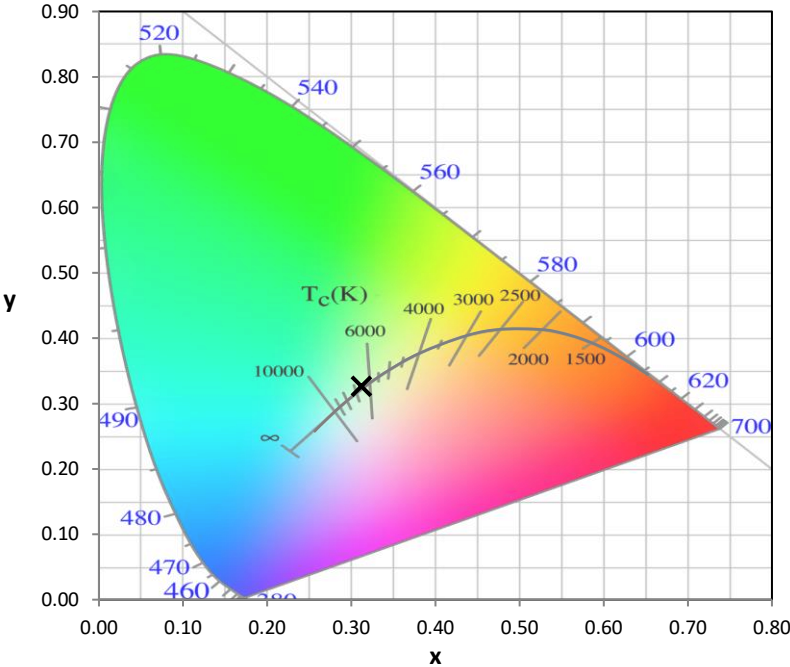
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-168-5

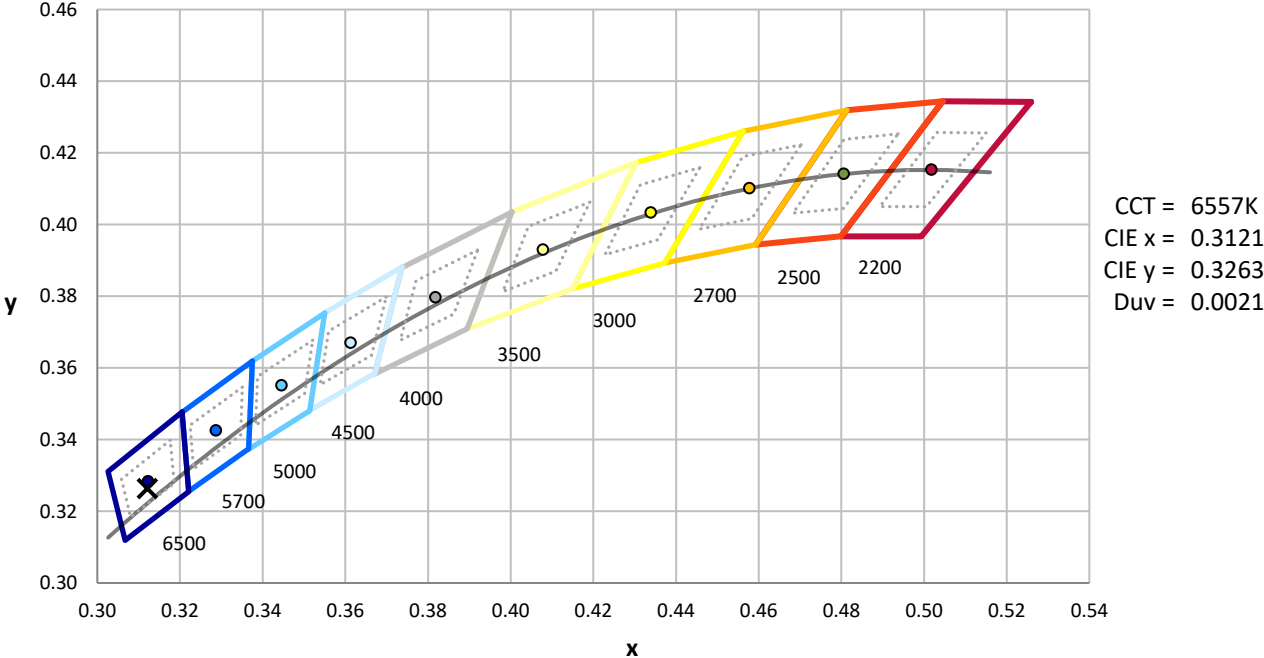
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-168-5

