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: FAIL-SAFE

Report Number: P1357046

Luminaire Tested: 3ASL4-25VHE-3-50-UNV

Issue Date: 2/17/2026

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

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P1357046
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-12)
Test Lab:	INNOVATION CENTER
Issue Date:	2/17/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	FAIL-SAFE
Catalog Number:	3ASL4-25VHE-3-50-UNV
Description:	3FT 2500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 5000K LEDS 3 ROW
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7683.0 lumens
Efficiency:	N/A
Efficacy:	119.7 lumens/watt
Spacing Criteria (0/90/45):	1.21 / 1.3 / 1.39
Luminous Opening:	Rectangular w/ Sides (W: 0.33' x L: 2.98' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	64.2
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:	24 FT

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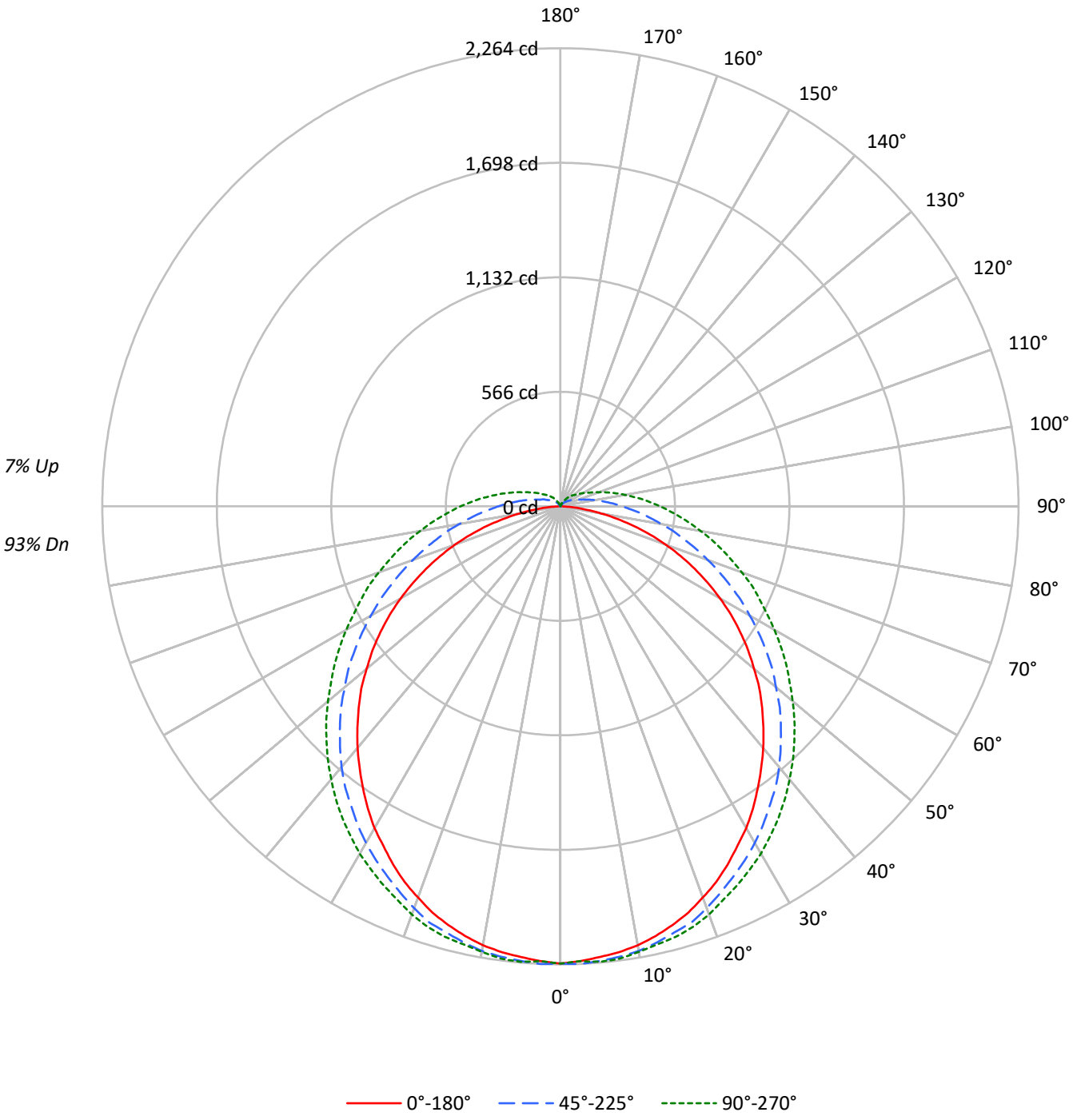
Luminous Intensity Polar Plot



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CATALOG NUMBER: 3ASL4-25VHE-3-50-UNV

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	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	105	100	95	91	102	97	92	88	91	88	84	86	83	80	81	79	77	74
2	95	86	79	72	92	84	77	71	79	73	68	75	70	66	71	67	63	61
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	32	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	35	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24494	24494	24494
5°	24257	24020	23933
10°	24102	23541	23327
15°	23816	22950	22814
20°	23437	22383	22235
25°	22998	21677	21578
30°	22536	21061	21021
35°	21965	20367	20401
40°	21440	19729	19749
45°	20875	18962	19094
50°	20229	18138	18413
55°	19532	17349	17801
60°	18630	16431	17179
65°	17486	15546	16665
70°	16027	14665	16262
75°	13922	13855	15984
80°	10767	13233	15867
85°	6264	13040	16101

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 20875 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.3	2.8
10°-20°	615.2	8.0
20°-30°	930.2	12.1
30°-40°	1126.3	14.7
40°-50°	1183.0	15.4
50°-60°	1103.6	14.4
60°-70°	912.1	11.9
70°-80°	656.7	8.5
80°-90°	408.1	5.3
90°-100°	239.1	3.1
100°-110°	136.8	1.8
110°-120°	77.2	1.0
120°-130°	44.5	0.6
130°-140°	24.0	0.3
140°-150°	10.1	0.1
150°-160°	1.9	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1759.7	22.9
0°-40°	2886.0	37.6
0°-60°	5172.6	67.3
0°-90°	7149.5	93.1
90°-120°	453.2	5.9
90°-150°	531.7	6.9
90°-180°	534.0	7.0
0°-180°	7683.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2260	2260	2260	2260	2260	
5°	2236	2255	2255	2255	2260	213
15°	2142	2170	2180	2194	2203	604
25°	1954	1987	2020	2048	2067	900
35°	1701	1748	1804	1856	1879	1065
45°	1409	1461	1541	1607	1635	1087
55°	1085	1146	1240	1330	1362	970
65°	733	803	926	1043	1085	725
75°	376	470	634	770	827	397
85°	70	211	399	540	592	86
90°	0	127	305	437	493	3
95°	0	80	230	352	404	0
105°	0	28	127	221	258	0
115°	0	14	75	136	160	0
125°	0	9	47	89	103	0
135°	0	0	28	56	70	0
145°	0	0	14	33	38	0
155°	0	0	0	9	14	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

