

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: P1357414

Luminaire Tested: 8ASL4-10-1-A59-UNV

Issue Date: 2/17/2026

Test Information

Test Method: LM-79-2019
Report Number: P1357414
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: 8ASL4-10-1-A59-UNV
Description: 8FT 1000 LUMEN PER FOOT 4ASL LED LUMINAIRE WITH OPL LENS AND A59 LEDS 1 ROW
Light Source: -
Ballast/Driver: -

Summary

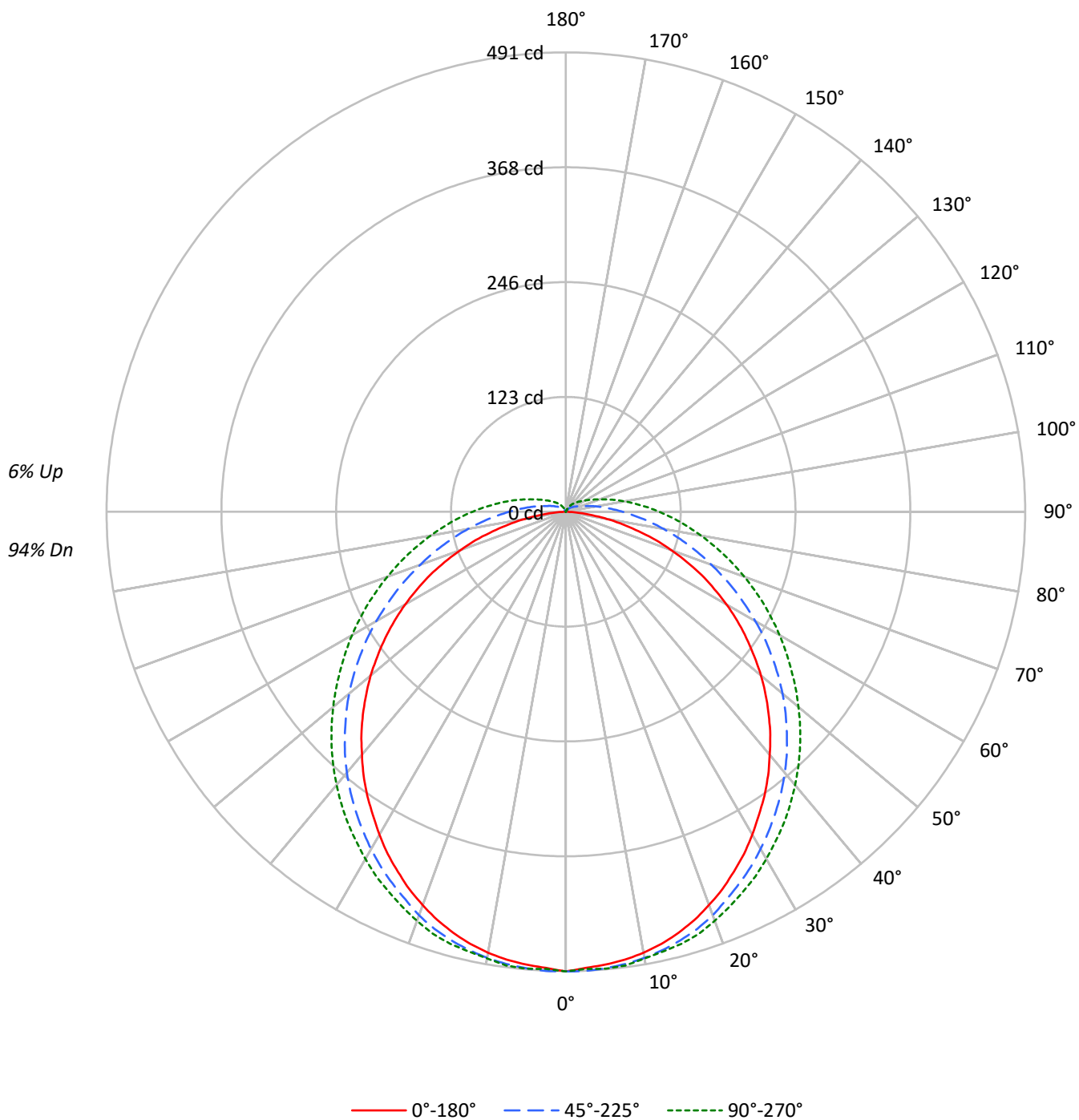
Lumens per Lamp: N/A
Luminaire Lumens: 1645.0 lumens
Efficiency: N/A
Efficacy: 33.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 7.98' x H: 0.1')
CIE Type: Direct

