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: P1357142

Luminaire Tested: 4ASL4-15HE-2-30-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:	P1357142
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-7)
Test Lab:	INNOVATION CENTER
Issue Date:	2/17/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	FAIL-SAFE
Catalog Number:	4ASL4-15HE-2-30-UNV
Description:	4FT 1500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND 3000K LEDS 2 ROW
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5932.0 lumens
Efficiency:	N/A
Efficacy:	114.1 lumens/watt
Spacing Criteria (0/90/45):	1.21 / 1.3 / 1.4
Luminous Opening:	Rectangular w/ Sides (W: 0.33' x L: 3.98' x H: 0.1')
CIE Type:	Direct

Input Watts (W):	52
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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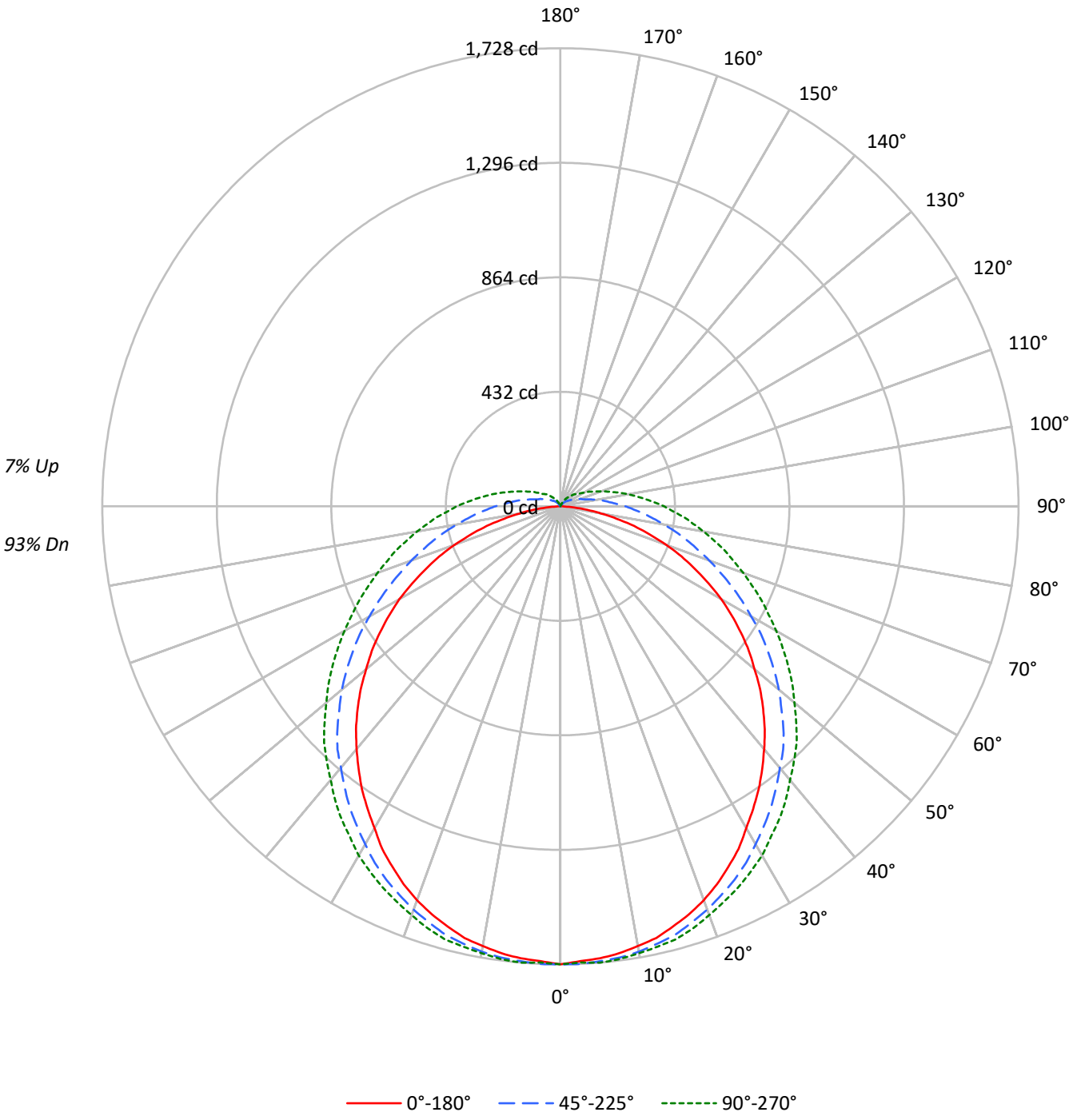
Luminous Intensity Polar Plot



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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	95	95	95	93
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	77	74
2	95	86	79	72	92	84	77	71	79	73	68	74	70	65	70	66	63	60
3	86	75	66	59	83	73	65	58	69	62	56	65	59	55	62	57	53	50
4	79	66	57	50	76	64	56	49	61	54	48	58	51	46	55	49	45	42
5	72	59	50	43	70	57	49	42	54	47	41	52	45	40	49	43	39	36
6	67	53	44	37	64	52	43	37	49	41	36	47	40	35	44	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	34	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	29	24	22
10	50	37	29	24	49	36	28	23	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14022	14022	14022
5°	13911	13744	13701
10°	13817	13490	13368
15°	13691	13213	13101
20°	13527	12863	12725
25°	13267	12518	12401
30°	12941	12122	12078
35°	12687	11756	11704
40°	12392	11360	11310
45°	12093	11019	11023
50°	11708	10567	10597
55°	11339	10082	10259
60°	10884	9538	9899
65°	10176	9030	9621
70°	9381	8554	9365
75°	8227	8187	9281
80°	6413	7862	9251
85°	3892	7853	9517

