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: P1357039

Luminaire Tested: 3ASL4-20VHE-3-A59-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:	P1357039
	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:	3ASL4-20VHE-3-A59-UNV
Description:	3FT 2000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND A59 LEDS 3 ROW
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	1223.9 lumens
Efficiency:	N/A
Efficacy:	35.1 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):	34.9
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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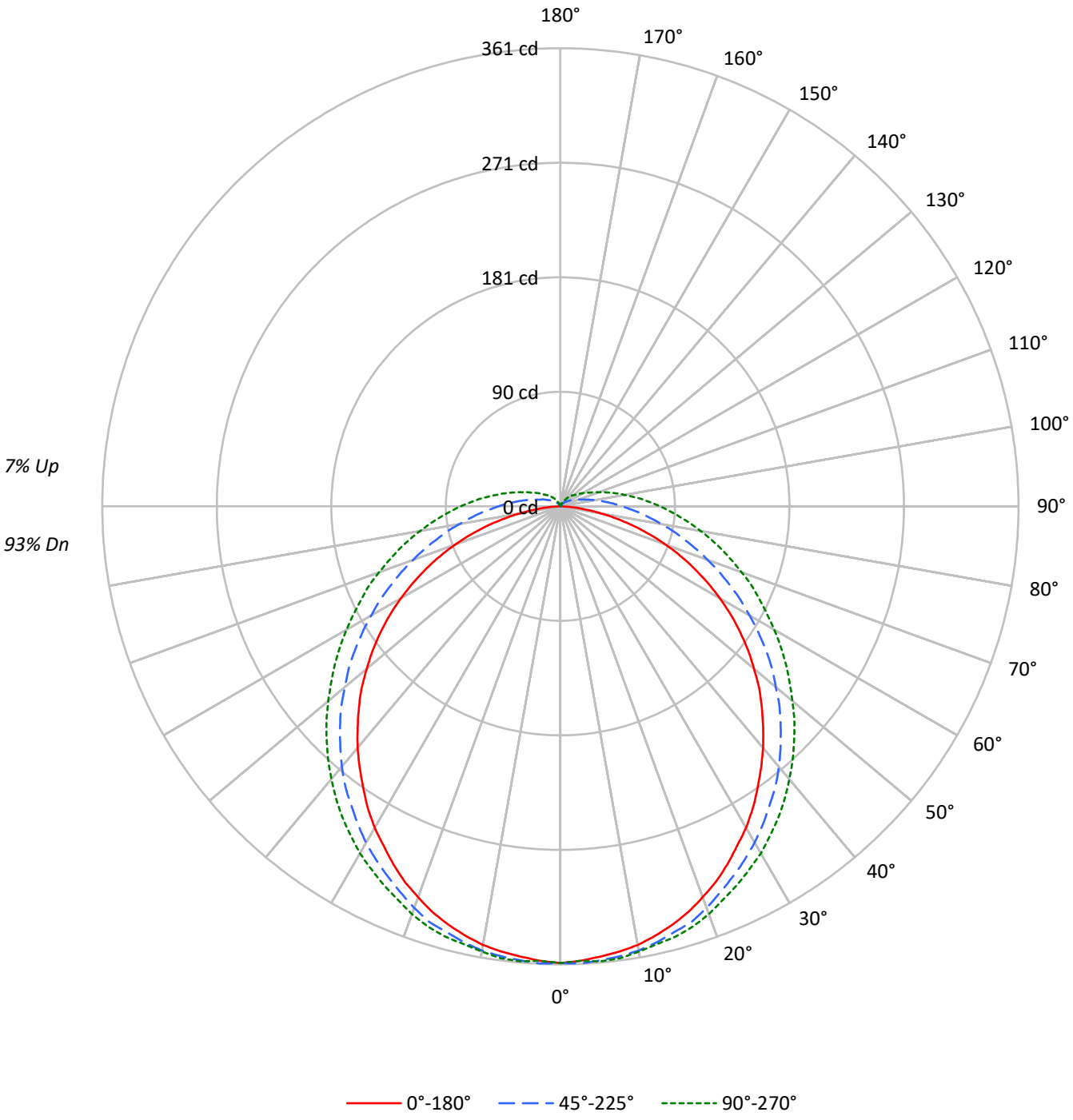
Luminous Intensity Polar Plot



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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	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°	3902	3902	3902
5°	3865	3826	3813
10°	3840	3750	3717
15°	3794	3657	3634
20°	3734	3566	3542
25°	3663	3453	3437
30°	3590	3355	3348
35°	3499	3245	3250
40°	3416	3143	3147
45°	3325	3021	3042
50°	3223	2889	2933
55°	3112	2764	2835
60°	2968	2617	2737
65°	2787	2476	2655
70°	2553	2337	2590
75°	2219	2207	2546
80°	1714	2107	2529
85°	995	2077	2565