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TEST NUMBER: P1357046
CATALOG NUMBER: 3ASL4-25VHE-3-50-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2259.7	*2259.7*	2259.7	2259.7	2259.7
2.5°	*2250.3*	*2264.4*	*2264.4*	*2250.3*	*2250.3*
5°	2236.2	*2255.0*	2255.0	2255.0	2259.7
7.5°	2222.1	*2245.6*	2245.6	2245.6	2255.0
10°	2203.3	*2226.8*	2231.5	2231.5	2236.2
12.5°	2175.1	*2203.3*	2208.0	2212.7	2217.4
15°	2142.2	*2170.4*	2179.8	2193.9	2203.3
17.5°	2104.6	*2137.5*	2156.3	2170.4	2179.8
20°	2057.7	*2090.6*	2114.0	2132.8	2146.9
22.5°	2010.7	*2038.9*	2067.1	2090.6	2104.6
25°	1954.3	*1987.2*	2020.1	2048.3	2067.1
27.5°	1893.2	*1930.8*	1973.1	2006.0	2024.8
30°	1836.9	*1874.4*	1921.4	1963.7	1982.5
32.5°	1771.1	*1813.4*	1865.1	1907.3	1930.8
35°	1700.6	*1747.6*	1804.0	1855.7	1879.1
37.5°	1630.2	*1677.1*	1747.6	1799.3	1822.8
40°	1559.7	*1606.7*	1681.8	1738.2	1761.7
42.5°	1484.5	*1531.5*	1611.4	1672.4	1700.6
45°	1409.4	*1461.0*	1540.9	1606.7	1634.9
47.5°	1334.2	*1385.9*	1470.4	1540.9	1569.1
50°	1249.6	*1306.0*	1390.6	1470.4	1498.6
52.5°	1169.8	*1226.1*	1320.1	1400.0	1428.2
55°	1085.2	*1146.3*	1240.2	1329.5	1362.4
57.5°	1000.6	*1061.7*	1160.4	1254.3	1291.9
60°	911.4	*977.2*	1080.5	1179.2	1221.4
62.5°	822.1	*892.6*	1005.3	1108.7	1151.0
65°	732.9	*803.3*	925.5	1042.9	1085.2
67.5°	643.6	*718.8*	850.3	972.5	1024.1
70°	554.3	*634.2*	775.1	902.0	953.7
72.5°	465.1	*549.7*	704.7	836.2	887.9
75°	375.8	*469.8*	634.2	770.4	826.8
77.5°	286.6	*394.6*	573.1	709.4	765.8
80°	206.7	*328.9*	507.4	648.3	704.7
82.5°	131.5	*263.1*	451.0	591.9	648.3
85°	70.5	*211.4*	399.3	540.3	591.9
87.5°	23.5	*164.4*	347.6	488.6	540.3
90°	0.0	*126.8*	305.4	436.9	493.3
92.5°	0.0	*98.7*	267.8	394.6	446.3
95°	0.0	*79.9*	230.2	352.3	404.0
97.5°	0.0	*65.8*	202.0	314.8	361.7
100°	0.0	*51.7*	173.8	281.9	324.2
102.5°	0.0	*42.3*	150.3	249.0	291.3
105°	0.0	*28.2*	126.8	220.8	258.4
107.5°	0.0	*23.5*	108.1	197.3	230.2
110°	0.0	*18.8*	98.7	169.1	202.0

TEST NUMBER: P1357046
CATALOG NUMBER: 3ASL4-25VHE-3-50-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	*14.1*	89.3	150.3	183.2
115°	0.0	*14.1*	75.2	136.2	159.7
117.5°	0.0	*14.1*	65.8	122.1	145.6
120°	0.0	*9.4*	61.1	108.1	131.5
122.5°	0.0	*9.4*	51.7	98.7	117.4
125°	0.0	*9.4*	47.0	89.3	103.4
127.5°	0.0	*4.7*	42.3	79.9	94.0
130°	0.0	*4.7*	37.6	70.5	84.6
132.5°	0.0	*4.7*	32.9	65.8	79.9
135°	0.0	*0.0*	28.2	56.4	70.5
137.5°	0.0	*0.0*	23.5	51.7	61.1
140°	0.0	*0.0*	18.8	42.3	56.4
142.5°	0.0	*0.0*	14.1	37.6	47.0
145°	0.0	*0.0*	14.1	32.9	37.6
147.5°	0.0	*0.0*	9.4	23.5	32.9
150°	0.0	*0.0*	4.7	18.8	23.5
152.5°	0.0	*0.0*	0.0	14.1	18.8
155°	0.0	*0.0*	0.0	9.4	14.1
157.5°	0.0	*0.0*	0.0	0.0	4.7
160°	0.0	*0.0*	0.0	0.0	0.0
162.5°	0.0	*0.0*	0.0	0.0	0.0
165°	0.0	*0.0*	0.0	0.0	0.0
167.5°	0.0	*0.0*	0.0	0.0	0.0
170°	0.0	*0.0*	0.0	0.0	0.0
172.5°	0.0	*0.0*	0.0	0.0	0.0
175°	0.0	*0.0*	0.0	0.0	0.0
177.5°	0.0	*0.0*	0.0	0.0	0.0
180°	0.0	*0.0*	0.0	0.0	0.0

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TEST NUMBER: P1357046
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CIE UGR TABLE:

