

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: P1357252

Luminaire Tested: 4ASL4-5-1-A59-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357252
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2511-597-6)
Test Lab: INNOVATION CENTER
Issue Date: 2/17/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: 4ASL4-5-1-A59-UNV
Description: 4FT 500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND A59 LEDS 1 ROW
Light Source: -
Ballast/Driver: -

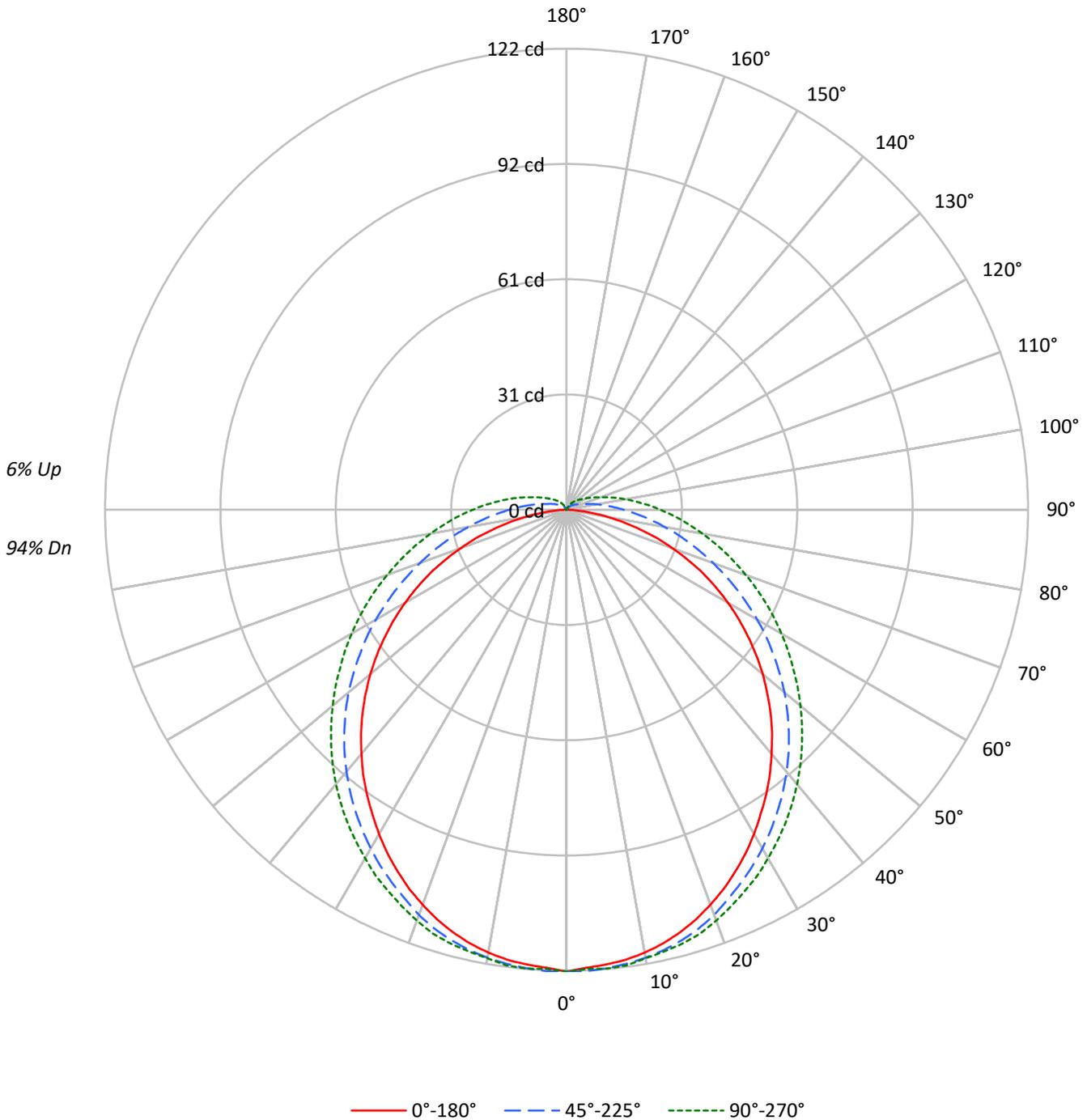
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 409.0 lumens
Efficiency: N/A
Efficacy: 35.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 3.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 11.6
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

