

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: P1357228

Luminaire Tested: 4ASL4-30VHE-3-A59-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357228
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: 4ASL4-30VHE-3-A59-UNV
Description: 4FT 3000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND A59 LEDS 3 ROW
Light Source: -
Ballast/Driver: -

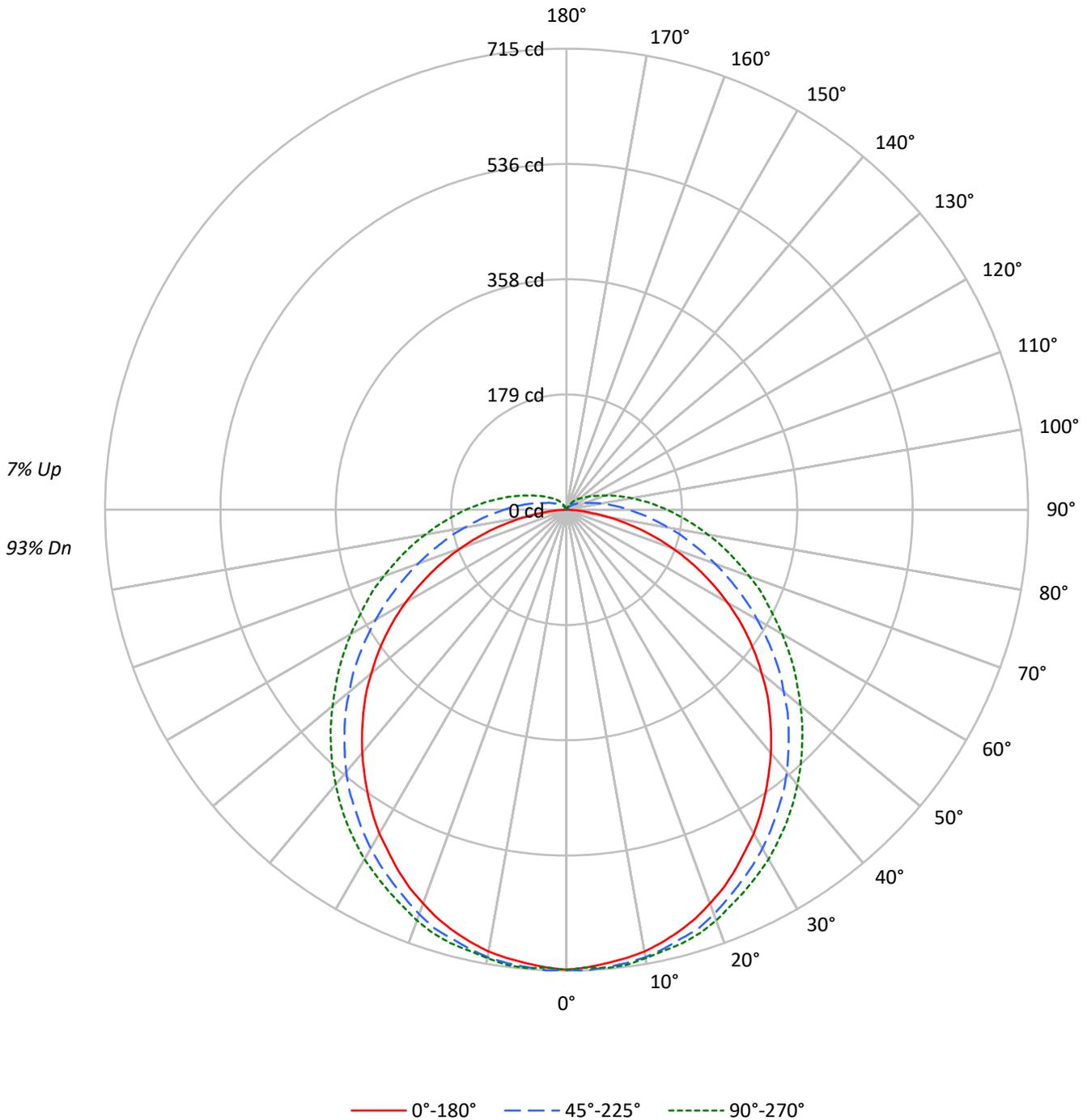
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2426.1 lumens
Efficiency: N/A
Efficacy: 33.3 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): 72.8
Input Voltage (V): NR
Input Current (A_{in}): 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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CATALOG NUMBER: 4ASL4-30VHE-3-A59-UNV

