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

Scaled data based on original data using

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

Test Report Prepared for

Cooper Lighting Solutions

Brand: METALUX

Report Number: P981640

Luminaire Tested: 4WNLED-LD4-50SL-F-UNV-L850-CD1-U

Issue Date: 04/17/2025

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Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P981640
Test Lab:	INNOVATION CENTER(P3)
Issue Date:	04/17/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	METALUX
Catalog Number:	4WNLED-LD4-50SL-F-UNV-L850-CD1-U
Description:	METALUX 4FT WNLED WRAPAROUND 5000LM PACKAGE 80CRI 5000K TROFFER
Light Source:	5000K CCT, 80+ CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4998.8 lumens
Efficiency:	N/A
Efficacy:	132.6 lumens/watt
Spacing Criteria (0/90/45):	1.22 / 1.27 / 1.38
Luminous Opening:	Rectangular w/ Sides (W: 0.75' x L: 4' x H: 0.17')
CIE Type:	Direct

Input Watts (W):	37.7
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:	25 FT

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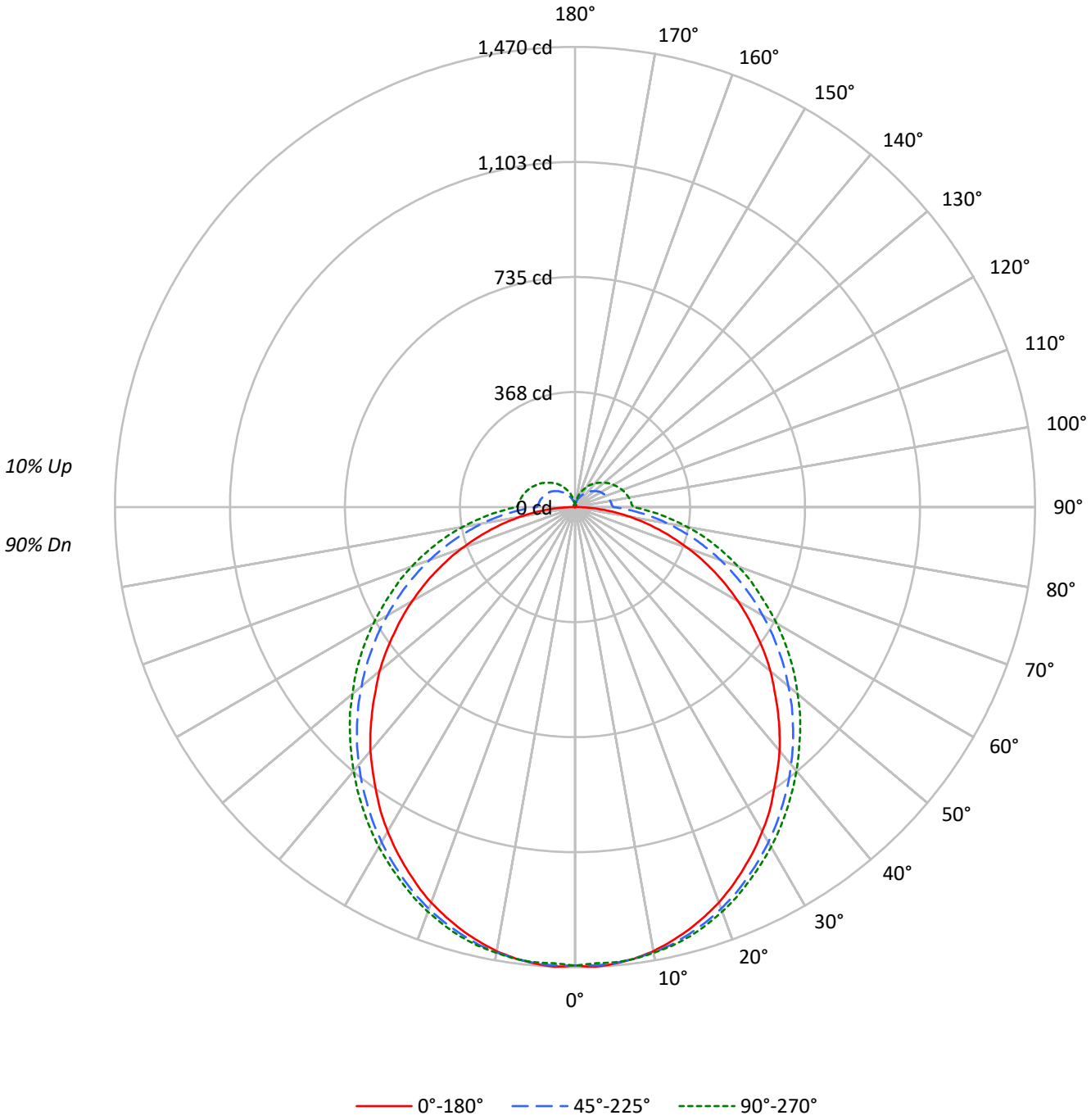
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	105	100	95	91	101	97	92	88	91	87	84	85	82	79	80	78	75	73
2	95	86	79	73	91	84	77	71	78	73	68	74	69	65	69	66	62	59
3	86	75	67	60	83	73	65	59	69	62	57	65	59	54	61	56	52	50
4	79	67	57	51	76	65	56	50	61	54	48	57	51	46	54	49	45	42
5	72	59	50	43	70	58	49	43	54	47	41	51	45	40	48	43	39	36
6	67	53	44	38	64	52	43	37	49	42	36	46	40	35	44	38	34	32
7	62	48	39	33	60	47	39	33	44	37	32	42	36	31	40	34	30	28
8	58	44	35	29	55	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22
10	50	37	29	24	49	36	29	24	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5254	5254	5254
5°	5255	5184	5158
10°	5210	5096	5070
15°	5139	4993	4977
20°	5057	4882	4857
25°	4951	4755	4728
30°	4842	4622	4604
35°	4714	4485	4473
40°	4603	4350	4345
45°	4459	4212	4222
50°	4335	4065	4095
55°	4171	3916	3982
60°	4019	3755	3855
65°	3844	3598	3725
70°	3619	3430	3612
75°	3327	3245	3484
80°	2956	3006	3323
85°	2331	2746	3159