TEST NUMBER: P1357252
CATALOG NUMBER: 4ASL4-5-1-A59-UNV

Luminous Intensity Polar Plot





TEST NUMBER: P1357252
 CATALOG NUMBER: 4ASL4-5-1-A59-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	50	30	10	0
RCR																					
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	96	96	96	94
1	106	100	95	91	102	97	93	89	92	88	85	87	84	81	82	80	78	82	80	78	75
2	95	86	79	73	92	84	77	71	79	74	69	75	70	66	71	67	64	71	67	64	61
3	87	76	67	60	84	73	65	59	69	63	57	66	60	55	62	58	54	62	58	54	51
4	79	67	57	50	76	65	56	50	62	54	48	58	52	47	56	50	46	56	50	46	43
5	73	59	50	43	70	58	49	43	55	47	42	52	46	41	50	44	40	50	44	40	37
6	67	53	44	38	65	52	43	37	50	42	36	47	41	35	45	39	35	45	39	35	32
7	62	48	39	33	60	47	39	33	45	37	32	43	36	31	41	35	31	41	35	31	29
8	58	44	35	29	56	43	35	29	41	34	29	39	33	28	38	32	27	38	32	27	25
9	54	40	32	26	52	39	32	26	38	31	26	36	30	25	35	29	25	35	29	25	23
10	51	37	29	24	49	36	29	24	35	28	23	34	27	23	32	27	22	32	27	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	992	992	992
5°	982	972	967
10°	976	952	941
15°	966	931	921
20°	951	906	897
25°	934	878	871
30°	915	852	845
35°	895	826	821
40°	874	798	796
45°	853	769	769
50°	829	739	742
55°	799	703	715
60°	765	668	691
65°	724	629	667
70°	657	590	643
75°	571	553	627
80°	456	523	615
85°	265	503	619