Input Watts (W): 48.7
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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CATALOG NUMBER: 8ASL4-10-1-A59-UNV

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1988	1988	1988
5°	1971	1950	1938
10°	1962	1912	1888
15°	1945	1871	1848
20°	1918	1824	1799
25°	1885	1768	1746
30°	1848	1717	1696
35°	1812	1665	1647
40°	1772	1612	1596
45°	1733	1554	1544
50°	1689	1494	1489
55°	1633	1426	1434
60°	1570	1354	1386
65°	1491	1279	1338
70°	1365	1200	1292
75°	1202	1131	1256
80°	976	1074	1233
85°	606	1038	1242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1733 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.5	2.8
10°-20°	133.6	8.1
20°-30°	201.9	12.3
30°-40°	244.1	14.8
40°-50°	256.6	15.6
50°-60°	239.1	14.5
60°-70°	196.4	11.9
70°-80°	139.4	8.5
80°-90°	84.1	5.1
90°-100°	47.1	2.9
100°-110°	26.1	1.6
110°-120°	14.5	0.9
120°-130°	8.4	0.5
130°-140°	4.6	0.3
140°-150°	2.0	0.1
150°-160°	0.5	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	382.0	23.2
0°-40°	626.1	38.1
0°-60°	1121.9	68.2
0°-90°	1541.8	93.7
90°-120°	87.7	5.3
90°-150°	102.7	6.2
90°-180°	103.0	6.3
0°-180°	1645.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	491	491	491	491	491	
5°	486	490	490	489	490	46
15°	466	472	474	476	478	131
25°	425	432	438	445	448	196
35°	370	380	391	401	406	231
45°	307	318	334	348	354	237
55°	236	249	268	286	294	211
65°	160	174	200	223	233	158
75°	81	101	134	162	174	86
85°	15	43	81	111	122	19
90°	0	26	61	89	100	1
95°	0	15	44	70	80	0
105°	0	6	23	42	50	0
115°	0	3	14	26	31	0
125°	0	2	9	17	20	0
135°	0	1	6	11	13	0
145°	1	0	2	6	8	0
155°	1	1	0	2	2	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	491.3	491.3	491.3	491.3	491.3
2.5°	488.0	492.5	491.3	489.1	489.1
5°	485.8	490.2	489.7	489.1	490.2
7.5°	483.0	487.5	487.5	488.0	489.1
10°	478.6	484.1	484.1	484.1	484.7
12.5°	473.0	478.6	479.7	480.2	481.3
15°	465.8	471.9	474.1	476.3	478.0
17.5°	457.4	463.6	467.4	470.2	473.0
20°	447.4	454.1	459.1	462.4	465.2
22.5°	436.9	443.5	448.5	453.6	456.9
25°	424.6	432.4	438.5	444.7	448.0
27.5°	412.4	420.2	428.0	435.2	439.1
30°	398.5	407.4	416.3	424.6	428.5
32.5°	384.1	393.5	404.1	413.0	417.4
35°	370.2	379.6	391.3	401.3	406.3
37.5°	355.2	364.6	378.0	389.1	394.1
40°	339.1	349.6	364.1	375.7	381.3
42.5°	323.5	334.0	349.6	362.4	368.0
45°	306.8	317.9	334.0	347.9	354.1
47.5°	289.6	301.3	318.5	332.9	339.6
50°	272.4	284.6	302.4	317.9	324.6
52.5°	254.0	266.8	285.7	302.4	309.6
55°	235.7	249.0	268.5	286.2	294.0
57.5°	217.3	230.7	251.8	270.7	279.0
60°	198.4	212.3	234.0	254.6	264.0