CIE 1931 Chromaticity Diagram



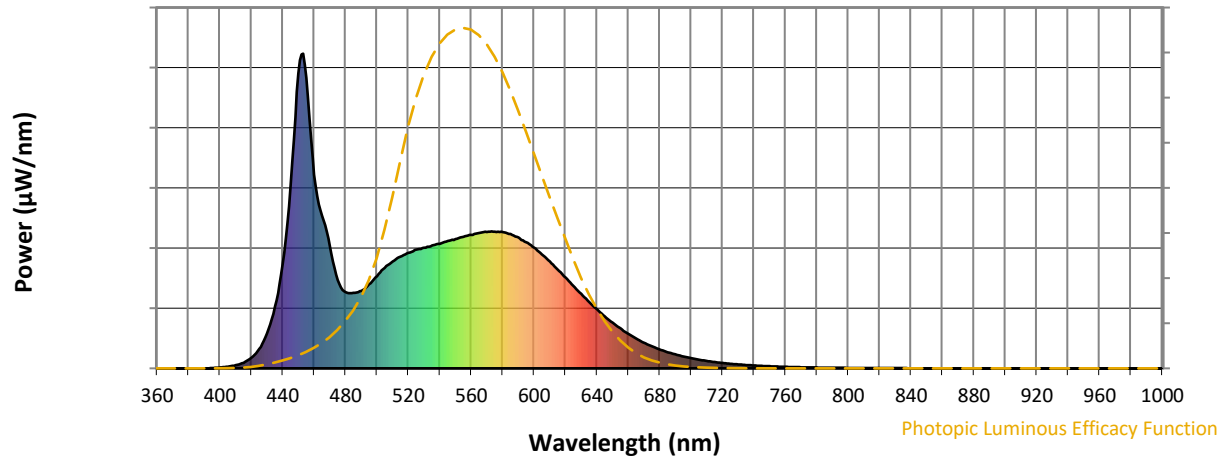
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 6500K 4-step quadrangle