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 853 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.6	2.8
10°-20°	33.2	8.1
20°-30°	50.2	12.3
30°-40°	60.7	14.8
40°-50°	63.8	15.6
50°-60°	59.4	14.5
60°-70°	48.8	11.9
70°-80°	34.7	8.5
80°-90°	20.9	5.1
90°-100°	11.7	2.9
100°-110°	6.5	1.6
110°-120°	3.6	0.9
120°-130°	2.1	0.5
130°-140°	1.1	0.3
140°-150°	0.5	0.1
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	95.0	23.2
0°-40°	155.7	38.1
0°-60°	278.9	68.2
0°-90°	383.3	93.7
90°-120°	21.8	5.3
90°-150°	25.5	6.2
90°-180°	26.0	6.4
0°-180°	409.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	122	122	122	122	122	
5°	121	122	122	122	122	11
15°	116	117	118	118	119	33
25°	106	108	109	111	111	49
35°	92	94	97	100	101	58
45°	76	79	83	86	88	59
55°	59	62	67	71	73	52
65°	40	43	50	55	58	39
75°	20	25	33	40	43	21
85°	4	11	20	28	30	5
90°	0	6	15	22	25	0
95°	0	4	11	17	20	0
105°	0	1	6	10	12	0
115°	0	1	4	6	8	0
125°	0	0	2	4	5	0
135°	0	0	1	3	3	0
145°	0	0	1	2	2	0
155°	0	0	0	0	1	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1357252
 CATALOG NUMBER: 4ASL4-5-1-A59-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	122.2	122.2	122.2	122.2	122.2
2.5°	121.3	122.4	122.2	121.6	121.6
5°	120.8	121.9	121.8	121.6	121.9
7.5°	120.1	121.2	121.2	121.3	121.6
10°	119.0	120.4	120.4	120.4	120.5
12.5°	117.6	119.0	119.3	119.4	119.7
15°	115.8	117.3	117.9	118.4	118.8
17.5°	113.7	115.3	116.2	116.9	117.6
20°	111.2	112.9	114.1	115.0	115.7
22.5°	108.6	110.3	111.5	112.8	113.6
25°	105.6	107.5	109.0	110.6	111.4
27.5°	102.5	104.5	106.4	108.2	109.2
30°	99.1	101.3	103.5	105.6	106.5
32.5°	95.5	97.8	100.5	102.7	103.8
35°	92.0	94.4	97.3	99.8	101.0
37.5°	88.3	90.7	94.0	96.7	98.0
40°	84.3	86.9	90.5	93.4	94.8
42.5°	80.4	83.1	86.9	90.1	91.5
45°	76.3	79.0	83.1	86.5	88.0
47.5°	72.0	74.9	79.2	82.8	84.4
50°	67.7	70.8	75.2	79.0	80.7
52.5°	63.2	66.3	71.0	75.2	77.0
55°	58.6	61.9	66.7	71.2	73.1
57.5°	54.0	57.4	62.6	67.3	69.4
60°	49.3	52.8	58.2	63.3	65.6
62.5°	44.5	48.1	53.8	59.3	61.8
65°	39.8	43.4	49.6	55.4	58.0
67.5°	34.8	38.7	45.3	51.4	54.2
70°	29.7	34.1	41.2	47.7	50.4
72.5°	25.2	29.7	37.3	43.9	46.8
75°	20.0	25.2	33.4	40.4	43.3
77.5°	15.6	21.1	29.9	36.9	39.8
80°	11.2	17.3	26.4	33.6	36.5
82.5°	7.2	13.8	23.2	30.5	33.3
85°	3.7	10.8	20.2	27.6	30.4
87.5°	1.1	8.3	17.4	24.7	27.5
90°	0.0	6.4	15.1	22.1	24.7
92.5°	0.0	4.8	13.0	19.8	22.4
95°	0.0	3.7	11.1	17.4	19.9
97.5°	0.0	2.9	9.5	15.3	17.8
100°	0.0	2.3	8.2	13.5	15.9
102.5°	0.0	1.9	7.0	12.0	14.1
105°	0.0	1.4	5.8	10.5	12.4
107.5°	0.0	1.0	5.1	9.3	10.9
110°	0.0	0.8	4.6	8.0	9.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.7	4.0	7.2	8.6
115°	0.0	0.7	3.6	6.4	7.6
117.5°	0.0	0.6	3.0	5.7	6.8
120°	0.0	0.6	2.8	5.1	6.1
122.5°	0.0	0.4	2.5	4.6	5.5
125°	0.0	0.4	2.2	4.1	4.8
127.5°	0.0	0.3	1.9	3.7	4.4
130°	0.0	0.3	1.8	3.3	4.0
132.5°	0.0	0.1	1.7	3.0	3.6
135°	0.0	0.1	1.4	2.6	3.3
137.5°	0.0	0.0	1.2	2.3	2.9
140°	0.0	0.0	1.0	2.1	2.6
142.5°	0.1	0.0	0.8	1.8	2.2
145°	0.1	0.0	0.6	1.5	1.9
147.5°	0.1	0.1	0.4	1.2	1.5
150°	0.1	0.1	0.3	0.8	1.2
152.5°	0.1	0.1	0.1	0.6	0.8
155°	0.1	0.1	0.0	0.4	0.6
157.5°	0.1	0.1	0.0	0.1	0.3
160°	0.1	0.1	0.0	0.0	0.1
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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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	9.38	10.93	9.84	11.37	11.84	11.36	12.91	11.82	13.35	13.82
	3H	10.87	12.28	11.34	12.73	13.24	13.77	15.18	14.24	15.63	16.14
	4H	11.34	12.68	11.84	13.15	13.68	14.93	16.28	15.43	16.75	17.27
	6H	11.62	12.87	12.13	13.35	13.89	16.14	17.39	16.65	17.87	18.41
	8H	11.67	12.87	12.19	13.38	13.92	16.76	17.96	17.28	18.47	19.01
	12H	11.69	12.83	12.21	13.33	13.91	17.44	18.59	17.97	19.09	19.67
4H	2H	10.24	11.58	10.74	12.05	12.58	11.79	13.13	12.29	13.60	14.13
	3H	11.97	13.11	12.47	13.62	14.17	14.43	15.57	14.93	16.08	16.63
	4H	12.57	13.61	13.09	14.14	14.72	15.76	16.80	16.29	17.33	17.91
	6H	12.96	13.89	13.51	14.44	15.03	17.16	18.08	17.70	18.63	19.22
	8H	13.06	13.92	13.61	14.48	15.08	17.88	18.75	18.43	19.30	19.90
	12H	13.10	13.89	13.67	14.47	15.08	18.69	19.47	19.26	20.05	20.66
8H	4H	13.22	14.09	13.77	14.64	15.24	15.97	16.84	16.52	17.39	18.00
	6H	13.79	14.52	14.37	15.11	15.73	17.54	18.27	18.12	18.86	19.48
	8H	13.96	14.63	14.56	15.23	15.85	18.40	19.06	18.99	19.67	20.29
	12H	14.07	14.66	14.67	15.26	15.95	19.39	19.98	19.98	20.57	21.26
12H	4H	13.40	14.19	13.97	14.77	15.38	15.98	16.77	16.55	17.35	17.96
	6H	14.06	14.72	14.66	15.33	15.95	17.57	18.23	18.17	18.84	19.46
	8H	14.33	14.92	14.93	15.52	16.21	18.50	19.09	19.10	19.69	20.38