Luminous Intensity Polar Plot





TEST NUMBER: P1357228

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	96	96	96	93
1	105	100	95	91	102	97	92	88	91	88	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	72	92	84	77	71	79	73	68	75	70	66	71	67	63	63	63	63	61
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	50	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	34	28	39	32	28	37	32	27	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	35	29	24	24	24	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5790	5790	5790
5°	5739	5681	5658
10°	5707	5571	5515
15°	5643	5434	5393
20°	5558	5302	5257
25°	5459	5138	5101
30°	5354	4995	4969
35°	5224	4833	4823
40°	5105	4685	4669
45°	4977	4506	4514
50°	4831	4313	4353
55°	4674	4129	4208
60°	4469	3914	4062
65°	4207	3707	3940
70°	3874	3503	3844
75°	3391	3316	3779
80°	2657	3175	3751
85°	1598	3142	3806

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4977 cd/sqm



TEST NUMBER: P1357228
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.7	2.8
10°-20°	194.3	8.0
20°-30°	293.7	12.1
30°-40°	355.6	14.7
40°-50°	373.5	15.4
50°-60°	348.5	14.4
60°-70°	288.0	11.9
70°-80°	207.4	8.5
80°-90°	128.9	5.3
90°-100°	75.5	3.1
100°-110°	43.2	1.8
110°-120°	24.4	1.0
120°-130°	14.0	0.6
130°-140°	7.6	0.3
140°-150°	3.2	0.1
150°-160°	0.6	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	555.6	22.9
0°-40°	911.3	37.6
0°-60°	1633.3	67.3
0°-90°	2257.6	93.1
90°-120°	143.1	5.9
90°-150°	167.9	6.9
90°-180°	169.0	7.0
0°-180°	2426.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	714	714	714	714	714	
5°	706	712	712	712	714	67
15°	676	685	688	693	696	191
25°	617	628	638	647	653	284
35°	537	552	570	586	593	336
45°	445	461	487	507	516	343
55°	343	362	392	420	430	306
65°	231	254	292	329	343	229
75°	119	148	200	243	261	126
85°	22	67	126	171	187	27
90°	0	40	96	138	156	1
95°	0	25	73	111	128	0
105°	0	9	40	70	82	0
115°	0	4	24	43	50	0
125°	0	3	15	28	33	0
135°	0	0	9	18	22	0
145°	0	0	4	10	12	0
155°	0	0	0	3	4	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P1357228
 CATALOG NUMBER: 4ASL4-30VHE-3-A59-UNV