REPORT NUMBER: SP1-2407-168-5

Photopic Flux vs. Wavelength

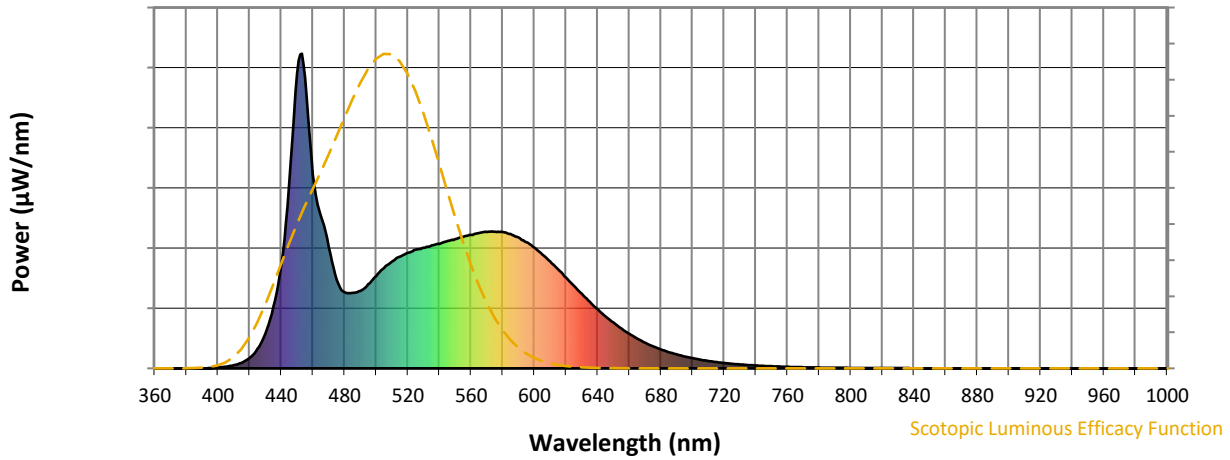


Photopic Lumens: NR

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	246	NR	620	288	NR	750	7	NR	880	0	NR
365	0	NR	495	267	NR	625	262	NR	755	6	NR	885	0	NR
370	0	NR	500	293	NR	630	237	NR	760	5	NR	890	0	NR
375	0	NR	505	319	NR	635	211	NR	765	4	NR	895	0	NR
380	0	NR	510	339	NR	640	188	NR	770	4	NR	900	0	NR
385	0	NR	515	355	NR	645	165	NR	775	3	NR	905	0	NR
390	0	NR	520	367	NR	650	145	NR	780	3	NR	910	0	NR
395	1	NR	525	377	NR	655	127	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	110	NR	790	2	NR	920	0	NR
405	5	NR	535	391	NR	665	95	NR	795	2	NR	925	0	NR
410	10	NR	540	396	NR	670	81	NR	800	1	NR	930	0	NR
415	18	NR	545	405	NR	675	70	NR	805	1	NR	935	0	NR
420	33	NR	550	411	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	418	NR	685	51	NR	815	1	NR	945	0	NR
430	111	NR	560	425	NR	690	44	NR	820	1	NR	950	0	NR
435	196	NR	565	430	NR	695	38	NR	825	1	NR	955	0	NR
440	331	NR	570	434	NR	700	32	NR	830	1	NR	960	0	NR
445	583	NR	575	434	NR	705	28	NR	835	1	NR	965	0	NR
450	937	NR	580	433	NR	710	23	NR	840	1	NR	970	0	NR
455	923	NR	585	427	NR	715	20	NR	845	0	NR	975	0	NR
460	616	NR	590	416	NR	720	17	NR	850	0	NR	980	0	NR
465	485	NR	595	401	NR	725	15	NR	855	0	NR	985	0	NR
470	386	NR	600	384	NR	730	13	NR	860	0	NR	990	0	NR
475	280	NR	605	362	NR	735	11	NR	865	0	NR	995	0	NR
480	242	NR	610	339	NR	740	9	NR	870	0	NR	1000	0	NR
485	240	NR	615	314	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2407-168-5