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

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
 R_f: 1.3
 R_g: 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

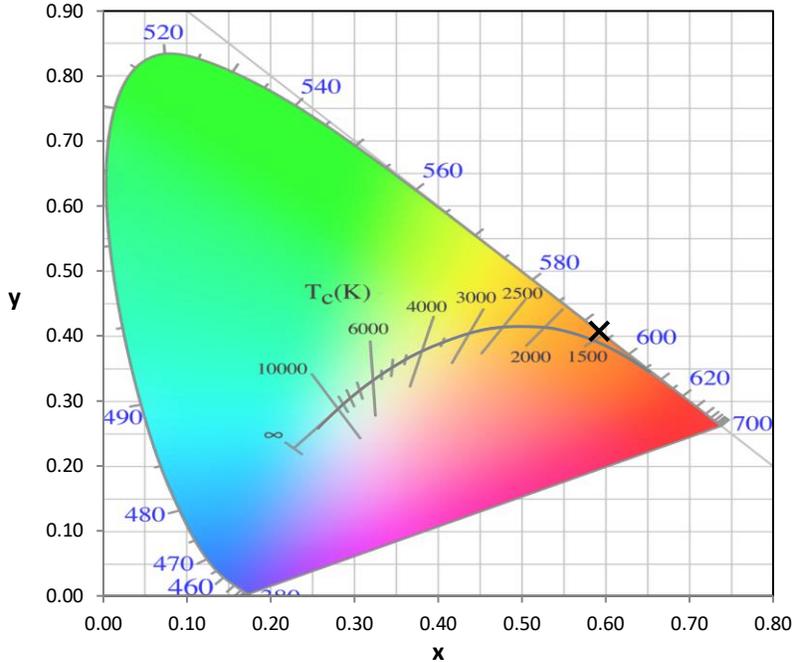
Stabilization Time: 77M
 Operation Time: 2H 17M
 Sphere Temperature (°C): 25.1

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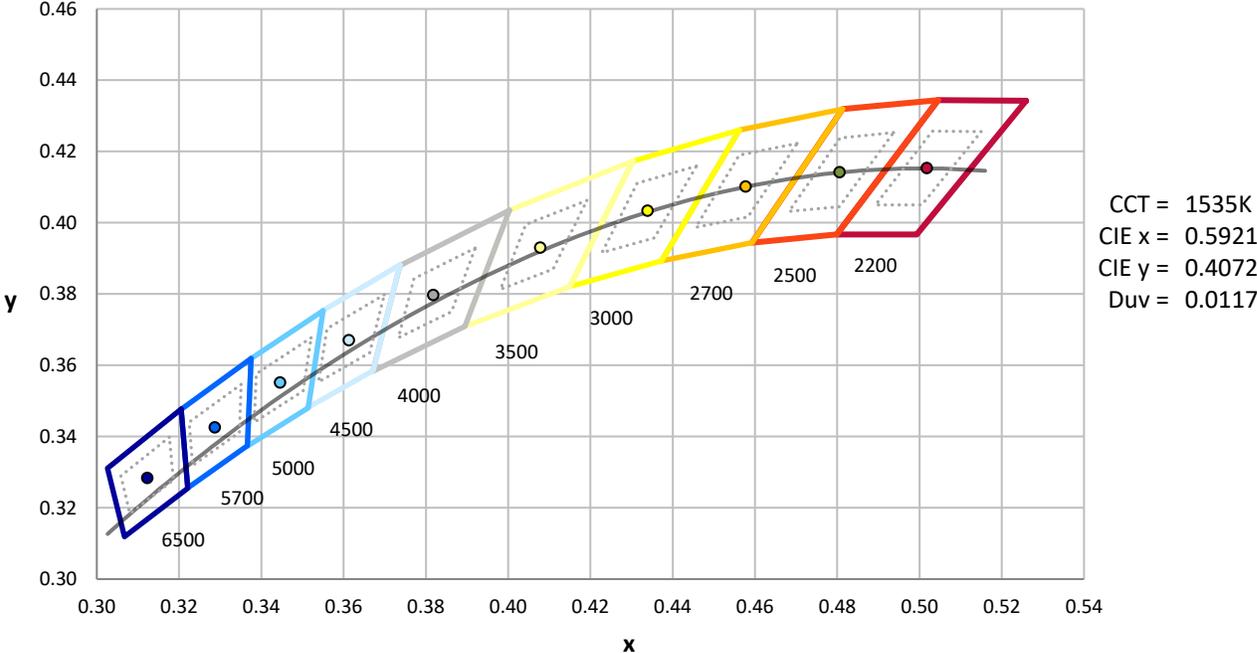
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