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 3325 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	2.8
10°-20°	98.0	8.0
20°-30°	148.2	12.1
30°-40°	179.4	14.7
40°-50°	188.5	15.4
50°-60°	175.8	14.4
60°-70°	145.3	11.9
70°-80°	104.6	8.5
80°-90°	65.0	5.3
90°-100°	38.1	3.1
100°-110°	21.8	1.8
110°-120°	12.3	1.0
120°-130°	7.1	0.6
130°-140°	3.8	0.3
140°-150°	1.6	0.1
150°-160°	0.3	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	280.3	22.9
0°-40°	459.8	37.6
0°-60°	824.1	67.3
0°-90°	1139.0	93.1
90°-120°	72.2	5.9
90°-150°	84.6	6.9
90°-180°	85.0	6.9
0°-180°	1223.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	360	360	360	360	360	
5°	356	359	359	359	360	34
15°	341	346	347	350	351	96
25°	311	317	322	326	329	143
35°	271	278	287	296	299	170
45°	224	233	246	256	260	173
55°	173	183	198	212	217	154
65°	117	128	147	166	173	116
75°	60	75	101	123	132	63
85°	11	34	64	86	94	14
90°	0	20	49	70	79	1
95°	0	13	37	56	64	0
105°	0	4	20	35	41	0
115°	0	2	12	22	25	0
125°	0	2	8	14	16	0
135°	0	0	4	9	11	0
145°	0	0	2	5	6	0
155°	0	0	0	2	2	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: P1357039
CATALOG NUMBER: 3ASL4-20VHE-3-A59-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	360.0	*360.0*	360.0	360.0	360.0
2.5°	*358.5*	*360.7*	*360.7*	*358.5*	*358.5*
5°	356.3	*359.2*	359.2	359.2	360.0
7.5°	354.0	*357.7*	357.7	357.7	359.2
10°	351.0	*354.8*	355.5	355.5	356.3
12.5°	346.5	*351.0*	351.8	352.5	353.3
15°	341.3	*345.8*	347.3	349.5	351.0
17.5°	335.3	*340.5*	343.5	345.8	347.3
20°	327.8	*333.1*	336.8	339.8	342.0
22.5°	320.3	*324.8*	329.3	333.1	335.3
25°	311.3	*316.6*	321.8	326.3	329.3
27.5°	301.6	*307.6*	314.3	319.6	322.6
30°	292.6	*298.6*	306.1	312.8	315.8
32.5°	282.2	*288.9*	297.1	303.9	307.6
35°	270.9	*278.4*	287.4	295.6	299.4
37.5°	259.7	*267.2*	278.4	286.6	290.4
40°	248.5	*256.0*	267.9	276.9	280.7
42.5°	236.5	*244.0*	256.7	266.4	270.9
45°	224.5	*232.8*	245.5	256.0	260.5
47.5°	212.6	*220.8*	234.3	245.5	250.0
50°	199.1	*208.1*	221.5	234.3	238.7
52.5°	186.4	*195.3*	210.3	223.0	227.5
55°	172.9	*182.6*	197.6	211.8	217.0
57.5°	159.4	*169.1*	184.9	199.8	205.8
60°	145.2	*155.7*	172.1	187.9	194.6
62.5°	131.0	*142.2*	160.2	176.6	183.4
65°	116.8	*128.0*	147.4	166.2	172.9
67.5°	102.5	*114.5*	135.5	154.9	163.2
70°	88.3	*101.0*	123.5	143.7	151.9
72.5°	74.1	*87.6*	112.3	133.2	141.5
75°	59.9	*74.8*	101.0	122.7	131.7
77.5°	45.7	*62.9*	91.3	113.0	122.0
80°	32.9	*52.4*	80.8	103.3	112.3
82.5°	21.0	*41.9*	71.8	94.3	103.3
85°	11.2	*33.7*	63.6	86.1	94.3
87.5°	3.7	*26.2*	55.4	77.8	86.1
90°	0.0	*20.2*	48.6	69.6	78.6
92.5°	0.0	*15.7*	42.7	62.9	71.1
95°	0.0	*12.7*	36.7	56.1	64.4
97.5°	0.0	*10.5*	32.2	50.1	57.6
100°	0.0	*8.2*	27.7	44.9	51.6
102.5°	0.0	*6.7*	23.9	39.7	46.4
105°	0.0	*4.5*	20.2	35.2	41.2
107.5°	0.0	*3.7*	17.2	31.4	36.7
110°	0.0	*3.0*	15.7	26.9	32.2