Reflectances:											
	Ceiling	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
	Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
	Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	20.43	21.97	20.90	22.43	22.91	22.43	23.97	22.90	24.43	24.91
	3H	21.93	23.34	22.41	23.80	24.33	24.88	26.29	25.37	26.75	27.28
	4H	22.41	23.74	22.92	24.23	24.76	26.07	27.40	26.57	27.88	28.42
	6H	22.69	23.93	23.20	24.42	24.98	27.31	28.55	27.82	29.04	29.60
	8H	22.74	23.93	23.27	24.45	25.01	27.94	29.13	28.47	29.65	30.21
	12H	22.75	23.89	23.29	24.41	25.00	28.63	29.77	29.16	30.28	30.87
4H	2H	21.31	22.64	21.81	23.12	23.66	22.87	24.20	23.37	24.68	25.22
	3H	23.04	24.18	23.56	24.70	25.26	25.55	26.68	26.06	27.21	27.77
	4H	23.65	24.68	24.18	25.22	25.81	26.90	27.94	27.44	28.48	29.07
	6H	24.04	24.96	24.60	25.52	26.13	28.33	29.25	28.89	29.81	30.42
	8H	24.14	25.00	24.70	25.56	26.18	29.07	29.93	29.63	30.50	31.11
	12H	24.18	24.97	24.77	25.56	26.18	29.88	30.67	30.47	31.26	31.88
8H	4H	24.32	25.18	24.88	25.75	26.37	27.12	27.98	27.68	28.55	29.17
	6H	24.90	25.63	25.49	26.24	26.86	28.72	29.45	29.31	30.05	30.68
	8H	25.08	25.74	25.69	26.36	26.99	29.60	30.26	30.20	30.87	31.51
	12H	25.20	25.79	25.80	26.39	27.09	30.60	31.19	31.20	31.79	32.50
12H	4H	24.51	25.29	25.09	25.89	26.51	27.13	27.91	27.71	28.50	29.13
	6H	25.19	25.85	25.79	26.47	27.10	28.76	29.42	29.36	30.03	30.67
	8H	25.47	26.06	26.08	26.66	27.37	29.71	30.30	30.31	30.90	31.60

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

Report Prepared for

Cooper Lighting Solutions

Fail-Safe

Report Number: SP1-2511-597-5

Test Date: 11/18/2025

Luminaire Tested: 4ASL-2-50-UNV-OPL-1_600mA

Data in this report applies to families of products including 4ASL

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

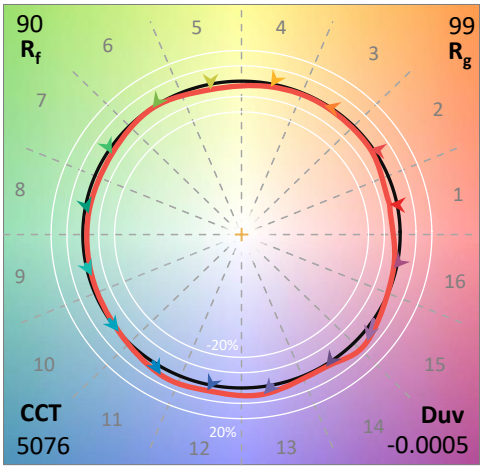
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2511-597-5
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	11/18/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Fail-Safe
Catalog Number:	**4ASL-2-50-UNV-OPL-1_600mA**
Description:	2foot 4ASL LED LUMINAIRE WITH OPL LENS AND 5000K LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K):	5076
CIE u':	0.2110
CIE v':	0.4830
Duv:	-0.0005
CIE x:	0.3429
CIE y:	0.3489
CIE z:	0.3082
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	572
Purity:	7.553016
Rf:	90.4
Rg:	99

CRI (Ra):	94.9				
R1:	96.7	R9:	74.0		
R2:	98.2	R10:	93.9		
R3:	96.6	R11:	96.2		
R4:	95.6	R12:	72.4		
R5:	95.1	R13:	98.1		
R6:	93.6	R14:	97.8		
R7:	94.0	R15:	95.6		
R8:	89.6				



Test Conditions

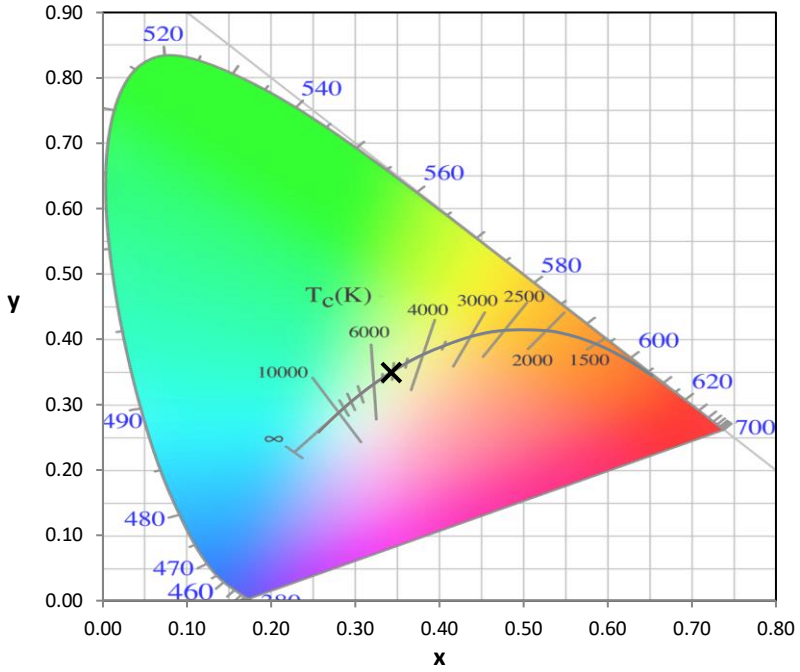
Stabilization Time:	24M
Operation Time:	1H 24M
Sphere Temperature (°C):	24.1