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 4459 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.9	2.8
10°-20°	397.5	8.0
20°-30°	599.1	12.0
30°-40°	720.1	14.4
40°-50°	753.2	15.1
50°-60°	701.1	14.0
60°-70°	578.2	11.6
70°-80°	406.3	8.1
80°-90°	214.5	4.3
90°-100°	116.2	2.3
100°-110°	105.4	2.1
110°-120°	90.2	1.8
120°-130°	71.5	1.4
130°-140°	50.9	1.0
140°-150°	31.9	0.6
150°-160°	16.6	0.3
160°-170°	6.1	0.1
170°-180°	1.1	0.0
0°-30°	1135.5	22.7
0°-40°	1855.6	37.1
0°-60°	3309.9	66.2
0°-90°	4508.9	90.2
90°-120°	311.8	6.2
90°-150°	466.1	9.3
90°-180°	490.0	9.8
0°-180°	4998.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1464	1456	1463	1463	1460	139
15°	1399	1396	1411	1420	1420	394
25°	1275	1282	1306	1317	1318	587
35°	1108	1124	1158	1176	1180	694
45°	915	945	985	1009	1017	707
55°	706	744	793	825	839	633
65°	493	536	594	632	648	488
75°	277	330	397	443	460	293
85°	84	141	209	254	272	88
90°	3	57	123	170	187	6
95°	0	53	117	163	180	1
105°	1	50	110	152	167	2
115°	3	47	100	138	152	3
125°	4	40	88	121	132	4
135°	6	32	71	102	110	4
145°	6	25	52	77	86	4
155°	7	20	36	52	60	3
165°	8	14	21	28	33	2
175°	8	8	10	10	11	1
180°	7	7	7	7	7	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3
2.5°	1469.9	1468.5	1465.7	1462.9	1461.5	1461.5	1460.1	1460.1	1460.1	1464.3	1465.7
5°	1464.3	1462.9	1460.1	1458.7	1457.3	1456.0	1456.0	1456.0	1457.3	1461.5	1462.9
7.5°	1454.6	1453.2	1450.4	1449.0	1447.6	1447.6	1447.6	1447.6	1449.0	1453.2	1454.6
10°	1440.6	1439.2	1436.4	1435.1	1435.1	1435.1	1435.1	1435.1	1437.8	1442.0	1444.8
12.5°	1421.1	1419.7	1418.3	1418.3	1416.9	1416.9	1418.3	1418.3	1421.1	1426.7	1430.9
15°	1398.8	1397.4	1396.0	1396.0	1396.0	1396.0	1397.4	1398.8	1403.0	1408.6	1411.4
17.5°	1372.4	1372.4	1371.0	1372.4	1372.4	1372.4	1373.7	1376.5	1379.3	1386.3	1390.5
20°	1344.5	1343.1	1341.7	1344.5	1344.5	1344.5	1345.9	1350.1	1354.2	1361.2	1365.4
22.5°	1311.1	1311.1	1311.1	1312.4	1313.8	1315.2	1316.6	1320.8	1326.4	1332.0	1337.5
25°	1274.8	1274.8	1274.8	1277.6	1280.4	1281.8	1283.2	1287.4	1294.3	1299.9	1305.5
27.5°	1237.2	1237.2	1237.2	1238.6	1242.8	1244.2	1247.0	1252.5	1259.5	1265.1	1272.0
30°	1196.8	1196.8	1198.2	1201.0	1205.2	1206.6	1209.3	1214.9	1223.3	1228.9	1235.8
32.5°	1155.0	1153.6	1155.0	1159.2	1163.4	1167.5	1168.9	1175.9	1184.3	1191.2	1198.2
35°	1107.6	1109.0	1111.8	1116.0	1120.2	1124.4	1127.1	1134.1	1143.9	1150.8	1157.8
37.5°	1061.7	1063.1	1065.8	1071.4	1077.0	1081.2	1085.3	1090.9	1102.1	1109.0	1117.4
40°	1017.1	1014.3	1019.9	1025.4	1032.4	1036.6	1040.8	1047.7	1058.9	1065.8	1074.2
42.5°	966.9	966.9	971.1	979.5	986.4	990.6	994.8	1003.1	1014.3	1022.6	1031.0
45°	915.4	916.8	922.3	930.7	939.1	944.6	947.4	957.2	968.3	976.7	985.0
47.5°	863.8	866.6	872.2	881.9	890.3	895.9	898.6	909.8	920.9	930.7	939.1
50°	815.1	815.1	822.0	830.4	840.1	845.7	849.9	861.0	872.2	881.9	890.3
52.5°	762.1	762.1	769.1	780.2	788.6	795.5	799.7	812.3	823.4	833.2	842.9
55°	706.4	709.2	716.1	728.7	738.4	744.0	749.6	762.1	773.3	784.4	792.8
57.5°	654.8	656.2	664.6	675.7	686.9	692.4	699.4	710.6	723.1	735.6	744.0
60°	600.5	603.3	610.2	624.2	635.3	640.9	646.5	660.4	672.9	684.1	692.4
62.5°	547.5	548.9	558.7	571.2	582.4	589.3	596.3	608.9	621.4	632.5	643.7
65°	493.2	496.0	504.4	518.3	529.4	536.4	542.0	558.7	569.8	582.4	593.5
67.5°	438.9	441.7	451.4	465.3	477.9	484.9	490.4	505.8	519.7	532.2	543.4
70°	384.5	387.3	398.5	412.4	424.9	431.9	440.3	454.2	469.5	482.1	494.6
72.5°	328.8	333.0	342.7	358.1	374.8	381.8	388.7	405.4	419.4	433.3	444.4
75°	277.3	281.4	292.6	306.5	320.4	330.2	335.8	352.5	370.6	384.5	397.1
77.5°	225.7	229.9	241.0	256.4	271.7	280.0	288.4	303.7	319.1	333.0	346.9
80°	176.9	181.1	193.7	207.6	222.9	232.7	241.0	257.8	273.1	287.0	299.5
82.5°	129.6	133.8	146.3	161.6	178.3	186.7	195.1	210.4	227.1	241.0	255.0
85°	83.6	90.6	101.7	115.6	132.4	140.7	149.1	165.8	181.1	195.1	209.0
87.5°	40.4	46.0	58.5	73.8	89.2	98.9	105.9	121.2	137.9	150.5	164.4
90°	2.8	8.4	19.5	33.4	48.8	57.1	65.5	80.8	96.1	110.1	122.6
92.5°	0.0	5.6	16.7	30.7	46.0	54.3	61.3	76.6	92.0	105.9	118.4
95°	0.0	5.6	16.7	30.7	46.0	52.9	61.3	76.6	90.6	104.5	117.0
97.5°	1.4	5.6	16.7	30.7	44.6	52.9	59.9	75.2	89.2	103.1	115.6
100°	1.4	5.6	16.7	29.3	44.6	51.6	59.9	73.8	87.8	101.7	114.2
102.5°	1.4	5.6	16.7	29.3	44.6	51.6	58.5	72.4	86.4	100.3	112.9
105°	1.4	7.0	16.7	29.3	43.2	50.2	57.1	72.4	85.0	97.5	110.1
107.5°	1.4	7.0	16.7	29.3	43.2	50.2	57.1	71.1	83.6	96.1	107.3
110°	2.8	7.0	16.7	29.3	41.8	48.8	55.7	69.7	82.2	94.7	105.9