62.5°	179.0	193.4	216.2	238.4	248.5
65°	160.1	174.5	199.5	222.9	233.4
67.5°	140.1	155.6	182.3	206.8	217.9
70°	119.5	137.3	165.6	191.8	202.9
72.5°	101.2	119.5	150.1	176.8	188.4
75°	80.6	101.2	134.5	162.3	174.0
77.5°	62.8	85.0	120.1	148.4	160.1
80°	45.0	69.5	106.2	135.1	146.7
82.5°	28.9	55.6	93.4	122.8	134.0
85°	15.0	43.4	81.2	111.2	122.3
87.5°	4.4	33.3	70.0	99.5	110.6
90°	0.0	25.6	60.6	88.9	99.5
92.5°	0.0	19.5	52.2	79.5	90.0
95°	0.0	15.0	44.5	70.0	80.0
97.5°	0.0	11.7	38.4	61.7	71.7
100°	0.0	9.4	32.8	54.5	63.9
102.5°	0.0	7.8	28.3	48.4	56.7
105°	0.0	5.6	23.3	42.2	50.0
107.5°	0.0	3.9	20.6	37.2	43.9
110°	0.0	3.3	18.3	32.2	38.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	2.8	16.1	28.9	34.5
115°	0.0	2.8	14.5	25.6	30.6
117.5°	0.0	2.2	12.2	22.8	27.2
120°	0.0	2.2	11.1	20.6	24.5
122.5°	0.0	1.7	10.0	18.3	22.2
125°	0.0	1.7	8.9	16.7	19.5
127.5°	0.0	1.1	7.8	15.0	17.8
130°	0.0	1.1	7.2	13.3	16.1
132.5°	0.0	0.6	6.7	12.2	14.5
135°	0.0	0.6	5.6	10.6	13.3
137.5°	0.0	0.0	5.0	9.4	11.7
140°	0.0	0.0	3.9	8.3	10.6
142.5°	0.6	0.0	3.3	7.2	8.9
145°	0.6	0.0	2.2	6.1	7.8
147.5°	0.6	0.6	1.7	5.0	6.1
150°	0.6	0.6	1.1	3.3	5.0
152.5°	0.6	0.6	0.6	2.2	3.3
155°	0.6	0.6	0.0	1.7	2.2
157.5°	0.6	0.6	0.0	0.6	1.1
160°	0.6	0.6	0.0	0.0	0.6
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	11.81	13.36	12.27	13.80	14.27	13.83	15.38	14.29	15.83	16.29
	3H	13.30	14.71	13.77	15.17	15.68	16.26	17.68	16.73	18.13	18.64
	4H	13.77	15.11	14.27	15.59	16.11	17.45	18.79	17.94	19.26	19.78
	6H	14.05	15.30	14.56	15.78	16.32	18.68	19.93	19.19	20.41	20.95
	8H	14.10	15.30	14.62	15.81	16.35	19.32	20.52	19.84	21.03	21.57
	12H	14.12	15.26	14.64	15.76	16.34	20.04	21.19	20.56	21.69	22.26
4H	2H	12.68	14.02	13.17	14.49	15.01	14.27	15.61	14.76	16.08	16.60
	3H	14.41	15.55	14.91	16.06	16.61	16.92	18.06	17.42	18.57	19.12
	4H	15.01	16.05	15.53	16.58	17.15	18.27	19.31	18.79	19.84	20.41
	6H	15.40	16.33	15.95	16.88	17.47	19.69	20.61	20.24	21.16	21.76
	8H	15.50	16.36	16.05	16.91	17.52	20.44	21.30	20.99	21.86	22.46
	12H	15.54	16.33	16.11	16.91	17.52	21.28	22.07	21.85	22.65	23.26
8H	4H	15.67	16.53	16.22	17.09	17.69	18.48	19.35	19.03	19.90	20.50
	6H	16.24	16.97	16.82	17.56	18.18	20.07	20.80	20.65	21.39	22.01
	8H	16.41	17.08	17.01	17.68	18.30	20.95	21.61	21.55	22.22	22.84
	12H	16.52	17.11	17.12	17.71	18.40	21.98	22.57	22.57	23.16	23.85
12H	4H	15.85	16.64	16.43	17.22	17.83	18.49	19.27	19.06	19.85	20.46
	6H	16.52	17.18	17.11	17.79	18.41	20.10	20.77	20.70	21.37	21.99
	8H	16.79	17.38	17.38	17.97	18.66	21.05	21.65	21.65	22.24	22.93