TEST NUMBER: P1357039
CATALOG NUMBER: 3ASL4-20VHE-3-A59-UNV

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	*2.2*	14.2	23.9	29.2
115°	0.0	*2.2*	12.0	21.7	25.4
117.5°	0.0	*2.2*	10.5	19.5	23.2
120°	0.0	*1.5*	9.7	17.2	21.0
122.5°	0.0	*1.5*	8.2	15.7	18.7
125°	0.0	*1.5*	7.5	14.2	16.5
127.5°	0.0	*0.7*	6.7	12.7	15.0
130°	0.0	*0.7*	6.0	11.2	13.5
132.5°	0.0	*0.7*	5.2	10.5	12.7
135°	0.0	*0.0*	4.5	9.0	11.2
137.5°	0.0	*0.0*	3.7	8.2	9.7
140°	0.0	*0.0*	3.0	6.7	9.0
142.5°	0.0	*0.0*	2.2	6.0	7.5
145°	0.0	*0.0*	2.2	5.2	6.0
147.5°	0.0	*0.0*	1.5	3.7	5.2
150°	0.0	*0.0*	0.7	3.0	3.7
152.5°	0.0	*0.0*	0.0	2.2	3.0
155°	0.0	*0.0*	0.0	1.5	2.2
157.5°	0.0	*0.0*	0.0	0.0	0.7
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: P1357039
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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	14.05	15.59	14.52	16.05	16.53	16.05	17.59	16.52	18.05	18.53
	3H	15.55	16.95	16.03	17.42	17.94	18.50	19.91	18.98	20.37	20.90
	4H	16.03	17.36	16.53	17.84	18.38	19.69	21.02	20.19	21.50	22.04
	6H	16.31	17.55	16.82	18.04	18.60	20.92	22.16	21.44	22.66	23.21
	8H	16.36	17.55	16.89	18.07	18.63	21.56	22.75	22.09	23.27	23.83
	12H	16.37	17.51	16.91	18.03	18.62	22.25	23.39	22.78	23.90	24.49
4H	2H	14.92	16.25	15.43	16.74	17.27	16.49	17.82	16.99	18.30	18.84
	3H	16.66	17.79	17.17	18.32	18.88	19.16	20.30	19.68	20.82	21.38
	4H	17.26	18.30	17.80	18.84	19.43	20.52	21.56	21.06	22.10	22.69
	6H	17.66	18.58	18.22	19.14	19.75	21.95	22.87	22.50	23.43	24.04
	8H	17.76	18.62	18.32	19.18	19.80	22.69	23.55	23.25	24.11	24.73
	12H	17.80	18.59	18.38	19.18	19.80	23.50	24.29	24.08	24.88	25.50
8H	4H	17.94	18.80	18.50	19.36	19.98	20.74	21.60	21.30	22.16	22.78
	6H	18.52	19.25	19.11	19.85	20.48	22.34	23.07	22.93	23.67	24.30
	8H	18.70	19.36	19.30	19.97	20.61	23.22	23.88	23.82	24.49	25.13
	12H	18.82	19.40	19.42	20.01	20.71	24.22	24.81	24.82	25.41	26.11
12H	4H	18.13	18.91	18.71	19.50	20.13	20.75	21.53	21.33	22.12	22.75
	6H	18.81	19.47	19.41	20.08	20.72	22.37	23.04	22.98	23.65	24.29
	8H	19.09	19.68	19.69	20.28	20.98	23.32	23.91	23.93	24.52	25.22

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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: SP1-2511-597-9

Test Date: 01/22/2026

Luminaire Tested: 4ASL-2-A590-UNV-OPL-1_600mA

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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

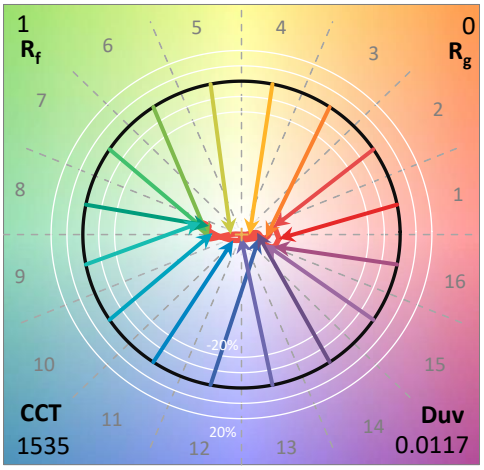
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2511-597-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	01/29/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Fail-Safe
Catalog Number:	**4ASL-2-A590-UNV-OPL-1_600mA**
Description:	2foot 4ASL LED LUMINAIRE WITH OPL LENS AND AMBER 590 LEDS with 1 rows at 600mA

Spectral Parameters

CCT (K):	1535
CIE u':	0.3534
CIE v':	0.5468
Duv:	0.0117
CIE x:	0.5921
CIE y:	0.4072
CIE z:	0.0007
Peak Wavelength (nm):	598
Dominant Wavelength (nm):	592
Purity:	99.97894
Rf:	1.3
Rg:	0.1

CRI (Ra):	-20.0				
R1:	-32.1	R9:	-380.5
R2:	53.1	R10:	29.9
R3:	18.5	R11:	-92.0
R4:	-65.7	R12:	-8.5
R5:	-38.6	R13:	-13.5
R6:	42.8	R14:	47.1
R7:	-6.2	R15:	-65.4
R8:	-132.3		



Test Conditions

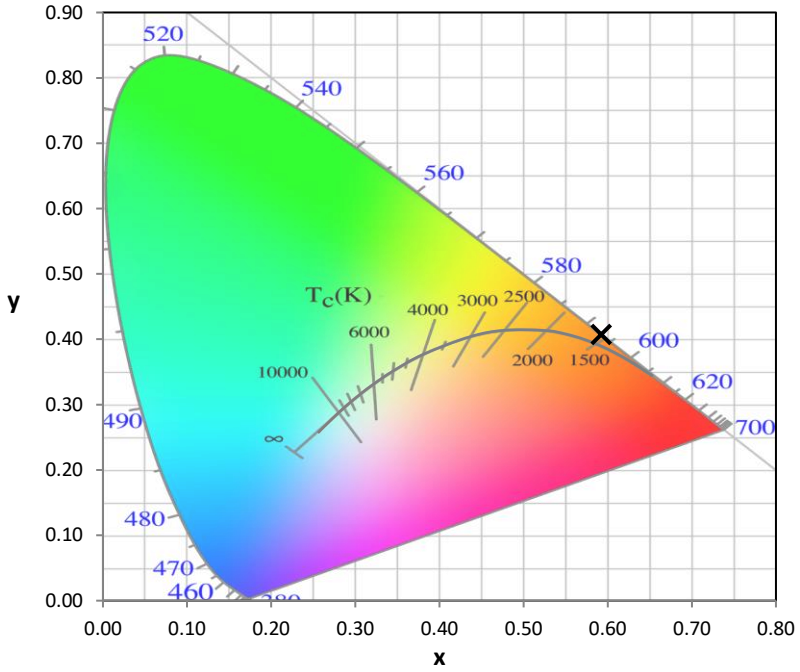
Stabilization Time:	77M
Operation Time:	2H 17M
Sphere Temperature (°C):	25.1

