

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: P1357066

Luminaire Tested: 3ASL4-35VHE-3-A59-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357066
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: 3ASL4-35VHE-3-A59-UNV
Description: 3FT 3500 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND A59 LEDS 3 ROW
Light Source: -
Ballast/Driver: -

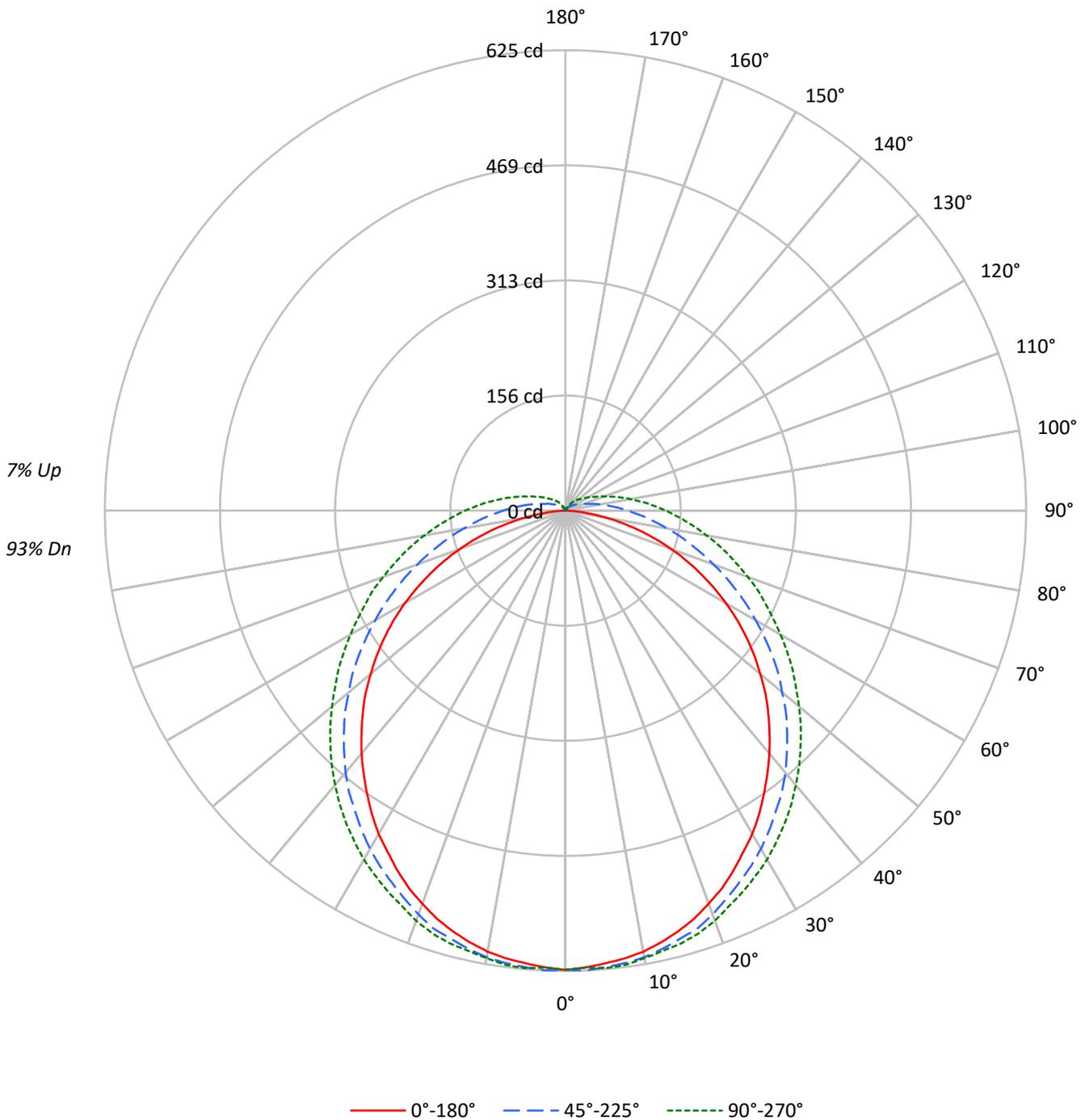
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2120.0 lumens
Efficiency: N/A
Efficacy: 32.3 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): 65.6
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