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	CRI (Ra):	-20.0		
CIE u':	0.3534	R1:	-32.1	R9:	-380.5
CIE v':	0.5468	R2:	53.1	R10:	29.9
Duv:	0.0117	R3:	18.5	R11:	-92.0
CIE x:	0.5921	R4:	-65.7	R12:	-8.5
CIE y:	0.4072	R5:	-38.6	R13:	-13.5
CIE z:	0.0007	R6:	42.8	R14:	47.1
Peak Wavelength (nm):	598	R7:	-6.2	R15:	-65.4
Dominant Wavelength (nm):	592	R8:	-132.3		
Purity:	99.97894				
Rf:	1.3				
Rg:	0.1				



Test Conditions

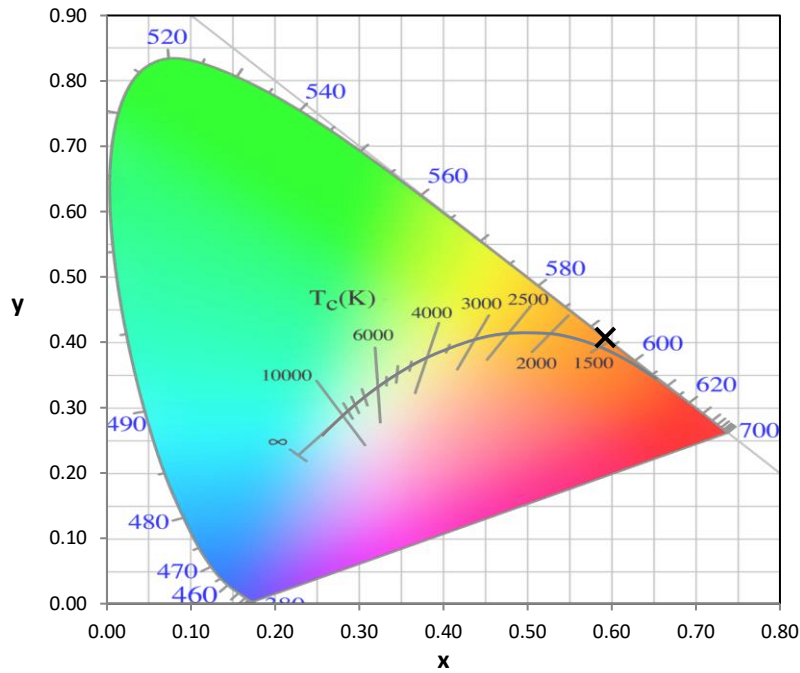
Stabilization Time: 77M
 Operation Time: 2H 17M
 Sphere Temperature (°C): 25.1

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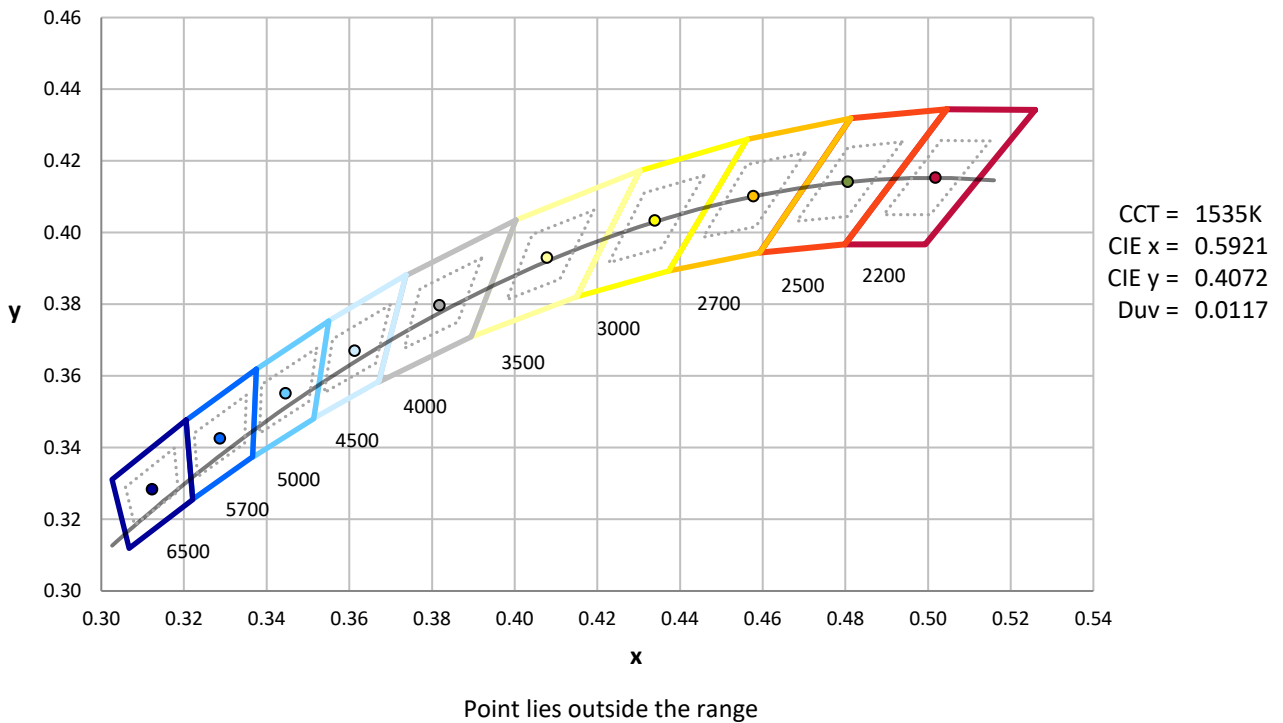
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