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 12093 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.9	2.8
10°-20°	471.0	7.9
20°-30°	713.7	12.0
30°-40°	863.3	14.6
40°-50°	910.1	15.3
50°-60°	849.4	14.3
60°-70°	701.3	11.8
70°-80°	508.7	8.6
80°-90°	321.4	5.4
90°-100°	191.9	3.2
100°-110°	110.0	1.9
110°-120°	62.5	1.1
120°-130°	35.6	0.6
130°-140°	19.3	0.3
140°-150°	8.5	0.1
150°-160°	1.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1348.7	22.7
0°-40°	2211.9	37.3
0°-60°	3971.4	66.9
0°-90°	5502.8	92.8
90°-120°	364.3	6.1
90°-150°	427.6	7.2
90°-180°	429.0	7.2
0°-180°	5932.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1728	1728	1728	1728	1728	
5°	1712	1728	1722	1722	1728	163
15°	1641	1663	1674	1679	1690	463
25°	1500	1521	1554	1576	1587	691
35°	1304	1337	1386	1424	1440	815
45°	1081	1125	1190	1239	1261	834
55°	831	880	956	1022	1049	743
65°	560	619	712	799	837	556
75°	288	364	494	598	641	303
85°	54	168	315	424	467	66
90°	0	103	244	348	391	2
95°	0	65	185	283	321	0
105°	0	22	103	179	206	0
115°	0	11	60	109	130	0
125°	0	5	38	71	82	0
135°	0	0	22	44	54	0
145°	0	0	11	27	33	0
155°	0	0	0	5	11	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: P1357142
CATALOG NUMBER: 4ASL4-15HE-2-30-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1727.9	*1727.9*	1727.9	1727.9	1727.9
2.5°	*1717.1*	*1733.4*	*1727.9*	*1722.5*	*1722.5*
5°	1711.6	*1727.9*	1722.5	1722.5	1727.9
7.5°	1700.8	*1717.1*	1717.1	1717.1	1722.5
10°	1684.5	*1706.2*	1706.2	1706.2	1711.6
12.5°	1668.2	*1684.5*	1689.9	1695.3	1700.8
15°	1641.0	*1662.7*	1673.6	1679.0	1689.9
17.5°	1613.8	*1630.1*	1646.4	1662.7	1668.2
20°	1581.2	*1603.0*	1619.3	1635.6	1641.0
22.5°	1543.2	*1564.9*	1586.7	1603.0	1613.8
25°	1499.7	*1521.4*	1554.1	1575.8	1586.7
27.5°	1456.2	*1478.0*	1516.0	1543.2	1554.1
30°	1401.9	*1434.5*	1472.5	1505.1	1521.4
32.5°	1353.0	*1385.6*	1429.1	1467.1	1478.0
35°	1304.1	*1336.7*	1385.6	1423.6	1439.9
37.5°	1249.8	*1287.8*	1336.7	1380.2	1396.5
40°	1195.4	*1233.5*	1287.8	1336.7	1347.6
42.5°	1141.1	*1179.1*	1244.3	1287.8	1304.1
45°	1081.3	*1124.8*	1190.0	1238.9	1260.6
47.5°	1021.5	*1065.0*	1130.2	1184.6	1206.3
50°	956.3	*1005.2*	1075.9	1130.2	1152.0
52.5°	896.6	*945.5*	1016.1	1075.9	1103.0
55°	831.4	*880.3*	956.3	1021.5	1048.7
57.5°	766.2	*815.1*	896.6	967.2	994.4
60°	701.0	*749.9*	831.4	912.9	940.0
62.5°	630.3	*684.7*	771.6	853.1	885.7
65°	559.7	*619.4*	711.8	798.8	836.8
67.5°	494.5	*554.2*	652.0	749.9	782.5
70°	423.8	*489.0*	597.7	695.5	733.6
72.5°	353.2	*423.8*	543.4	646.6	684.7
75°	288.0	*364.1*	494.5	597.7	641.2
77.5°	217.3	*309.7*	445.6	554.2	592.3
80°	157.6	*255.4*	396.7	510.8	548.8
82.5°	103.2	*206.5*	353.2	467.3	505.3
85°	54.3	*168.4*	315.2	423.8	467.3
87.5°	16.3	*130.4*	277.1	385.8	423.8
90°	0.0	*103.2*	244.5	347.8	391.2
92.5°	0.0	*81.5*	211.9	315.2	353.2
95°	0.0	*65.2*	184.7	282.6	320.6
97.5°	0.0	*54.3*	163.0	255.4	288.0
100°	0.0	*43.5*	141.3	228.2	260.8
102.5°	0.0	*32.6*	119.5	201.0	233.7
105°	0.0	*21.7*	103.2	179.3	206.5
107.5°	0.0	*16.3*	86.9	157.6	184.7
110°	0.0	*16.3*	81.5	135.8	163.0

TEST NUMBER: P1357142
CATALOG NUMBER: 4ASL4-15HE-2-30-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	*10.9*	70.6	125.0	146.7
115°	0.0	*10.9*	59.8	108.7	130.4
117.5°	0.0	*10.9*	54.3	97.8	119.5
120°	0.0	*10.9*	48.9	86.9	103.2
122.5°	0.0	*5.4*	43.5	76.1	92.4
125°	0.0	*5.4*	38.0	70.6	81.5
127.5°	0.0	*5.4*	32.6	65.2	76.1
130°	0.0	*5.4*	32.6	59.8	70.6
132.5°	0.0	*0.0*	27.2	54.3	65.2
135°	0.0	*0.0*	21.7	43.5	54.3
137.5°	0.0	*0.0*	21.7	38.0	48.9
140°	0.0	*0.0*	16.3	38.0	43.5
142.5°	0.0	*0.0*	10.9	32.6	38.0
145°	0.0	*0.0*	10.9	27.2	32.6
147.5°	0.0	*0.0*	5.4	21.7	27.2
150°	0.0	*0.0*	5.4	16.3	21.7
152.5°	0.0	*0.0*	0.0	10.9	16.3
155°	0.0	*0.0*	0.0	5.4	10.9
157.5°	0.0	*0.0*	0.0	0.0	5.4
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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Scaled Data Report