TEST NUMBER: P1357066
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Luminous Intensity Polar Plot





TEST NUMBER: P1357066

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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°	6758	6758	6758
5°	6693	6628	6604
10°	6651	6495	6436
15°	6572	6333	6296
20°	6467	6176	6135
25°	6346	5981	5954
30°	6219	5812	5800
35°	6062	5620	5629
40°	5916	5444	5449
45°	5760	5232	5269
50°	5582	5005	5081
55°	5389	4787	4912
60°	5141	4533	4740
65°	4824	4290	4598
70°	4424	4047	4486
75°	3842	3823	4410
80°	2969	3651	4377
85°	1724	3599	4442

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5760 cd/sqm



TEST NUMBER: P1357066
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.1	2.8
10°-20°	169.8	8.0
20°-30°	256.7	12.1
30°-40°	310.8	14.7
40°-50°	326.4	15.4
50°-60°	304.5	14.4
60°-70°	251.7	11.9
70°-80°	181.2	8.5
80°-90°	112.6	5.3
90°-100°	66.0	3.1
100°-110°	37.7	1.8
110°-120°	21.3	1.0
120°-130°	12.3	0.6
130°-140°	6.6	0.3
140°-150°	2.8	0.1
150°-160°	0.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	485.6	22.9
0°-40°	796.3	37.6
0°-60°	1427.3	67.3
0°-90°	1972.8	93.1
90°-120°	125.0	5.9
90°-150°	146.7	6.9
90°-180°	147.0	6.9
0°-180°	2120.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	624	624	624	624	624	
5°	617	622	622	622	624	59
15°	591	599	602	605	608	167
25°	539	548	557	565	570	248
35°	469	482	498	512	518	294
45°	389	403	425	443	451	300
55°	299	316	342	367	376	268
65°	202	222	255	288	299	200
75°	104	130	175	213	228	110
85°	19	58	110	149	163	24
90°	0	35	84	121	136	1
95°	0	22	64	97	112	0
105°	0	8	35	61	71	0
115°	0	4	21	38	44	0
125°	0	3	13	25	28	0
135°	0	0	8	16	19	0
145°	0	0	4	9	10	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: P1357066