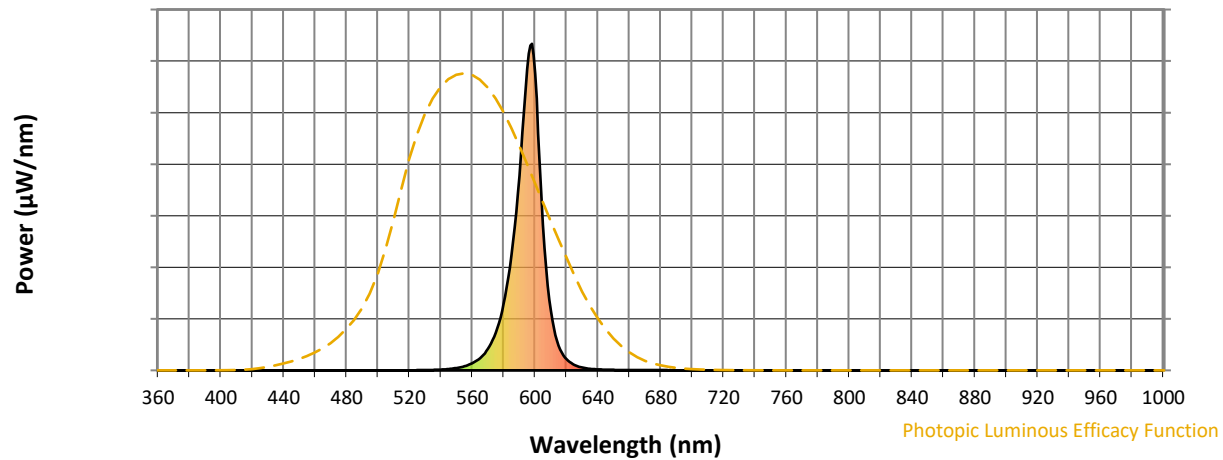


CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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Photopic Flux vs. Wavelength

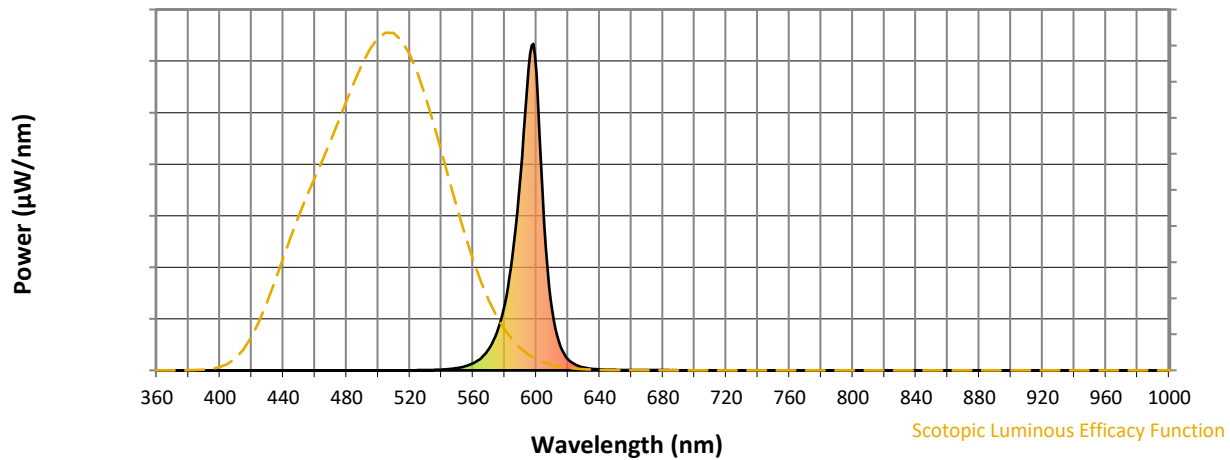


Photopic Lumens: NR

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	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