REPORT NUMBER: SP1-2511-597-9

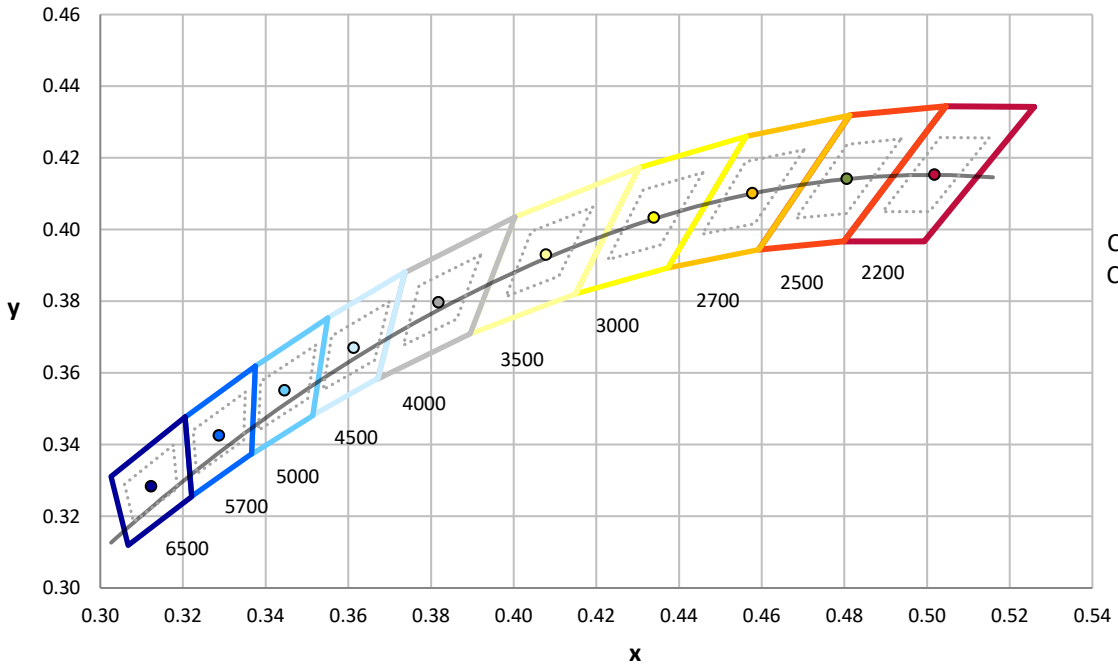
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2511-597-9

CIE 1931 Chromaticity Diagram



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

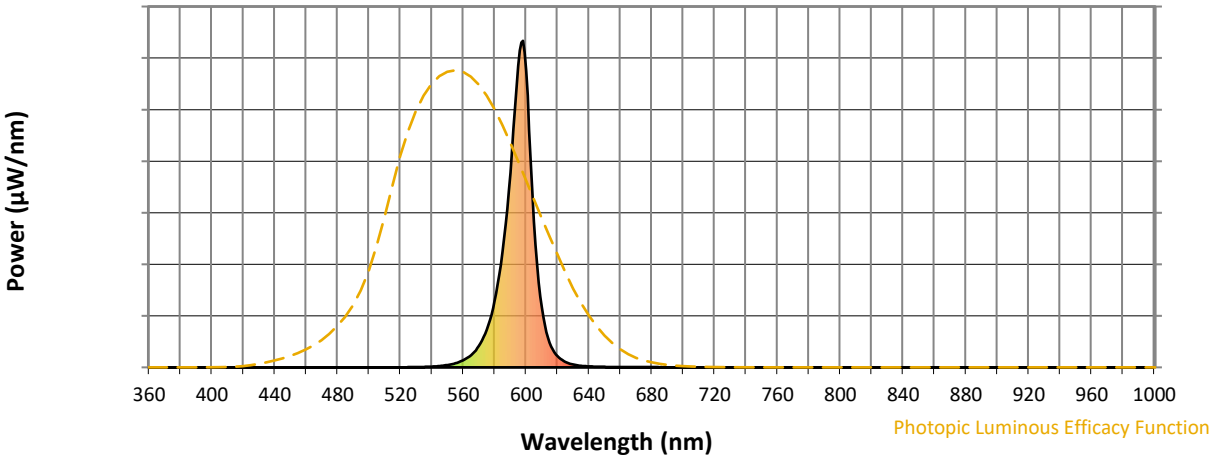


CCT = 1535K
CIE x = 0.5921
CIE y = 0.4072
Duv = 0.0117

Point lies outside the range

REPORT NUMBER: SP1-2511-597-9

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	0	NR	620	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	5	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	2	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	1	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	66	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	115	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	203	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	354	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	596	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	923	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	909	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	447	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	183	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	75	NR	745	0	NR	875	0	NR			