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	623.5	623.5	623.5	623.5	623.5
2.5°	620.9	624.8	624.8	620.9	620.9
5°	617.0	622.2	622.2	622.2	623.5
7.5°	613.2	619.6	619.6	619.6	622.2
10°	608.0	614.4	615.7	615.7	617.0
12.5°	600.2	608.0	609.3	610.6	611.9
15°	591.1	598.9	601.5	605.4	608.0
17.5°	580.7	589.8	595.0	598.9	601.5
20°	567.8	576.9	583.3	588.5	592.4
22.5°	554.8	562.6	570.4	576.9	580.7
25°	539.3	548.3	557.4	565.2	570.4
27.5°	522.4	532.8	544.4	553.5	558.7
30°	506.9	517.2	530.2	541.9	547.0
32.5°	488.7	500.4	514.6	526.3	532.8
35°	469.3	482.2	497.8	512.0	518.5
37.5°	449.8	462.8	482.2	496.5	503.0
40°	430.4	443.3	464.1	479.6	486.1
42.5°	409.6	422.6	444.6	461.5	469.3
45°	388.9	403.1	425.2	443.3	451.1
47.5°	368.1	382.4	405.7	425.2	433.0
50°	344.8	360.4	383.7	405.7	413.5
52.5°	322.8	338.3	364.3	386.3	394.1
55°	299.4	316.3	342.2	366.9	375.9
57.5°	276.1	293.0	320.2	346.1	356.5
60°	251.5	269.6	298.1	325.4	337.0
62.5°	226.9	246.3	277.4	305.9	317.6
65°	202.2	221.7	255.4	287.8	299.4
67.5°	177.6	198.3	234.6	268.3	282.6
70°	153.0	175.0	213.9	248.9	263.1
72.5°	128.3	151.7	194.4	230.7	245.0
75°	103.7	129.6	175.0	212.6	228.1
77.5°	79.1	108.9	158.1	195.7	211.3
80°	57.0	90.7	140.0	178.9	194.4
82.5°	36.3	72.6	124.4	163.3	178.9
85°	19.4	58.3	110.2	149.1	163.3
87.5°	6.5	45.4	95.9	134.8	149.1
90°	0.0	35.0	84.3	120.6	136.1
92.5°	0.0	27.2	73.9	108.9	123.1
95°	0.0	22.0	63.5	97.2	111.5
97.5°	0.0	18.1	55.7	86.9	99.8
100°	0.0	14.3	48.0	77.8	89.4
102.5°	0.0	11.7	41.5	68.7	80.4
105°	0.0	7.8	35.0	60.9	71.3
107.5°	0.0	6.5	29.8	54.4	63.5
110°	0.0	5.2	27.2	46.7	55.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	3.9	24.6	41.5	50.6
115°	0.0	3.9	20.7	37.6	44.1
117.5°	0.0	3.9	18.1	33.7	40.2
120°	0.0	2.6	16.9	29.8	36.3
122.5°	0.0	2.6	14.3	27.2	32.4
125°	0.0	2.6	13.0	24.6	28.5
127.5°	0.0	1.3	11.7	22.0	25.9
130°	0.0	1.3	10.4	19.4	23.3
132.5°	0.0	1.3	9.1	18.1	22.0
135°	0.0	0.0	7.8	15.6	19.4
137.5°	0.0	0.0	6.5	14.3	16.9
140°	0.0	0.0	5.2	11.7	15.6
142.5°	0.0	0.0	3.9	10.4	13.0
145°	0.0	0.0	3.9	9.1	10.4
147.5°	0.0	0.0	2.6	6.5	9.1
150°	0.0	0.0	1.3	5.2	6.5
152.5°	0.0	0.0	0.0	3.9	5.2
155°	0.0	0.0	0.0	2.6	3.9
157.5°	0.0	0.0	0.0	0.0	1.3
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	15.96	17.50	16.43	17.96	18.44	17.96	19.50	18.43	19.95	20.44
	3H	17.46	18.86	17.94	19.33	19.85	20.41	21.81	20.89	22.28	22.80
	4H	17.94	19.27	18.44	19.75	20.29	21.60	22.93	22.10	23.41	23.95
	6H	18.22	19.46	18.73	19.95	20.51	22.83	24.07	23.35	24.57	25.12
	8H	18.27	19.46	18.80	19.98	20.54	23.47	24.65	23.99	25.17	25.73
	12H	18.28	19.42	18.82	19.93	20.52	24.15	25.29	24.69	25.81	26.40
4H	2H	16.83	18.16	17.34	18.65	19.18	18.40	19.73	18.90	20.21	20.75
	3H	18.57	19.70	19.08	20.23	20.79	21.07	22.21	21.59	22.73	23.29
	4H	19.17	20.21	19.71	20.75	21.34	22.43	23.47	22.96	24.00	24.60
	6H	19.57	20.49	20.13	21.05	21.66	23.86	24.77	24.41	25.34	25.94
	8H	19.67	20.53	20.23	21.09	21.71	24.60	25.46	25.16	26.02	26.64
	12H	19.71	20.49	20.29	21.08	21.71	25.41	26.19	25.99	26.78	27.41
8H	4H	19.85	20.71	20.41	21.27	21.89	22.65	23.51	23.21	24.07	24.69
	6H	20.43	21.16	21.02	21.76	22.39	24.25	24.98	24.84	25.58	26.21
	8H	20.61	21.27	21.21	21.88	22.52	25.13	25.79	25.73	26.40	27.04
	12H	20.72	21.31	21.33	21.92	22.62	26.12	26.71	26.73	27.32	28.02
12H	4H	20.04	20.82	20.62	21.41	22.04	22.66	23.44	23.24	24.03	24.65
	6H	20.72	21.38	21.32	21.99	22.63	24.28	24.94	24.89	25.56	26.20
	8H	20.99	21.58	21.60	22.19	22.89	25.23	25.82	25.84	26.43	27.13