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	713.5	713.5	713.5	713.5	713.5
2.5°	710.6	715.0	715.0	710.6	710.6
5°	706.1	712.0	712.0	712.0	713.5
7.5°	701.7	709.1	709.1	709.1	712.0
10°	695.7	703.1	704.6	704.6	706.1
12.5°	686.8	695.7	697.2	698.7	700.2
15°	676.4	685.3	688.3	692.8	695.7
17.5°	664.6	675.0	680.9	685.3	688.3
20°	649.7	660.1	667.5	673.5	677.9
22.5°	634.9	643.8	652.7	660.1	664.6
25°	617.1	627.5	637.9	646.8	652.7
27.5°	597.8	609.7	623.0	633.4	639.3
30°	580.0	591.9	606.7	620.1	626.0
32.5°	559.2	572.6	588.9	602.3	609.7
35°	537.0	551.8	569.6	585.9	593.4
37.5°	514.7	529.6	551.8	568.1	575.6
40°	492.5	507.3	531.1	548.9	556.3
42.5°	468.8	483.6	508.8	528.1	537.0
45°	445.0	461.3	486.6	507.3	516.2
47.5°	421.3	437.6	464.3	486.6	495.5
50°	394.6	412.4	439.1	464.3	473.2
52.5°	369.4	387.2	416.8	442.1	451.0
55°	342.7	362.0	391.6	419.8	430.2
57.5°	316.0	335.3	366.4	396.1	407.9
60°	287.8	308.5	341.2	372.3	385.7
62.5°	259.6	281.8	317.4	350.1	363.4
65°	231.4	253.7	292.2	329.3	342.7
67.5°	203.2	227.0	268.5	307.1	323.4
70°	175.0	200.3	244.8	284.8	301.1
72.5°	146.9	173.6	222.5	264.0	280.4
75°	118.7	148.3	200.3	243.3	261.1
77.5°	90.5	124.6	181.0	224.0	241.8
80°	65.3	103.8	160.2	204.7	222.5
82.5°	41.5	83.1	142.4	186.9	204.7
85°	22.3	66.8	126.1	170.6	186.9
87.5°	7.4	51.9	109.8	154.3	170.6
90°	0.0	40.1	96.4	138.0	155.8
92.5°	0.0	31.2	84.6	124.6	140.9
95°	0.0	25.2	72.7	111.3	127.6
97.5°	0.0	20.8	63.8	99.4	114.2
100°	0.0	16.3	54.9	89.0	102.4
102.5°	0.0	13.4	47.5	78.6	92.0
105°	0.0	8.9	40.1	69.7	81.6
107.5°	0.0	7.4	34.1	62.3	72.7
110°	0.0	5.9	31.2	53.4	63.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	4.5	28.2	47.5	57.9
115°	0.0	4.5	23.7	43.0	50.4
117.5°	0.0	4.5	20.8	38.6	46.0
120°	0.0	3.0	19.3	34.1	41.5
122.5°	0.0	3.0	16.3	31.2	37.1
125°	0.0	3.0	14.8	28.2	32.6
127.5°	0.0	1.5	13.4	25.2	29.7
130°	0.0	1.5	11.9	22.3	26.7
132.5°	0.0	1.5	10.4	20.8	25.2
135°	0.0	0.0	8.9	17.8	22.3
137.5°	0.0	0.0	7.4	16.3	19.3
140°	0.0	0.0	5.9	13.4	17.8
142.5°	0.0	0.0	4.5	11.9	14.8
145°	0.0	0.0	4.5	10.4	11.9
147.5°	0.0	0.0	3.0	7.4	10.4
150°	0.0	0.0	1.5	5.9	7.4
152.5°	0.0	0.0	0.0	4.5	5.9
155°	0.0	0.0	0.0	3.0	4.5
157.5°	0.0	0.0	0.0	0.0	1.5
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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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	15.43	16.97	15.90	17.43	17.91	17.46	19.00	17.93	19.46	19.94
	3H	16.93	18.34	17.41	18.80	19.33	19.92	21.33	20.41	21.79	22.32
	4H	17.41	18.74	17.91	19.23	19.76	21.12	22.45	21.62	22.93	23.47
	6H	17.69	18.93	18.20	19.42	19.98	22.37	23.61	22.89	24.11	24.66
	8H	17.74	18.93	18.27	19.45	20.01	23.02	24.21	23.55	24.73	25.29
	12H	17.75	18.89	18.29	19.41	20.00	23.73	24.87	24.26	25.38	25.97
4H	2H	16.31	17.64	16.81	18.12	18.66	17.90	19.23	18.40	19.71	20.25
	3H	18.05	19.18	18.56	19.71	20.27	20.58	21.72	21.10	22.24	22.80
	4H	18.65	19.69	19.19	20.23	20.82	21.95	22.99	22.49	23.53	24.12
	6H	19.05	19.97	19.60	20.53	21.13	23.40	24.31	23.95	24.88	25.48
	8H	19.14	20.01	19.70	20.57	21.19	24.15	25.01	24.71	25.57	26.19
	12H	19.19	19.97	19.77	20.56	21.19	24.98	25.77	25.57	26.36	26.98
8H	4H	19.33	20.19	19.89	20.76	21.38	22.17	23.03	22.73	23.59	24.21
	6H	19.91	20.64	20.50	21.25	21.87	23.78	24.51	24.38	25.12	25.74
	8H	20.09	20.75	20.70	21.37	22.01	24.68	25.34	25.28	25.95	26.59
	12H	20.21	20.80	20.81	21.40	22.11	25.70	26.29	26.30	26.89	27.59
12H	4H	19.53	20.31	20.11	20.90	21.52	22.18	22.96	22.76	23.55	24.18
	6H	20.20	20.87	20.81	21.48	22.12	23.82	24.48	24.42	25.10	25.73
	8H	20.48	21.07	21.09	21.68	22.38	24.78	25.37	25.39	25.98	26.68