REPORT NUMBER: SP1-2511-597-5

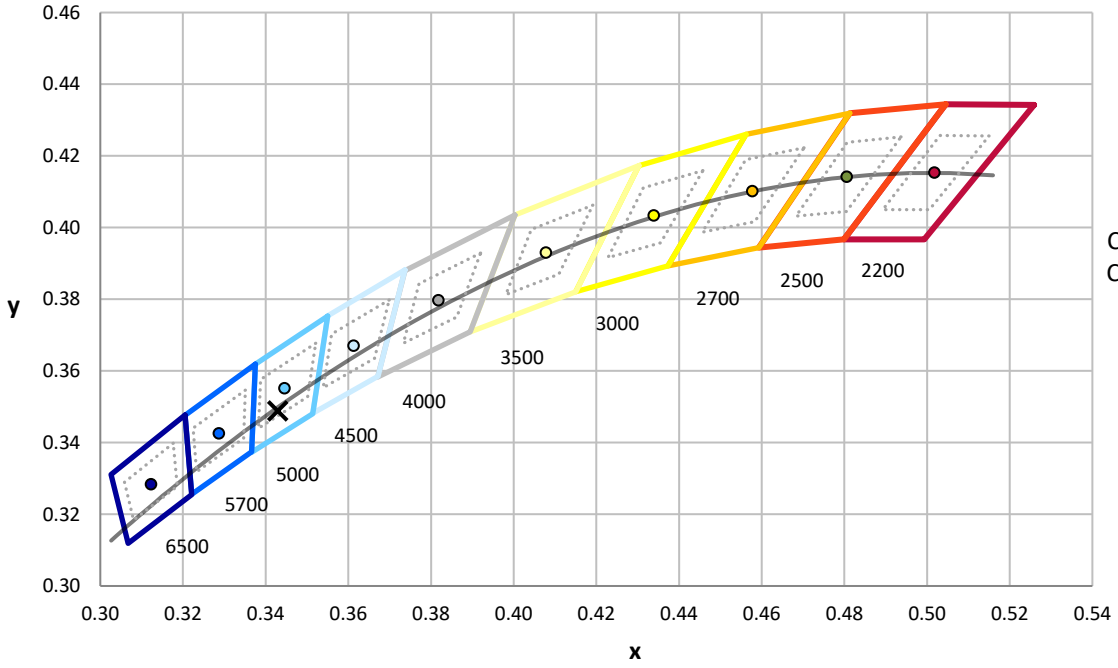
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2511-597-5

CIE 1931 Chromaticity Diagram



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

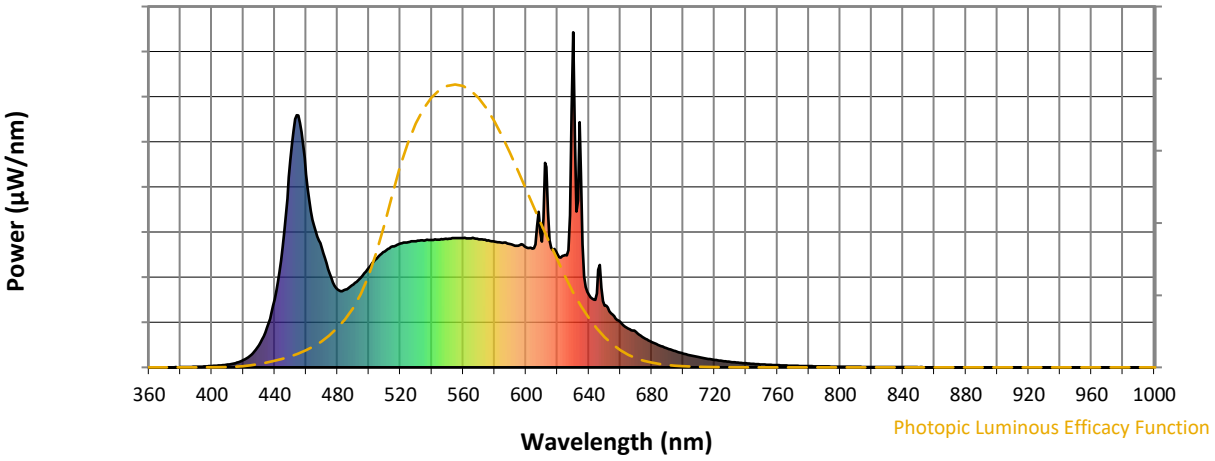


CCT = 5076K
CIE x = 0.3429
CIE y = 0.3489
Duv = -0.0005

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2511-597-5

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	248	NR	620	337	NR	750	9	NR	880	0	NR
365	0	NR	495	269	NR	625	335	NR	755	8	NR	885	0	NR
370	0	NR	500	298	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	325	NR	635	580	NR	765	6	NR	895	0	NR
380	1	NR	510	346	NR	640	216	NR	770	5	NR	900	0	NR
385	1	NR	515	361	NR	645	221	NR	775	4	NR	905	0	NR
390	2	NR	520	369	NR	650	185	NR	780	4	NR	910	0	NR
395	3	NR	525	374	NR	655	158	NR	785	3	NR	915	0	NR
400	4	NR	530	376	NR	660	136	NR	790	3	NR	920	0	NR
405	6	NR	535	379	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	381	NR	670	106	NR	800	2	NR	930	0	NR
415	13	NR	545	381	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	383	NR	680	76	NR	810	2	NR	940	0	NR
425	37	NR	555	386	NR	685	65	NR	815	1	NR	945	0	NR
430	66	NR	560	386	NR	690	56	NR	820	1	NR	950	0	NR
435	119	NR	565	385	NR	695	48	NR	825	1	NR	955	0	NR
440	203	NR	570	382	NR	700	41	NR	830	1	NR	960	0	NR
445	359	NR	575	379	NR	705	35	NR	835	1	NR	965	0	NR
450	620	NR	580	376	NR	710	30	NR	840	1	NR	970	0	NR
455	752	NR	585	372	NR	715	26	NR	845	1	NR	975	0	NR
460	576	NR	590	368	NR	720	22	NR	850	1	NR	980	0	NR
465	423	NR	595	363	NR	725	19	NR	855	0	NR	985	0	NR
470	354	NR	600	358	NR	730	16	NR	860	0	NR	990	0	NR
475	280	NR	605	355	NR	735	14	NR	865	0	NR	995	0	NR
480	232	NR	610	375	NR	740	12	NR	870	0	NR	1000	0	NR
485	232	NR	615	379	NR	745	10	NR	875	0	NR			