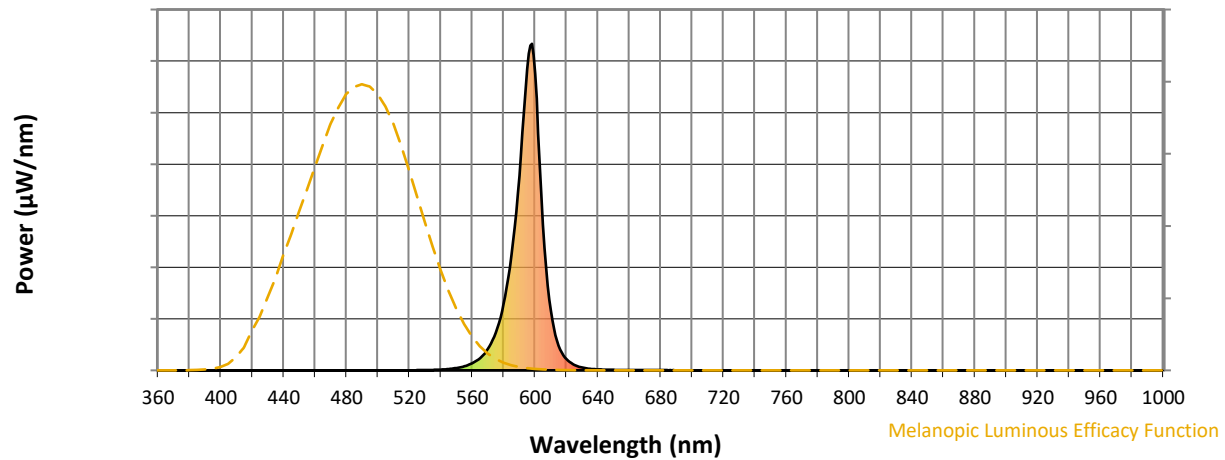
Scotopic Lumens: NR

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 $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	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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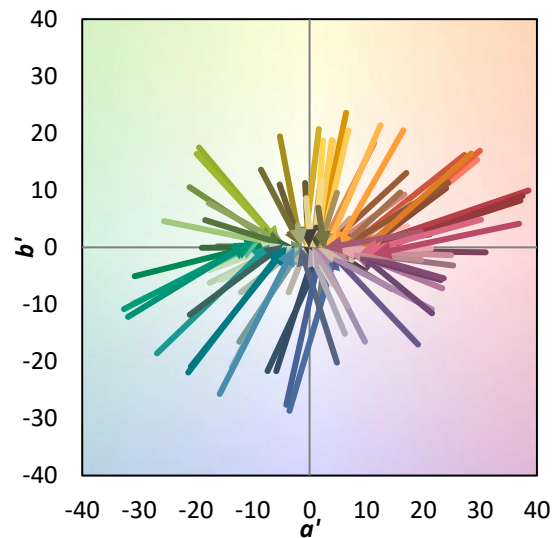
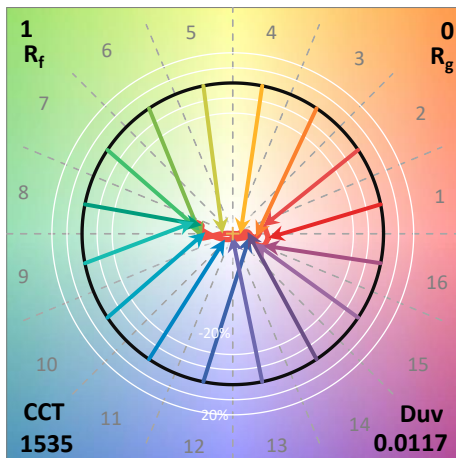
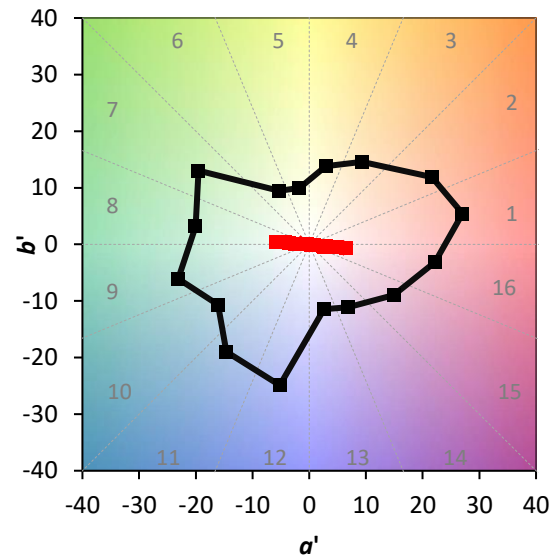
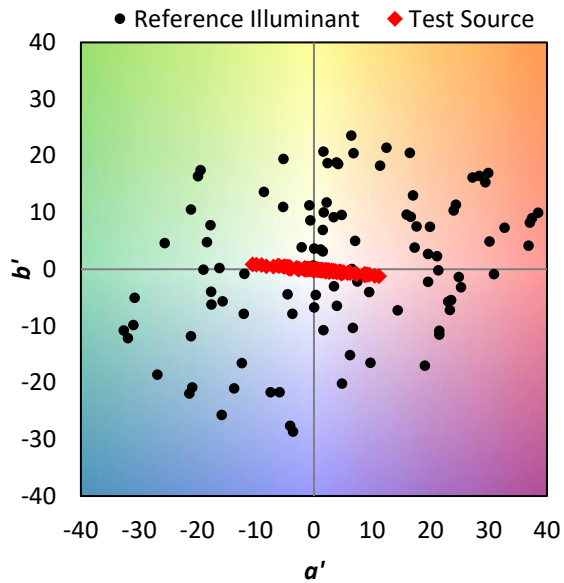
TM-30-18