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	2.8	7.0	16.7	27.9	41.8	47.4	54.3	68.3	80.8	92.0	103.1
115°	2.8	7.0	16.7	27.9	40.4	47.4	52.9	66.9	78.0	90.6	100.3
117.5°	2.8	8.4	16.7	26.5	39.0	46.0	51.6	64.1	76.6	87.8	97.5
120°	4.2	8.4	15.3	26.5	37.6	44.6	50.2	62.7	73.8	85.0	94.7
122.5°	4.2	8.4	15.3	25.1	36.2	41.8	48.8	59.9	71.1	82.2	92.0
125°	4.2	8.4	15.3	23.7	34.8	40.4	46.0	57.1	68.3	78.0	87.8
127.5°	4.2	8.4	15.3	23.7	33.4	37.6	43.2	54.3	64.1	73.8	83.6
130°	4.2	8.4	13.9	22.3	30.7	36.2	40.4	51.6	59.9	69.7	79.4
132.5°	4.2	8.4	13.9	20.9	29.3	34.8	39.0	48.8	57.1	65.5	75.2
135°	5.6	8.4	13.9	20.9	27.9	32.0	36.2	44.6	52.9	61.3	71.1
137.5°	5.6	8.4	12.5	19.5	26.5	30.7	34.8	41.8	50.2	58.5	65.5
140°	5.6	8.4	12.5	18.1	25.1	29.3	32.0	39.0	47.4	54.3	61.3
142.5°	5.6	8.4	12.5	18.1	23.7	26.5	30.7	36.2	43.2	50.2	57.1
145°	5.6	8.4	12.5	16.7	22.3	25.1	27.9	34.8	40.4	46.0	51.6
147.5°	7.0	8.4	12.5	16.7	20.9	23.7	26.5	32.0	37.6	41.8	47.4
150°	7.0	8.4	11.1	15.3	19.5	22.3	25.1	29.3	34.8	39.0	43.2
152.5°	7.0	8.4	11.1	15.3	19.5	20.9	22.3	27.9	32.0	36.2	39.0
155°	7.0	8.4	11.1	13.9	18.1	19.5	20.9	25.1	29.3	32.0	36.2
157.5°	7.0	8.4	11.1	13.9	16.7	18.1	19.5	22.3	26.5	29.3	32.0
160°	7.0	8.4	11.1	12.5	15.3	16.7	18.1	20.9	23.7	26.5	27.9
162.5°	8.4	8.4	9.8	12.5	13.9	15.3	16.7	18.1	20.9	22.3	25.1
165°	8.4	8.4	9.8	11.1	12.5	13.9	13.9	16.7	18.1	19.5	20.9
167.5°	8.4	8.4	9.8	11.1	11.1	12.5	12.5	13.9	15.3	16.7	18.1
170°	8.4	8.4	8.4	9.8	11.1	11.1	11.1	12.5	13.9	13.9	15.3
172.5°	8.4	8.4	8.4	8.4	9.8	9.8	9.8	11.1	11.1	12.5	12.5
175°	8.4	8.4	8.4	8.4	8.4	8.4	9.8	9.8	9.8	9.8	9.8
177.5°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
180°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3	1464.3
2.5°	*1467.1*	*1469.9*	*1468.5*	*1465.7*	*1465.7*	*1465.7*	*1464.3*	*1461.5*	*1460.1*	*1458.7*
5°	1464.3	1467.1	1464.3	1462.9	1462.9	1462.9	1462.9	1461.5	1460.1	1460.1
7.5°	1457.3	1460.1	1458.7	1457.3	1457.3	1457.3	1457.3	1456.0	1456.0	1456.0
10°	1447.6	1451.8	1450.4	1449.0	1447.6	1449.0	1447.6	1447.6	1446.2	1446.2
12.5°	1432.3	1436.4	1436.4	1435.1	1435.1	1435.1	1435.1	1435.1	1433.7	1435.1
15°	1415.5	1419.7	1419.7	1419.7	1419.7	1419.7	1419.7	1419.7	1418.3	1419.7
17.5°	1394.6	1398.8	1400.2	1398.8	1400.2	1400.2	1400.2	1398.8	1398.8	1398.8
20°	1369.6	1373.7	1375.1	1373.7	1373.7	1373.7	1375.1	1375.1	1375.1	1375.1
22.5°	1341.7	1345.9	1345.9	1345.9	1347.3	1347.3	1347.3	1348.7	1348.7	1348.7
25°	1309.7	1313.8	1313.8	1315.2	1316.6	1316.6	1318.0	1318.0	1318.0	1318.0
27.5°	1279.0	1281.8	1281.8	1283.2	1284.6	1284.6	1284.6	1284.6	1287.4	1286.0
30°	1242.8	1245.6	1247.0	1249.8	1249.8	1251.1	1251.1	1252.5	1253.9	1253.9
32.5°	1205.2	1208.0	1209.3	1212.1	1213.5	1214.9	1214.9	1217.7	1219.1	1217.7
35°	1164.8	1167.5	1171.7	1173.1	1175.9	1175.9	1178.7	1178.7	1181.5	1180.1
37.5°	1124.4	1127.1	1129.9	1132.7	1135.5	1136.9	1138.3	1141.1	1143.9	1141.1
40°	1081.2	1085.3	1089.5	1092.3	1093.7	1096.5	1096.5	1100.7	1103.5	1100.7
42.5°	1038.0	1042.2	1046.3	1051.9	1051.9	1053.3	1056.1	1060.3	1060.3	1058.9
45°	993.4	996.2	1003.1	1007.3	1008.7	1010.1	1012.9	1014.3	1017.1	1017.1
47.5°	946.0	951.6	958.6	962.7	964.1	965.5	968.3	971.1	975.3	975.3
50°	898.6	905.6	908.4	915.4	918.2	919.5	923.7	926.5	929.3	927.9
52.5°	849.9	855.5	863.8	869.4	872.2	873.6	877.8	881.9	883.3	884.7
55°	801.1	808.1	816.4	822.0	824.8	827.6	830.4	833.2	837.3	838.7
57.5°	752.4	759.3	769.1	774.6	777.4	778.8	784.4	788.6	790.0	791.4
60°	702.2	710.6	720.3	725.9	728.7	732.9	734.2	741.2	742.6	744.0
62.5°	653.4	661.8	671.5	678.5	681.3	684.1	689.7	693.8	696.6	695.2
65°	604.7	613.0	622.8	629.8	632.5	636.7	640.9	645.1	647.9	647.9
67.5°	554.5	564.3	575.4	582.4	585.2	589.3	593.5	596.3	600.5	603.3
70°	505.8	516.9	526.7	533.6	536.4	540.6	544.8	551.7	551.7	554.5
72.5°	457.0	468.1	477.9	487.6	490.4	493.2	498.8	503.0	504.4	507.1
75°	409.6	420.8	430.5	437.5	443.1	445.8	451.4	454.2	457.0	459.8
77.5°	359.5	373.4	383.1	391.5	395.7	398.5	404.0	408.2	411.0	412.4
80°	312.1	323.2	333.0	341.3	345.5	349.7	355.3	358.1	362.2	363.6
82.5°	266.1	277.3	287.0	294.0	299.5	302.3	307.9	313.5	313.5	316.3
85°	220.1	231.3	241.0	249.4	253.6	257.8	261.9	267.5	268.9	271.7
87.5°	175.6	188.1	196.4	206.2	209.0	213.2	220.1	224.3	227.1	227.1
90°	135.1	146.3	156.0	165.8	170.0	172.8	179.7	183.9	186.7	186.7
92.5°	131.0	142.1	151.9	161.6	164.4	168.6	174.2	178.3	181.1	181.1
95°	129.6	140.7	150.5	158.8	163.0	165.8	172.8	175.6	178.3	179.7
97.5°	128.2	139.3	149.1	157.4	160.2	164.4	170.0	174.2	176.9	176.9
100°	125.4	136.5	146.3	154.7	158.8	161.6	167.2	171.4	172.8	174.2
102.5°	124.0	133.8	143.5	151.9	156.0	158.8	164.4	168.6	170.0	171.4
105°	121.2	132.4	140.7	149.1	151.9	156.0	160.2	164.4	167.2	167.2
107.5°	118.4	129.6	137.9	146.3	149.1	151.9	157.4	161.6	163.0	164.4
110°	115.6	126.8	135.1	142.1	146.3	149.1	153.3	157.4	158.8	160.2