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

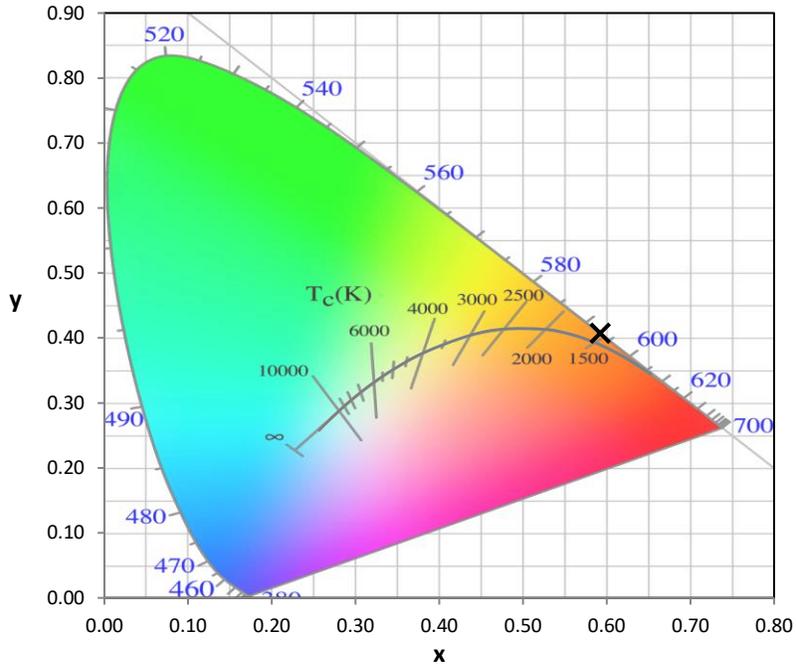
Stabilization Time: 77M
 Operation Time: 2H 17M
 Sphere Temperature (°C): 25.1

REPORT NUMBER: SP1-2511-597-9

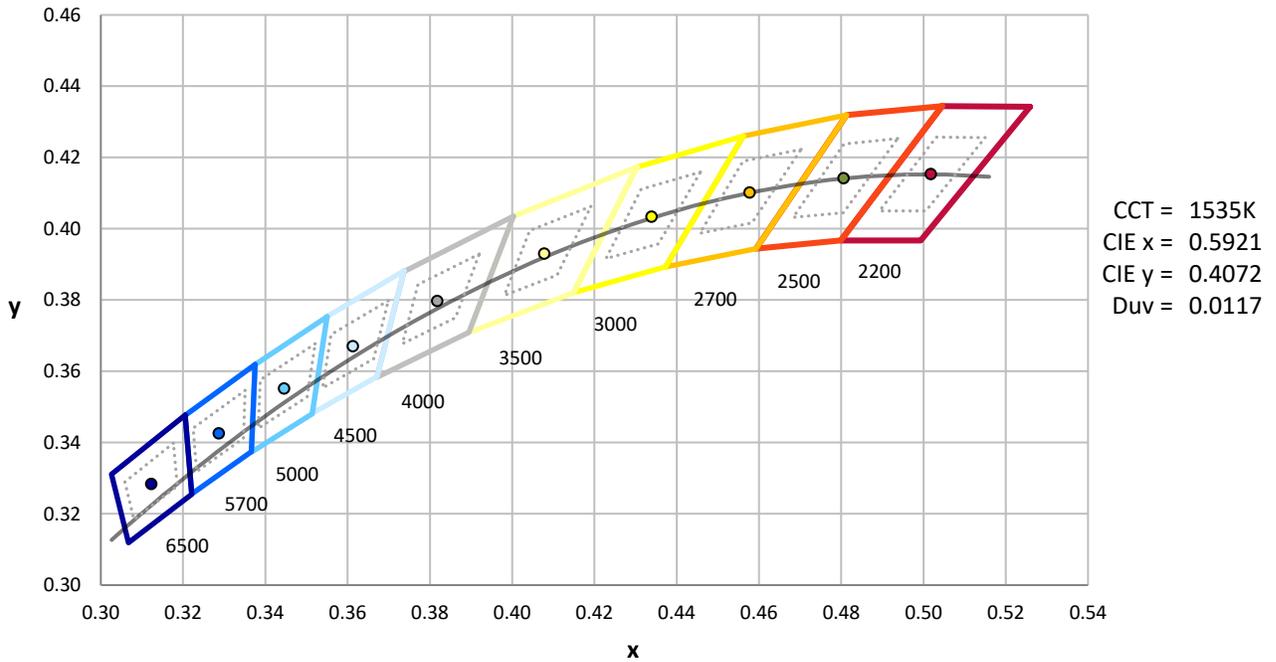
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