Summary

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

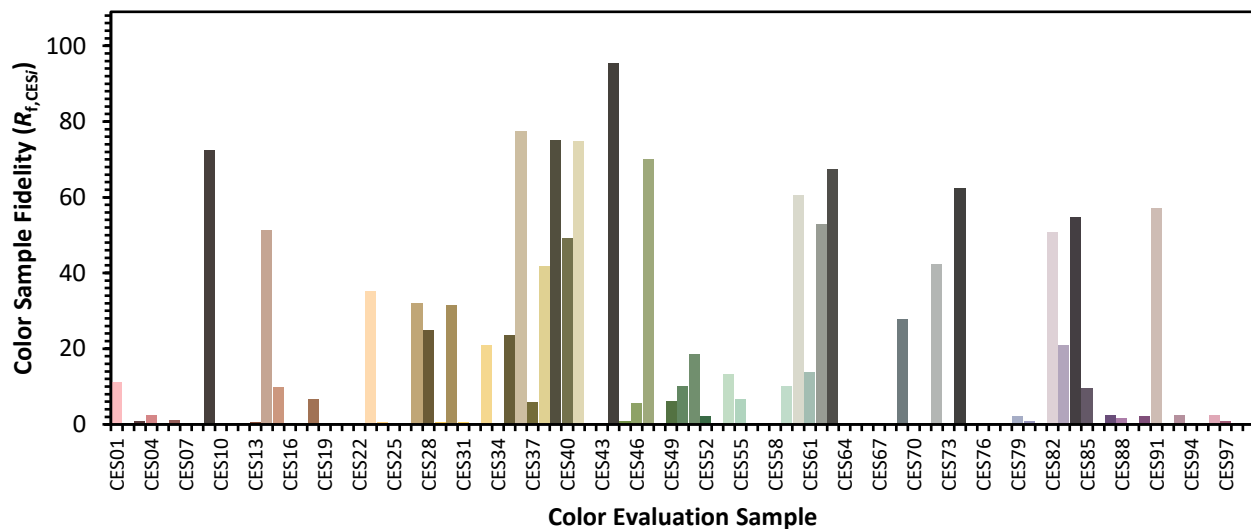


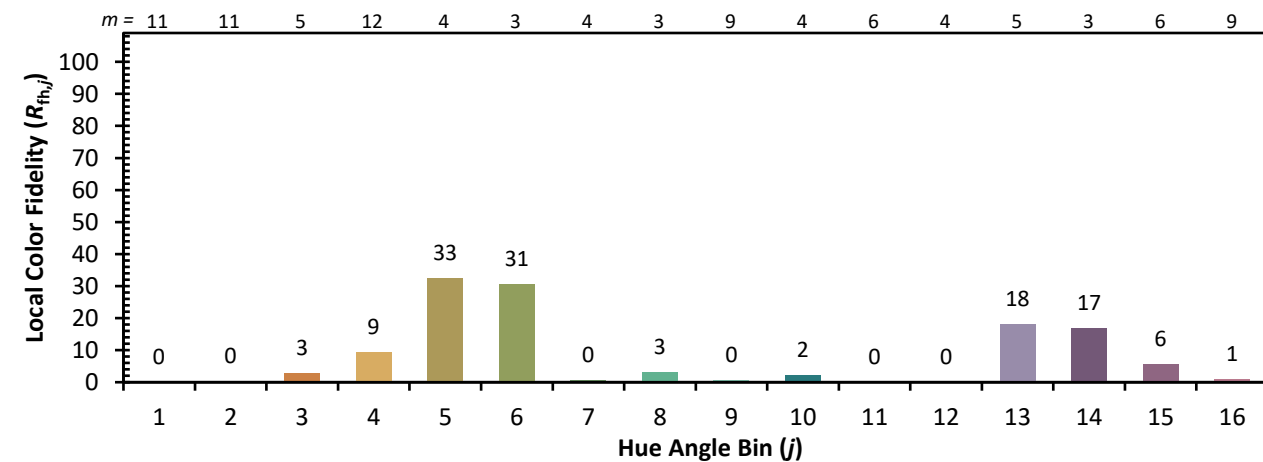
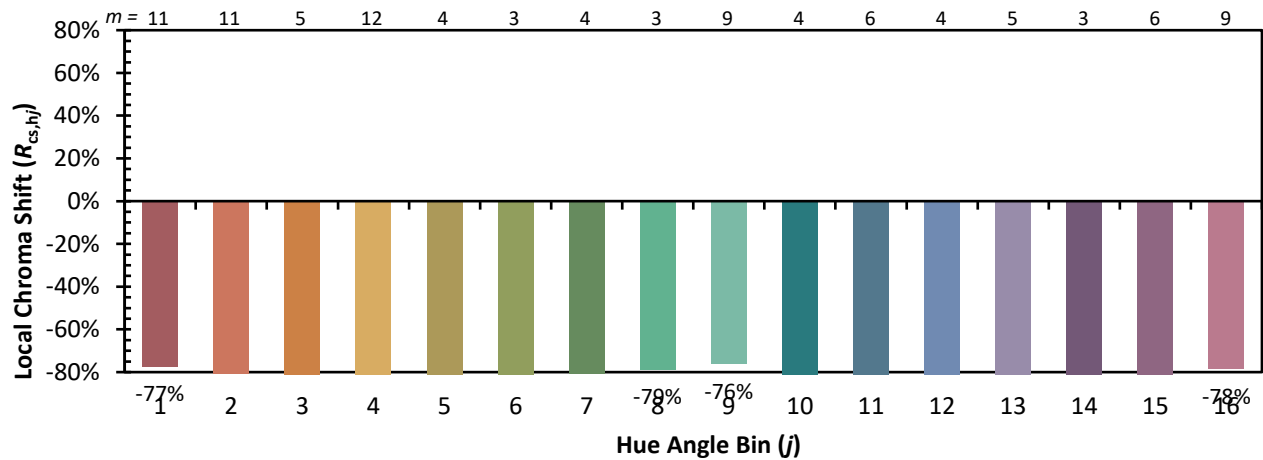
Color Vector Graphics