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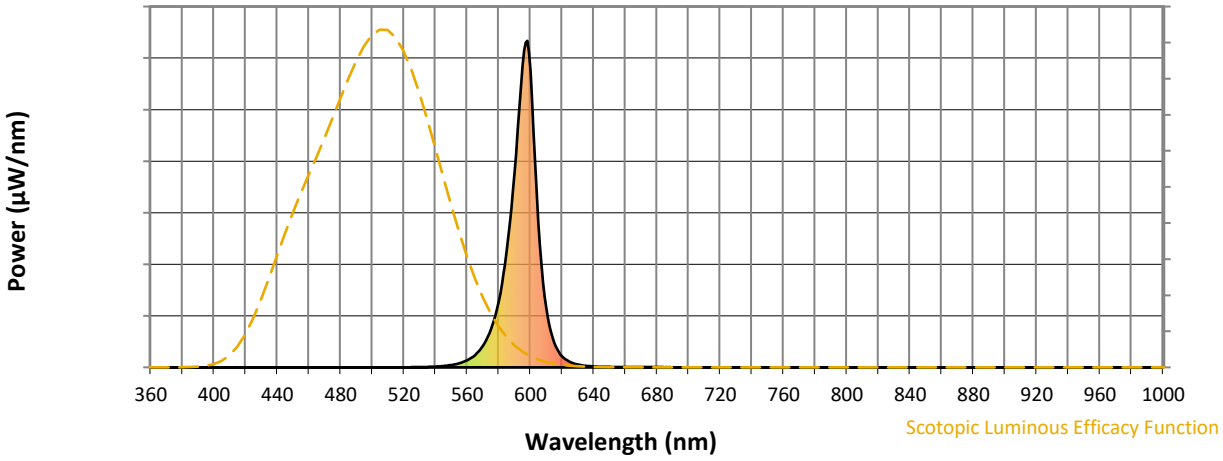
Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 0.22**

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	0	NR	620	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	5	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	2	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	1	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	66	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	115	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	203	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	354	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	596	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	923	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	909	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	447	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	183	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	75	NR	745	0	NR	875	0	NR			

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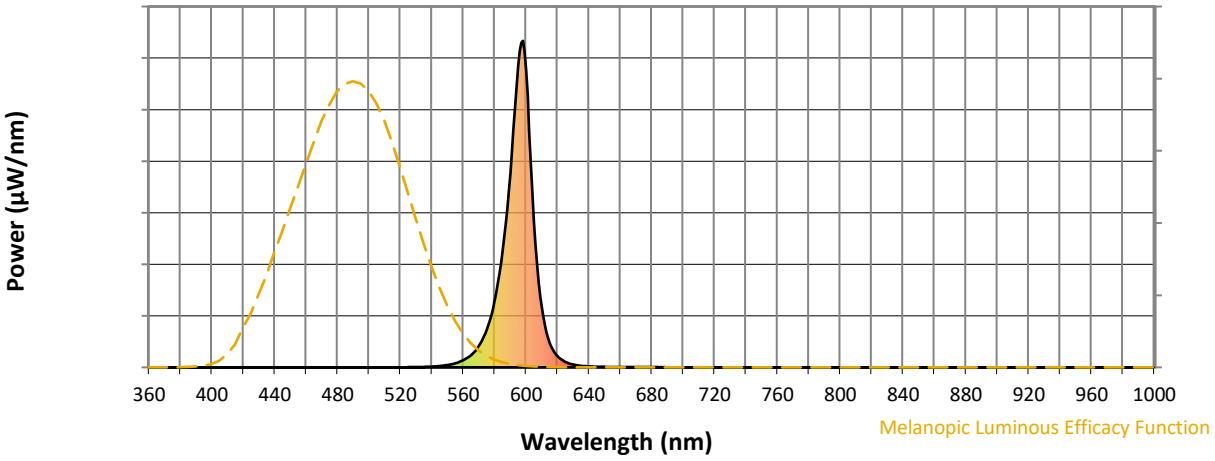
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 0.12**

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	0	NR	620	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	5	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	3	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	2	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	2	NR	780	0	NR	910	0	NR
395	0	NR	525	1	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	1	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	1	NR	795	0	NR	925	0	NR
410	0	NR	540	2	NR	670	1	NR	800	0	NR	930	0	NR
415	0	NR	545	4	NR	675	1	NR	805	0	NR	935	0	NR
420	0	NR	550	7	NR	680	1	NR	810	0	NR	940	0	NR
425	0	NR	555	12	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	22	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	38	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	66	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	115	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	203	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	354	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	596	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	923	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	909	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	447	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	183	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	75	NR	745	0	NR	875	0	NR			

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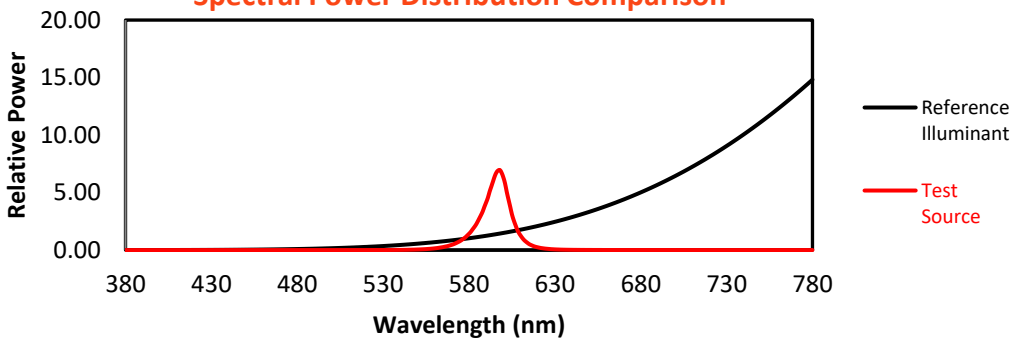
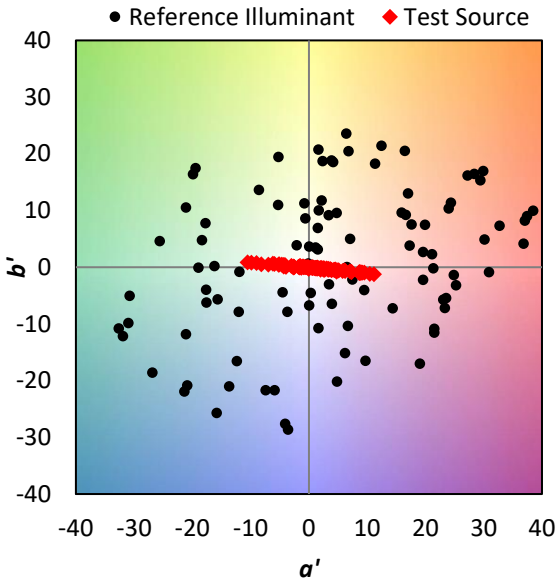
Summary