TEST NUMBER: P1357142
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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	18.49	20.02	18.96	20.48	20.97	20.55	22.08	21.02	22.54	23.03
	3H	19.99	21.39	20.47	21.86	22.39	23.00	24.40	23.48	24.87	25.40
	4H	20.47	21.80	20.98	22.28	22.83	24.21	25.53	24.71	26.02	26.57
	6H	20.74	21.98	21.26	22.48	23.04	25.48	26.71	26.00	27.22	27.78
	8H	20.80	21.98	21.33	22.51	23.07	26.14	27.32	26.67	27.85	28.41
	12H	20.81	21.95	21.35	22.47	23.06	26.87	28.00	27.40	28.52	29.12
4H	2H	19.37	20.69	19.87	21.18	21.73	20.98	22.30	21.48	22.79	23.34
	3H	21.11	22.24	21.63	22.77	23.34	23.66	24.79	24.18	25.32	25.89
	4H	21.72	22.75	22.26	23.29	23.89	25.04	26.08	25.58	26.62	27.22
	6H	22.12	23.03	22.68	23.60	24.21	26.51	27.43	27.07	27.99	28.61
	8H	22.22	23.08	22.78	23.64	24.27	27.28	28.14	27.84	28.71	29.33
	12H	22.26	23.05	22.85	23.64	24.27	28.13	28.92	28.72	29.51	30.14
8H	4H	22.41	23.27	22.98	23.84	24.47	25.26	26.12	25.83	26.69	27.32
	6H	23.00	23.73	23.60	24.34	24.97	26.91	27.64	27.50	28.25	28.88
	8H	23.19	23.85	23.80	24.47	25.11	27.82	28.48	28.43	29.10	29.74
	12H	23.31	23.90	23.92	24.51	25.22	28.86	29.45	29.47	30.06	30.77
12H	4H	22.61	23.40	23.20	23.99	24.62	25.27	26.05	25.86	26.65	27.28
	6H	23.30	23.96	23.91	24.58	25.23	26.94	27.61	27.55	28.23	28.87
	8H	23.59	24.18	24.20	24.79	25.50	27.93	28.52	28.54	29.12	29.83

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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: SP1-2511-597-3

Test Date: 11/18/2025

Luminaire Tested: 4ASL-2-30-UNV-OPL-1_600mA

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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

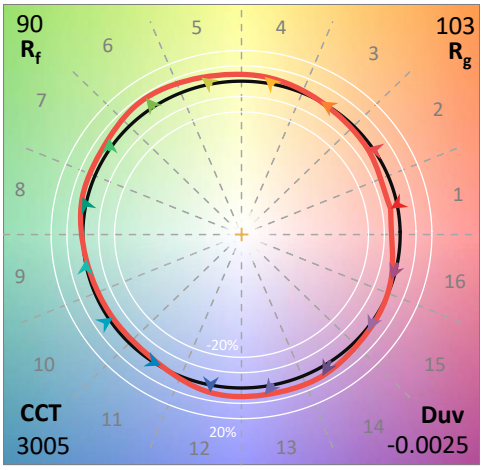
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2511-597-3
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-2-30-UNV-OPL-1_600mA**
Description:	2foot 4ASL LED LUMINAIRE WITH OPL LENS AND 3000K LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K):	3005
CIE u':	0.2513
CIE v':	0.5178
Duv:	-0.0025
CIE x:	0.4330
CIE y:	0.3966
CIE z:	0.1704
Peak Wavelength (nm):	630
Dominant Wavelength (nm):	583
Purity:	49.00645
Rf:	90.1
Rg:	103.3

CRI (Ra):	93.9
R1:	96.5
R2:	96.6
R3:	95.5
R4:	94.4
R5:	96.0
R6:	96.4
R7:	91.7
R8:	84.0
R9:	62.0
R10:	90.8
R11:	94.1
R12:	88.9
R13:	96.4
R14:	96.3
R15:	91.9



Test Conditions

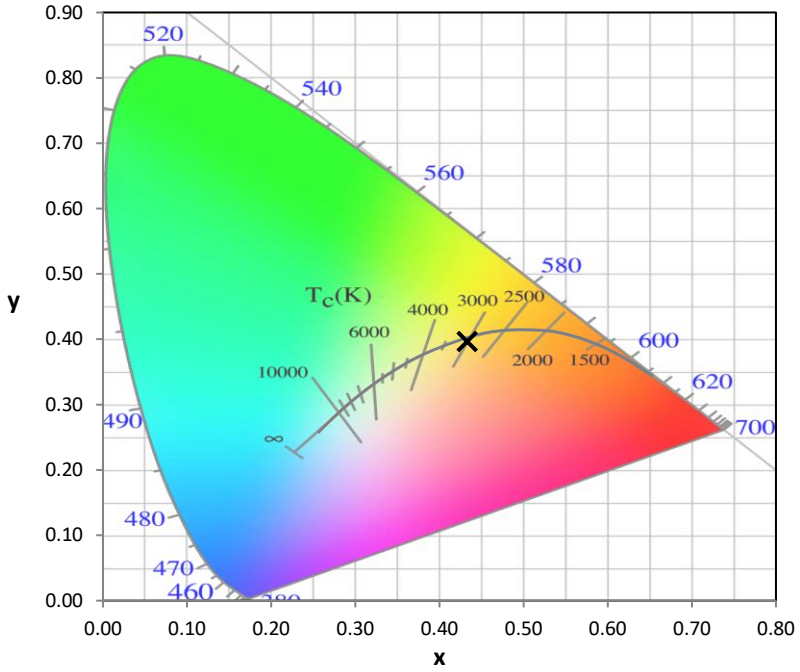
Stabilization Time:	32M
Operation Time:	1H 32M
Sphere Temperature (°C):	24.1