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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

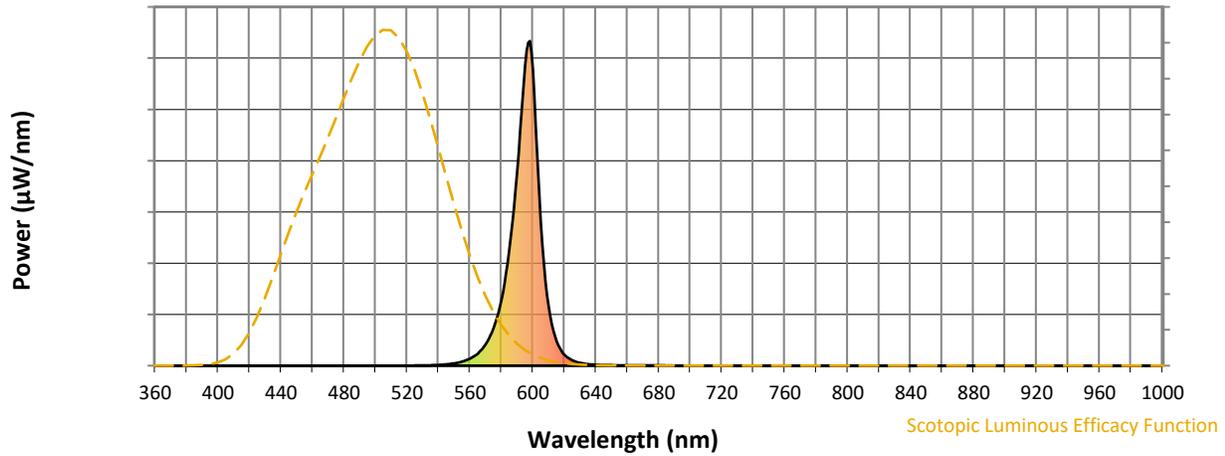


Photopic Lumens: NR

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



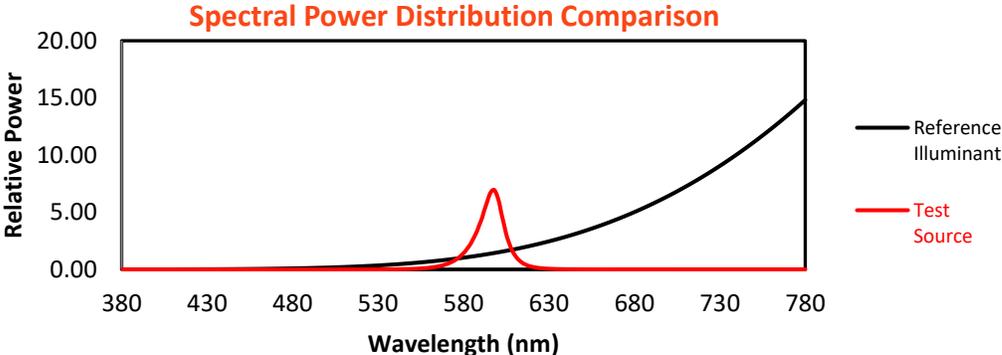
Melanopic Lumens: NR

M/P: 0.12

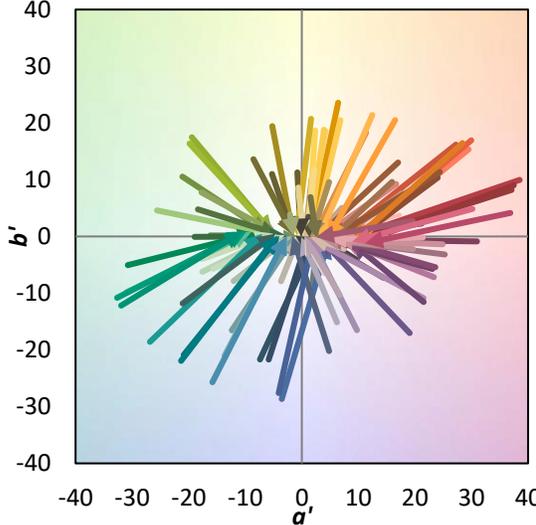
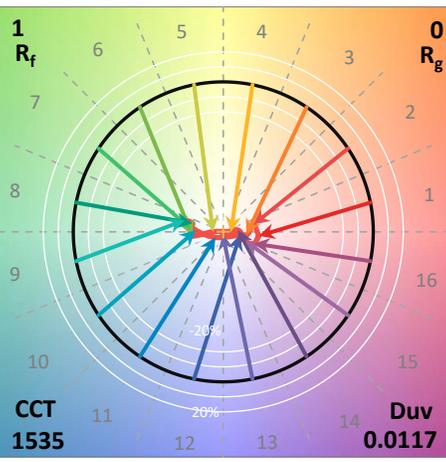
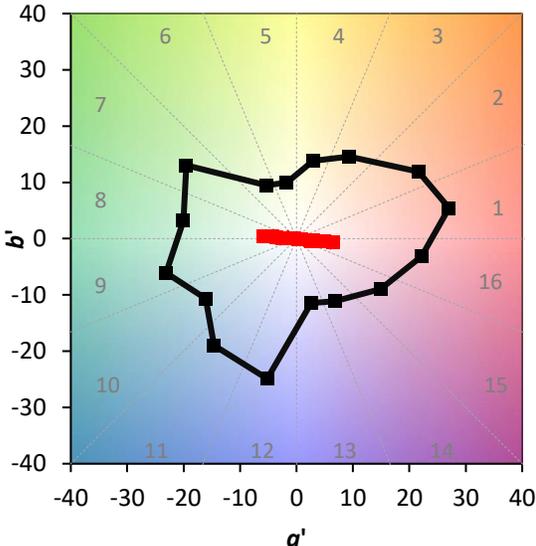
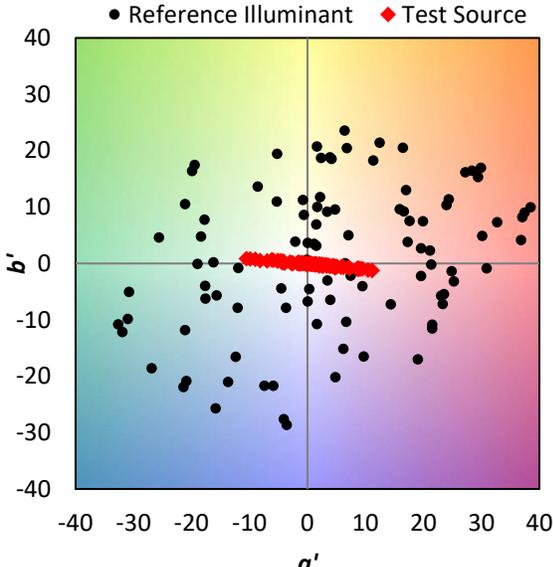
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	35	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	17	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	9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