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

Scaled Data Report

TEST NUMBER: P981640
CATALOG NUMBER: 4WNLED-LD4-50SL-F-UNV-L850-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	112.9	122.6	131.0	139.3	142.1	144.9	149.1	153.3	154.7	156.0
115°	110.1	119.8	128.2	135.1	137.9	140.7	144.9	149.1	150.5	151.9
117.5°	107.3	117.0	124.0	131.0	133.8	136.5	140.7	144.9	146.3	146.3
120°	104.5	112.9	121.2	126.8	129.6	132.4	136.5	139.3	142.1	142.1
122.5°	100.3	108.7	117.0	122.6	125.4	128.2	132.4	135.1	136.5	137.9
125°	97.5	105.9	112.9	118.4	121.2	124.0	126.8	129.6	131.0	132.4
127.5°	93.3	100.3	108.7	114.2	117.0	119.8	122.6	125.4	126.8	126.8
130°	87.8	96.1	103.1	110.1	112.9	114.2	118.4	119.8	121.2	121.2
132.5°	83.6	90.6	97.5	104.5	107.3	110.1	112.9	114.2	115.6	115.6
135°	78.0	85.0	92.0	98.9	101.7	104.5	107.3	108.7	110.1	110.1
137.5°	73.8	80.8	86.4	93.3	96.1	98.9	101.7	103.1	104.5	104.5
140°	68.3	73.8	80.8	87.8	90.6	92.0	96.1	97.5	98.9	98.9
142.5°	62.7	69.7	75.2	80.8	83.6	86.4	90.6	92.0	93.3	93.3
145°	58.5	64.1	68.3	73.8	76.6	79.4	83.6	86.4	86.4	86.4
147.5°	52.9	58.5	62.7	68.3	71.1	72.4	78.0	79.4	80.8	80.8
150°	48.8	52.9	57.1	61.3	64.1	66.9	71.1	73.8	73.8	73.8
152.5°	44.6	47.4	51.6	55.7	57.1	59.9	64.1	66.9	66.9	66.9
155°	39.0	43.2	46.0	48.8	51.6	52.9	57.1	59.9	59.9	59.9
157.5°	34.8	37.6	40.4	43.2	44.6	46.0	50.2	52.9	54.3	54.3
160°	30.7	33.4	34.8	37.6	39.0	40.4	41.8	46.0	47.4	47.4
162.5°	26.5	27.9	30.7	32.0	33.4	33.4	36.2	37.6	40.4	40.4
165°	22.3	23.7	25.1	26.5	27.9	27.9	29.3	32.0	33.4	33.4
167.5°	19.5	19.5	20.9	22.3	22.3	22.3	23.7	25.1	27.9	27.9
170°	15.3	16.7	16.7	16.7	18.1	18.1	18.1	19.5	20.9	22.3
172.5°	12.5	12.5	13.9	13.9	13.9	13.9	13.9	13.9	15.3	16.7
175°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	11.1
177.5°	8.4	8.4	8.4	7.0	7.0	7.0	7.0	7.0	7.0	5.6
180°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

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

Metalux

Report Number: SP3-2508-516-12

Test Date: 09/05/2025

Luminaire Tested: 4WNLED-LD4-50SL-F-UNVL950-CD1-U

Data in this report applies to families of products including 4WNLED-LD4-50SL-F-UNVL950-CD1-U

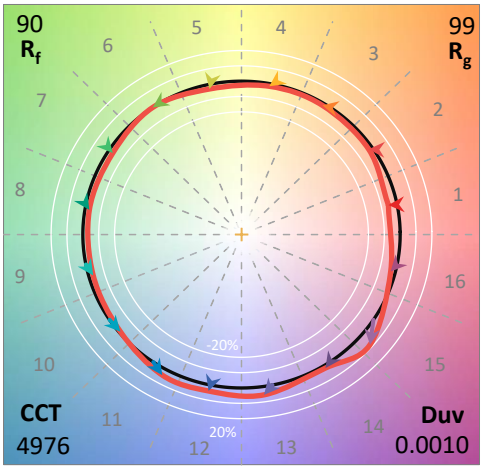
Report Generated By FNC07603 / LDUCLS01DT01661
Version: v7.05

Test Information

Test Method:	LM-79-2019
Report Number:	SP3-2508-516-12
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP3 - 3M SPHERE
Measurement Geometry:	4π
Issue Date:	09/05/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Metalux
Catalog Number:	**4WNLED-LD4-50SL-F-UNVL950-CD1-U**
Description:	4FT WNLED 5000LM 950

Spectral Parameters

CCT (K):	4976	CRI (Ra):	93.2		
CIE u':	0.2110	R1:	94.3	R9:	68.0
CIE v':	0.4861	R2:	96.8	R10:	89.7
Duv:	0.0010	R3:	96.1	R11:	92.7
CIE x:	0.3460	R4:	92.1	R12:	64.5
CIE y:	0.3544	R5:	92.0	R13:	95.4
CIE z:	0.2997	R6:	92.6	R14:	97.5
Peak Wavelength (nm):	630	R7:	94.0	R15:	91.5
Dominant Wavelength (nm):	572	R8:	87.6		
Purity:	10.13443				
Rf:	89.8				
Rg:	98.7				



Test Conditions

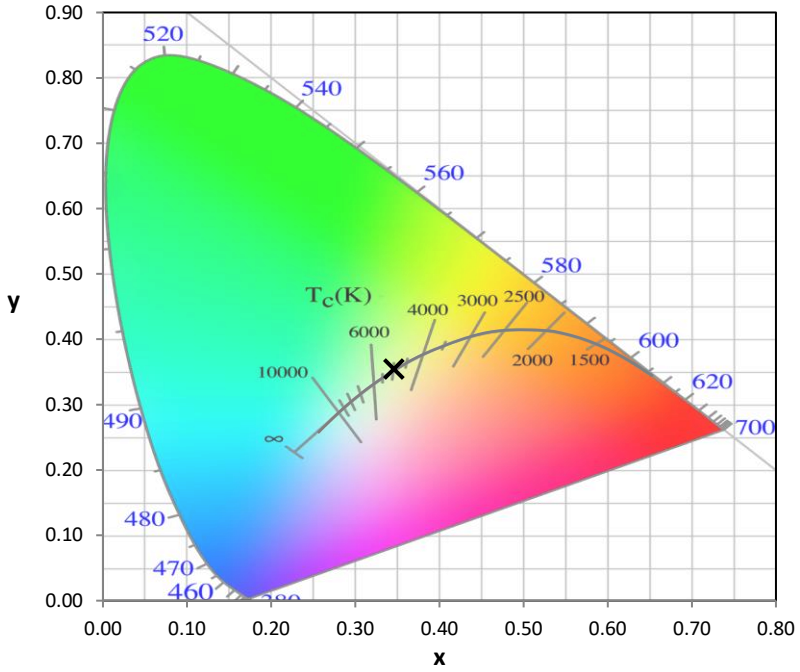
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	25.0

REPORT NUMBER: SP3-2508-516-12

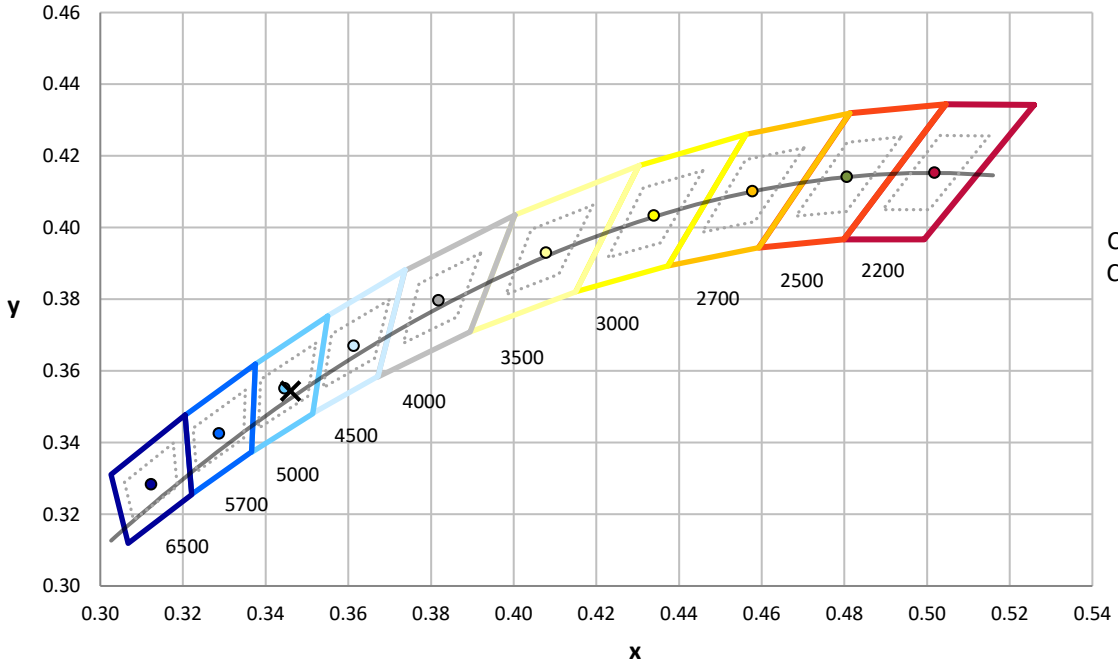
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	3M SPHERE IN02505	7/1/2025	1/1/2026
Power Meter	XITRON INXT2011006	1/20/2025	1/20/2026
AC Power Source	CHROMA 61604 IN6064A	10/22/2024	10/22/2025
DC Power Source	EYSIGHT N5770A IN0534	10/22/2024	10/22/2025
Sphere Thermometer	TANDD IN4036E	10/22/2024	10/22/2025