REPORT NUMBER: SP1-2511-597-3

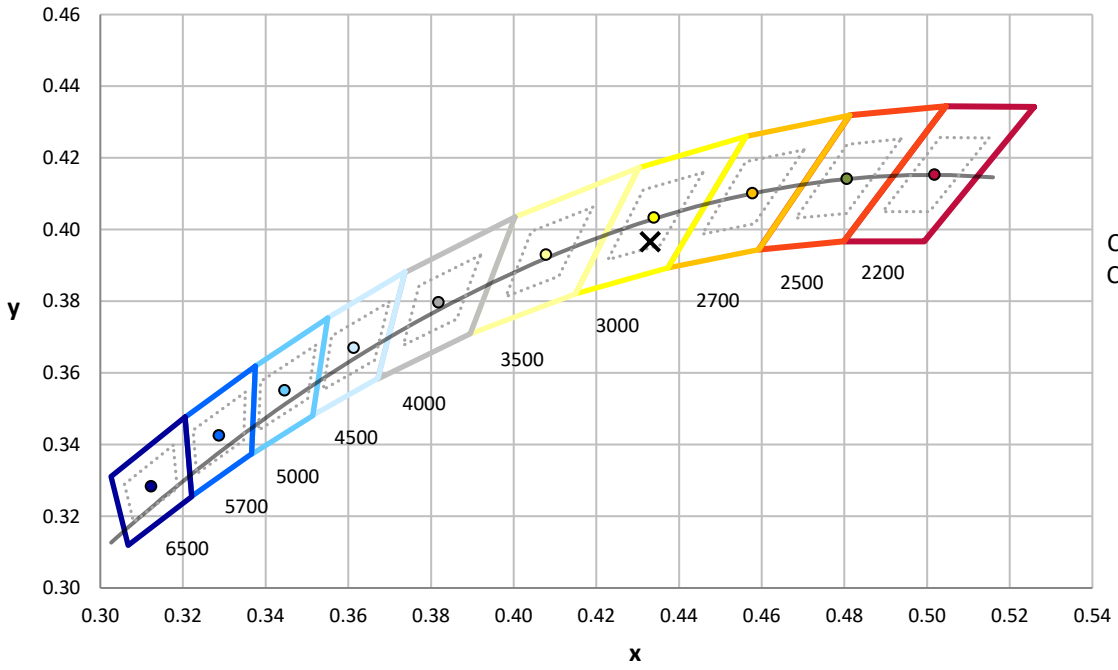
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	6/16/2025	12/16/2025
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2511-597-3

CIE 1931 Chromaticity Diagram



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

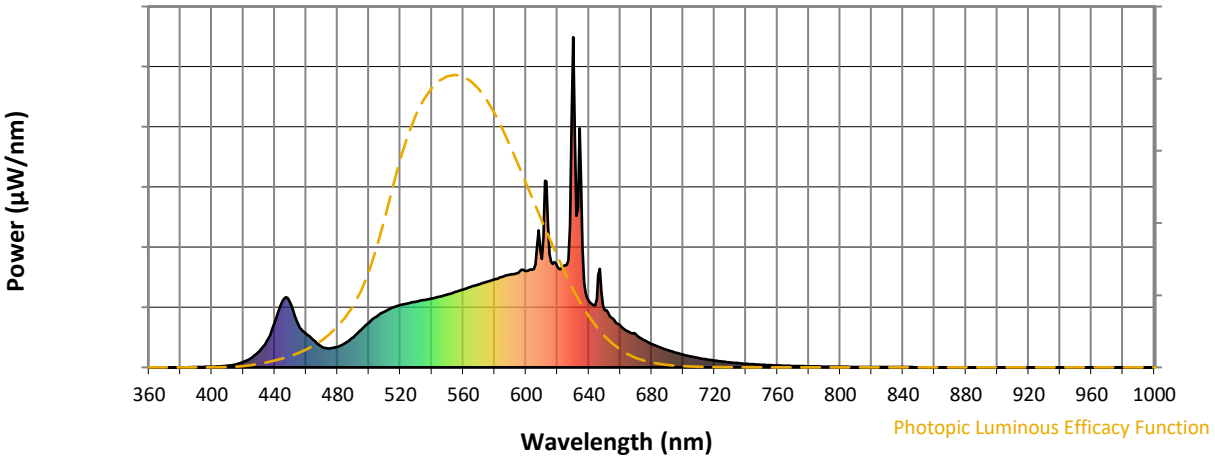


CCT = 3005K
CIE x = 0.4330
CIE y = 0.3966
Duv = -0.0025

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2511-597-3

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	92	NR	620	304	NR	750	8	NR	880	0	NR
365	0	NR	495	114	NR	625	309	NR	755	7	NR	885	0	NR
370	0	NR	500	136	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	154	NR	635	582	NR	765	5	NR	895	0	NR
380	0	NR	510	169	NR	640	200	NR	770	4	NR	900	0	NR
385	0	NR	515	181	NR	645	207	NR	775	4	NR	905	0	NR
390	1	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	148	NR	785	3	NR	915	0	NR
400	2	NR	530	199	NR	660	127	NR	790	2	NR	920	0	NR
405	3	NR	535	203	NR	665	108	NR	795	2	NR	925	0	NR
410	5	NR	540	208	NR	670	100	NR	800	2	NR	930	0	NR
415	9	NR	545	214	NR	675	83	NR	805	2	NR	935	0	NR
420	16	NR	550	221	NR	680	71	NR	810	1	NR	940	0	NR
425	28	NR	555	228	NR	685	61	NR	815	1	NR	945	0	NR
430	48	NR	560	236	NR	690	53	NR	820	1	NR	950	0	NR
435	80	NR	565	244	NR	695	45	NR	825	1	NR	955	0	NR
440	135	NR	570	251	NR	700	38	NR	830	1	NR	960	0	NR
445	202	NR	575	259	NR	705	33	NR	835	1	NR	965	0	NR
450	195	NR	580	266	NR	710	28	NR	840	1	NR	970	0	NR
455	130	NR	585	274	NR	715	24	NR	845	1	NR	975	0	NR
460	101	NR	590	281	NR	720	20	NR	850	0	NR	980	0	NR
465	82	NR	595	286	NR	725	17	NR	855	0	NR	985	0	NR
470	62	NR	600	292	NR	730	15	NR	860	0	NR	990	0	NR
475	58	NR	605	298	NR	735	13	NR	865	0	NR	995	0	NR
480	62	NR	610	328	NR	740	11	NR	870	0	NR	1000	0	NR
485	74	NR	615	342	NR	745	9	NR	875	0	NR			

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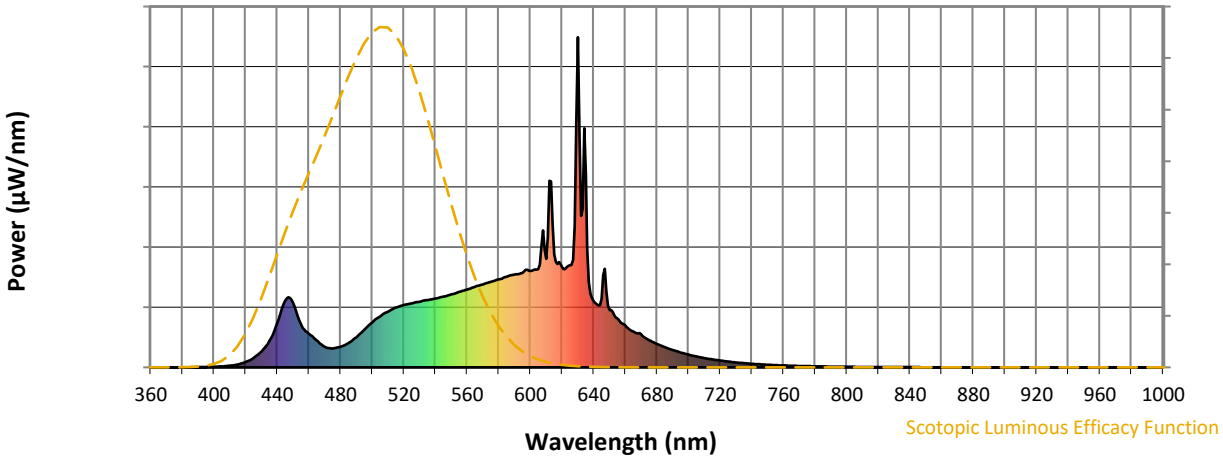
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.42**