Scotopic Flux vs. Wavelength



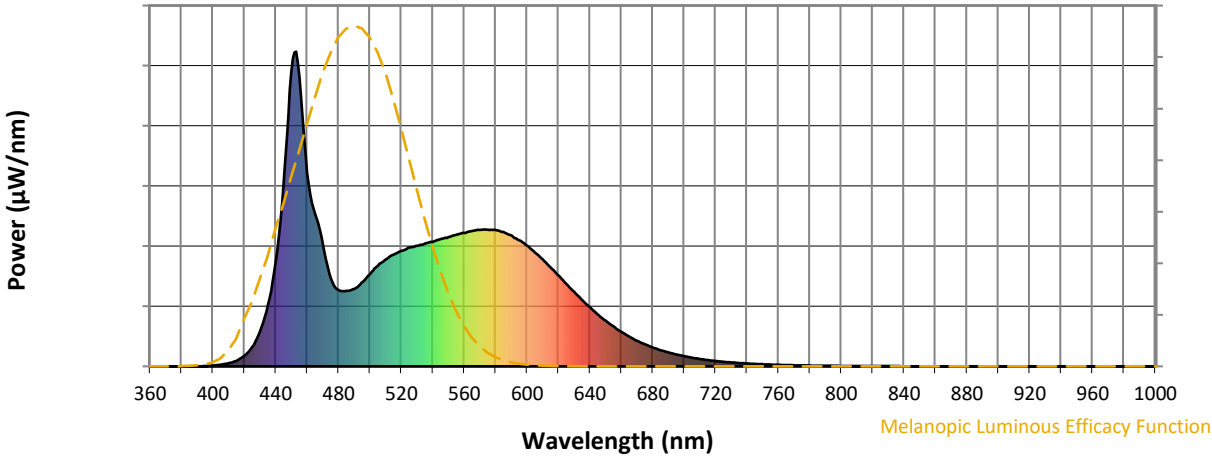
Scotopic Lumens: NR

S/P: 2.27

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	246	NR	620	288	NR	750	7	NR	880	0	NR
365	0	NR	495	267	NR	625	262	NR	755	6	NR	885	0	NR
370	0	NR	500	293	NR	630	237	NR	760	5	NR	890	0	NR
375	0	NR	505	319	NR	635	211	NR	765	4	NR	895	0	NR
380	0	NR	510	339	NR	640	188	NR	770	4	NR	900	0	NR
385	0	NR	515	355	NR	645	165	NR	775	3	NR	905	0	NR
390	0	NR	520	367	NR	650	145	NR	780	3	NR	910	0	NR
395	1	NR	525	377	NR	655	127	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	110	NR	790	2	NR	920	0	NR
405	5	NR	535	391	NR	665	95	NR	795	2	NR	925	0	NR
410	10	NR	540	396	NR	670	81	NR	800	1	NR	930	0	NR
415	18	NR	545	405	NR	675	70	NR	805	1	NR	935	0	NR
420	33	NR	550	411	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	418	NR	685	51	NR	815	1	NR	945	0	NR
430	111	NR	560	425	NR	690	44	NR	820	1	NR	950	0	NR
435	196	NR	565	430	NR	695	38	NR	825	1	NR	955	0	NR
440	331	NR	570	434	NR	700	32	NR	830	1	NR	960	0	NR
445	583	NR	575	434	NR	705	28	NR	835	1	NR	965	0	NR
450	937	NR	580	433	NR	710	23	NR	840	1	NR	970	0	NR
455	923	NR	585	427	NR	715	20	NR	845	0	NR	975	0	NR
460	616	NR	590	416	NR	720	17	NR	850	0	NR	980	0	NR
465	485	NR	595	401	NR	725	15	NR	855	0	NR	985	0	NR
470	386	NR	600	384	NR	730	13	NR	860	0	NR	990	0	NR
475	280	NR	605	362	NR	735	11	NR	865	0	NR	995	0	NR
480	242	NR	610	339	NR	740	9	NR	870	0	NR	1000	0	NR
485	240	NR	615	314	NR	745	8	NR	875	0	NR			