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

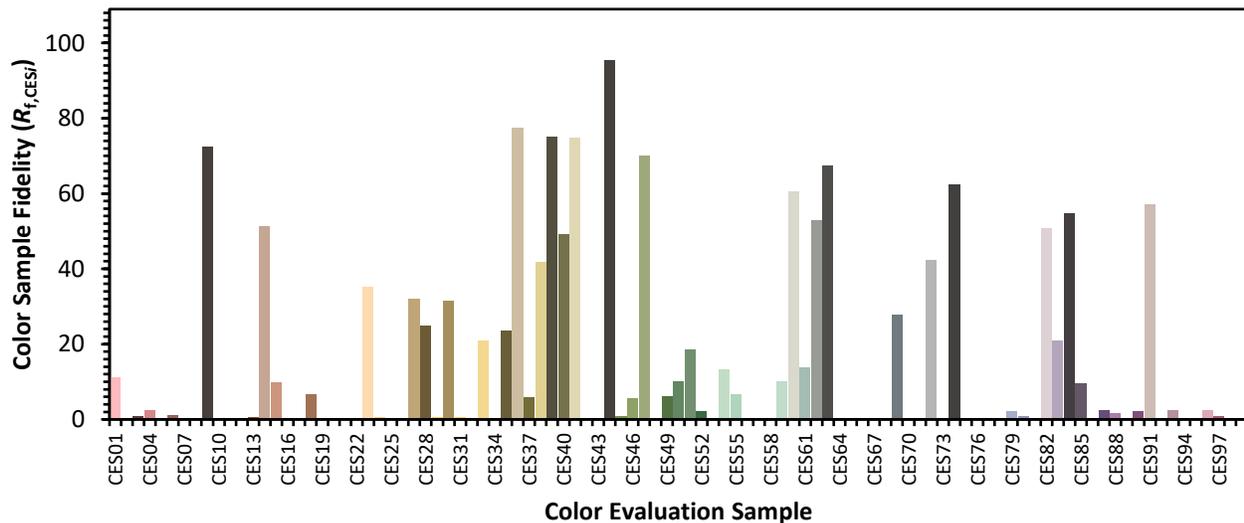


Color Vector Graphics