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CIE 1931 Chromaticity Diagram



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



Point lies outside the range

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Photopic Flux vs. Wavelength

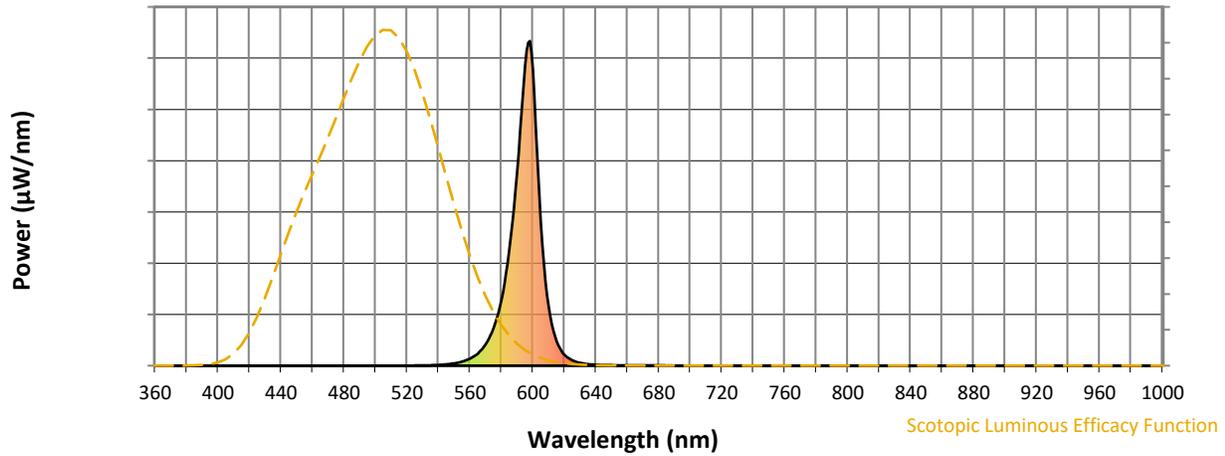


Photopic Lumens: NR

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



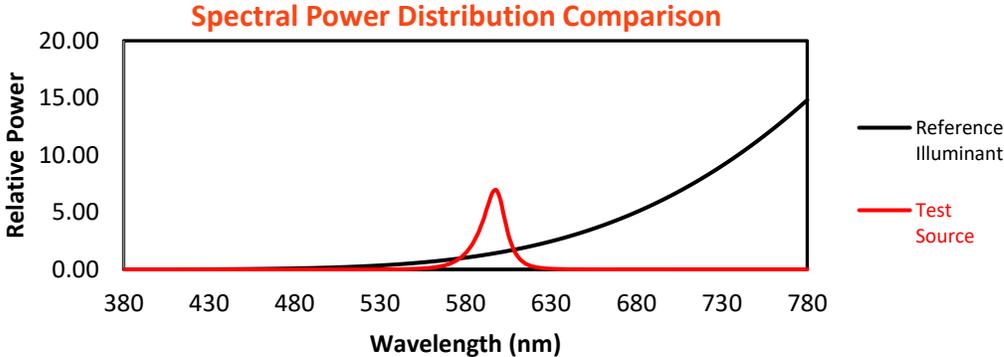
Melanopic Lumens: NR

M/P: 0.12

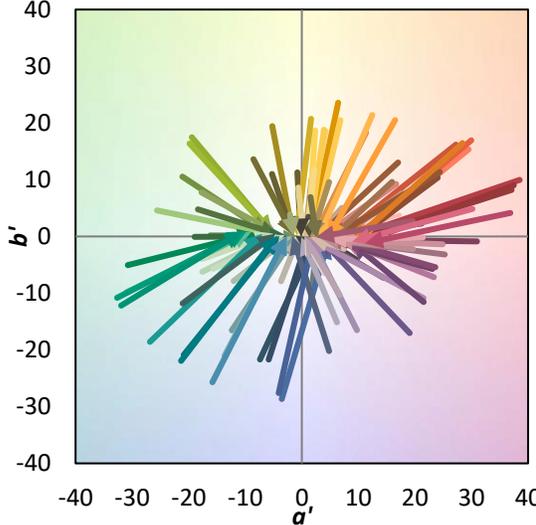
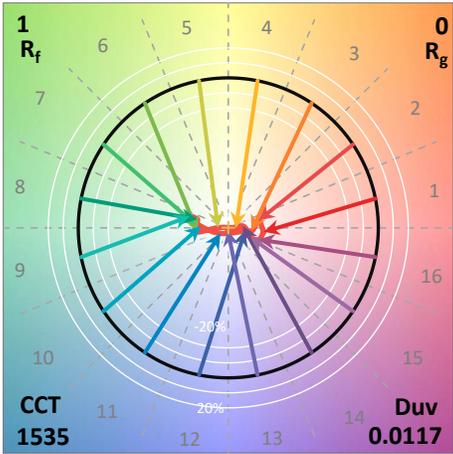
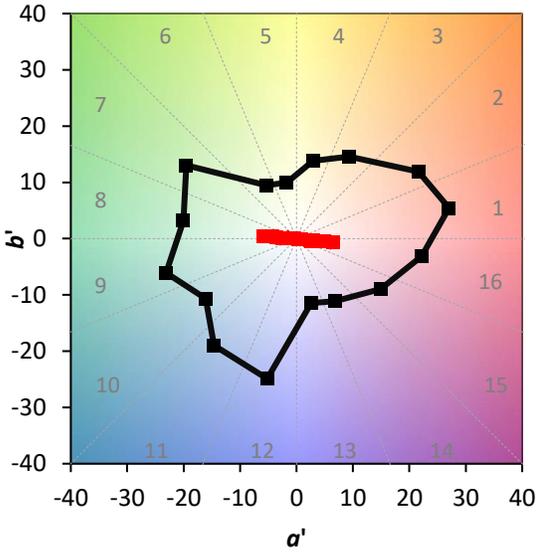
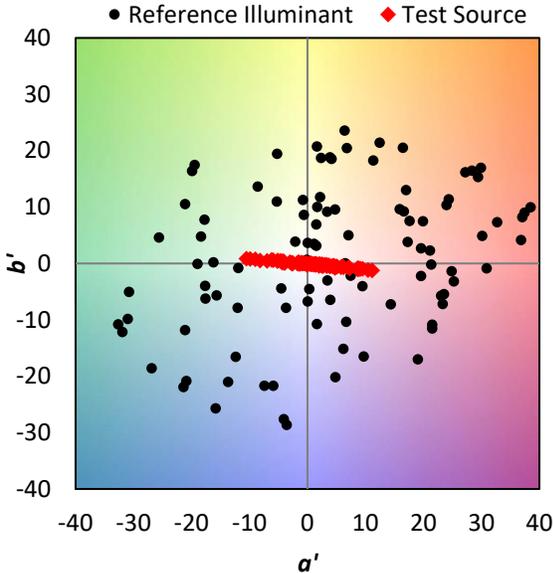
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9	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			