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

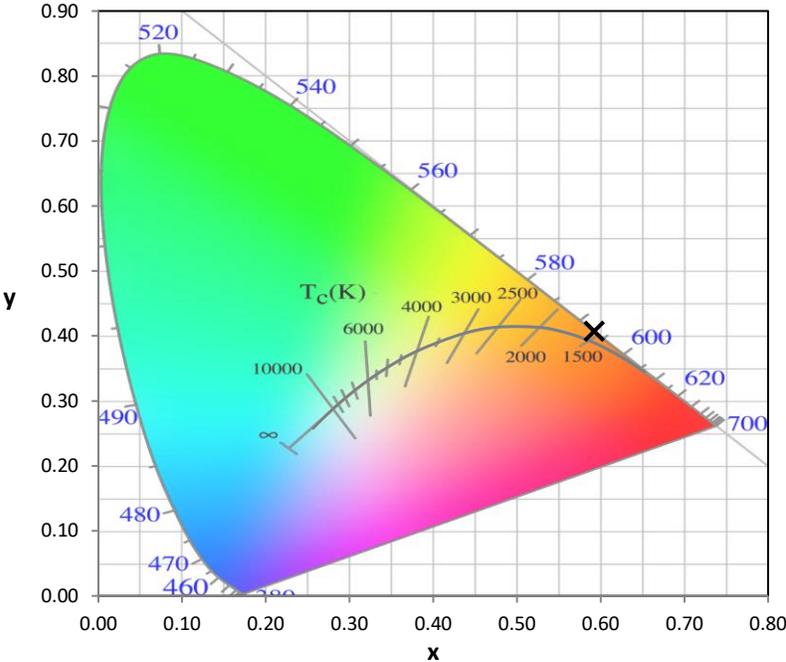
Stabilization Time: 77M
 Operation Time: 2H 17M
 Sphere Temperature (°C): 25.1

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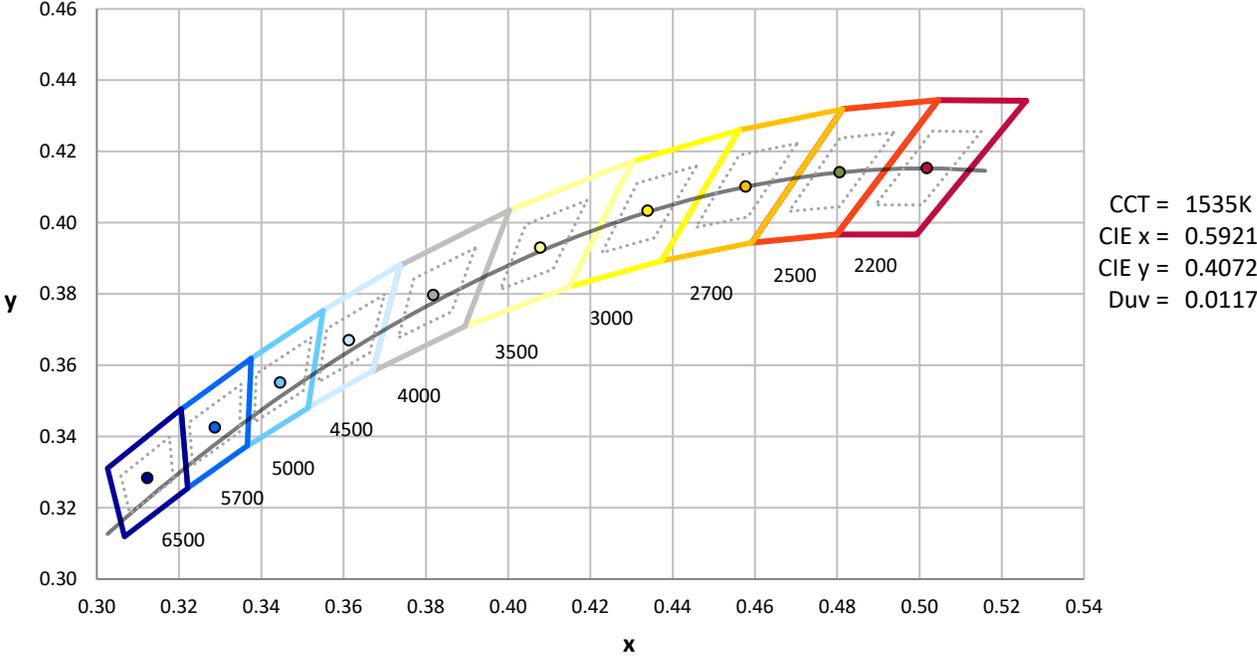
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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