REPORT NUMBER: SP1-2407-168-5

Melanopic Flux vs. Wavelength



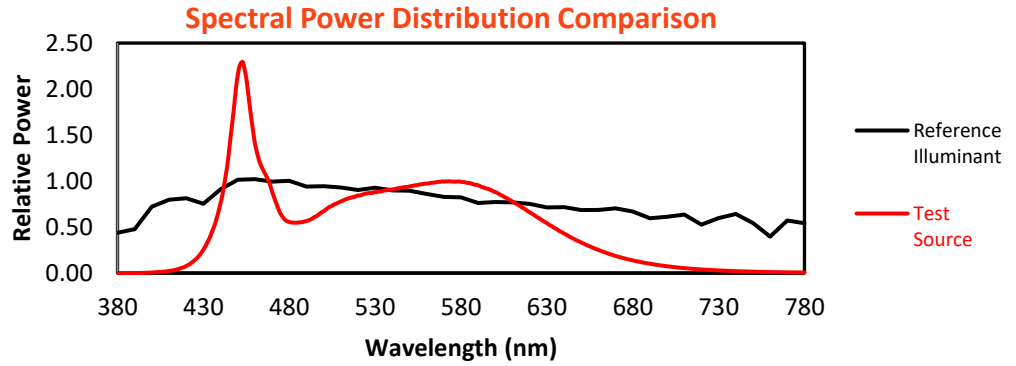
Melanopic Lumens: NR

M/P: 5.06

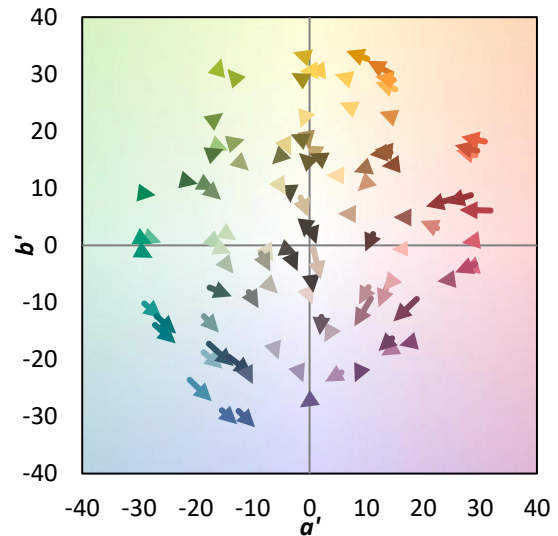
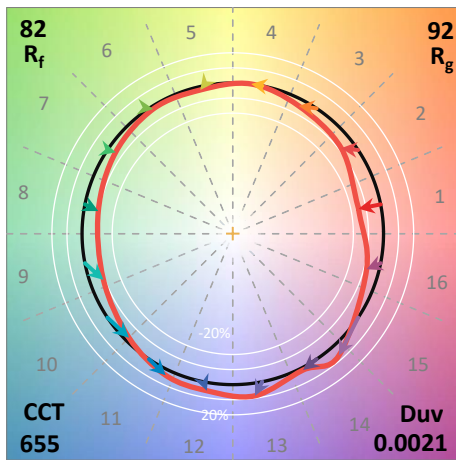
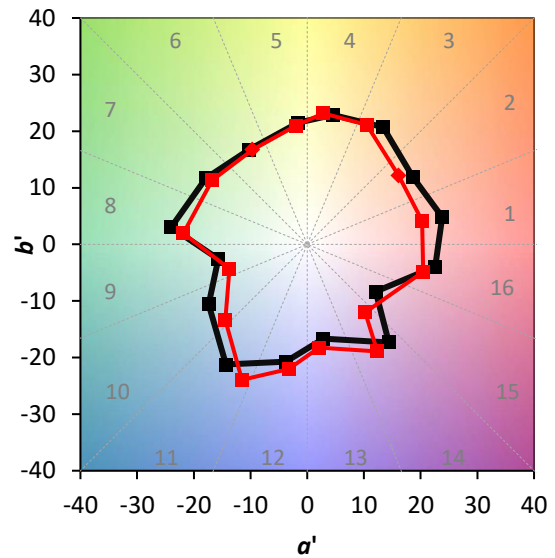
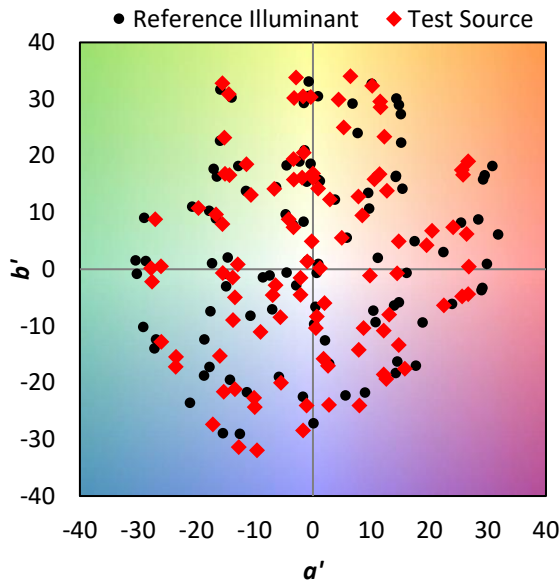
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	246	NR	620	288	NR	750	7	NR	880	0	NR
365	0	NR	495	267	NR	625	262	NR	755	6	NR	885	0	NR
370	0	NR	500	293	NR	630	237	NR	760	5	NR	890	0	NR
375	0	NR	505	319	NR	635	211	NR	765	4	NR	895	0	NR
380	0	NR	510	339	NR	640	188	NR	770	4	NR	900	0	NR
385	0	NR	515	355	NR	645	165	NR	775	3	NR	905	0	NR
390	0	NR	520	367	NR	650	145	NR	780	3	NR	910	0	NR
395	1	NR	525	377	NR	655	127	NR	785	2	NR	915	0	NR
400	3	NR	530	384	NR	660	110	NR	790	2	NR	920	0	NR
405	5	NR	535	391	NR	665	95	NR	795	2	NR	925	0	NR
410	10	NR	540	396	NR	670	81	NR	800	1	NR	930	0	NR
415	18	NR	545	405	NR	675	70	NR	805	1	NR	935	0	NR
420	33	NR	550	411	NR	680	60	NR	810	1	NR	940	0	NR
425	62	NR	555	418	NR	685	51	NR	815	1	NR	945	0	NR
430	111	NR	560	425	NR	690	44	NR	820	1	NR	950	0	NR
435	196	NR	565	430	NR	695	38	NR	825	1	NR	955	0	NR
440	331	NR	570	434	NR	700	32	NR	830	1	NR	960	0	NR
445	583	NR	575	434	NR	705	28	NR	835	1	NR	965	0	NR
450	937	NR	580	433	NR	710	23	NR	840	1	NR	970	0	NR
455	923	NR	585	427	NR	715	20	NR	845	0	NR	975	0	NR
460	616	NR	590	416	NR	720	17	NR	850	0	NR	980	0	NR
465	485	NR	595	401	NR	725	15	NR	855	0	NR	985	0	NR
470	386	NR	600	384	NR	730	13	NR	860	0	NR	990	0	NR
475	280	NR	605	362	NR	735	11	NR	865	0	NR	995	0	NR
480	242	NR	610	339	NR	740	9	NR	870	0	NR	1000	0	NR
485	240	NR	615	314	NR	745	8	NR	875	0	NR			