Summary

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

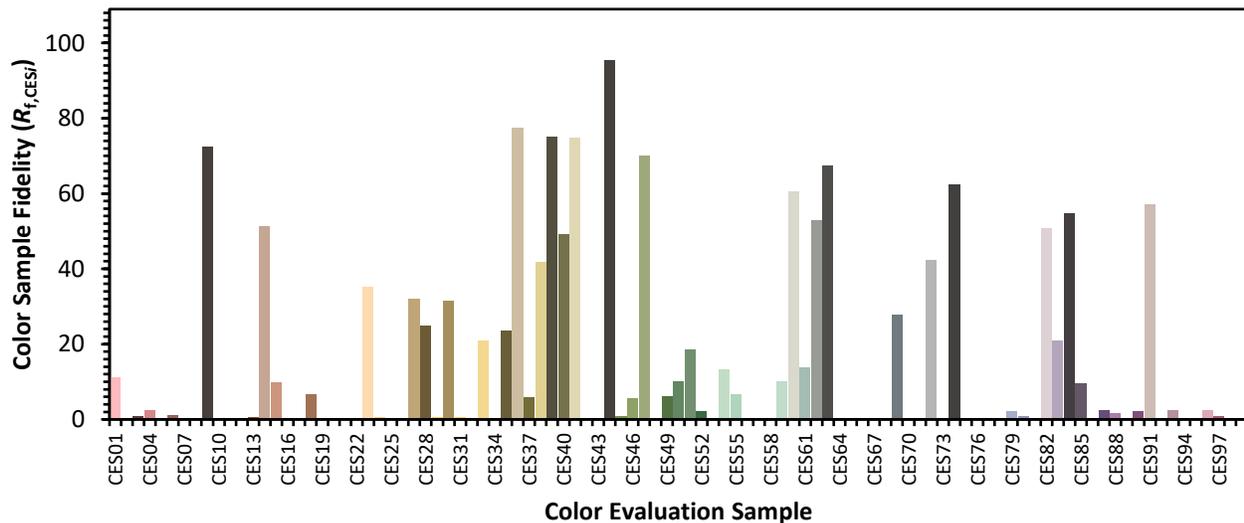


Color Vector Graphics