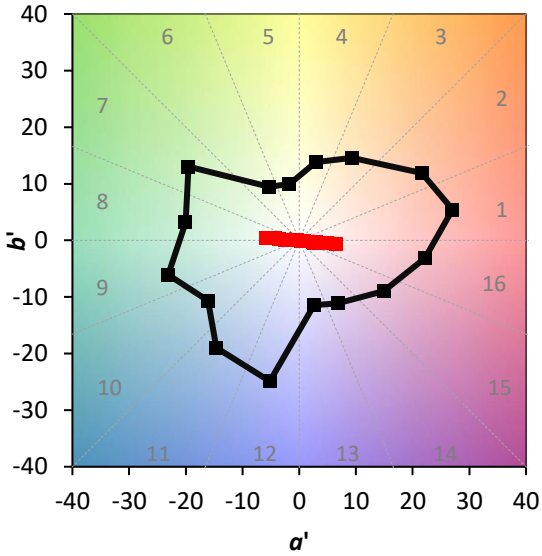
R_f = 1.3
R_g = 0.1
CIE R_a = -20.0
R_9 = -380.5

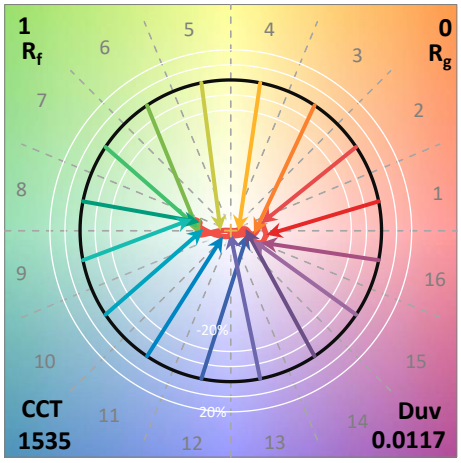
Spectral Power Distribution Comparison

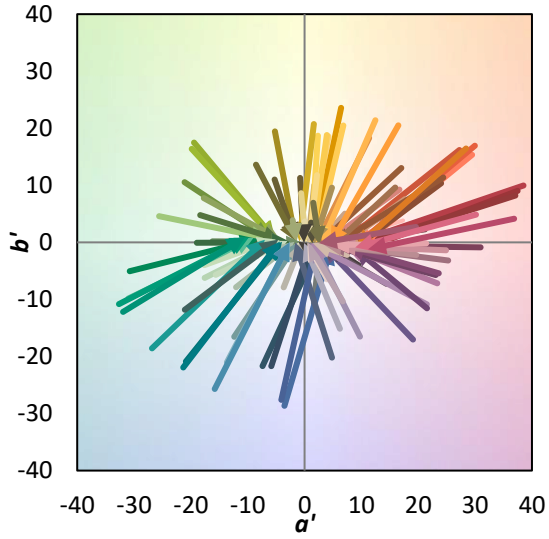


Color Vector Graphics









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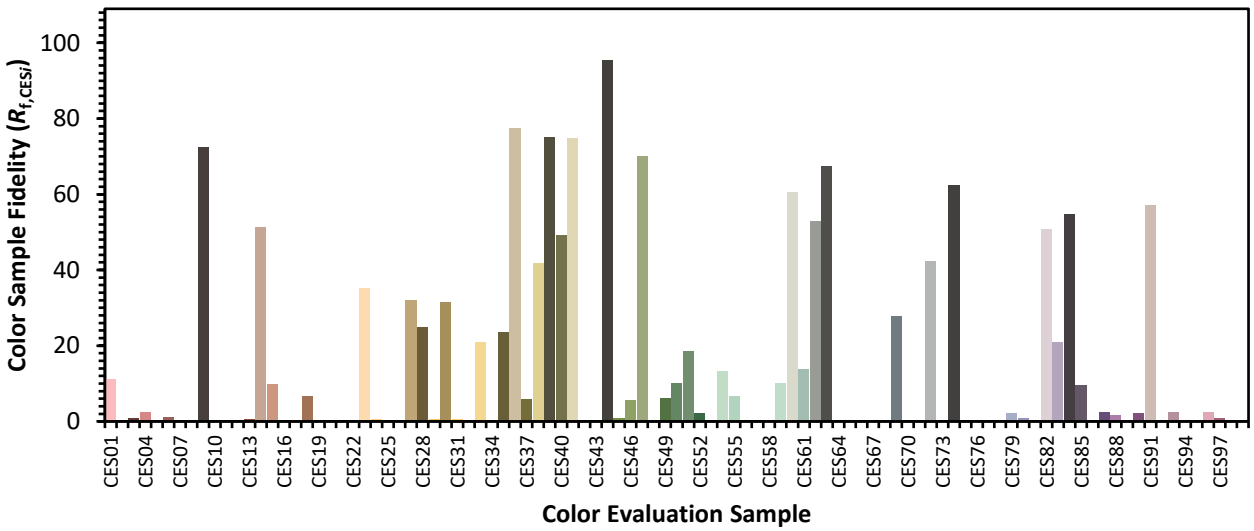
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 90	CES26 = 0	CES51 = 19	CES76 = 0
CES02 = 70	CES27 = 32	CES52 = 2	CES77 = 0
CES03 = 31	CES28 = 25	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 1	CES54 = 13	CES79 = 2
CES05 = 52	CES30 = 31	CES55 = 7	CES80 = 1
CES06 = 56	CES31 = 1	CES56 = 0	CES81 = 0
CES07 = 41	CES32 = 0	CES57 = 0	CES82 = 51
CES08 = 39	CES33 = 21	CES58 = 0	CES83 = 21
CES09 = 29	CES34 = 0	CES59 = 10	CES84 = 55
CES10 = 87	CES35 = 24	CES60 = 60	CES85 = 10
CES11 = 70	CES36 = 77	CES61 = 14	CES86 = 0