REPORT NUMBER: SP3-2508-516-12

CIE 1931 Chromaticity Diagram



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

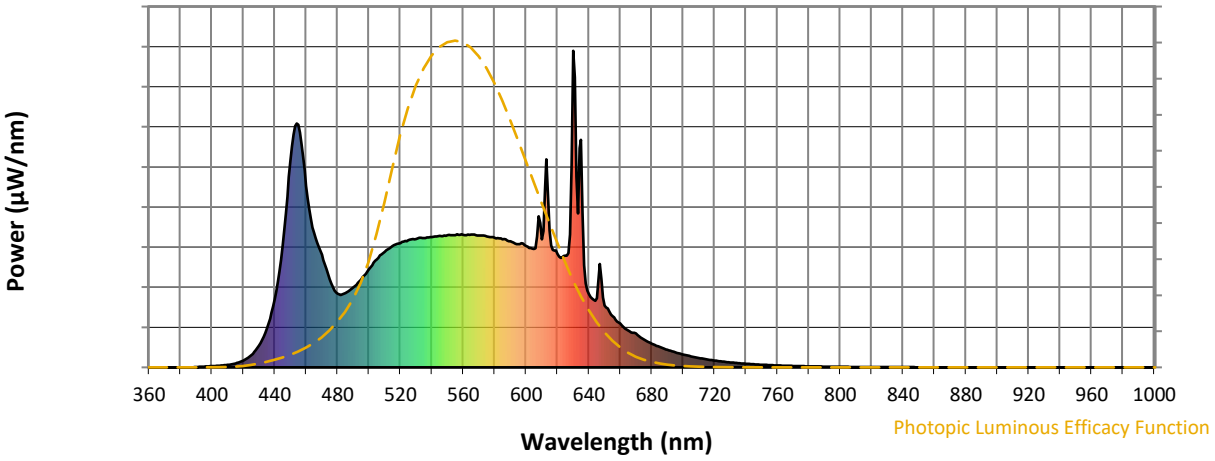


CCT = 4976K
CIE x = 0.3460
CIE y = 0.3544
Duv = 0.0010

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP3-2508-516-12

Photopic Flux vs. Wavelength

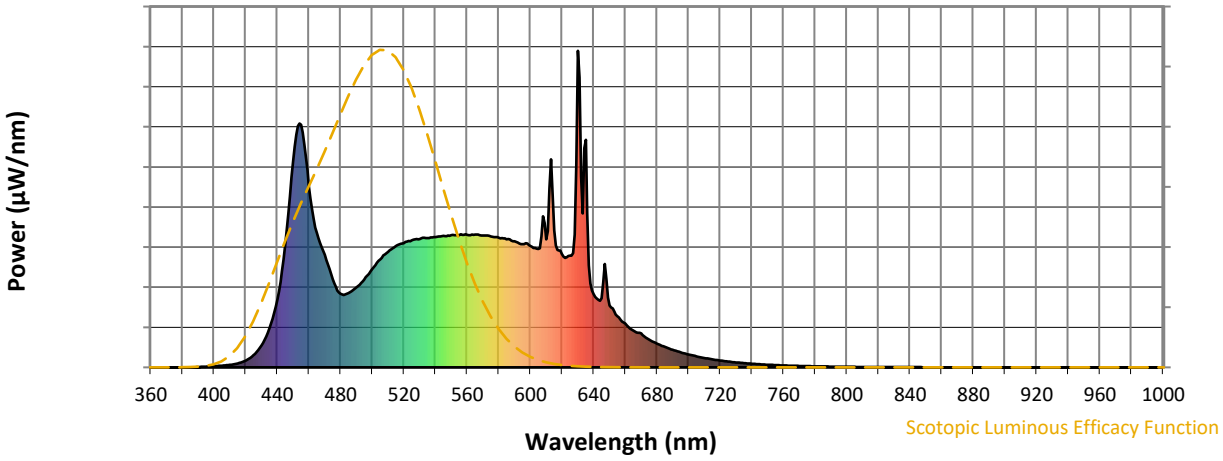


Photopic Lumens: NR

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	252	NR	620	358	NR	750	8	NR	880	0	NR
365	0	NR	495	277	NR	625	353	NR	755	7	NR	885	0	NR
370	0	NR	500	310	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	341	NR	635	719	NR	765	5	NR	895	0	NR
380	0	NR	510	365	NR	640	231	NR	770	4	NR	900	0	NR
385	0	NR	515	383	NR	645	218	NR	775	4	NR	905	0	NR
390	1	NR	520	393	NR	650	195	NR	780	3	NR	910	0	NR
395	2	NR	525	401	NR	655	162	NR	785	3	NR	915	0	NR
400	4	NR	530	406	NR	660	138	NR	790	2	NR	920	0	NR
405	5	NR	535	409	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	411	NR	670	107	NR	800	2	NR	930	0	NR
415	12	NR	545	415	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	417	NR	680	75	NR	810	1	NR	940	0	NR
425	38	NR	555	418	NR	685	65	NR	815	1	NR	945	0	NR
430	68	NR	560	419	NR	690	56	NR	820	1	NR	950	0	NR
435	123	NR	565	420	NR	695	48	NR	825	1	NR	955	0	NR
440	215	NR	570	416	NR	700	41	NR	830	1	NR	960	0	NR
445	384	NR	575	414	NR	705	35	NR	835	1	NR	965	0	NR
450	651	NR	580	409	NR	710	30	NR	840	1	NR	970	0	NR
455	767	NR	585	405	NR	715	25	NR	845	1	NR	975	0	NR
460	573	NR	590	398	NR	720	22	NR	850	0	NR	980	0	NR
465	426	NR	595	389	NR	725	18	NR	855	0	NR	985	0	NR
470	355	NR	600	383	NR	730	16	NR	860	0	NR	990	0	NR
475	278	NR	605	374	NR	735	13	NR	865	0	NR	995	0	NR
480	232	NR	610	404	NR	740	11	NR	870	0	NR	1000	0	NR
485	234	NR	615	433	NR	745	10	NR	875	0	NR			