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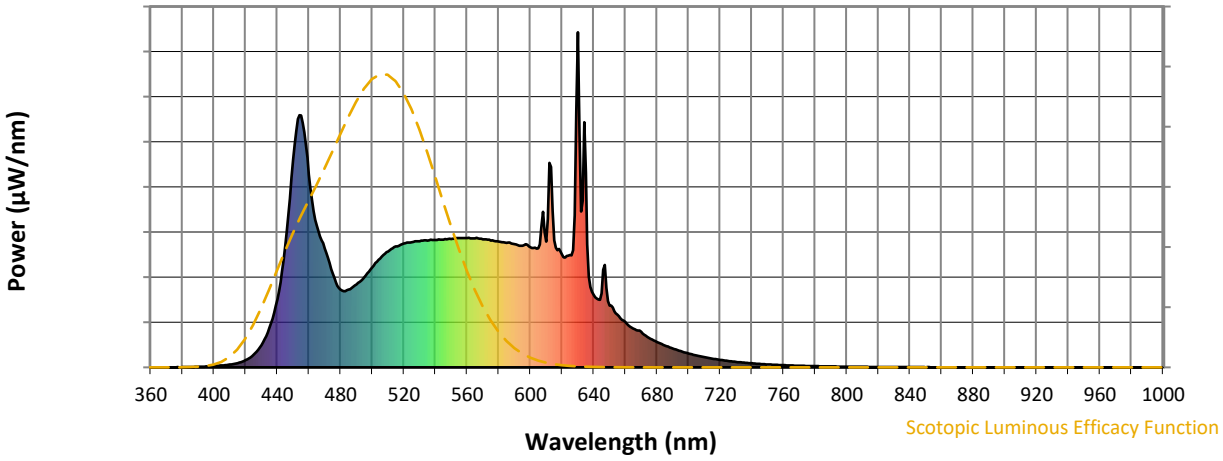
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 2.12**

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	248	NR	620	337	NR	750	9	NR	880	0	NR
365	0	NR	495	269	NR	625	335	NR	755	8	NR	885	0	NR
370	0	NR	500	298	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	325	NR	635	580	NR	765	6	NR	895	0	NR
380	1	NR	510	346	NR	640	216	NR	770	5	NR	900	0	NR
385	1	NR	515	361	NR	645	221	NR	775	4	NR	905	0	NR
390	2	NR	520	369	NR	650	185	NR	780	4	NR	910	0	NR
395	3	NR	525	374	NR	655	158	NR	785	3	NR	915	0	NR
400	4	NR	530	376	NR	660	136	NR	790	3	NR	920	0	NR
405	6	NR	535	379	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	381	NR	670	106	NR	800	2	NR	930	0	NR
415	13	NR	545	381	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	383	NR	680	76	NR	810	2	NR	940	0	NR
425	37	NR	555	386	NR	685	65	NR	815	1	NR	945	0	NR
430	66	NR	560	386	NR	690	56	NR	820	1	NR	950	0	NR
435	119	NR	565	385	NR	695	48	NR	825	1	NR	955	0	NR
440	203	NR	570	382	NR	700	41	NR	830	1	NR	960	0	NR
445	359	NR	575	379	NR	705	35	NR	835	1	NR	965	0	NR
450	620	NR	580	376	NR	710	30	NR	840	1	NR	970	0	NR
455	752	NR	585	372	NR	715	26	NR	845	1	NR	975	0	NR
460	576	NR	590	368	NR	720	22	NR	850	1	NR	980	0	NR
465	423	NR	595	363	NR	725	19	NR	855	0	NR	985	0	NR
470	354	NR	600	358	NR	730	16	NR	860	0	NR	990	0	NR
475	280	NR	605	355	NR	735	14	NR	865	0	NR	995	0	NR
480	232	NR	610	375	NR	740	12	NR	870	0	NR	1000	0	NR
485	232	NR	615	379	NR	745	10	NR	875	0	NR			

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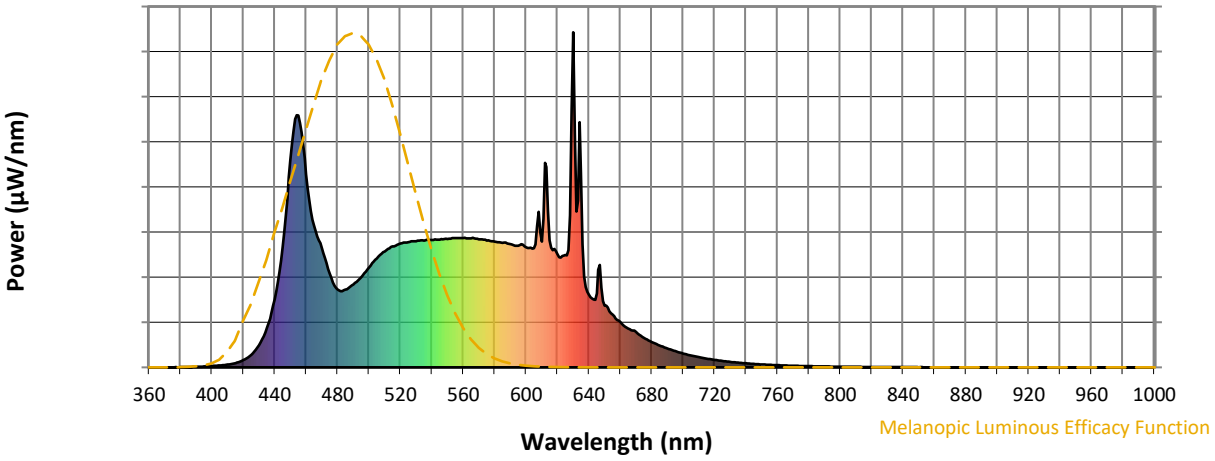
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 4.65**

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	248	NR	620	337	NR	750	9	NR	880	0	NR
365	0	NR	495	269	NR	625	335	NR	755	8	NR	885	0	NR
370	0	NR	500	298	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	325	NR	635	580	NR	765	6	NR	895	0	NR
380	1	NR	510	346	NR	640	216	NR	770	5	NR	900	0	NR
385	1	NR	515	361	NR	645	221	NR	775	4	NR	905	0	NR
390	2	NR	520	369	NR	650	185	NR	780	4	NR	910	0	NR
395	3	NR	525	374	NR	655	158	NR	785	3	NR	915	0	NR
400	4	NR	530	376	NR	660	136	NR	790	3	NR	920	0	NR
405	6	NR	535	379	NR	665	116	NR	795	2	NR	925	0	NR
410	8	NR	540	381	NR	670	106	NR	800	2	NR	930	0	NR
415	13	NR	545	381	NR	675	88	NR	805	2	NR	935	0	NR
420	22	NR	550	383	NR	680	76	NR	810	2	NR	940	0	NR
425	37	NR	555	386	NR	685	65	NR	815	1	NR	945	0	NR
430	66	NR	560	386	NR	690	56	NR	820	1	NR	950	0	NR
435	119	NR	565	385	NR	695	48	NR	825	1	NR	955	0	NR
440	203	NR	570	382	NR	700	41	NR	830	1	NR	960	0	NR
445	359	NR	575	379	NR	705	35	NR	835	1	NR	965	0	NR
450	620	NR	580	376	NR	710	30	NR	840	1	NR	970	0	NR
455	752	NR	585	372	NR	715	26	NR	845	1	NR	975	0	NR
460	576	NR	590	368	NR	720	22	NR	850	1	NR	980	0	NR
465	423	NR	595	363	NR	725	19	NR	855	0	NR	985	0	NR
470	354	NR	600	358	NR	730	16	NR	860	0	NR	990	0	NR
475	280	NR	605	355	NR	735	14	NR	865	0	NR	995	0	NR
480	232	NR	610	375	NR	740	12	NR	870	0	NR	1000	0	NR
485	232	NR	615	379	NR	745	10	NR	875	0	NR			