CES12 = 76	CES37 = 6	CES62 = 53	CES87 = 2
CES13 = 47	CES38 = 42	CES63 = 68	CES88 = 2
CES14 = 77	CES39 = 75	CES64 = 0	CES89 = 0
CES15 = 74	CES40 = 49	CES65 = 0	CES90 = 2
CES16 = 49	CES41 = 75	CES66 = 0	CES91 = 57
CES17 = 56	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 60	CES43 = 0	CES68 = 0	CES93 = 3
CES19 = 80	CES44 = 95	CES69 = 28	CES94 = 0
CES20 = 71	CES45 = 1	CES70 = 0	CES95 = 0
CES21 = 94	CES46 = 6	CES71 = 0	CES96 = 2
CES22 = 87	CES47 = 70	CES72 = 42	CES97 = 1
CES23 = 94	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 95	CES49 = 6	CES74 = 62	CES99 = 0
CES25 = 79	CES50 = 10	CES75 = 0	



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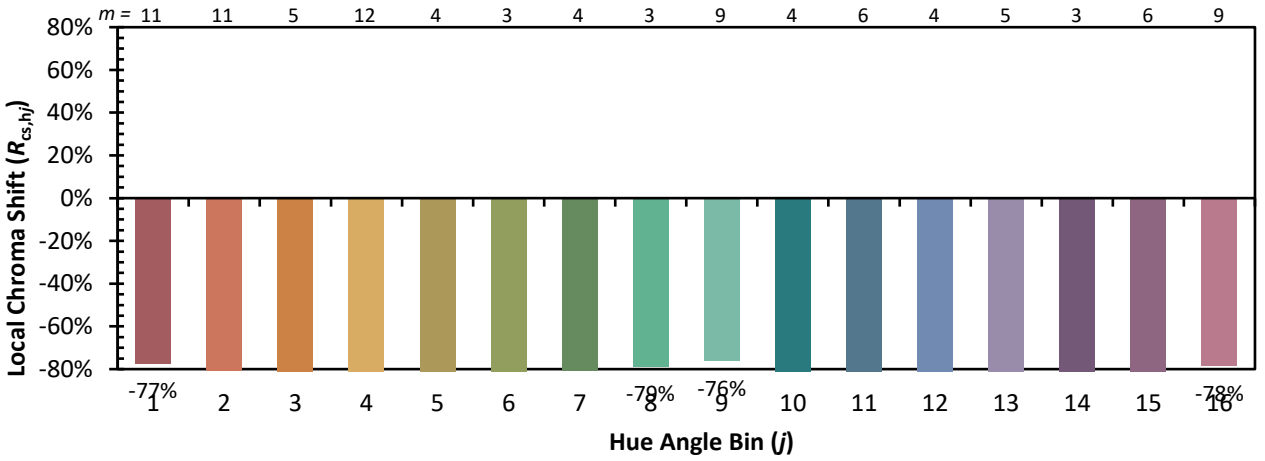
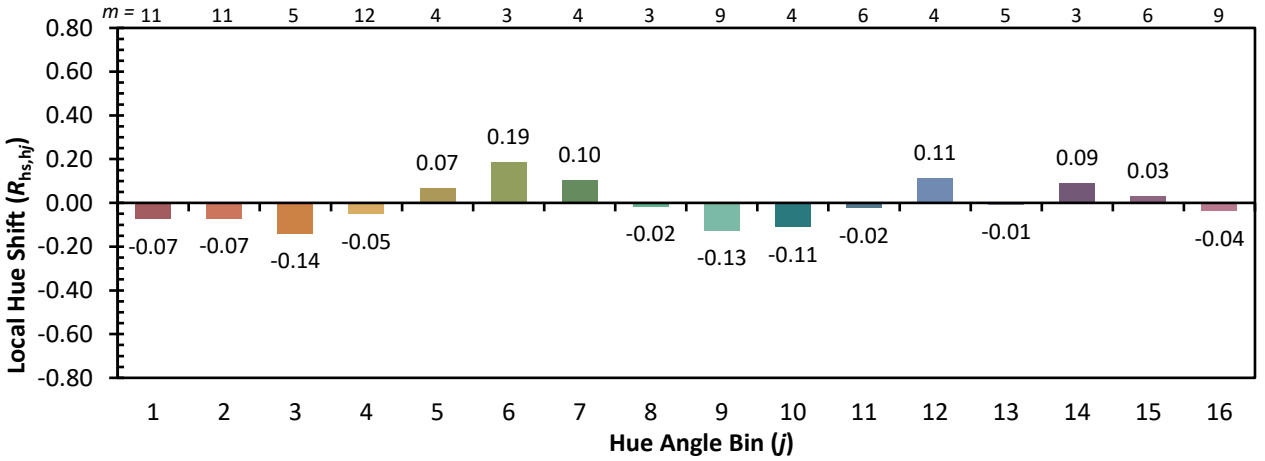
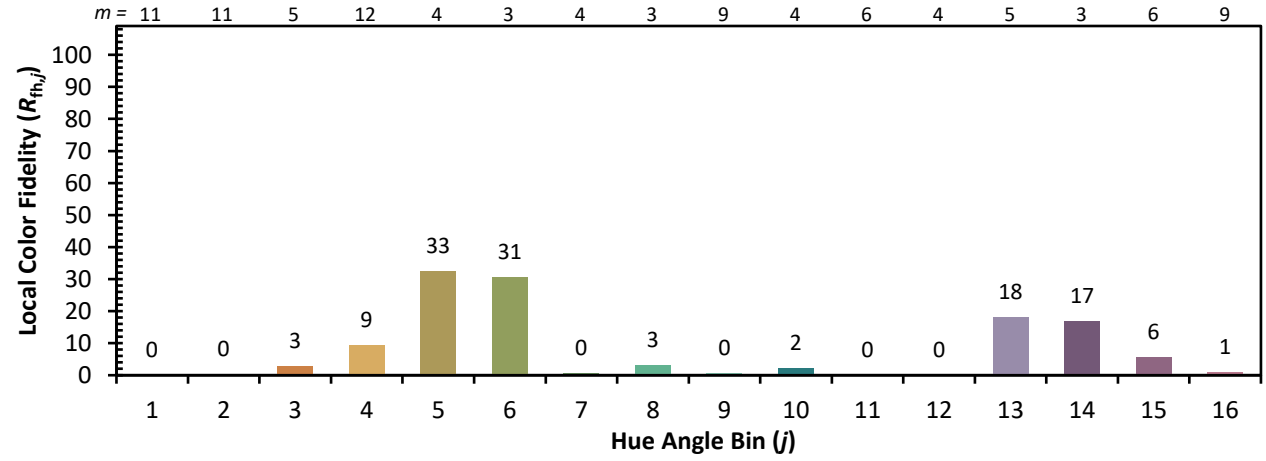
Color Rendition by Hue-Angle Bin