REPORT NUMBER: SP3-2508-516-12

Scotopic Flux vs. Wavelength

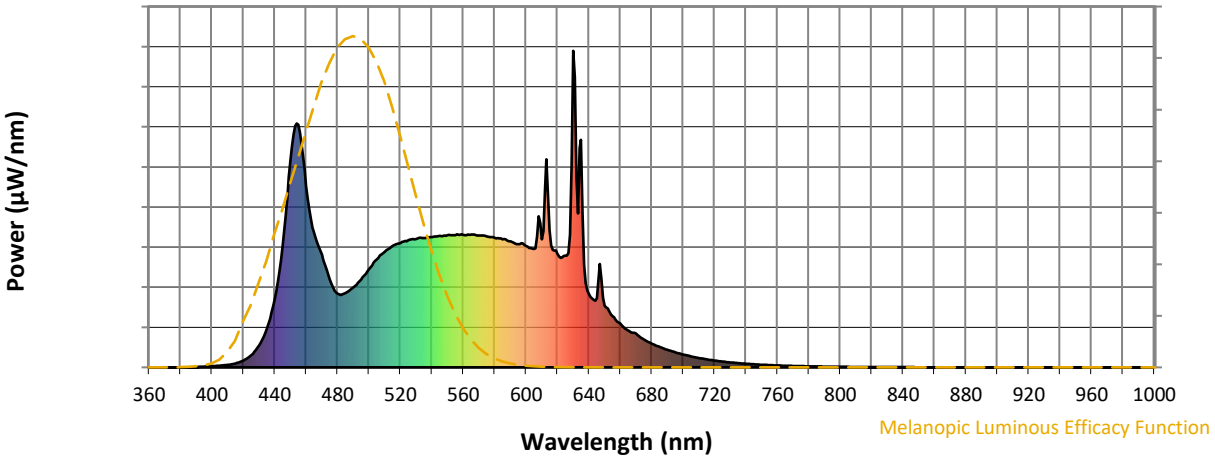


Scotopic Lumens: NR **S/P: 2.07**

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	252	NR	620	358	NR	750	8	NR	880	0	NR
365	0	NR	495	277	NR	625	353	NR	755	7	NR	885	0	NR
370	0	NR	500	310	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	341	NR	635	719	NR	765	5	NR	895	0	NR
380	0	NR	510	365	NR	640	231	NR	770	4	NR	900	0	NR
385	0	NR	515	383	NR	645	218	NR	775	4	NR	905	0	NR
390	1	NR	520	393	NR	650	195	NR	780	3	NR	910	0	NR
395	2	NR	525	401	NR	655	162	NR	785	3	NR	915	0	NR
400	4	NR	530	406	NR	660	138	NR	790	2	NR	920	0	NR
405	5	NR	535	409	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	411	NR	670	107	NR	800	2	NR	930	0	NR
415	12	NR	545	415	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	417	NR	680	75	NR	810	1	NR	940	0	NR
425	38	NR	555	418	NR	685	65	NR	815	1	NR	945	0	NR
430	68	NR	560	419	NR	690	56	NR	820	1	NR	950	0	NR
435	123	NR	565	420	NR	695	48	NR	825	1	NR	955	0	NR
440	215	NR	570	416	NR	700	41	NR	830	1	NR	960	0	NR
445	384	NR	575	414	NR	705	35	NR	835	1	NR	965	0	NR
450	651	NR	580	409	NR	710	30	NR	840	1	NR	970	0	NR
455	767	NR	585	405	NR	715	25	NR	845	1	NR	975	0	NR
460	573	NR	590	398	NR	720	22	NR	850	0	NR	980	0	NR
465	426	NR	595	389	NR	725	18	NR	855	0	NR	985	0	NR
470	355	NR	600	383	NR	730	16	NR	860	0	NR	990	0	NR
475	278	NR	605	374	NR	735	13	NR	865	0	NR	995	0	NR
480	232	NR	610	404	NR	740	11	NR	870	0	NR	1000	0	NR
485	234	NR	615	433	NR	745	10	NR	875	0	NR			

REPORT NUMBER: SP3-2508-516-12

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 4.5**

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	252	NR	620	358	NR	750	8	NR	880	0	NR
365	0	NR	495	277	NR	625	353	NR	755	7	NR	885	0	NR
370	0	NR	500	310	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	341	NR	635	719	NR	765	5	NR	895	0	NR
380	0	NR	510	365	NR	640	231	NR	770	4	NR	900	0	NR
385	0	NR	515	383	NR	645	218	NR	775	4	NR	905	0	NR
390	1	NR	520	393	NR	650	195	NR	780	3	NR	910	0	NR
395	2	NR	525	401	NR	655	162	NR	785	3	NR	915	0	NR
400	4	NR	530	406	NR	660	138	NR	790	2	NR	920	0	NR
405	5	NR	535	409	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	411	NR	670	107	NR	800	2	NR	930	0	NR
415	12	NR	545	415	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	417	NR	680	75	NR	810	1	NR	940	0	NR
425	38	NR	555	418	NR	685	65	NR	815	1	NR	945	0	NR
430	68	NR	560	419	NR	690	56	NR	820	1	NR	950	0	NR
435	123	NR	565	420	NR	695	48	NR	825	1	NR	955	0	NR
440	215	NR	570	416	NR	700	41	NR	830	1	NR	960	0	NR
445	384	NR	575	414	NR	705	35	NR	835	1	NR	965	0	NR
450	651	NR	580	409	NR	710	30	NR	840	1	NR	970	0	NR
455	767	NR	585	405	NR	715	25	NR	845	1	NR	975	0	NR
460	573	NR	590	398	NR	720	22	NR	850	0	NR	980	0	NR
465	426	NR	595	389	NR	725	18	NR	855	0	NR	985	0	NR
470	355	NR	600	383	NR	730	16	NR	860	0	NR	990	0	NR
475	278	NR	605	374	NR	735	13	NR	865	0	NR	995	0	NR
480	232	NR	610	404	NR	740	11	NR	870	0	NR	1000	0	NR
485	234	NR	615	433	NR	745	10	NR	875	0	NR			

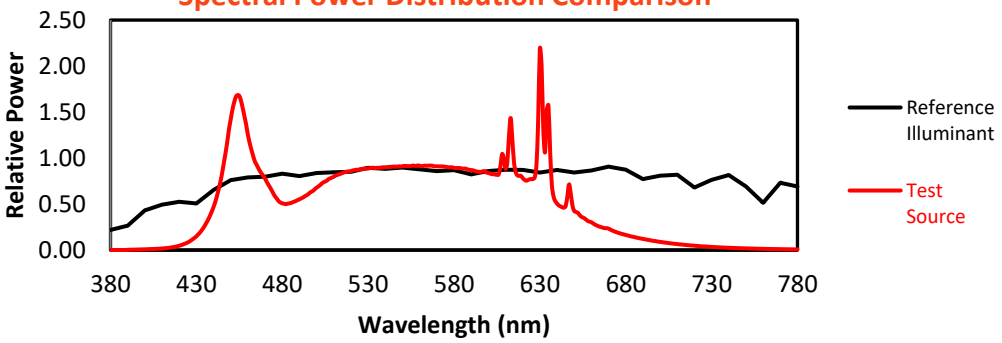
REPORT NUMBER: SP3-2508-516-12

TM-30-18

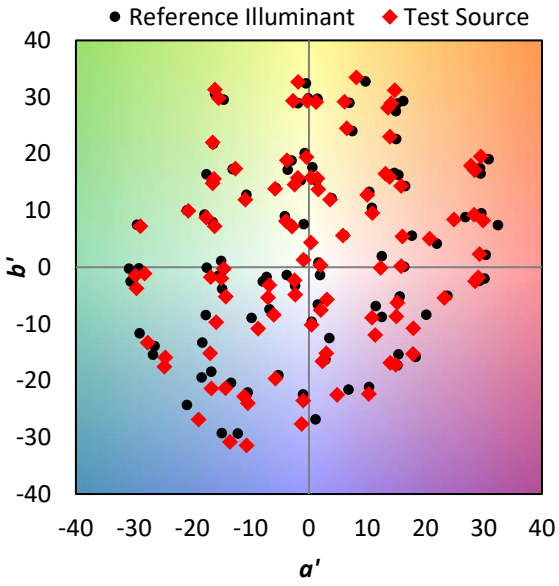
Summary

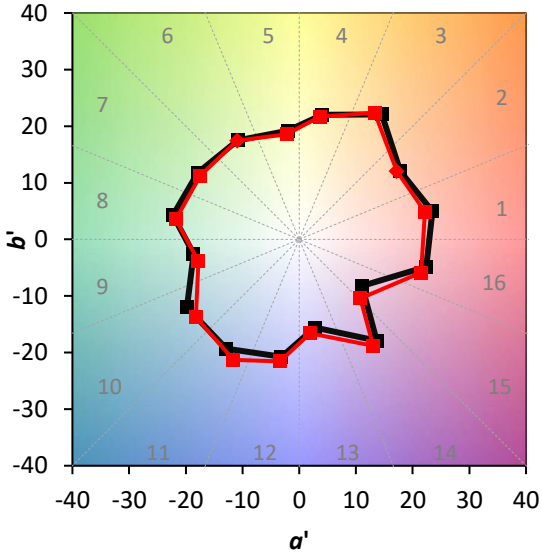
R_f = 89.8
R_g = 98.7
CIE R_a = 93.2
R_9 = 68.0