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	92	NR	620	304	NR	750	8	NR	880	0	NR
365	0	NR	495	114	NR	625	309	NR	755	7	NR	885	0	NR
370	0	NR	500	136	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	154	NR	635	582	NR	765	5	NR	895	0	NR
380	0	NR	510	169	NR	640	200	NR	770	4	NR	900	0	NR
385	0	NR	515	181	NR	645	207	NR	775	4	NR	905	0	NR
390	1	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	148	NR	785	3	NR	915	0	NR
400	2	NR	530	199	NR	660	127	NR	790	2	NR	920	0	NR
405	3	NR	535	203	NR	665	108	NR	795	2	NR	925	0	NR
410	5	NR	540	208	NR	670	100	NR	800	2	NR	930	0	NR
415	9	NR	545	214	NR	675	83	NR	805	2	NR	935	0	NR
420	16	NR	550	221	NR	680	71	NR	810	1	NR	940	0	NR
425	28	NR	555	228	NR	685	61	NR	815	1	NR	945	0	NR
430	48	NR	560	236	NR	690	53	NR	820	1	NR	950	0	NR
435	80	NR	565	244	NR	695	45	NR	825	1	NR	955	0	NR
440	135	NR	570	251	NR	700	38	NR	830	1	NR	960	0	NR
445	202	NR	575	259	NR	705	33	NR	835	1	NR	965	0	NR
450	195	NR	580	266	NR	710	28	NR	840	1	NR	970	0	NR
455	130	NR	585	274	NR	715	24	NR	845	1	NR	975	0	NR
460	101	NR	590	281	NR	720	20	NR	850	0	NR	980	0	NR
465	82	NR	595	286	NR	725	17	NR	855	0	NR	985	0	NR
470	62	NR	600	292	NR	730	15	NR	860	0	NR	990	0	NR
475	58	NR	605	298	NR	735	13	NR	865	0	NR	995	0	NR
480	62	NR	610	328	NR	740	11	NR	870	0	NR	1000	0	NR
485	74	NR	615	342	NR	745	9	NR	875	0	NR			

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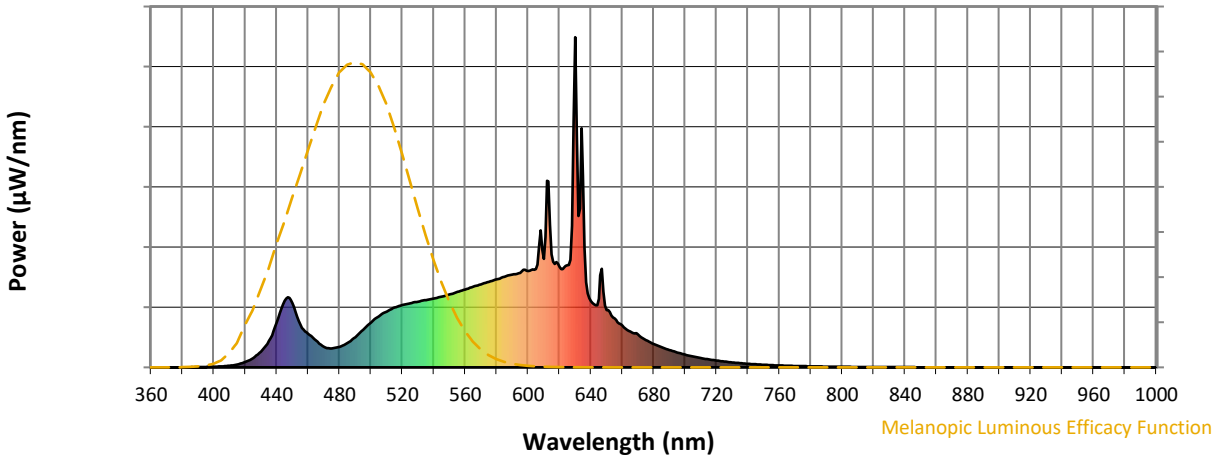
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.76**

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	92	NR	620	304	NR	750	8	NR	880	0	NR
365	0	NR	495	114	NR	625	309	NR	755	7	NR	885	0	NR
370	0	NR	500	136	NR	630	1000	NR	760	6	NR	890	0	NR
375	0	NR	505	154	NR	635	582	NR	765	5	NR	895	0	NR
380	0	NR	510	169	NR	640	200	NR	770	4	NR	900	0	NR
385	0	NR	515	181	NR	645	207	NR	775	4	NR	905	0	NR
390	1	NR	520	189	NR	650	174	NR	780	3	NR	910	0	NR
395	1	NR	525	194	NR	655	148	NR	785	3	NR	915	0	NR
400	2	NR	530	199	NR	660	127	NR	790	2	NR	920	0	NR
405	3	NR	535	203	NR	665	108	NR	795	2	NR	925	0	NR
410	5	NR	540	208	NR	670	100	NR	800	2	NR	930	0	NR
415	9	NR	545	214	NR	675	83	NR	805	2	NR	935	0	NR
420	16	NR	550	221	NR	680	71	NR	810	1	NR	940	0	NR
425	28	NR	555	228	NR	685	61	NR	815	1	NR	945	0	NR
430	48	NR	560	236	NR	690	53	NR	820	1	NR	950	0	NR
435	80	NR	565	244	NR	695	45	NR	825	1	NR	955	0	NR
440	135	NR	570	251	NR	700	38	NR	830	1	NR	960	0	NR
445	202	NR	575	259	NR	705	33	NR	835	1	NR	965	0	NR
450	195	NR	580	266	NR	710	28	NR	840	1	NR	970	0	NR
455	130	NR	585	274	NR	715	24	NR	845	1	NR	975	0	NR
460	101	NR	590	281	NR	720	20	NR	850	0	NR	980	0	NR
465	82	NR	595	286	NR	725	17	NR	855	0	NR	985	0	NR
470	62	NR	600	292	NR	730	15	NR	860	0	NR	990	0	NR
475	58	NR	605	298	NR	735	13	NR	865	0	NR	995	0	NR
480	62	NR	610	328	NR	740	11	NR	870	0	NR	1000	0	NR
485	74	NR	615	342	NR	745	9	NR	875	0	NR			