Summary

$R_f = 81.6$
 $R_g = 92.3$
 CIE $R_a = 82.1$
 $R_9 = -3.7$

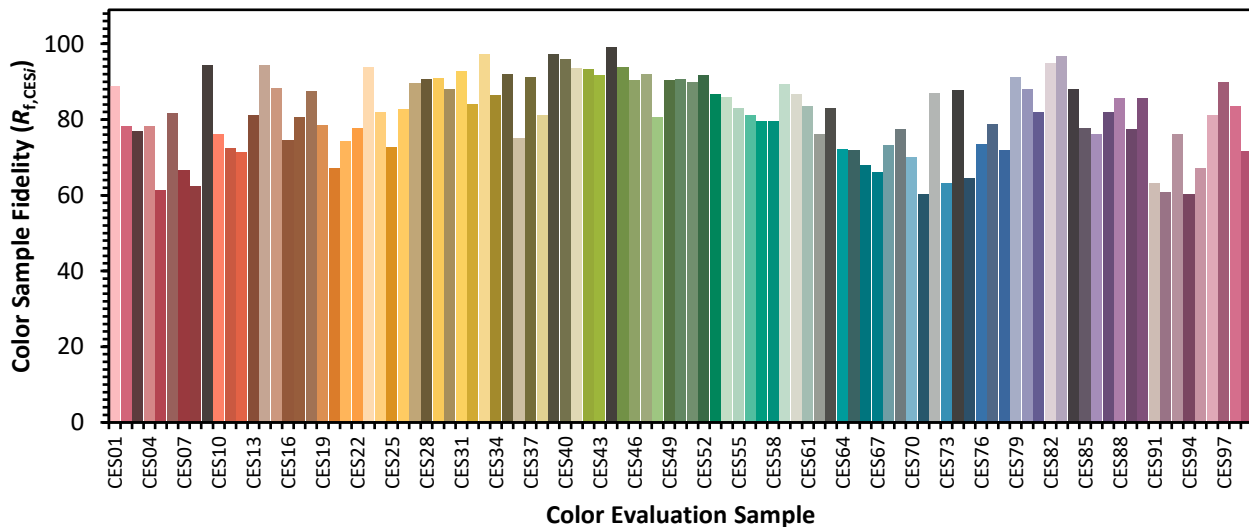


Color Vector Graphics