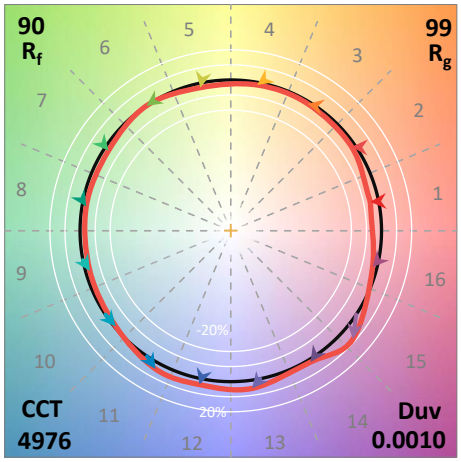
Spectral Power Distribution Comparison

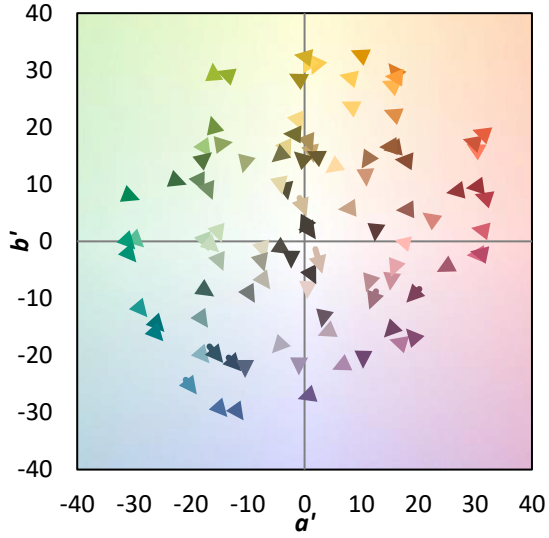


Color Vector Graphics







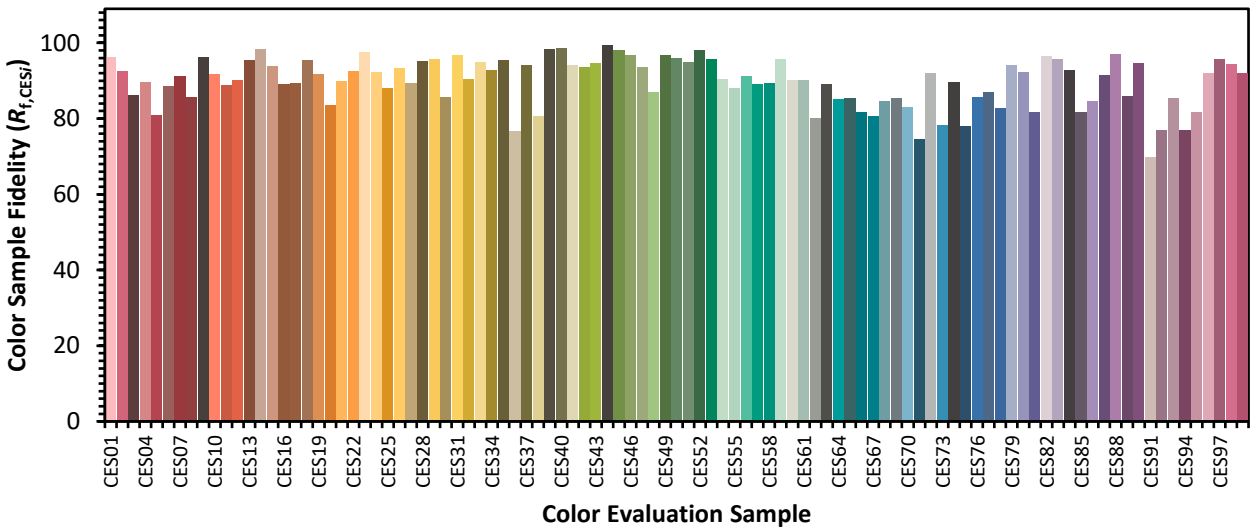


REPORT NUMBER: SP3-2508-516-12

TM-30-18

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

CES01 = 85	CES26 = 93	CES51 = 95	CES76 = 86
CES02 = 61	CES27 = 89	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 95	CES53 = 96	CES78 = 83
CES04 = 69	CES29 = 96	CES54 = 90	CES79 = 94
CES05 = 48	CES30 = 86	CES55 = 88	CES80 = 92
CES06 = 50	CES31 = 97	CES56 = 91	CES81 = 82
CES07 = 41	CES32 = 90	CES57 = 89	CES82 = 96
CES08 = 40	CES33 = 95	CES58 = 89	CES83 = 96
CES09 = 29	CES34 = 93	CES59 = 96	CES84 = 93
CES10 = 73	CES35 = 95	CES60 = 90	CES85 = 82
CES11 = 56	CES36 = 77	CES61 = 90	CES86 = 85
CES12 = 62	CES37 = 94	CES62 = 80	CES87 = 92
CES13 = 42	CES38 = 81	CES63 = 89	CES88 = 97
CES14 = 74	CES39 = 98	CES64 = 85	CES89 = 86
CES15 = 71	CES40 = 99	CES65 = 85	CES90 = 95
CES16 = 46	CES41 = 94	CES66 = 82	CES91 = 70
CES17 = 48	CES42 = 94	CES67 = 81	CES92 = 77
CES18 = 56	CES43 = 95	CES68 = 85	CES93 = 85
CES19 = 70	CES44 = 99	CES69 = 85	CES94 = 77
CES20 = 65	CES45 = 98	CES70 = 83	CES95 = 82
CES21 = 85	CES46 = 97	CES71 = 75	CES96 = 92
CES22 = 77	CES47 = 94	CES72 = 92	CES97 = 96
CES23 = 91	CES48 = 87	CES73 = 78	CES98 = 94
CES24 = 90	CES49 = 97	CES74 = 90	CES99 = 92
CES25 = 70	CES50 = 96	CES75 = 78	