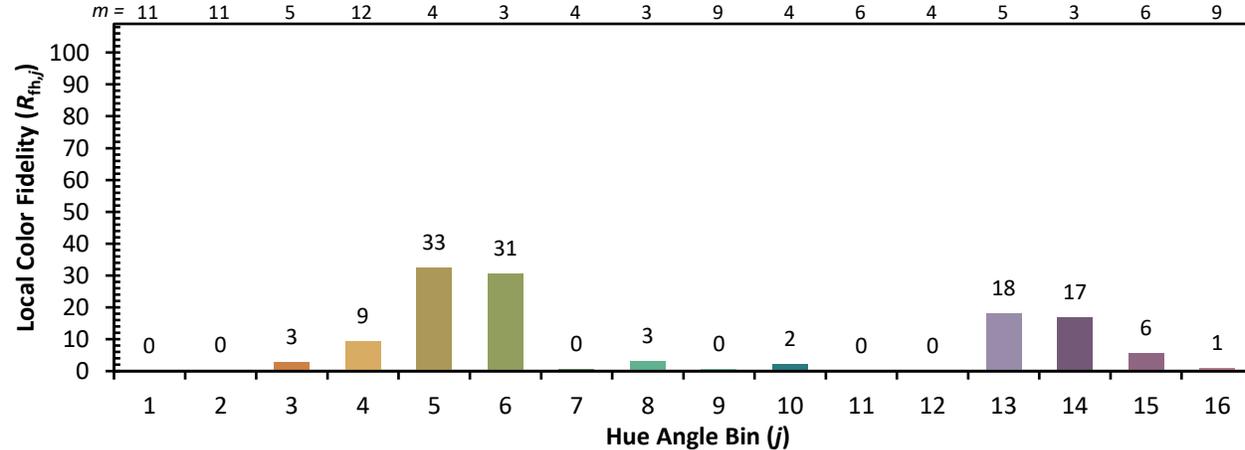
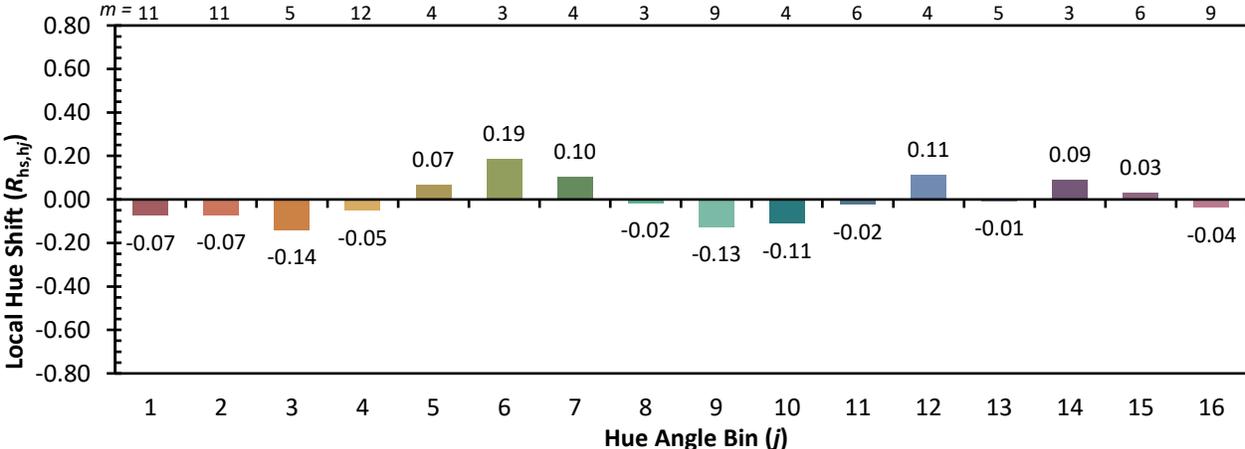
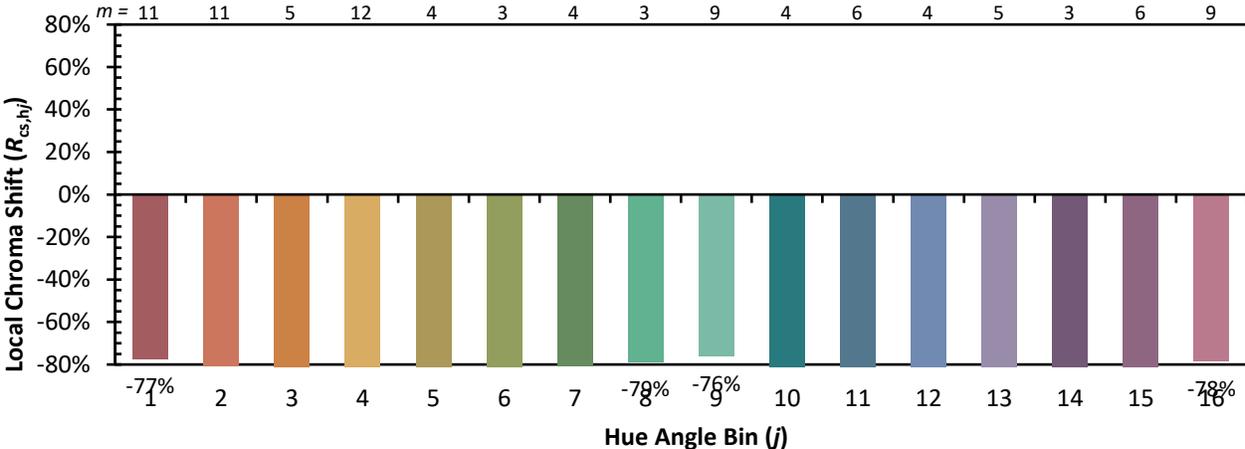