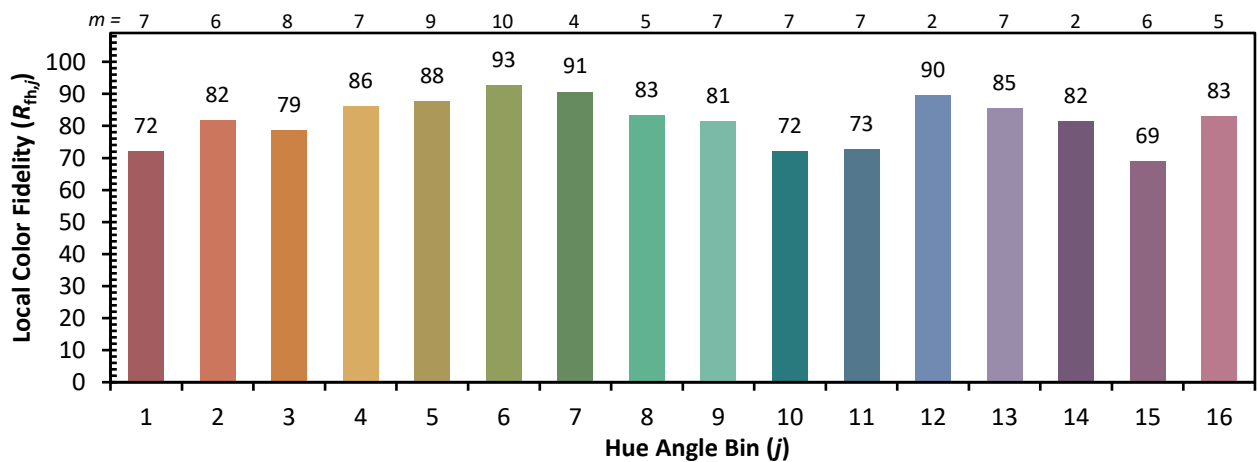
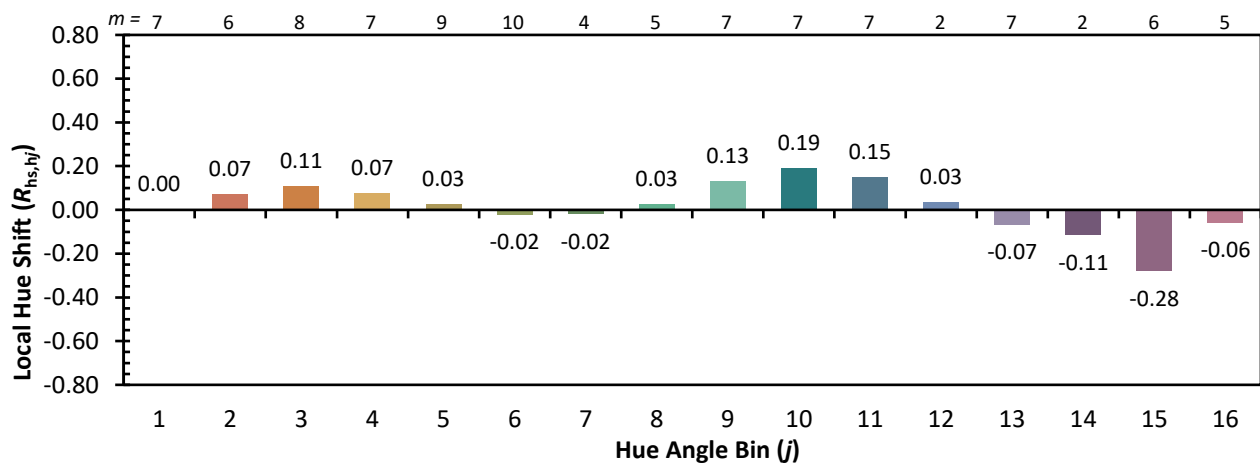
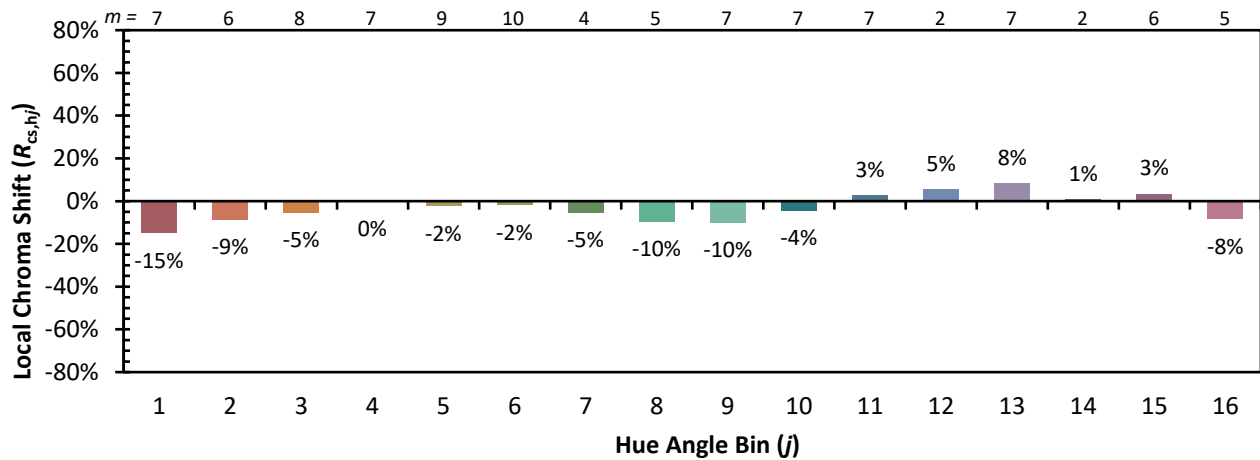


Individual Sample Fidelity Index ($R_{f,i}$)