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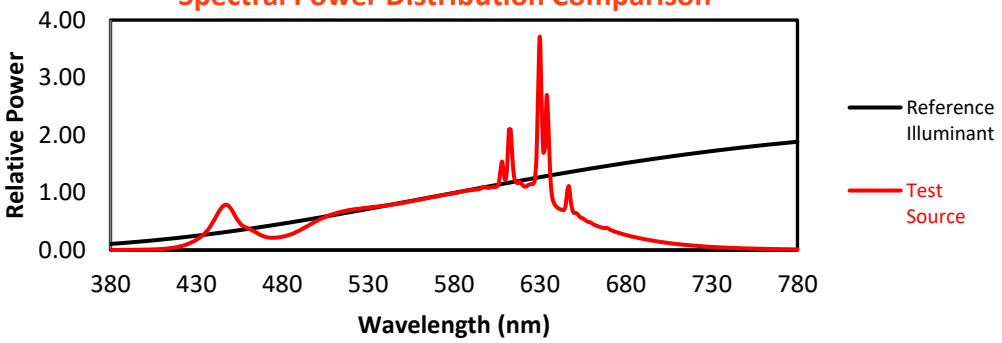
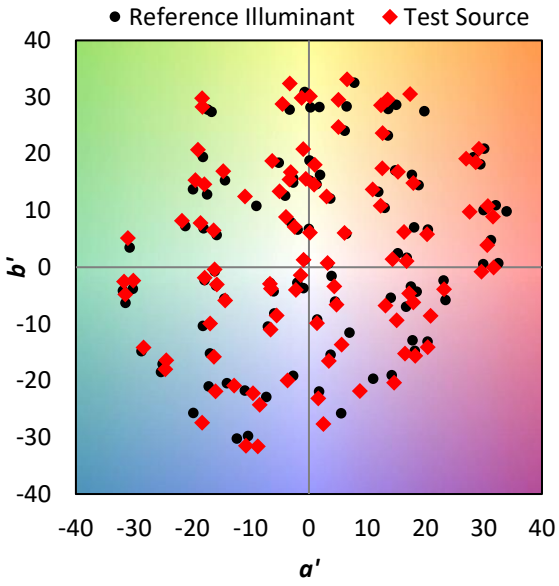
Summary

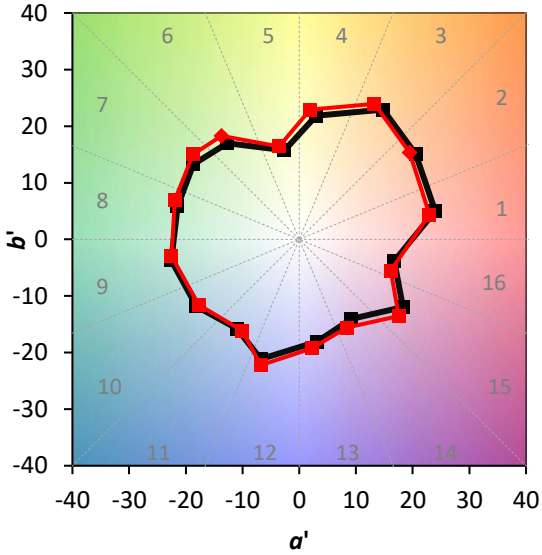
R_f = 90.1
R_g = 103.3
CIE R_a = 93.9
R_9 = 62.0