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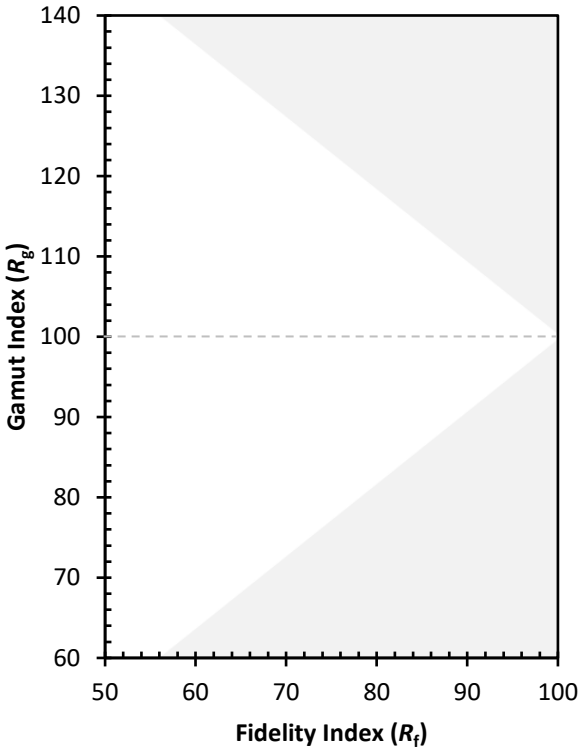
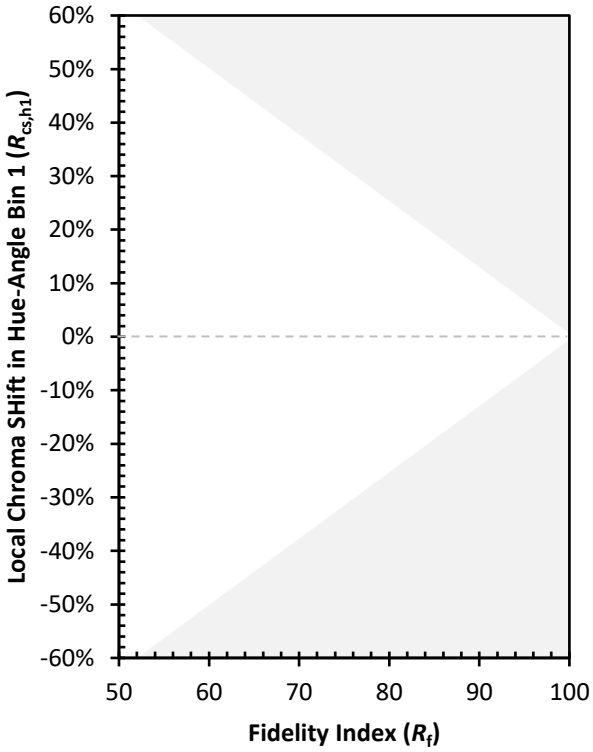
Measure Comparisons





(END OF REPORT)