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

Point lies outside the range

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Photopic Flux vs. Wavelength

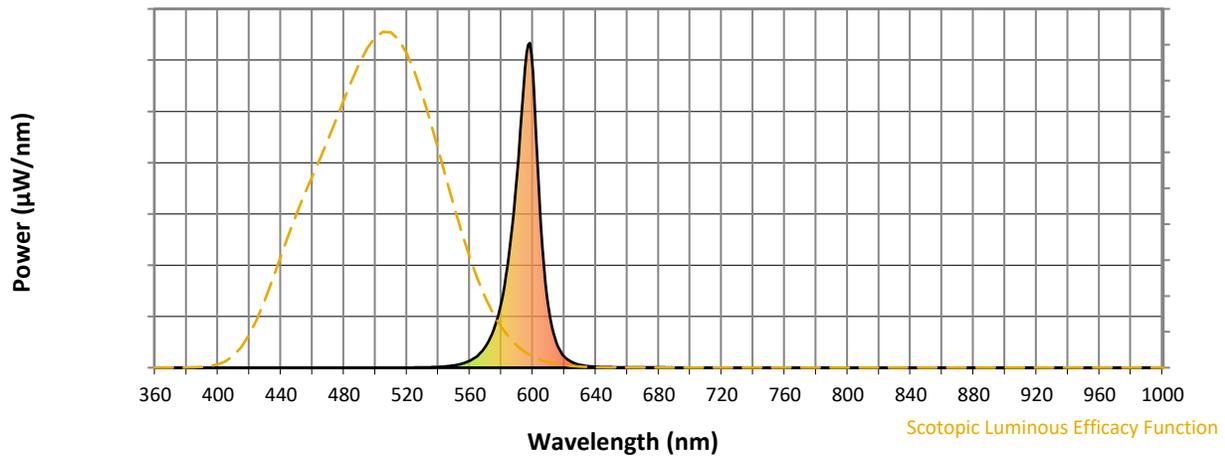


Photopic Lumens: NR

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



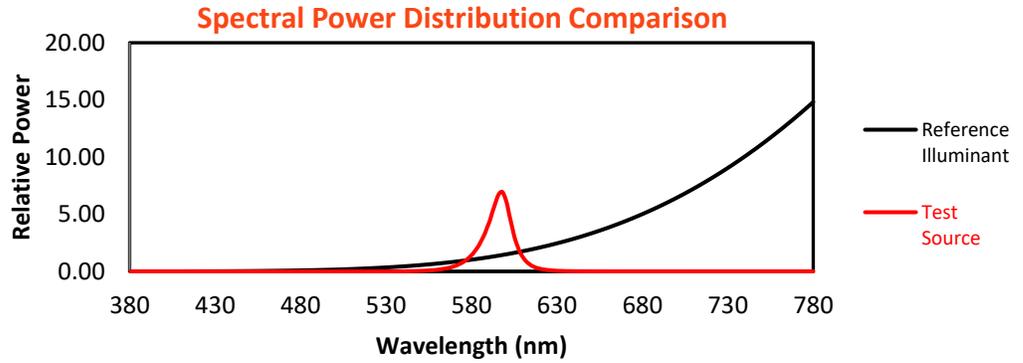
Melanopic Lumens: NR

M/P: 0.12

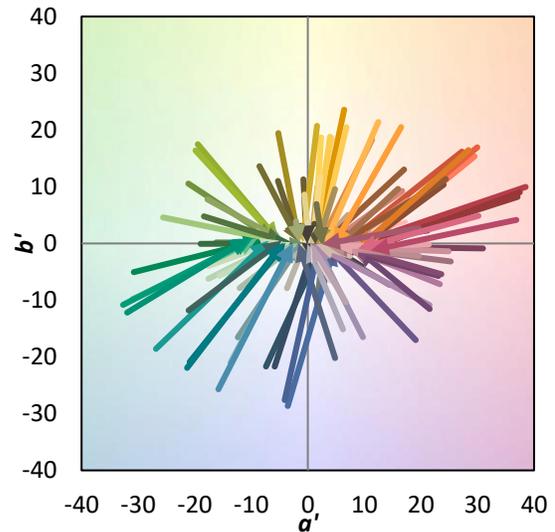
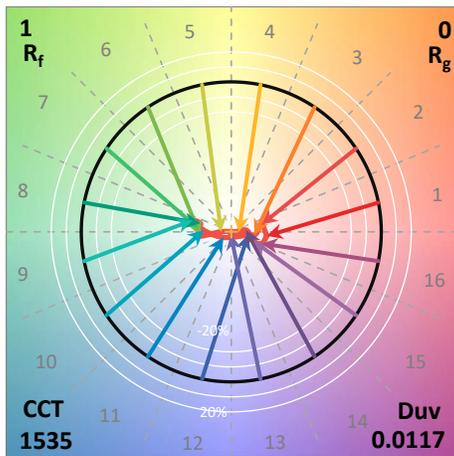
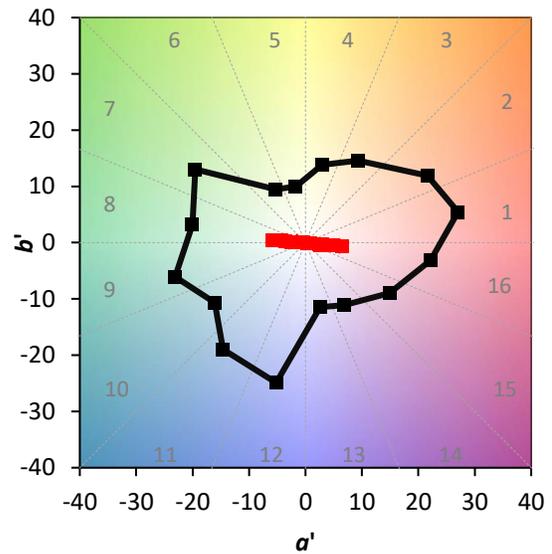
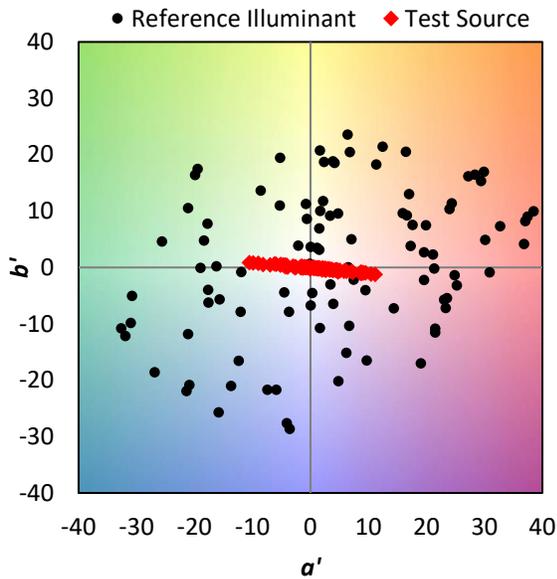
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9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