Individual Sample Fidelity Index ($R_{f,i}$)

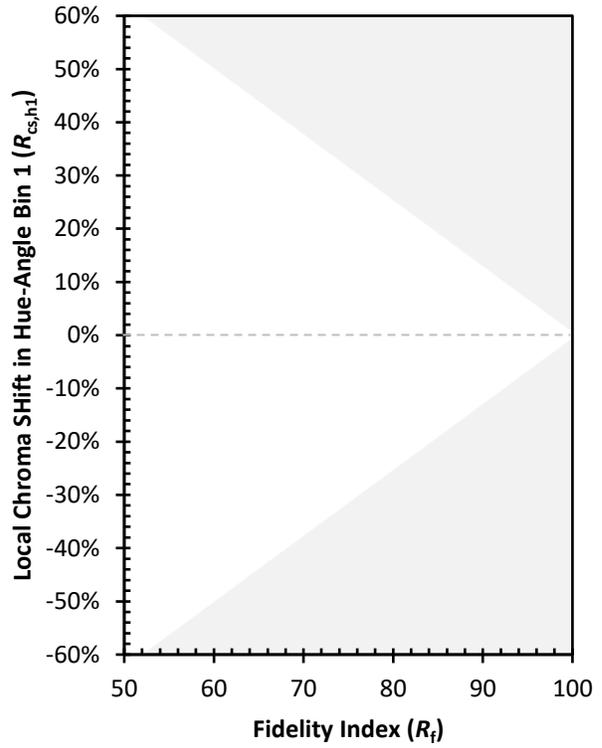
CES01 = 90	CES26 = 0	CES51 = 19	CES76 = 0
CES02 = 70	CES27 = 32	CES52 = 2	CES77 = 0
CES03 = 31	CES28 = 25	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 1	CES54 = 13	CES79 = 2
CES05 = 52	CES30 = 31	CES55 = 7	CES80 = 1
CES06 = 56	CES31 = 1	CES56 = 0	CES81 = 0
CES07 = 41	CES32 = 0	CES57 = 0	CES82 = 51
CES08 =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