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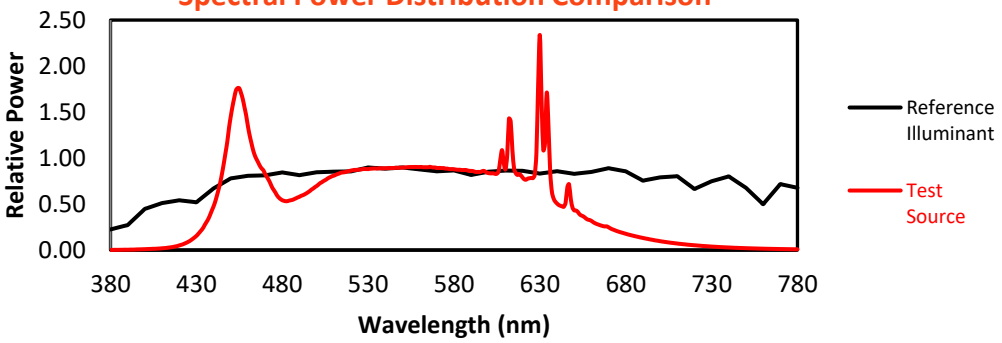
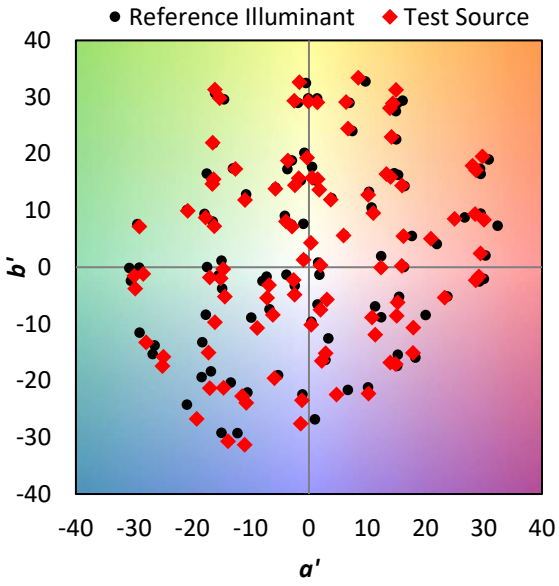
Summary

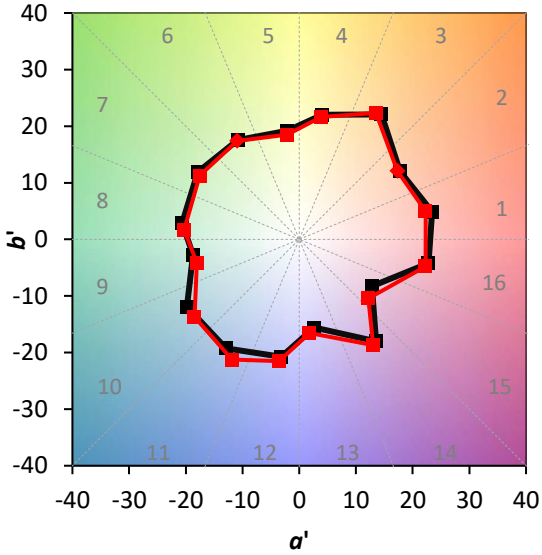
R_f = 90.4
R_g = 99
CIE R_a = 94.9
R_9 = 74.0