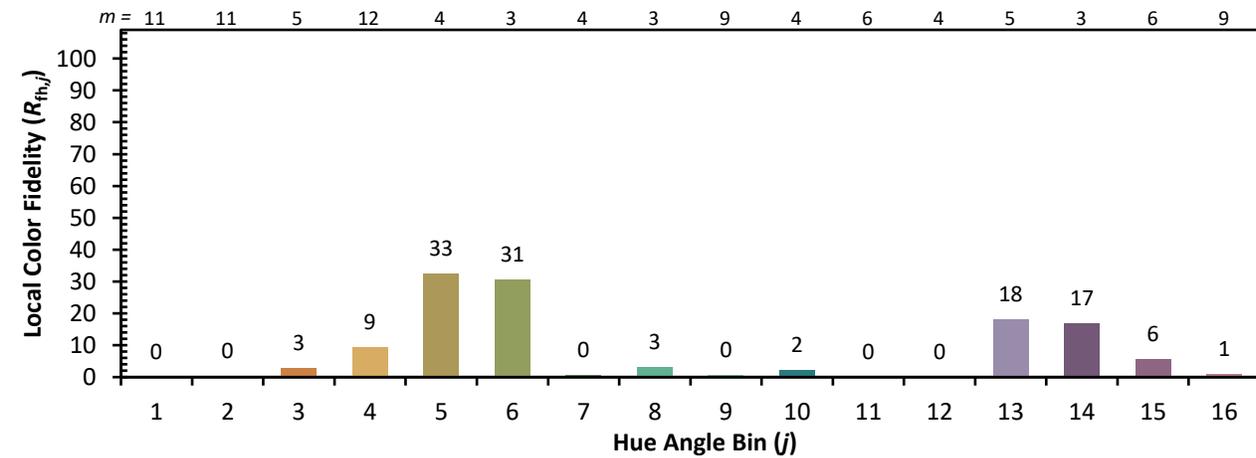
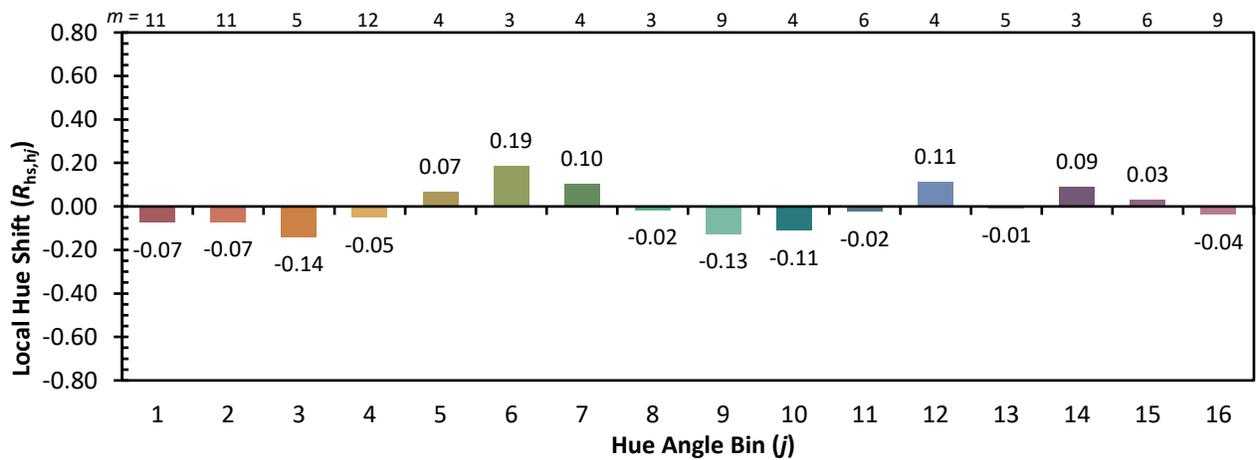
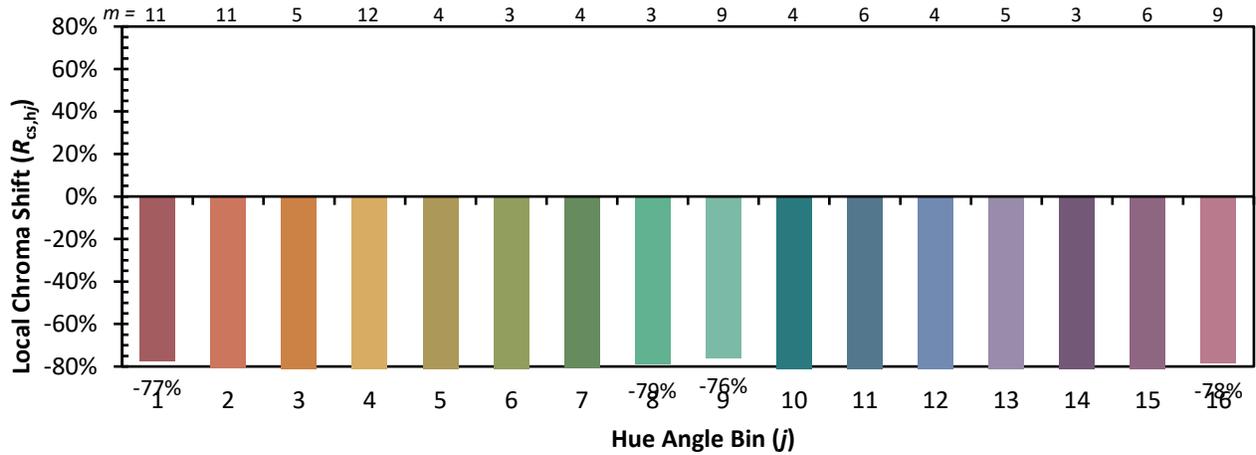