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

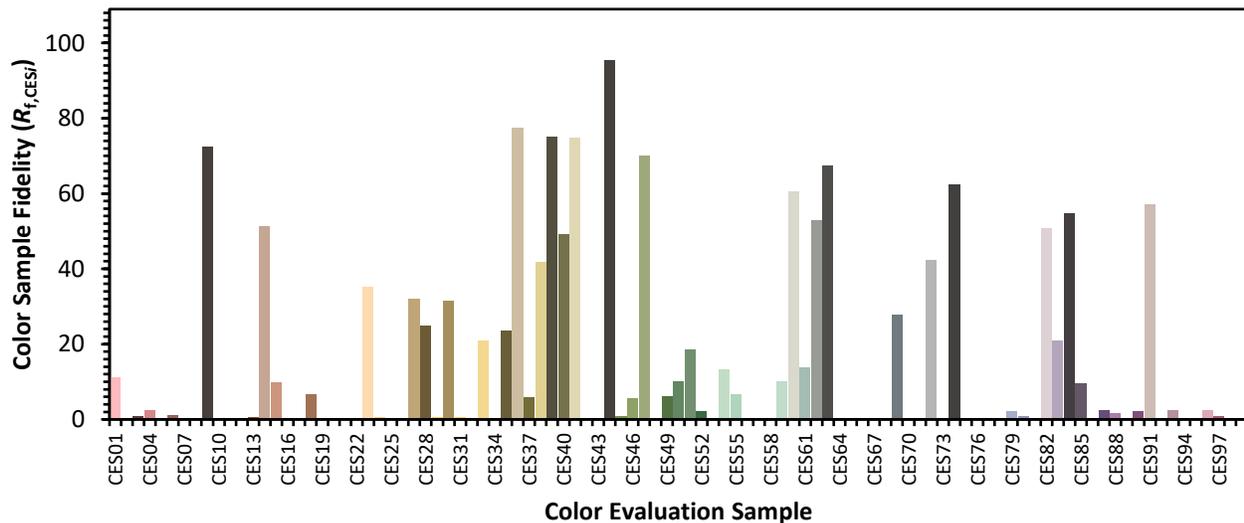


Color Vector Graphics