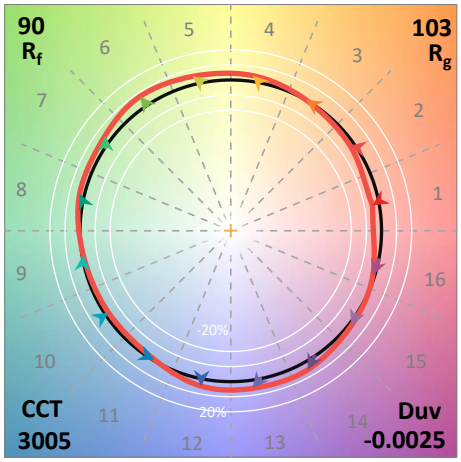
Spectral Power Distribution Comparison

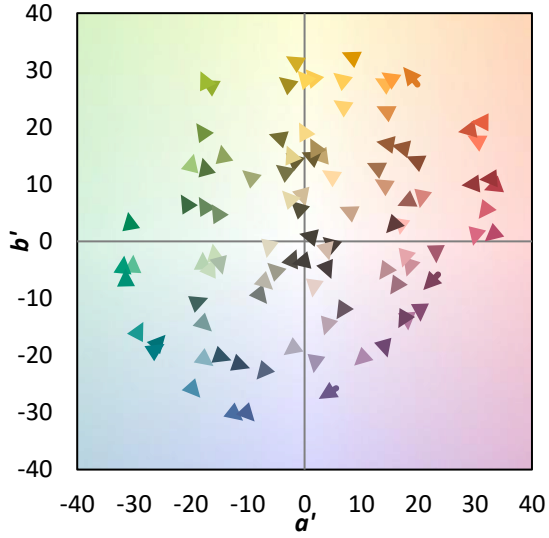


Color Vector Graphics









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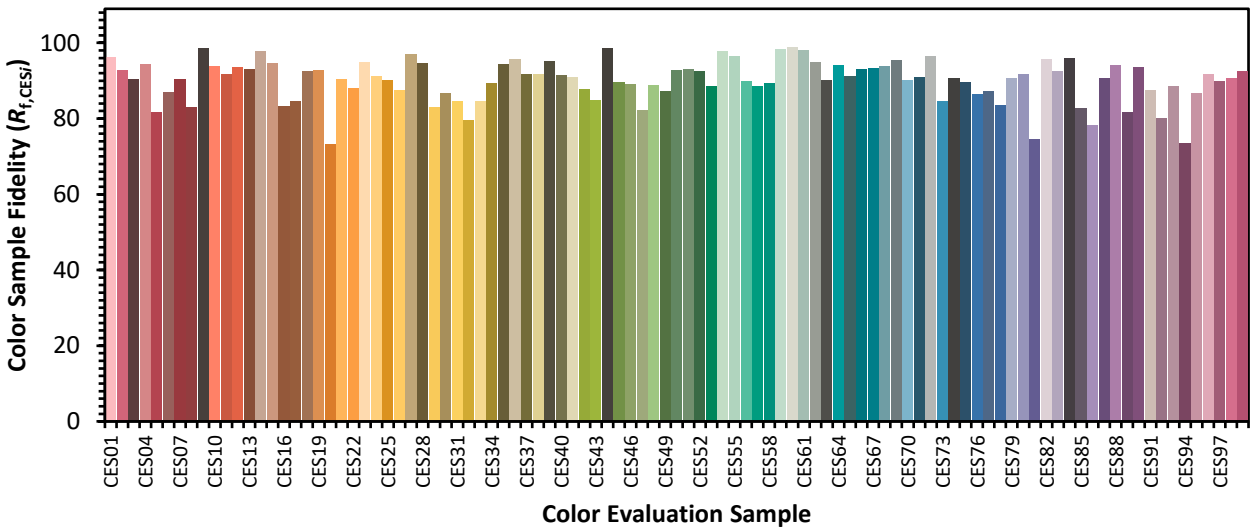
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 88	CES51 = 93	CES76 = 86
CES02 = 63	CES27 = 97	CES52 = 93	CES77 = 87
CES03 = 32	CES28 = 95	CES53 = 89	CES78 = 83
CES04 = 70	CES29 = 83	CES54 = 98	CES79 = 91
CES05 = 51	CES30 = 87	CES55 = 97	CES80 = 92
CES06 = 51	CES31 = 85	CES56 = 90	CES81 = 75
CES07 = 44	CES32 = 80	CES57 = 89	CES82 = 96
CES08 = 42	CES33 = 85	CES58 = 89	CES83 = 92
CES09 = 29	CES34 = 89	CES59 = 98	CES84 = 96
CES10 = 76	CES35 = 94	CES60 = 99	CES85 = 83
CES11 = 59	CES36 = 96	CES61 = 98	CES86 = 78
CES12 = 65	CES37 = 92	CES62 = 95	CES87 = 91
CES13 = 44	CES38 = 92	CES63 = 90	CES88 = 94
CES14 = 74	CES39 = 95	CES64 = 94	CES89 = 82
CES15 = 72	CES40 = 91	CES65 = 91	CES90 = 94
CES16 = 48	CES41 = 91	CES66 = 93	CES91 = 87
CES17 = 50	CES42 = 88	CES67 = 93	CES92 = 80
CES18 = 57	CES43 = 85	CES68 = 94	CES93 = 89
CES19 = 72	CES44 = 99	CES69 = 96	CES94 = 74
CES20 = 67	CES45 = 90	CES70 = 90	CES95 = 87
CES21 = 86	CES46 = 89	CES71 = 91	CES96 = 92
CES22 = 79	CES47 = 82	CES72 = 96	CES97 = 90
CES23 = 92	CES48 = 89	CES73 = 85	CES98 = 91
CES24 = 91	CES49 = 87	CES74 = 91	CES99 = 93
CES25 = 72	CES50 = 93	CES75 = 90	