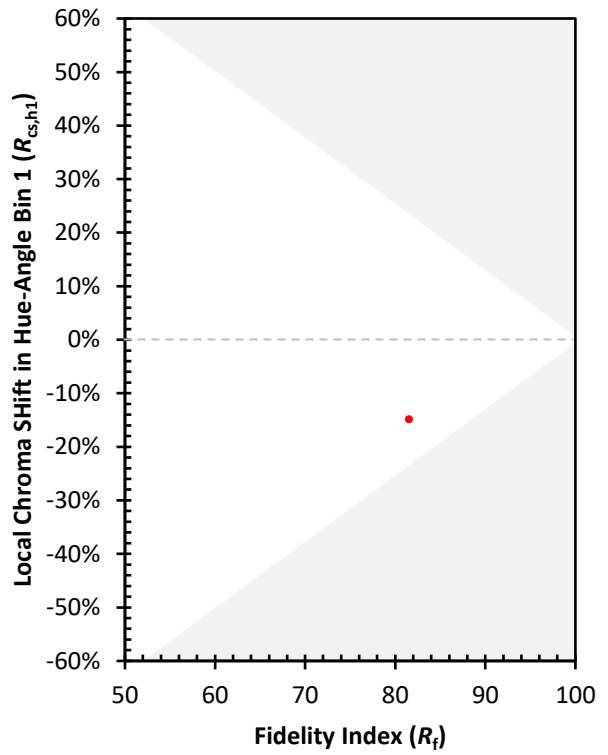
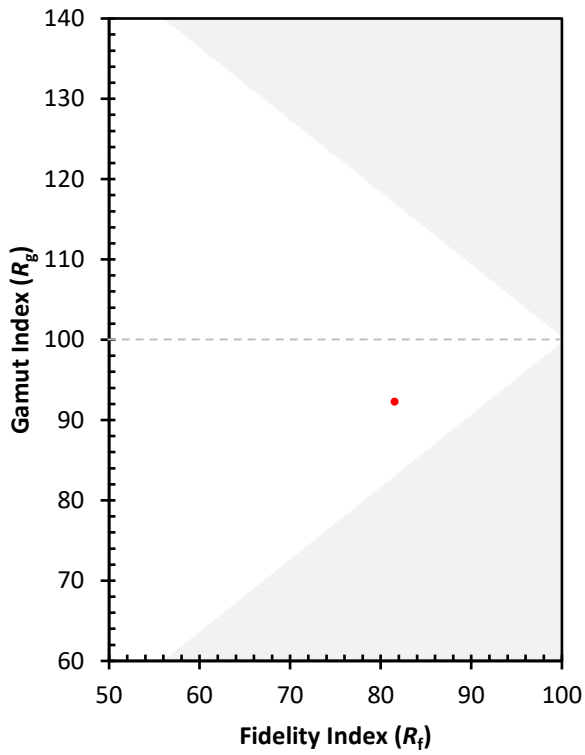
CES01 = 85	CES26 = 83	CES51 = 90	CES76 = 74
CES02 = 59	CES27 = 90	CES52 = 92	CES77 = 79
CES03 = 30	CES28 = 91	CES53 = 87	CES78 = 72
CES04 = 68	CES29 = 91	CES54 = 86	CES79 = 91
CES05 = 45	CES30 = 88	CES55 = 83	CES80 = 88
CES06 = 49	CES31 = 93	CES56 = 81	CES81 = 82
CES07 = 38	CES32 = 84	CES57 = 80	CES82 = 95
CES08 = 38	CES33 = 97	CES58 = 80	CES83 = 97
CES09 = 29	CES34 = 86	CES59 = 89	CES84 = 88
CES10 = 72	CES35 = 92	CES60 = 87	CES85 = 78
CES11 = 55	CES36 = 75	CES61 = 83	CES86 = 76
CES12 = 60	CES37 = 91	CES62 = 76	CES87 = 82
CES13 = 41	CES38 = 81	CES63 = 83	CES88 = 86
CES14 = 74	CES39 = 97	CES64 = 72	CES89 = 77
CES15 = 70	CES40 = 96	CES65 = 72	CES90 = 86
CES16 = 45	CES41 = 93	CES66 = 68	CES91 = 63
CES17 = 48	CES42 = 93	CES67 = 66	CES92 = 61
CES18 = 55	CES43 = 92	CES68 = 73	CES93 = 76
CES19 = 70	CES44 = 99	CES69 = 77	CES94 = 60
CES20 = 63	CES45 = 94	CES70 = 70	CES95 = 67
CES21 = 84	CES46 = 90	CES71 = 60	CES96 = 81
CES22 = 76	CES47 = 92	CES72 = 87	CES97 = 90
CES23 = 91	CES48 = 81	CES73 = 63	CES98 = 83
CES24 = 90	CES49 = 90	CES74 = 88	CES99 = 72
CES25 = 70	CES50 = 91	CES75 = 65	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)