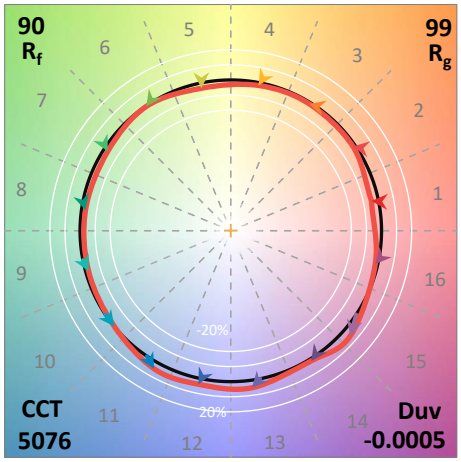
Spectral Power Distribution Comparison

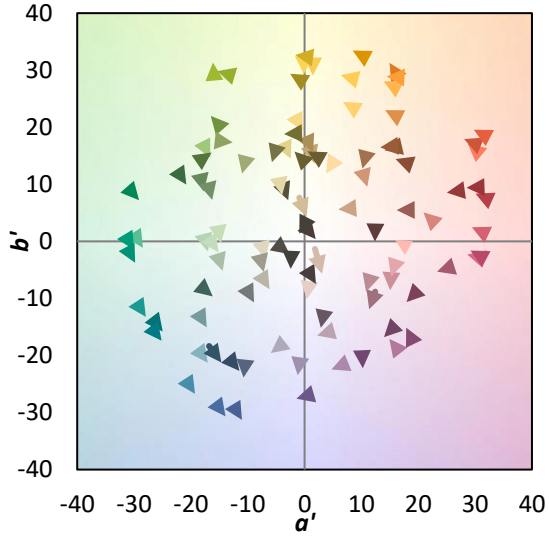


Color Vector Graphics









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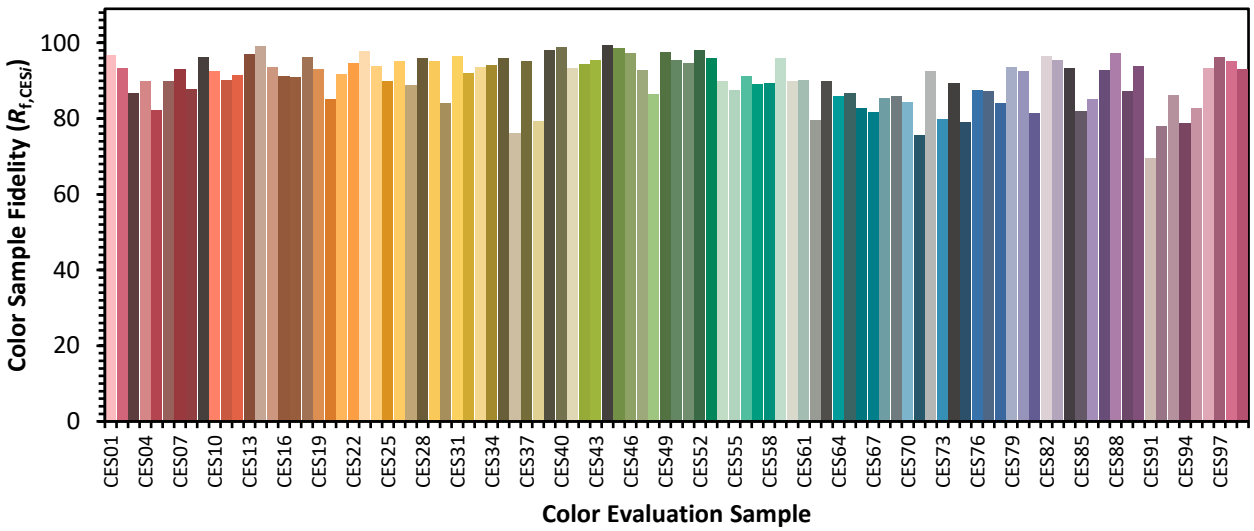
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 95	CES51 = 95	CES76 = 87
CES02 = 61	CES27 = 89	CES52 = 98	CES77 = 87
CES03 = 31	CES28 = 96	CES53 = 96	CES78 = 84
CES04 = 69	CES29 = 95	CES54 = 90	CES79 = 94
CES05 = 48	CES30 = 84	CES55 = 88	CES80 = 93
CES06 = 50	CES31 = 96	CES56 = 91	CES81 = 81
CES07 = 41	CES32 = 92	CES57 = 89	CES82 = 97
CES08 = 40	CES33 = 94	CES58 = 89	CES83 = 95
CES09 = 29	CES34 = 94	CES59 = 96	CES84 = 93
CES10 = 73	CES35 = 96	CES60 = 90	CES85 = 82
CES11 = 56	CES36 = 76	CES61 = 90	CES86 = 85
CES12 = 62	CES37 = 95	CES62 = 80	CES87 = 93
CES13 = 42	CES38 = 79	CES63 = 90	CES88 = 97
CES14 = 74	CES39 = 98	CES64 = 86	CES89 = 87
CES15 = 71	CES40 = 99	CES65 = 87	CES90 = 94
CES16 = 47	CES41 = 93	CES66 = 83	CES91 = 70
CES17 = 48	CES42 = 94	CES67 = 82	CES92 = 78
CES18 = 56	CES43 = 95	CES68 = 85	CES93 = 86
CES19 = 70	CES44 = 99	CES69 = 86	CES94 = 79
CES20 = 65	CES45 = 99	CES70 = 84	CES95 = 83
CES21 = 85	CES46 = 97	CES71 = 76	CES96 = 93
CES22 = 77	CES47 = 93	CES72 = 92	CES97 = 96
CES23 = 91	CES48 = 86	CES73 = 80	CES98 = 95
CES24 = 90	CES49 = 98	CES74 = 89	CES99 = 93
CES25 = 70	CES50 = 96	CES75 = 79	