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	

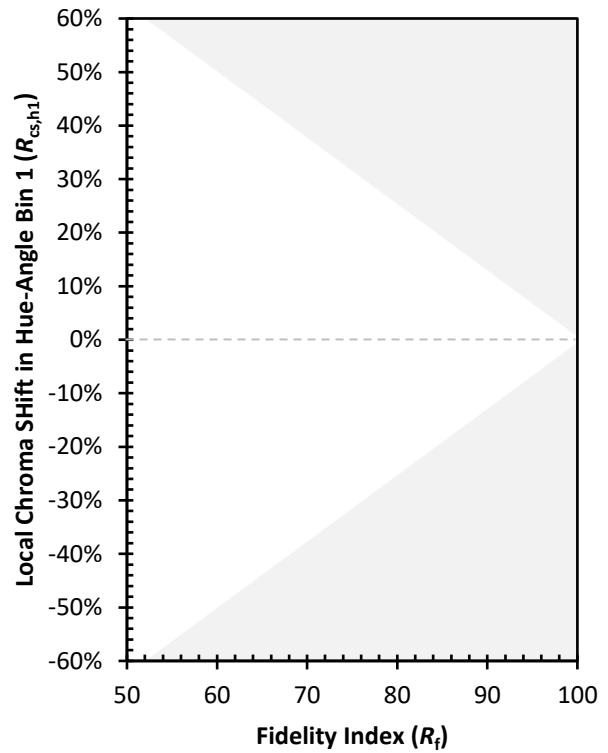


Color Rendition by Hue-Angle Bin


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Measure Comparisons



(END OF REPORT)