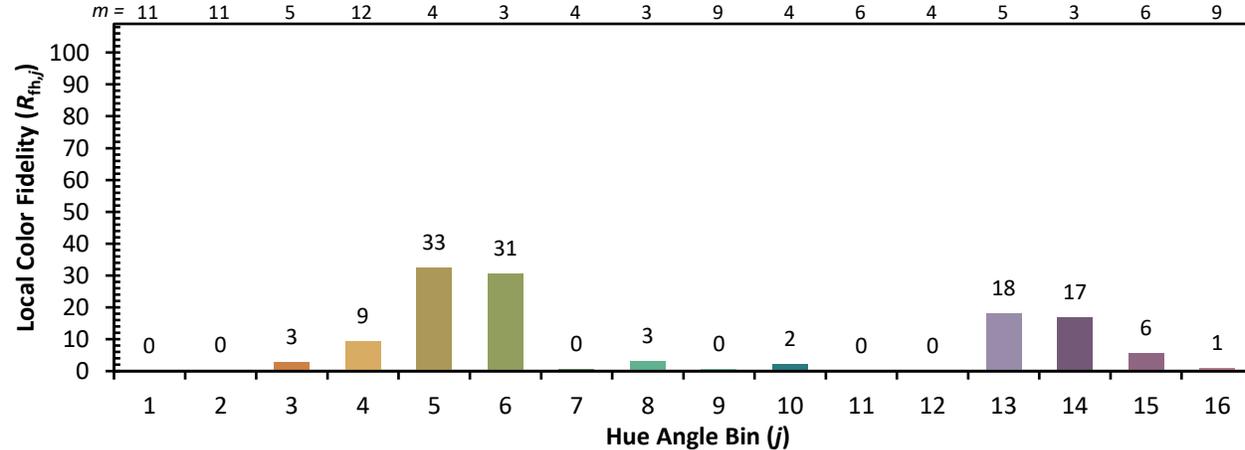
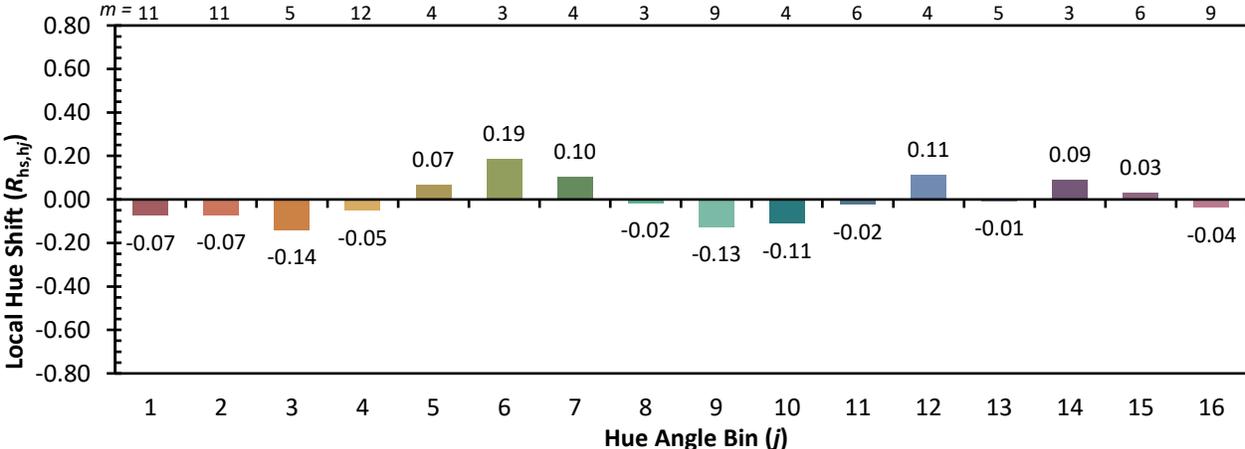
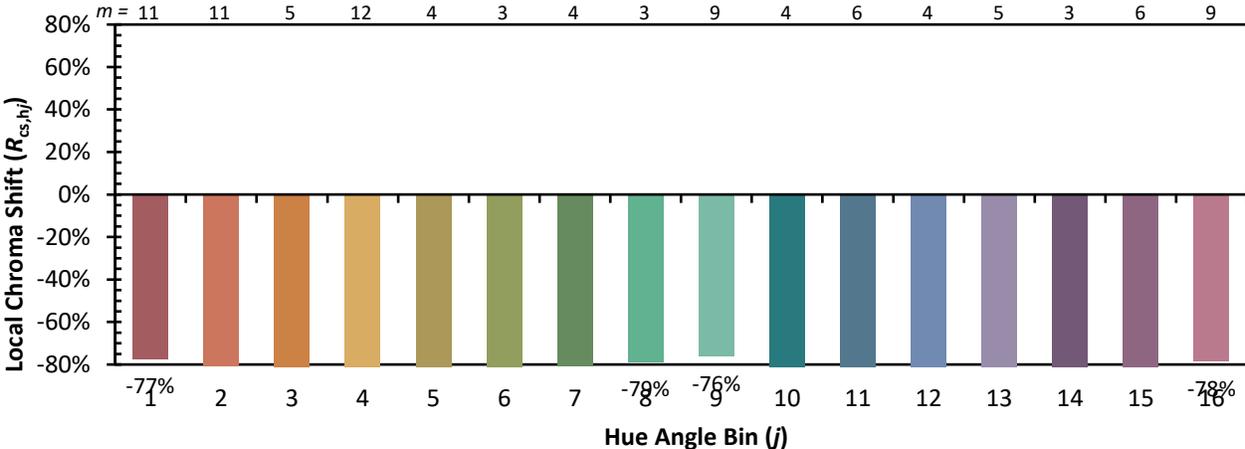