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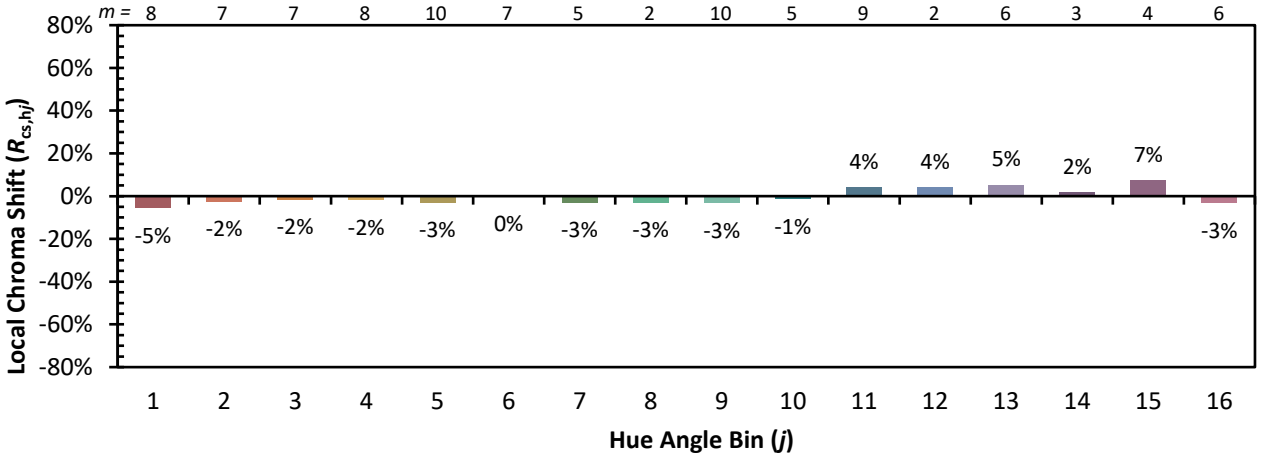
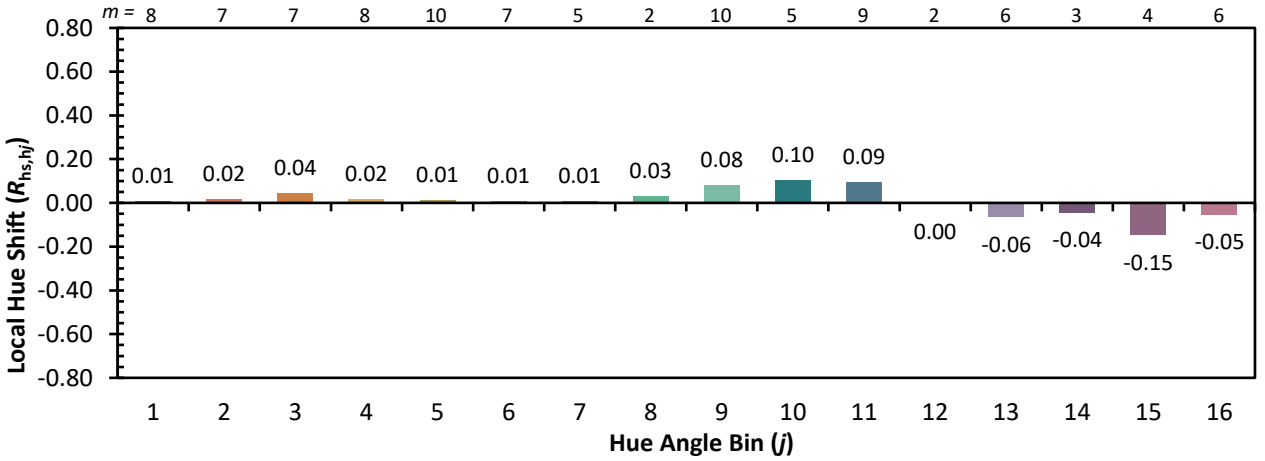
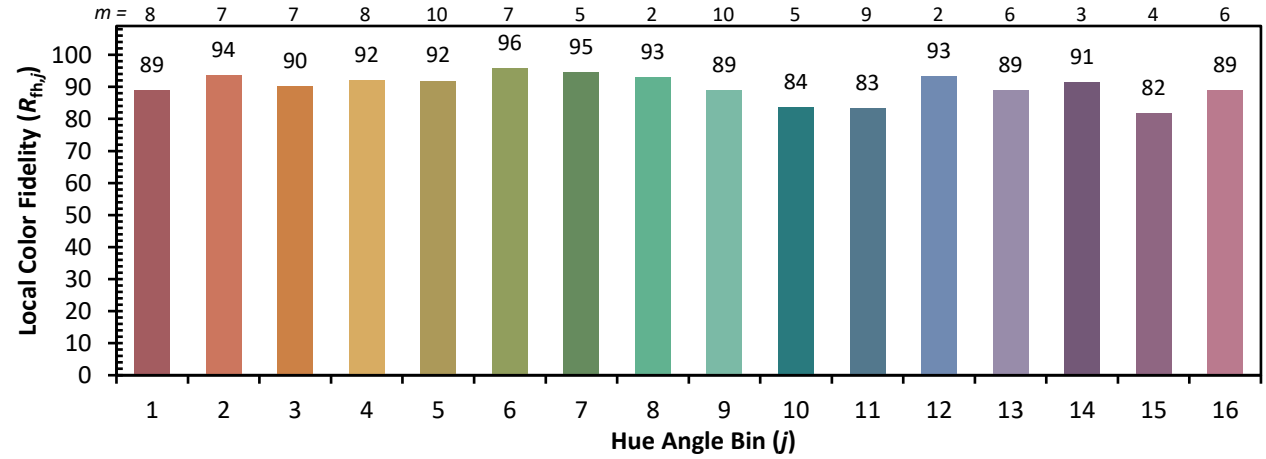
Color Rendition by Hue-Angle Bin







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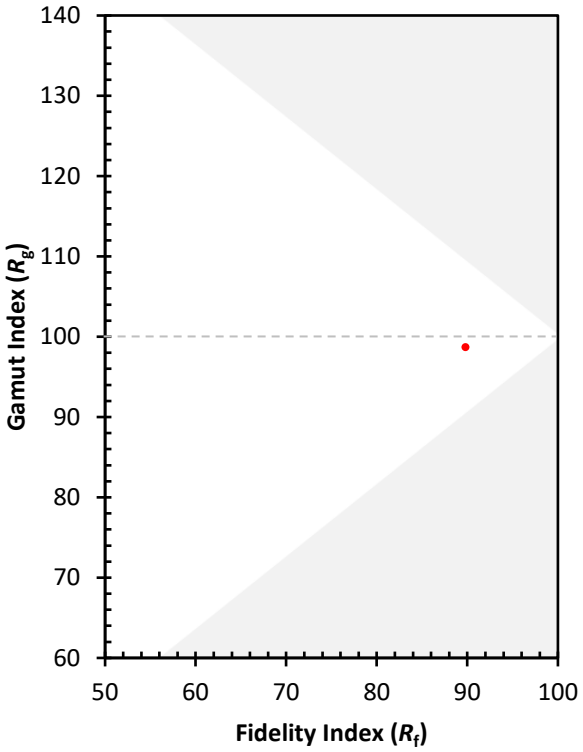
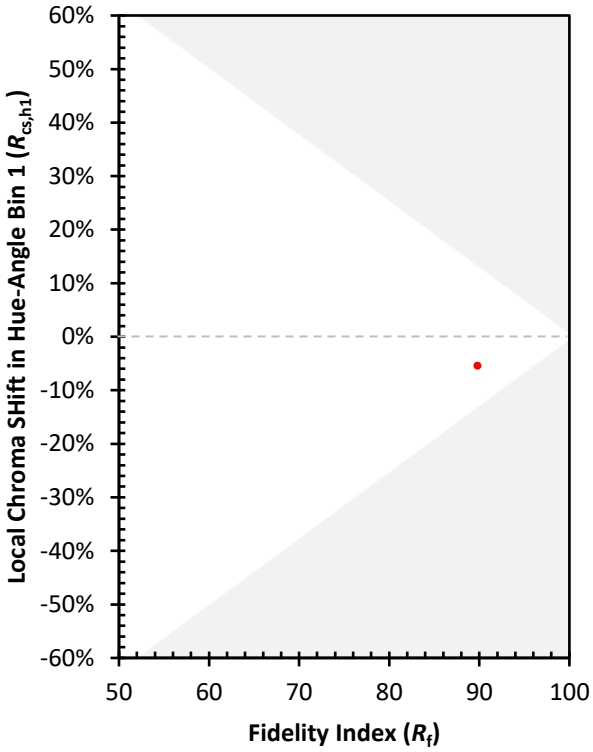
Measure Comparisons





(END OF REPORT)