Individual Sample Fidelity Index ($R_{f,i}$)

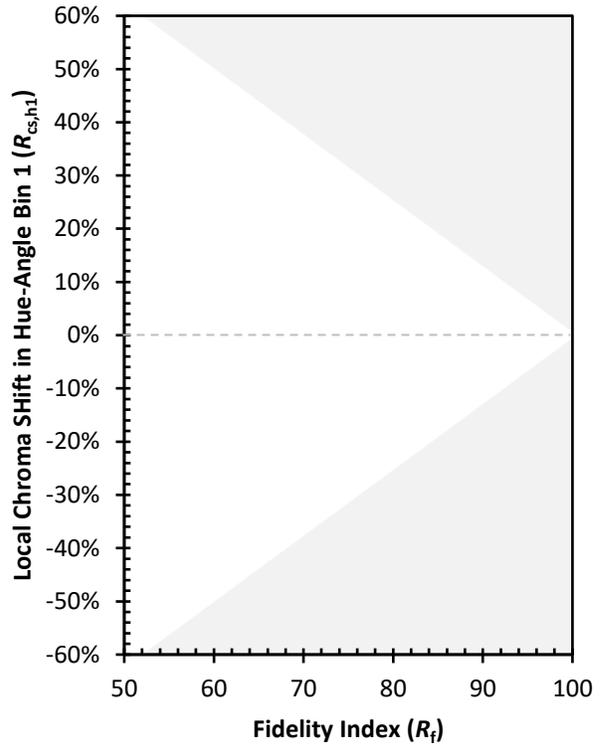
CES01 = 90	CES26 = 0	CES51 = 19	CES76 = 0
CES02 = 70	CES27 = 32	CES52 = 2	CES77 = 0
CES03 = 31	CES28 = 25	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 1	CES54 = 13	CES79 = 2
CES05 = 52	CES30 = 31	CES55 = 7	CES80 = 1
CES06 = 56	CES31 = 1	CES56 = 0	CES81 = 0
CES07 = 41	CES32 = 0	CES57 = 0	CES82 = 51
CES08 = 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	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)