Individual Sample Fidelity Index ($R_{f,i}$)

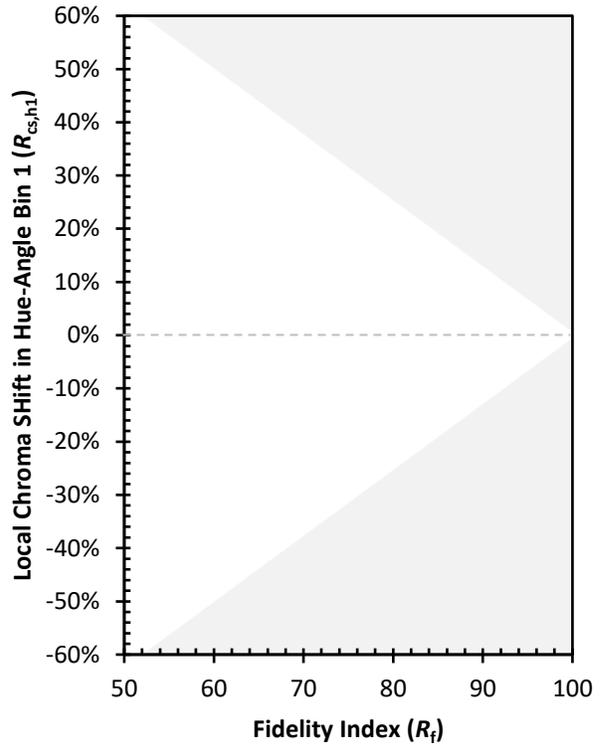
CES01 = 90	CES26 = 0	CES51 = 19	CES76 = 0
CES02 = 70	CES27 = 32	CES52 = 2	CES77 = 0
CES03 = 31	CES28 = 25	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 1	CES54 = 13	CES79 = 2
CES05 = 52	CES30 = 31	CES55 = 7	CES80 = 1
CES06 = 56	CES31 = 1	CES56 = 0	CES81 = 0
CES07 = 41	CES32 = 0	CES57 = 0	CES82 = 51
CES08 =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