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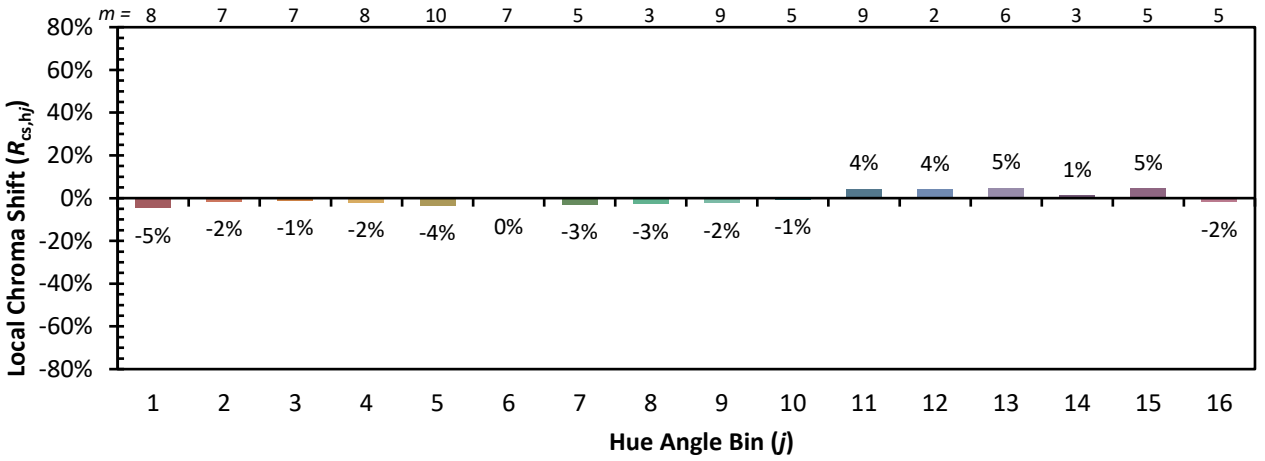
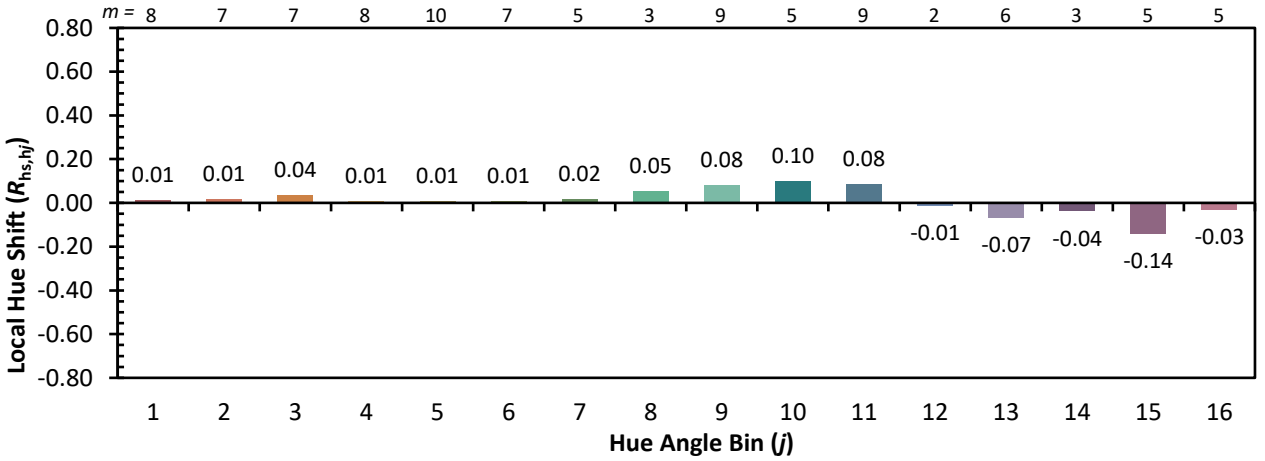
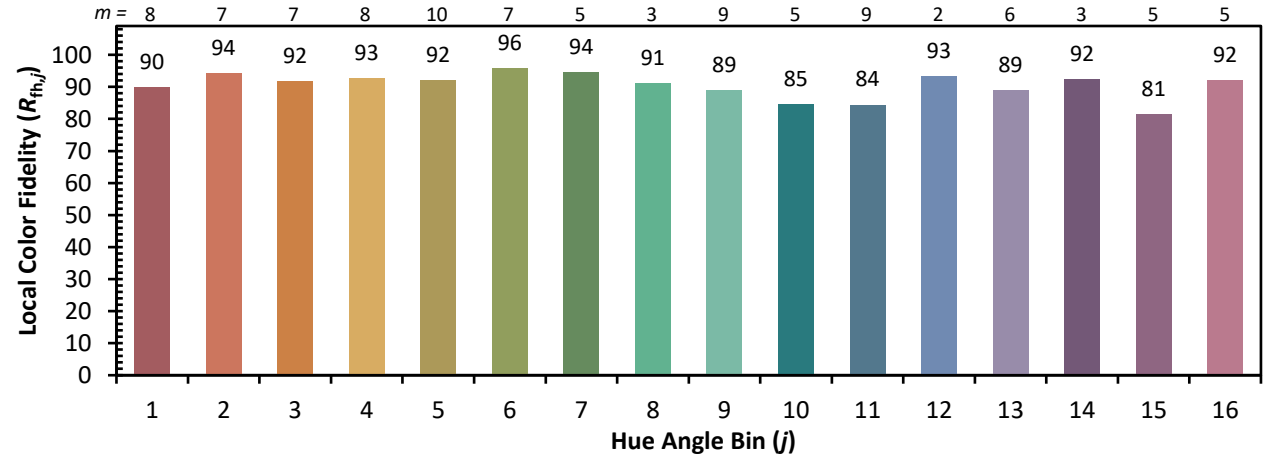
Color Rendition by Hue-Angle Bin







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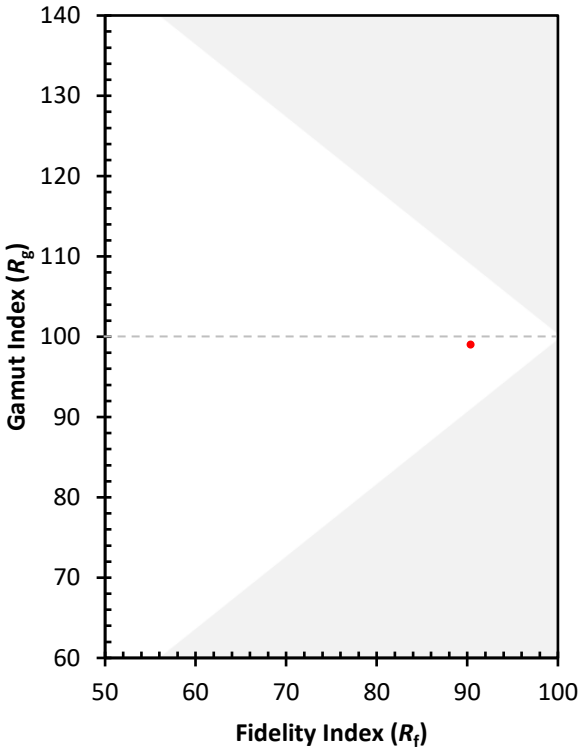
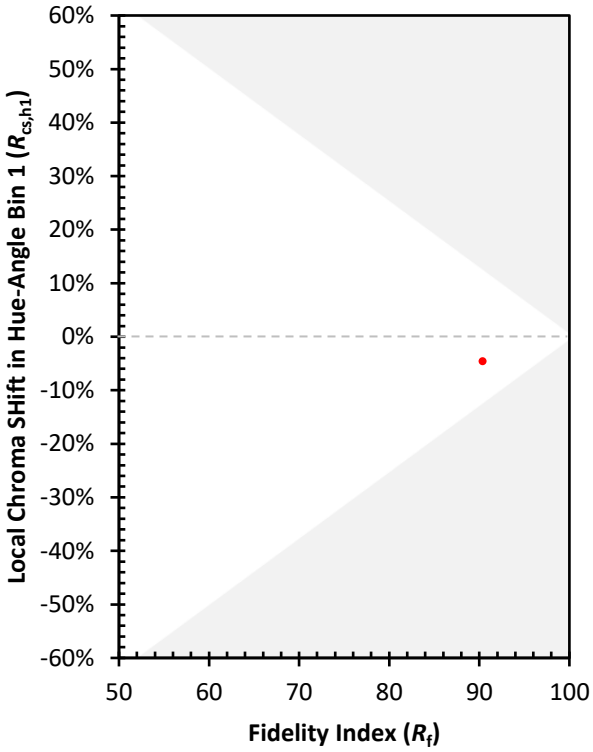
Measure Comparisons





(END OF REPORT)