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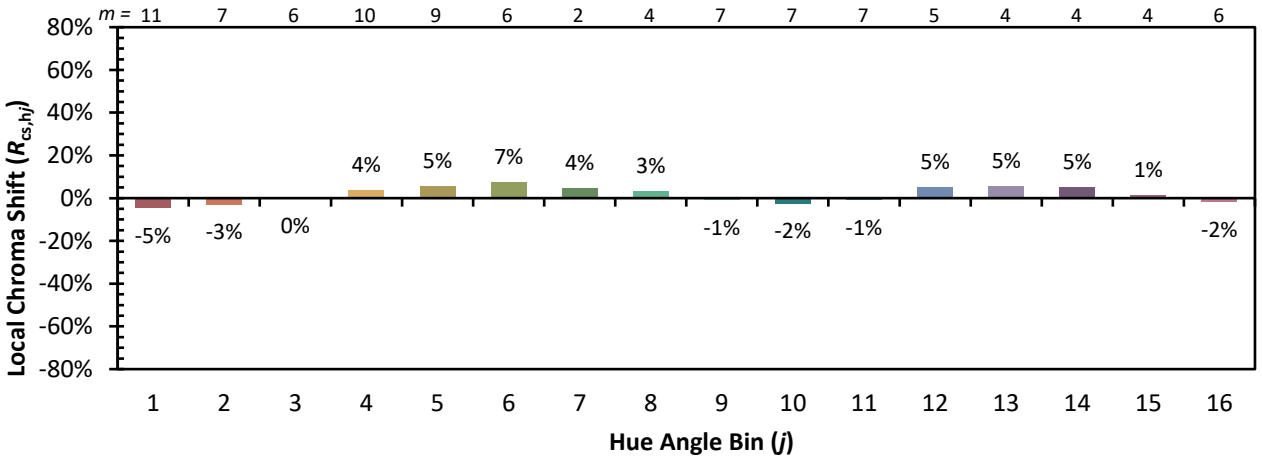
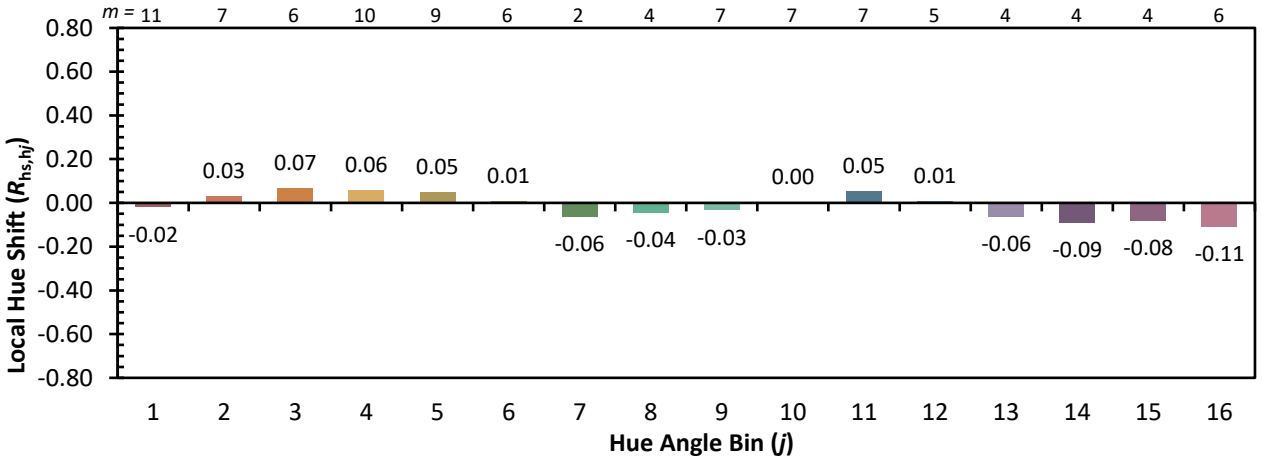
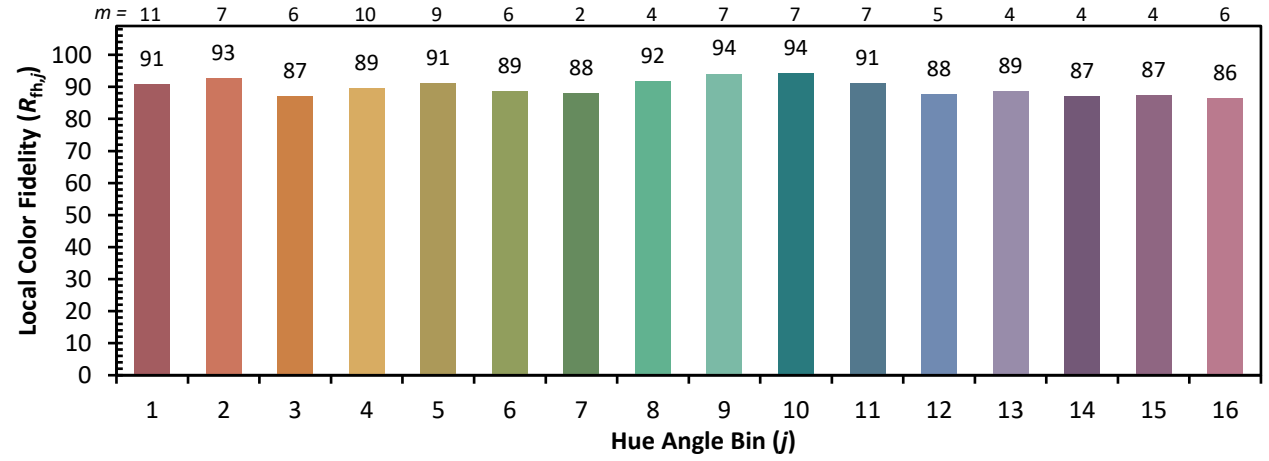
Color Rendition by Hue-Angle Bin







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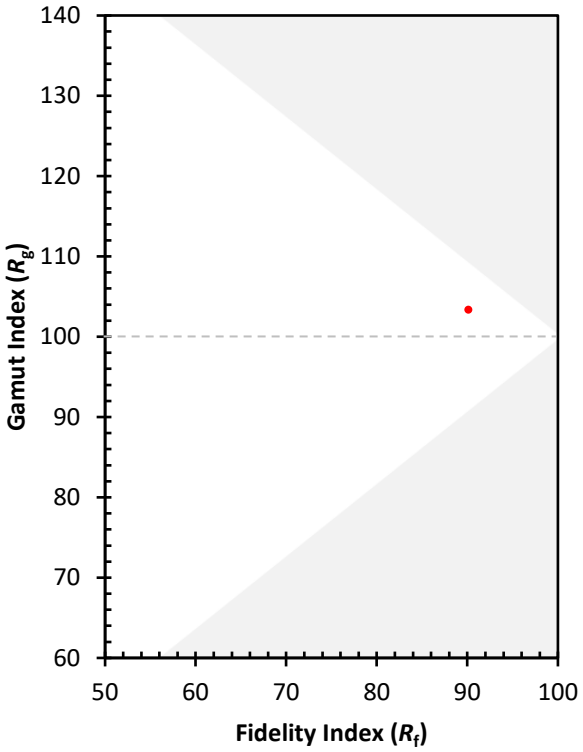
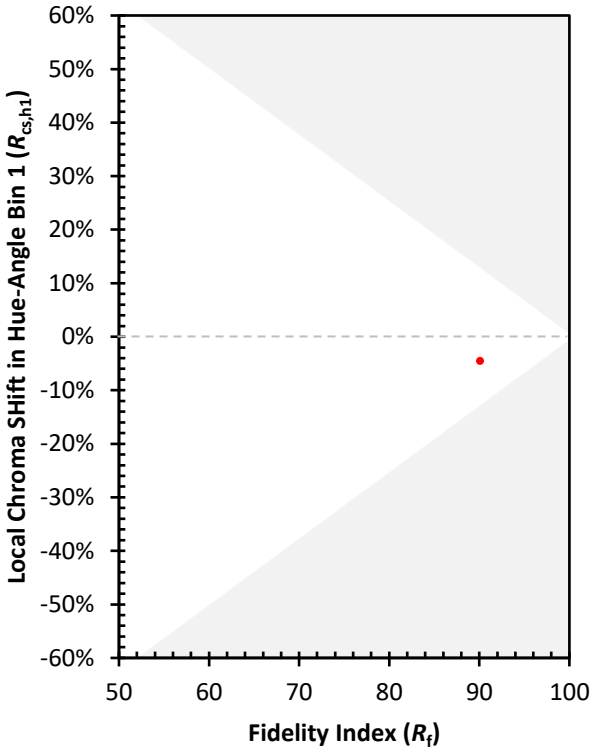
Measure Comparisons





(END OF REPORT)